

## OUTCOMES

Journey Reliability Policy Workshop

### Keeping Melbourne Moving

Thursday 23 November 2017

Aurecon Centre, Melbourne

---

#### Welcome and Introduction

Steve Cooley Roads Australia Journey Reliability Chapter Deputy Chair (also the Technical Executive, Asset & Network Performance at WSP) welcomed guests and speakers to the workshop, kindly hosted by Aurecon.

Steve acknowledged the breadth of expertise in the room – over 80 participants representing the construction industry, engineering consultants, integrated project service groups, operations and maintenance firms, materials suppliers, and road asset owners.

Steve introduced the forum as an investigation into how can Melbourne continue to uphold its ‘most liveable’ status in the face of continued population growth and the resulting pressure on our transport infrastructure and modes.

Steve detailed how the agenda would look at the latest evidence on the causes, costs and solutions for traffic congestion in our cities, then there will be an interactive workshop on re-thinking congestion, providing a selection of briefing papers on the specific drivers of congestion for participants to refer to and learn from. And that the workshop is one of four being held across the nation that will also look at how technology will change congestion patterns in the future, and what we can do to prepare for those changes today.

#### Presentation 1 – Bryan Willey, *Director Road Transport Strategy, Transport for NSW*

Bryan Willey from Transport for NSW outlined Austroads’ Congestion and Reliability Review.

The review encompassed three main goals:

1. To quantify the levels of congestion in major cities in Australia and NZ,
2. To understand and quantify the causes of congestion, and
3. To undertake a survey of the road authorities to understand their capability and where they need to go to improve on those capabilities.

The analysis was based on Google data and data from various jurisdictions on incidents and traffic volumes. The review identified that road agencies should take a holistic approach to congestion mitigation including understanding the customer, measuring performance, understanding the causes, prioritising interventions, enhancing capability and implementing interventions.

Bryan described the trends in trips in Australia and NZ, which are no different from international trends. The average number of trips per person has been reducing since 2005, but as the population increases in our cities, more trips are travelled overall. Sydney and Melbourne are the worst performing, less reliable cities based on the Google data.

Bryan demonstrated that congestion can be measured in different ways, since ‘absolute travel time’ and ‘travel time reliability’ are both important to customers. Population growth influences both congestion and liveability, and congestion must be managed to mitigate the negative results.

The majority of Australia's and NZ's urban congestion is a consequence of recurrent causes of congestion. Of the non-recurrent causes, 'incidents' have the greatest impact. Investment into congestion reduction should be focussed on 'strategic' interventions, as well as relatively low cost, high benefit-cost-ratio 'no regrets' interventions.

Bryan concluded by stating that the jurisdictions are keen to improve, and to do this they need to work collaboratively with the transport authorities.

## **Presentation 2 – Sameem Moslih, Director Journey Services, VicRoads**

Sameem Moslih from VicRoads presented on Movement & Place - Strategic into Tactical and Operational.

Sameem discussed what is movement and place, and confirmed that a road/street is also a place, and a destination in its own right. The objective of movement is to minimise commute time, while the objective of place is to extend dwell time. The Transport System aims to provide social and economic inclusion, economic prosperity, efficiency, coordination and reliability. It also aims to integrate transport and land use, provide safety, health and wellbeing, and environmental sustainability.

Sameem outlined the Smart Roads project, which has been a 7 year journey to create a detailed network of road movements. Five different categories of movements were identified within the Smart Roads framework:

- M1 Mass movement of people & goods at high speeds on routes with a State or National level movement function or primary access to a State level place.
- M2 Significant movement of people & goods at moderate speed on routes connecting across multiple municipalities or primary access to Regional level places.
- M3 Moderate movement of people & goods on routes connecting municipalities or primary access to Municipal level places.
- M4 Movement of people & goods at lower speed within a municipality
- M5 Local movement at low speeds

Sameem confirmed that the framework is being continuously worked on, and is based on documenting common sense – where it is imperative to take a strategic view to the operational, and while planning is good, it needs to be measured to gain worth from it.

Sameem gave an overview of the model:

1. Queries began about seven years ago (build was from 2015)
2. Build a network based on how the intersections operate • Derived from VISUM application by Transport for London • “Assignment with ICA” in VISUM • Bespoke not Generic Link Capacities
3. Be able to answer questions quickly • Same day/next day/ next week responses
4. Easy to use: Simple Graphic User Interface (no scripting) • Develop the capability across the organisation
5. Not a focus on demand forecasting (or longer term planning).

Looking to the future, Sameem outlines the possibilities:

- Systems and Tools:
  - Real time lane by lane traffic volumes and speeds
  - Personalised information to our customers, e.g. Using Bluetooth and apps
  - Origin destination data
  - Real time predictive model
  - Mobility as a Service Model

- Staff Capabilities:
  - Traffic Engineering/Network Control expertise
  - Data analytics, insights
  - User Centred Design
  - Experts with empathy

Sameem concluded by highlighting the fact that the key to using data and insights is to ensure that you have the frameworks in place and employ experts to be able to make sense of the information, otherwise it is worthless.

[Download Sameem's presentation](#)

### **Presentation 3 – Marion Terrill, *Transport Program Director, Grattan Institute***

Marion Terrill from the Grattan Institute presented new findings from a recent congestion study.

Marion talks about the perception of congestion in the media (it is terrible!) and how population growth is tied into this. The population in Melbourne has grown 25% in the past 10 years which is huge, and the rate of population growth is not constant, it continues to grow.

Marion presented graphs showing that travel speed on city freeways in Melbourne has declined over time – showing that congestion is getting worse. The car as a driver is still the most common mode of work commute in Sydney, followed by car as passenger, train, then walking.

Marion explains the research that Grattan undertook used Google maps trip time estimates like Austroads did. The study collected 25 observations a day for over 350 trips for a 6-month period. The base metric is the estimated trip time, and that time was compared with a free flow speed to assess the difference. The findings show that overall performance on the network is quite reasonable. Even at peak times the movement speeds do not go too low.

The findings also show that Melbourne and Sydney have similar levels of congestion but with small variations. Sydney's freight routes are more delayed and subject to higher unreliability than comparable routes in Melbourne. CBD commuters face more delays in Melbourne's morning peak hours than Sydney's.

Travel delays are most acute for commuters from Melbourne's north-east, while Sydney has a more extensive network of toll roads than Melbourne. Routes involving Punt Rd/Hoddle St in Melbourne have lower reliability than other routes in Melbourne.

Download [Marion's presentation](#)

Read the Grattan Institute Report - [Stuck in traffic? Road congestion in Sydney and Melbourne](#)

**Panel discussion – next page...**

## Panel Discussion

Moderated by: **Marion Terrill, Grattan Institute**

Panellists:

- **Brian Hauser**, *State Director VIC/TAS, Cement, Concrete & Aggregates Australia*
- **Peter Anderson**, *CEO, Victorian Transport Association*
- **Craig Rowley**, *CEO, LeadWest*

Marion introduced the panel and put forward some questions about the future of our cities to the panellists.

**Brian Hauser** discussed population growth and the increase in demand for building more roads and projects, asking, how do we service this demand? Strategic land use would say that quarries and factories creating the building materials should be close to transport routes, but as we can see, for example in Sydney, where the major quarry is at the end of rail line, this costs twice as much. Melbourne has a lot of good rock and it is essential that it is well distributed across Melbourne and regions areas in an affordable fashion.

Brian touches on the great opportunities available for disruption in the trucking sector to improve efficiency, but is unsure how these changes will play out. There is plenty of opportunity to better understand trucking routes to avoid congestion and respond differently to situations. 75% of Victoria's cement supply comes from the cement facility in the West, so we need a planning process to ensure this can meet our construction demands into the future.

**Craig Rowley** spoke about the importance of freight to Melbourne West's economy. 11,500 people are currently working in Melbourne's West, which gives this area an economic competitive advantage. It is important to lift liveability in the area, particularly in the inner West, and a multi-faceted solution is needed to increase the amenity and ensure there is a free flow of freight from the port to inner west. Melbourne's West's population is growing more rapidly than Melbourne's and many people from Sydney are moving to the west in search of affordable housing.

Craig talks about land use challenges, and believes that the polycentric city plan that the government is currently talking about is a good one. We should be making more jobs outside of the CBD in other employment centres. The proposed Airport Link through Sunshine and providing interregional connections is a piece of this puzzle. We should be copying Parramatta's model in the West and encouraging big firms to open offices there.

Craig believes that the level of sophistication is rising in local government in regard to adaptation and readiness of new technologies. The West is open to smart cities ideas and City deals. As things are moving fast, local government need to be adaptable because we do not have the answers, but we do need to be future proofing now and mindful of the economics of movement.

Craig discusses the benefits and challenges of car-pooling. This could hugely improve congestion, but high level communication with one another will be needed, and people may not wish to live-stream where they are going and when.

**Peter Anderson** began by stating that all roads are good roads, and we need to start building more roads today to keep up with the demand. When talking about land use planning, Peter highlights that the most important priority is to balance all the elements, apply systems and processes to ensure that the assets work the best they can for us.

Peter highlights the importance of getting commercial decisions right, because if a project or idea is not financially sound there is no point in doing it. When preparing for the future, Peter is saddened by the automated vehicle discussion because it is taking resources and time away from doing what we need to be doing today. Whilst truck platooning and automated trucks are great in theory, there are some basic fundamentals that we need to overcome first such as allowing more than three trailers to drive together.

Separation of freight, pedestrians, cars, cyclists etc is important, but it doesn't have to be always separated, it could be done on timing. For example, in the morning peak bikes could be allowed on the footpaths which would allow more access for cars on the road and better flow of traffic. On main arterials you could put all the trucks that are going through communities onto these, so they don't need to drive through community roads, and cars should be taken off front of house parking spaces and moved into separate parking lots.

Peter concludes by stating that public transport and mass transit should be viewed as one network, not just individual bus and train routes, and we should be providing consistency and convenience in our public transport networks.

## **Workshop Feedback**

This section details a summary of the feedback from each group who examined six key drivers of congestion, exploring how governments and industry may be able to better manage congestion.

### **1. Economic and population growth**

#### **Scope for change – Current issue**

- Doing the same thing is not an option, we cannot build our way out, we cannot afford to.

#### **What can WE do?**

- Central-led planning, better sequencing
- Prioritisation, particularly for freight routes and to/from terminals
- Think like economists, how is investment improving productivity?

#### **Ability to influence**

- Pay costs, use financial incentives
- Tighten regulations, like permit conditions
- Controls with continued effectiveness

#### **Who**

- Regions, 3 tiers of government working together
- Government Department – Transport and Land Use Planning

### **2. Customer Expectations**

#### **Question 1 – Scope for change (what can we do about this?)**

- To be transparent with our projects.
- Offer more than one practical solution to the problems.
- Providing real time and relative information, whether it's during the construction of a project or even on a congested roadway.

- Information sharing should be on either a collective and/ or on an individual basis depending on the customers preference, allowing flexibility of choice, i.e. travel time, distance, alternative routes, etc...
- Information can be distributed in many ways, i.e. via online applications, VMS boards, etc...
- The information to have empathy of the situation, where possible.
- Construction ability of projects to be more 'out of the box' thinking, rather than conventional, i.e. looking at overseas techniques, etc...
- Examples discussed included 'Road Pricing' where the benefits and disbenefits need to be clear with sound reasoning (open and honest), advising of alternative routes if a tolled road is expensive.

### **Question 2 – What is our ability to influence over the change?**

- Better use of evolving technology, as it continues to develop day by day, whereby more and more information can be supplied.
- Adopting targeted information, rather than a scatter gun approach.
- Formulating a step by step 'change' approach with the inclusion of reviewing the collected data through the approach.
- Ensure that no personal or private agendas are embedded in the project.
- Examples discussed included was Uber with what was known as the 'cupcake initiative', a cupcake was provided to customers as a form of reward thanking them for the change.

### **Question 3 – Who needs to own/ manage the change?**

- Authorities/ agencies need to take the lead, but it does lie with us.

## **3. Disruptive Technologies**

### **Scope for change – Current issues and options**

- A new mindset needs to be created to embrace new technologies
- Workplaces can take different shapes and sizes, working from home, assessment criteria, comes with its own problems such as how to share ideas
- Innovations before technological change
- Automated vehicles - may disrupt existing jobs, plan for redundant jobs and to re-skill
- Channelling technology for the right reasons, clear objectives or community outcomes
- How best can technology support the transport disadvantaged? Government subsidies?
- Emerging new business models – Mobility as a Service. What are the implications?

### **What can WE do?**

- There is the challenge of a community that is more disconnected
- How do we create a sense of community – through our work?
- Freight - 3D printing, low value trips, manual

### **Ability to influence**

- Who owns disruptive technology?
- Various user cases have different solutions
- Try across multiple sectors, government departments and industry

#### 4. Land use Planning

##### Scope for change – Current issues and options

- Disconnect between increased residential development (high density) and supporting transport/infrastructure
- Lack of precinct service and transport planning
- Has the polycentric focus been lost?
- Delivery of strategies – implementation requires agencies to be integrated
- How do we ensure that we can retain financial contributions?
- Challenges of political changes to transport policy/agenda/projects
- Providing clarity to community about future transport projects.

##### What can WE do? Solutions

- Managing expectations for long term projects – community does need to accept changes
- Increased professional networking, particularly between land use and transport planners.

#### 5. Cost of Transport

##### Scope for change – Issues and options

- Congestion tax, peak hour, user pays
- Increase public discussion around cost of transport – benefits and other options
- Equity questions – subsidies across the city
- Increase efficiency of spend on transport. Re-examine ownership and road assets.

##### What can WE do? - Projects

- Benefit/Cost Projects e.g. Multiple smaller projects with higher benefits
- Increased community engagement e.g. U.S. systems voting for propositions
- Infrastructure to create more revenue e.g. Advertising, solar/energy products

##### Ability to influence

- More levels and involvement from city/local government
- How do you weigh local government involvement?
- Independent transport provider to separate politics
- Community ownership of projects

#### 6. Major Infrastructure Projects

##### Scope for change

- Support Melbourne growth

##### What can WE do?

- Need to ensure Major Projects are supported by all political parties, and have long lead times

##### Ability to influence

- Infrastructure Victoria has a key role, to strengthen certainty of pipeline (planning and implementation)

- Consultants and contractor currently have limited resources – need to influence workforce capacity/capability programmes
- Market-led proposals – ability to pursue more accurately (encourage these)
- PPP has advantage of looking at whole of life cost, including maintenance
- Outer Suburban Arterial Roads – is a good model going forward
- Is cost benefit ratio of major projects fit for purpose? Make this easier and reward innovation
- Manage change – government with private industry.

### **Conclusion**

In closing, Steve acknowledged everyone for coming and sharing their perspectives. Steve also extending RA's thanks to presenters and panellists for their insights, and to Aurecon for sponsoring the event.

All presentations and photos from the day are now available on RA's website:

<http://roads.org.au/Policy/Network-Reliability/Presentations-and-Minutes>

## Participants

Organisation	First name	Last name	Role
Advisian	Rajiv	Venkatraman	Consultant
AECOM	Dean	Hislop	Principal Consultant
AECOM	Catherine	Vick	Principal Traffic Engineer
Arcadis	Andrew	Kim	Principal Infrastructure Advisory
Arup	Bruce	Johnson	Principal   Transport Planning Practice Leader
Arup	Callan	Jones	Senior Traffic Engineer
Arup	Claire	Quinlan	Associate Principle
Aurecon	Gillian	Austin	Senior Transport Planner
Aurecon	Steve	Cotton	Associate, Transport Services
Aurecon	Dechlan	Ellis	Director Client Strategy
Aurecon	Jim	Papadimitriou	Transport Services Leader (Melbourne)
Aurecon	Carolyn	Saad	Manager, Infrastructure Advisory
Aurecon	Mark	Stone	Senior Transport Planner
Austrroads	Natalie	Lockwood	Network Program Manager Austrroads
Beca	Mase	Amiatu	Transportation Engineer
Beca	Mario	Saliba	Senior Associate - Civil Engineering
Beca	Nigel	Smith	Associate - Planning
Beca	Melody	Valentine	Manager - Management Services
BG&E	Sivakanth	Allam	Engineer
BG&E	Nirosha	Kariyawasam	Engineer
BG&E	Mohammad	Kazemi	Engineer
BG&E	Madeleine	Smart	Engineer
Cement Concrete & Aggregates Australia	Brian	Hauser	State Director, VIC/TAS
City of Melbourne	Oscar	Hayes	Strategic Planner
City of Whittlesea	Louie	D'Amore	Team Leader Strategic Transport
Coynes Freight Management Group	Georgie	Johnson	Business Manager
CPB Contractors	Steve	Burrows	Engineering Manager - Southern Region
Department of Transport and Main Roads	Brendan	Hoyle	Manager (Integration) - Transport Policy Branch - Policy, Planning and Investment Division
Fulton Hogan	David	McCann	Pre-contracts Manager
Fulton Hogan	Stephen	Smith	Project Manager
Grimshaw Architects	Hector	Jonges	Architectural Assistant
GTA Consultants	Jeh	Chan	Associate
Hatch	Huw	Taylor	Director - Civil
Hatch	Nathan	Wild	Director Infrastructure, Australia
Hillview Quarries	Paul	Nitas	CEO
Infrastructure Victoria	Roberto	Evangelio	Project Director
Jacobs Group	Anna	Batters	Senior Consultant - Land Use Planning

Organisation	First name	Last name	Role
Jacobs Group	Tracey	Birt	Senior Environmental Planner
Jacobs Group	Sheryll Ann	Duguran	Senior Design Engineer
Jacobs Group	Glenn	Dunstone	Principal - Roads
Jacobs Group	Tess	Fitzgerald	Undergraduate Economist
Jacobs Group	Peter	Hunkin	Transport Advisory
Jacobs Group	Hutch	Hutchinson	Executive Director - Sales, Southern Region
Jacobs Group	Warren	Makin	Section Leader - Roads
Jacobs Group	John	Richardson	Section Leader - Transport Planning
Jacobs Group	Tom	Shield	Senior Consultant - Land Use Planning
Jacobs Group	Andrew	Young	Director of Operations - Consulting, Southern
John Holland Group	Leigh	Hill	Strategy and New Business
John Holland Group	Frank	Jansen	Business Development Manager - Infrastructure South East
Just Be Nice	Josh	Jones	Founder
Kenway Consulting	John	Bashour	Consultant
Kenway Consulting	Tobias	Kenway	Managing Director
Laing O'Rourke Australia	Conor	Hanlon	Project Leader
Laing O'Rourke Australia	John	Perizzolo	Project Leader
LeadWest	Craig	Rowley	CEO
Monash University	Paul	Sabo	Senior Manager, Government Relations
National Transport Commission	Matt	Barry	Manager
National Transport Commission	Natasha	Bolsin	Senior Policy Analyst
National Transport Commission	Melanie	Learson	Senior Policy Analyst
National Transport Commission	Nicola	Rabot	Manager
National Transport Commission	Tania	Wilson	Senior Policy Analyst
Professionals Australia	Stephen	Gargano	Research Officer
Professionals Australia	Jack	Herbert	
Project Support	Andre	de Jong	Southern Regional Manager
PwC	Thomas	Friedrich	Manager
Roads Australia	Mandi	Mees	Executive Director - Policy
Roads Australia	Alex	Stott	Policy Manager
SICE	Aman	Korgaonkar	Business Development Engineer
Transport for NSW	Bryan	Willey	Director Road Transport Strategy
Transport for Victoria	Clive	Mottram	Senior Specialist - Roads Advisor
Transurban	Stephen	McDonald	GM Strategic Initiatives
Transurban	Darryn	Paterson	General Manager - Strategy & Analysis
Ventia	Bob	Smith	Regional Operations Manager East
Ventia	Michael	Steer	Senior Network Manager

Organisation	First name	Last name	Role
VicRoads	Mark	Davies	Investment Outcomes Officer- Economics
VicRoads	Sandra	McKay	Strategic Communications Advisor
VicRoads	Sameem	Moslih	Director Journey Services
VicRoads	Sarita	Narayan	Manager Investment Outcomes
Victorian Transport Association	Peter	Anderson	Chief Executive Officer
WSP	Steve	Cooley	Technical Executive, Asset & Network Performance
WSP	Sofia	Henriksson	Project Manager
WSP	Phil	Nicholls	Client Director, WA Transport
Yarra Trams	Phil	Sturrock	Manager On-road Infrastructure Coordination
	John B.	Metcalf	Professor Emeritus

For information about the Roads Australia Journey Reliability Policy Chapter, please contact Mandi Mees, Executive Director – Policy: [mandi@roads.org.au](mailto:mandi@roads.org.au)