

3 MAY 2016

# TRANSURBAN 2016 INVESTOR DAY

POSITIONING FOR THE FUTURE

*transurban*



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# OVERVIEW AND STRATEGY

SCOTT CHARLTON

To be the partner of choice with governments providing effective and innovative urban road infrastructure utilising core capabilities

## WHO

Governments with:

- Location on eastern seaboard of Australia and North America
- Significant traffic congestion to relieve in urban environment
- Sustainable socio-economic position
- Economic growth potential
- Legislative environment supporting private sector involvement in transport infrastructure

## WHAT

- Provide effective and innovative urban road infrastructure
- Offer customers value through productivity and safety benefits

## HOW

- Long-term owner/operator
- Leveraging existing networks
- Demonstrating value to the client, users and community
- Leading capabilities in network planning/forecasting, community engagement, development/delivery, technology application, operations and customer management
- Only pursuing sustainable policy

- Delivery and execution of \$11 billion project pipeline, Transurban's share \$8 billion
- Operations and technology



Managed  
motorways



Operations &  
Maintenance  
model (O&M)



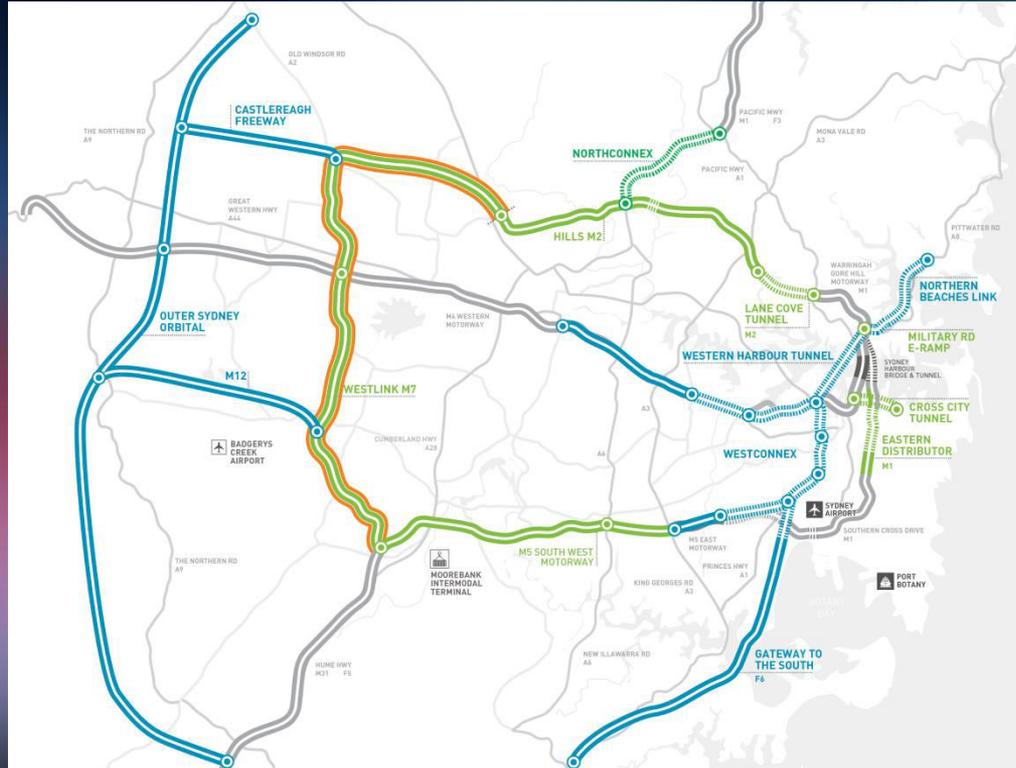
Customer



Community &  
stakeholder  
engagement

# NEXT GENERATION DEVELOPMENT OPPORTUNITIES

## Sydney



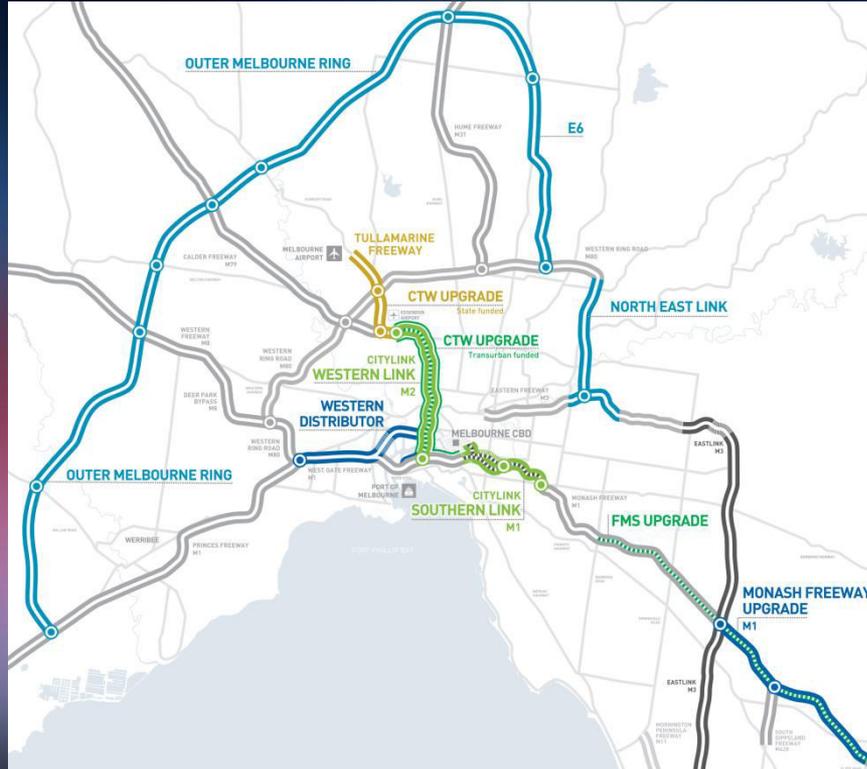
**transurban**

**SYDNEY, AUSTRALIA**

Transurban asset	Missing links
Transurban development	Other toll road
Transurban in exclusive negotiations	Freeway
Competitive procurement/tender	Arterial
Non-tolled network enhancement	Tunnel
Future widenings	Interchange
FMS operation/upgrade (anticipated to roll out across the entire road network)	

# NEXT GENERATION DEVELOPMENT OPPORTUNITIES

## Melbourne

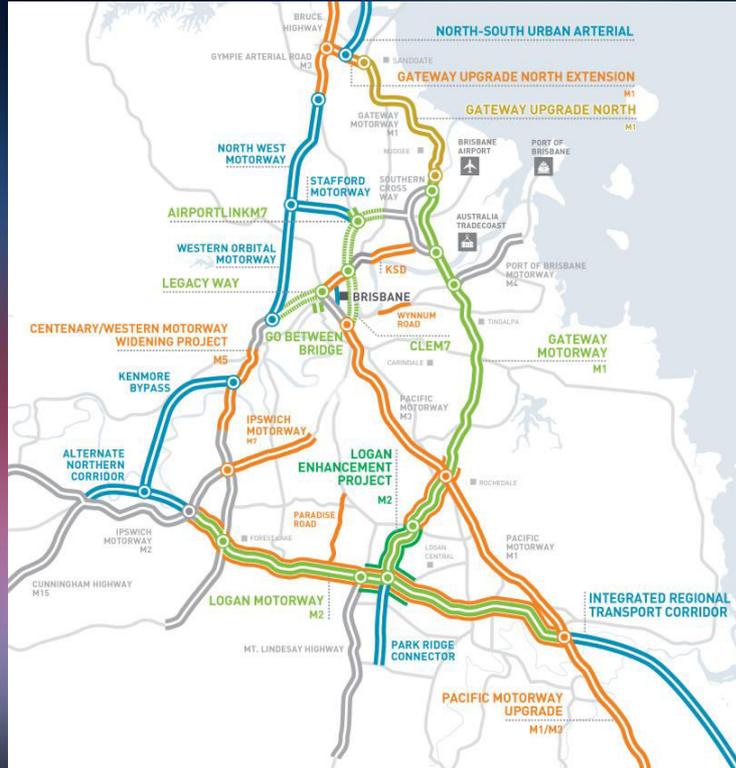


**MELBOURNE, AUSTRALIA**

Transurban asset	Missing links
Transurban development	Other toll road
Transurban in exclusive negotiations	Freeway
Competitive procurement/tender	Arterial
Non-tolled network enhancement	Tunnel
Future widenings	Interchange
FMS operation/upgrade (anticipated to roll out across the entire road network)	

# NEXT GENERATION DEVELOPMENT OPPORTUNITIES

## Brisbane



**BRISBANE, AUSTRALIA**

Transurban asset	Missing links
Transurban development	Other toll road
Transurban in exclusive negotiations	Freeway
Competitive procurement/tender	Arterial
Non-tolled network enhancement	Tunnel
Future widenings	Interchange
FMS operation/upgrade <small>(anticipated to roll out across the entire road network)</small>	

# NEXT GENERATION DEVELOPMENT OPPORTUNITIES

## Greater Washington Area



**transurban**

**GREATER WASHINGTON AREA, USA**

Transurban asset	Missing links
Transurban development	Other toll road
Transurban in exclusive negotiations	Freeway
Competitive procurement/tender	Arterial
Non-tolled network enhancement	Tunnel
Future widenings	Interchange
FMS operation/upgrade <small>(anticipated to roll out across the entire road network)</small>	

## RECENT CHANGES TO POLICY ENVIRONMENT

### HEADLINES

-  **Malcolm Turnbull urged to charge motorists for using roads**  
The Australian | Feb 2016
-  **Driven mad in traffic? We need user pays roads**  
Sydney Morning Herald | Feb 2016
-  **Scott Morrison urged to hold road user pricing inquiry as cars become more efficient**  
Australian Financial Review | Feb 2016
-  **Transurban's reform rev-up**  
The Age | Oct 2015



## POLICY ENVIRONMENT CONSIDERATIONS

- Inequity of current road funding model
  - Fuel efficient and electric cars contribute less in fuel excise
  - Car registration annual fee not based on usage
- Reform inevitable – Transurban preparing for change

### ROAD USAGE STUDY TIMELINE (OCTOBER 2015 – OCTOBER 2016)

OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
PILOT STUDY												
			ROAD USAGE STUDY									
											STUDY END	

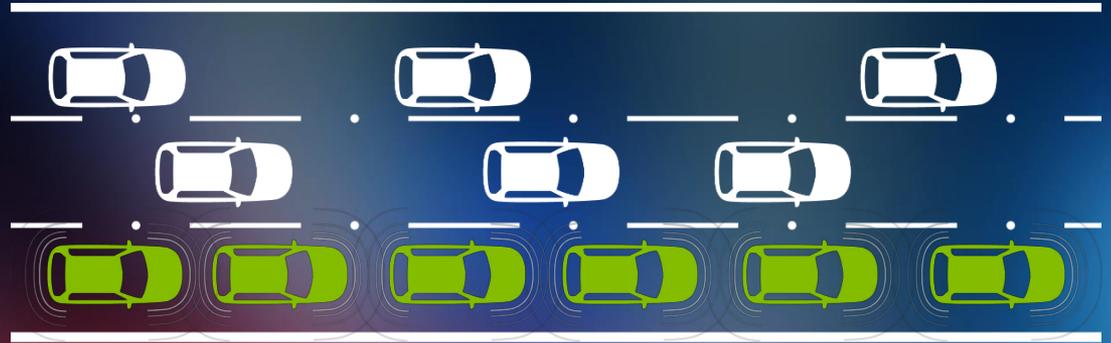
## PREPARING FOR TECHNOLOGY ADVANCES

Technology advances impacting capacity:

- Connected and autonomous vehicles (CAVs)
- Vehicle platooning
- Designated lanes

Potential for 10-25% increase in motorway capacity by 2030s

Safety benefits from reduced human error



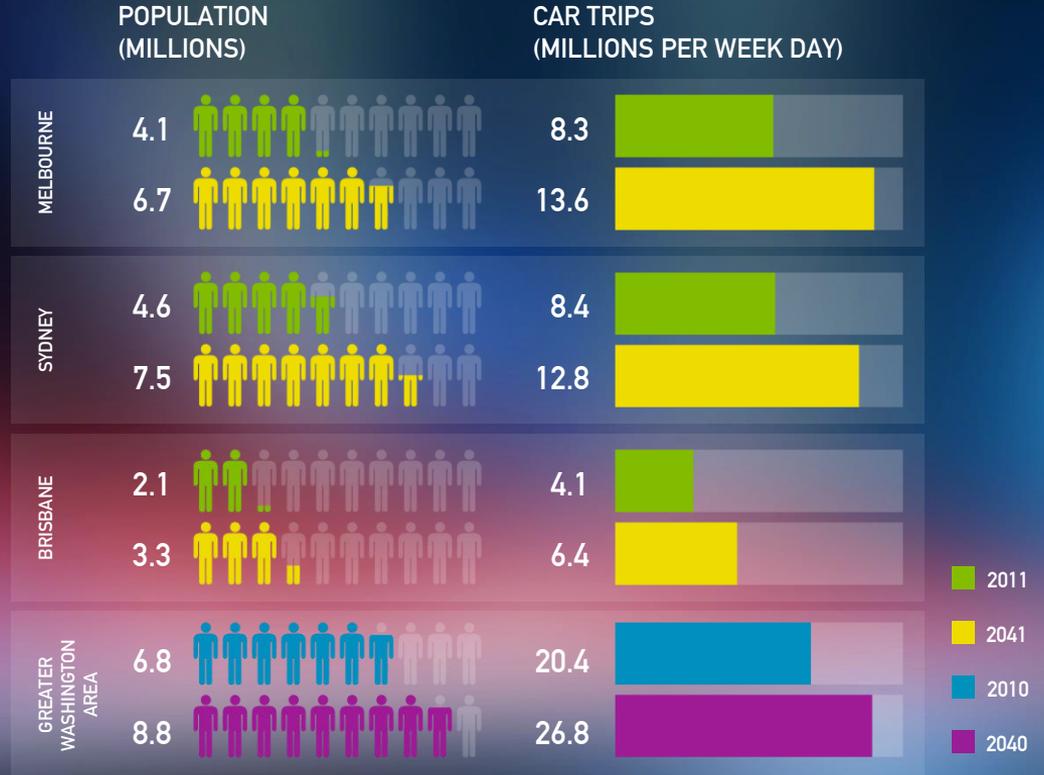
### Vehicle platooning

### Dedicated lanes for CAVs

Potential to double capacity in dedicated CAV lanes

# THE FUTURE DEMOGRAPHIC ENVIRONMENT

- Customer behavioural changes impacting demand
  - Changes in travel patterns
  - Changes in car ownership
- Population growth environment impacting demand



Sources:  
 Australian cities population:  
 Deloitte Access Economics  
 Greater Washington Area population:  
 National Capital Region Transportation Planning Board  
 Vehicle trips – all regions  
 Transurban's Strategic Transport Models

# FUTURE ENVIRONMENT

MICHELE HUEY

## MULTIPLE FACTORS DRIVING CHANGE ON TRANSPORT NETWORKS



Technology advances

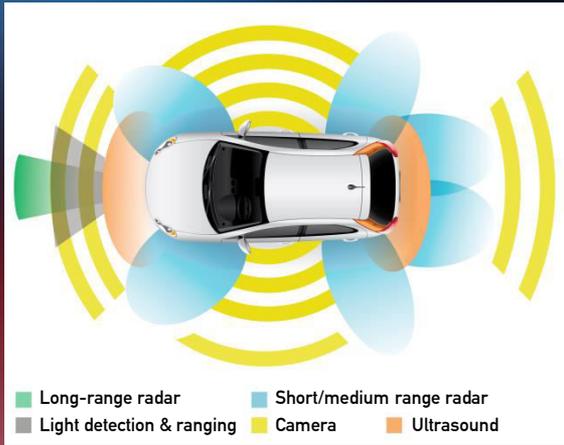


Social changes



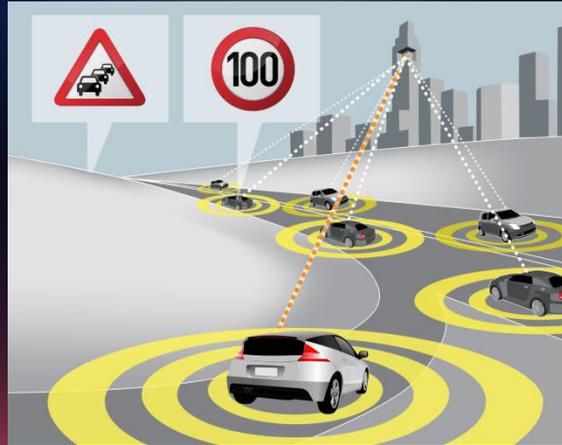
Policy evolutions

# ADVANCES IN VEHICLE TECHNOLOGY AND INFRASTRUCTURE CONNECTIVITY



## Rapid pace in vehicle technology advancement

- Safety assist
- Vehicle performance
- Vehicle-to-vehicle connectivity



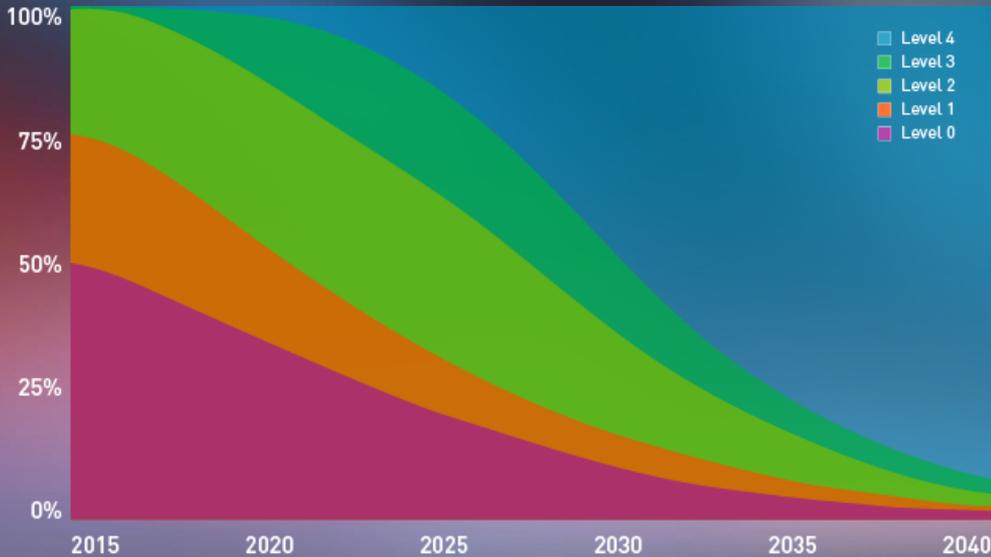
## Infrastructure connectivity critical

- Hazard and situation awareness and response
- Traffic flow synchronisation
- Connected navigation

# PROGRESSIVE ROLL-OUT OF CAVS

## USA VEHICLE FLEET BY AUTOMATION LEVEL

% OF TOTAL FLEET



Source: University of Minnesota, Levinson, *The End of Traffic and the Future of Transport Funding* (Aug 2015)

## Vehicle automation level as defined by National Highway Traffic Safety Administration (USA)

- Level 4 – Complete self-driving automation
- Level 3 – Limited self-driving automation
- Level 2 – Combined function automation
- Level 1 – Function-specific automation
- Level 0 – No automation

# POSITIVE IMPACT ON ROAD SAFETY

## Crash reduction with the use of CAVs

### CRASH RATE PER MILLION MILES



**Level 1** Crashes with airbag deployment, injury, rollover, a high Delta-V, or that require towing. Injury, if present, should be sufficient to require a doctor's visit. High Delta-V is defined as a change in speed of the subject vehicle in any direction during impact greater than 20 mph (excluding curb strikes) or acceleration on any axis greater than ±2 g (excluding curb strikes).

**Level 2** Crashes that do not meet the requirements for a Level 1 crash. Includes sufficient property damage that one would anticipate is reported to authorities (minimum of \$1,500 worth of damage, as estimated from video).

**Level 3** Crashes involving physical conflict with another object (but with minimal damage) that do not meet the requirements for a Level 1 or Level 2 crash.

Source: VTTI, Automated Vehicle Crash Rate Comparison Using Naturalistic Data (Jan 2016)

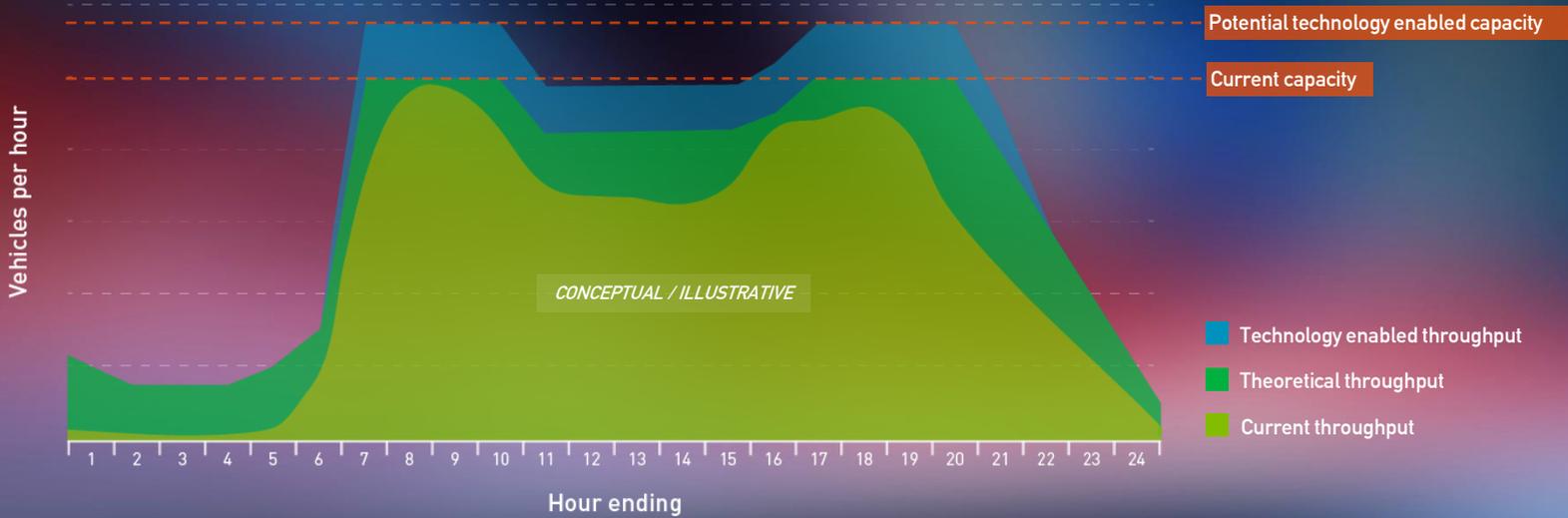
## Leveraging technology on our assets today

- Incident prevention measures
  - E.g. over-height vehicle detection and incident management
- Road conditions response
  - E.g. variable messaging and variable speed signs to manage real-time road conditions and incidents
- Improvement priority identification
  - E.g. incident hot spots analysis and traffic flow breakdown solutions

# POSITIVE IMPACT ON ROAD CAPACITY

Combination of CAVs and infrastructure connectivity to increase throughput

## TYPICAL WORKDAY PROFILE

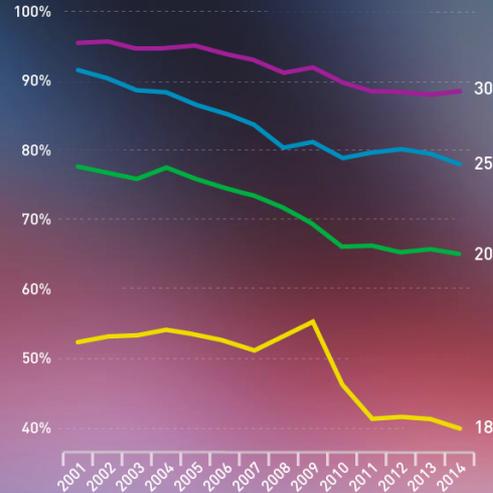


# SOCIAL CHANGES SHIFTING THE WAY VEHICLES ARE USED

## Key trends

- Population growth
- Service and knowledge economy
- Collaborative economy
- Access versus asset ownership
- Sustainability priorities
- Urbanisation

DRIVERS LICENCE OWNERSHIP BY AGE (VICTORIA)



Source: Charting Transport

CAV TAXI COULD REPLACE TRADITIONAL TAXI AND CARS IN MEGACITIES

	Average number of passengers per vehicle	Total cost per passenger mile in New York City
Public transport	N/A	\$1.00
Vehicle ownership	1.6	\$1.20
Taxi	1.2	\$2.80
CAV taxi	1.2	\$1.80
CAV taxi that accommodate at least two people could be cost-competitive with mass transit if capital budgets and government subsidies are taken into account	1	\$2.20
	2	\$1.10
	3	\$0.70
	4	\$0.60

Source: BCG, Revolution in the Drivers Seat (Apr 2015)

## KEY POLICY EVOLUTIONS



Productivity  
improvement



Heavy and light  
vehicle charging  
reform



Infrastructure  
investment  
priorities



Public and  
private sector  
collaboration

# DIFFERENT VIEWS ON TECHNOLOGY IMPACT AND TIMING

## PACE OF CHANGE AND ADOPTION

**25% of the fleet will be autonomous by 2035, with 95% penetration by 2040, without a legal driver by 2050**

*(Foreign Policy Think Tank Working Group, 2014)*

**Once technological and regulatory issues have been resolved, up to 15% of new cars sold in 2030 could be fully autonomous**

*(McKinsey, 2016)*

**75% of fleet autonomous by 2040**

*(IEEE, 2012)*

**The Victorian Transport Policy Institute predicts 75% market penetration by 2060**

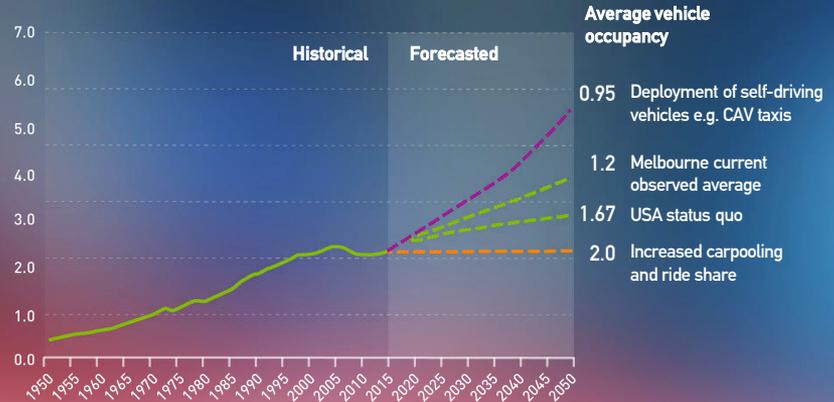
*(VTPI – Litman, 2015)*

## HOW CHANGE WILL MATERIALISE



## SHORT & LONG-TERM IMPACT OF CHANGE

TRILLIONS OF VEHICLE MILES



*Source: USA BTS data, NHTS data, USA Census data, KPMG Analysis, VicRoads Traffic Monitor report*

## TRANSURBAN IS POSITIONED TO BENEFIT FROM THE FUTURE ENVIRONMENT

### MOTORWAYS A LOGICAL CANDIDATE FOR CAV APPLICATION

- Free flow traffic lane design
- Road conditions and lane qualities
- Infrastructure connectivity

### SMART MOTORWAYS

- Optimisation of technology across the network (rather than for individual assets) to achieve better utilisation and throughput

### SCALE OF CUSTOMER BASE

- Leveraging data and access to road users to deploy new technologies and services

# INVESTING IN OUR TECHNOLOGY CAPABILITY

LISA TOBIN



**Building smarter  
motorways**



**Scaling tolling  
services**



**Investing in Cloud,  
digital and data**



**Innovating through  
partnerships**

## BUILDING SMARTER MOTORWAYS

### Intelligent Transport Systems investment to realise greater network benefits

- Standardising technologies across our roadways
- Connecting and sharing data more effectively across our road management systems
- Consolidating systems and processes across the network
- Applying roadside data to improve planning and traffic management activities
- Increasing security and resilience of our roadside networks
- Improving capacity on networks



## SCALING TOLLING SERVICES

### Harnessing the benefits of our tolling as a service platform

- Proven delivery of our turn-key tolling solutions and services for roadways
- Stable and reliable revenue capture processes
- Evaluating further opportunities to consolidate tolling systems across our markets
- Assessing long-term opportunities to introduce new tolling products and services
- Increase our capacity to scale assets



## INVESTING IN CLOUD, DIGITAL AND DATA

A range of value-adding transport technologies:

- Integrating digital Application Programming Interface (API) capabilities to enable a more effective customer experience
- Implementing cloud services and automation technologies to expand capacity and speed up delivery
- Big data technologies to extract more value from the information collected from our roadside, tolling and operational systems



## INNOVATING THROUGH PARTNERSHIPS

### Continuing to work with a range of partners

- Assessing how we can support the rollout of CAV technology on our networks
- Integrating learnings from our road usage study into our long-term technology strategy
- Exploring data sharing opportunities to deliver new real-time information services to our customers
- Leveraging the R&D capabilities of our partners to improve safety, throughput and enforcement outcomes



# ENHANCING OUR CUSTOMER EXPERIENCE

SUE JOHNSON



Converting our  
customers to  
advocates



Digital engagement  
for road users



Harnessing our data  
for future growth

## TRANSURBAN'S CUSTOMER BASE

Customer service is vital in protecting our licence to operate



## DIGITAL IMPROVEMENTS FOR OUR ACCOUNT HOLDERS

### Retail

- Continued migration to self service through website improvements
- Mobile apps
- GPS data for personalised notifications
- Expanded payment and communication channels
- Use of social network profiles for account management

### Corporates

- Advanced consolidated billing and reporting
- Dedicated web tools for easier account management
- Partnering with corporates on new technologies e.g. GPS data

### APP FEATURES INCLUDE:

- Easier account management
- New payment options
- Real-time notifications
- Roadside camera feeds



## DATA IMPROVEMENTS FOR OUR ACCOUNT HOLDERS

### Retail

- Project to provide travel time savings on statements
- Web based interactive travel time savings map

### Corporates

- Travel time savings corporate reporting
- Proactive notifications for fleet review
- Account management integration into corporate systems

### NETWORK TIME SAVINGS



\*One direction compared with alternate route

Source: Tom Tom Data

## IMPROVING CUSTOMER EXPERIENCE FOR NON-ACCOUNT HOLDERS

Improving the transition to account holders and streamlining the enforcement process:



First time fee waiver program



Campaigns to convert non-account customers



Proactive outbound communications to customers



Innovating through partnerships

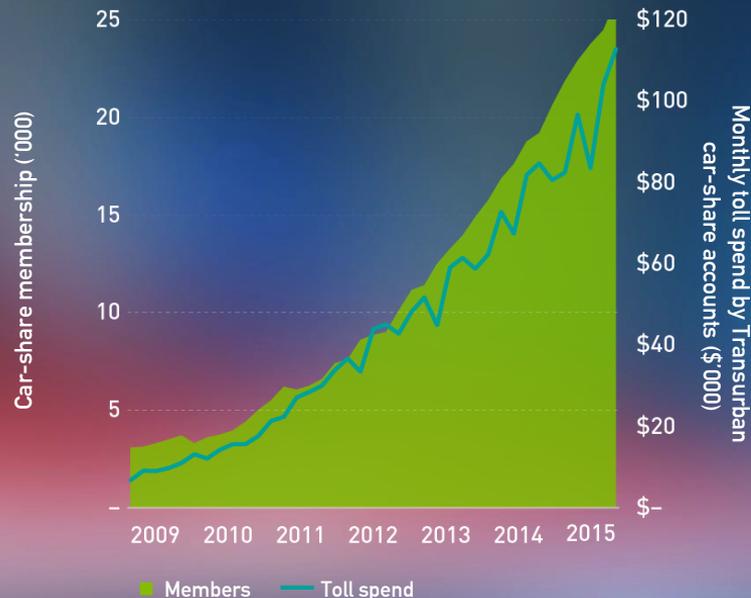
More than 95% of infringement recoveries retained by State/Council Authority in Australia

In the USA, Transurban manages penalty and court process and collects and retains the majority of enforcement recoveries

## CUSTOMER TRENDS

- Consolidation of accounts
  - Corporate customers shifting towards fleet leasing arrangements resulting in need for large scale account management
  - Growth in car-share driving increase in on-billing arrangements
  - Increased appetite for data on effective road usage
- Potential for real time billing through the use of APIs
- Potential to expand reporting and data integration with commercial accounts
- Demand for more digital interaction
- Building stronger partnerships with other transport service providers

GROWTH IN CAR-SHARE MEMBERSHIPS



Source: City of Sydney

# FUNDING FOR THE FUTURE

ADAM WATSON



**Disciplined cost  
management**

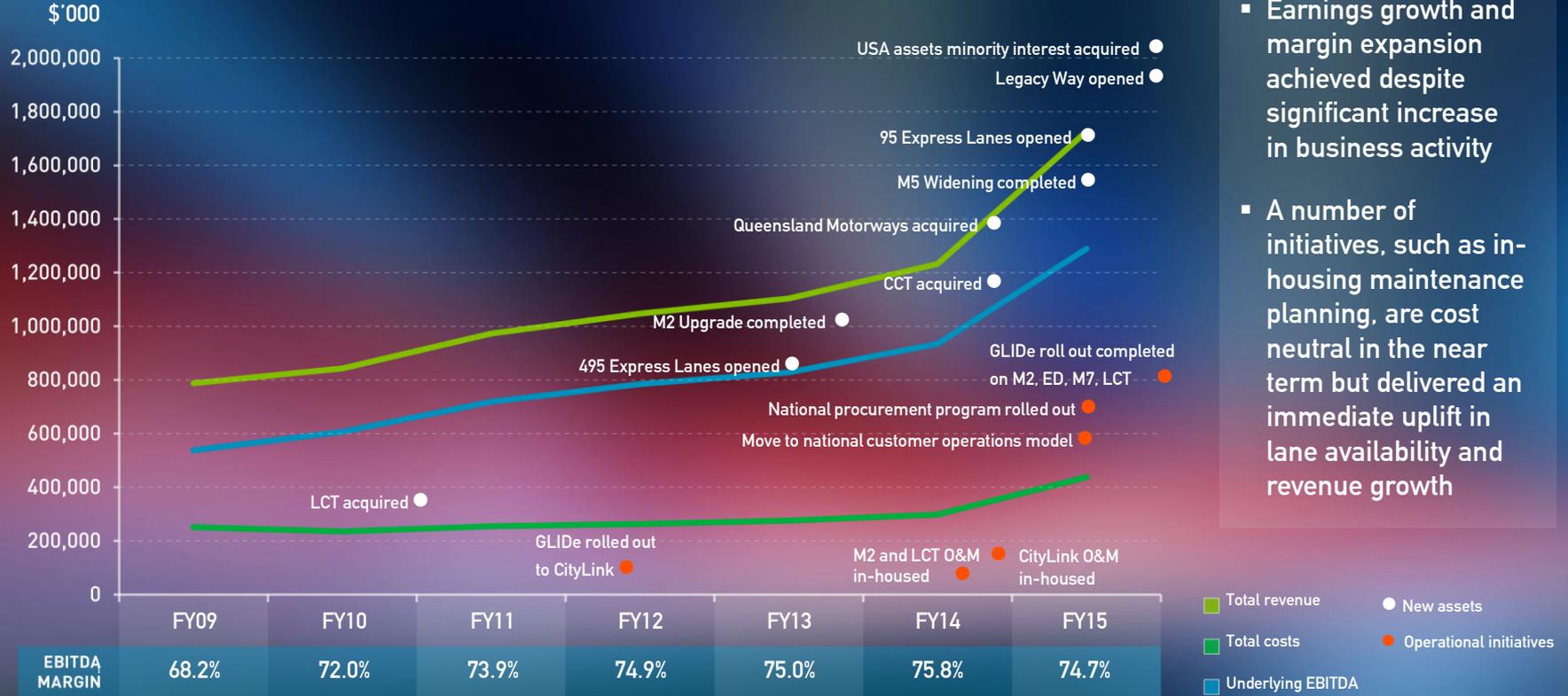


**Optimal capital  
structuring**



**Managing funding  
risk**

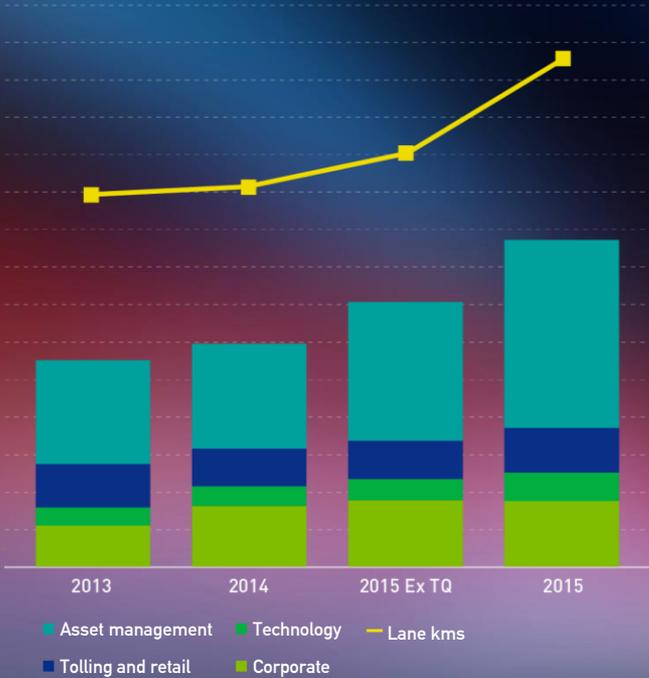
# DISCIPLINED COST MANAGEMENT DURING GROWTH PHASE



- Earnings growth and margin expansion achieved despite significant increase in business activity
- A number of initiatives, such as in-housing maintenance planning, are cost neutral in the near term but delivered an immediate uplift in lane availability and revenue growth

1. Calculated by dividing EBITDA by total revenue.

# MANAGING KEY COST DRIVERS



COST CATEGORIES	DRIVERS
<b>ASSET MANAGEMENT</b> O&M, major maintenance and technology roadside costs	Number of lane kilometres Asset mix (tunnel vs open road) In-housing O&M activities
<b>TOLLING &amp; RETAIL</b> Customer account management, transaction processing and customer initiatives	Trips/transactions Customer experience initiatives
<b>TECHNOLOGY</b> Corporate platform development and security and capability improvement	Business growth Security enhancements Revenue enhancing initiatives
<b>CORPORATE</b>	Business growth Strategic initiatives

## CAPITAL STRATEGY

**CONSISTENTLY  
GROWING  
DISTRIBUTIONS**

**EFFICIENTLY  
FUND GROWTH**

**MAINTAIN STRONG  
INVESTMENT GRADE  
CREDIT METRICS**

**COST EFFICIENT  
FUNDING THROUGH  
MARKET CYCLES**

## OPTIMISING CAPITAL STRUCTURE



Maintaining  
investment  
grade credit  
metrics



Maturity of asset



Concession  
restrictions



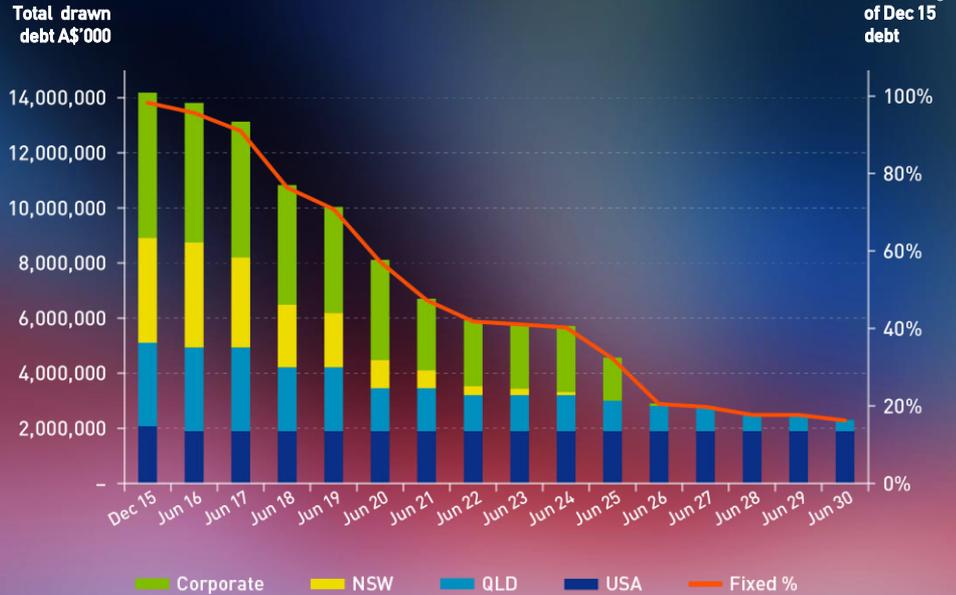
Ownership  
structure



Development  
considerations

# MANAGING FUNDING RISK

- Hedging interest rates (98% hedged) and currency (100% hedged), consistent with relevant debt instrument
- Investment grade credit metrics
- Diversified funding sources
- Early refinancing plan

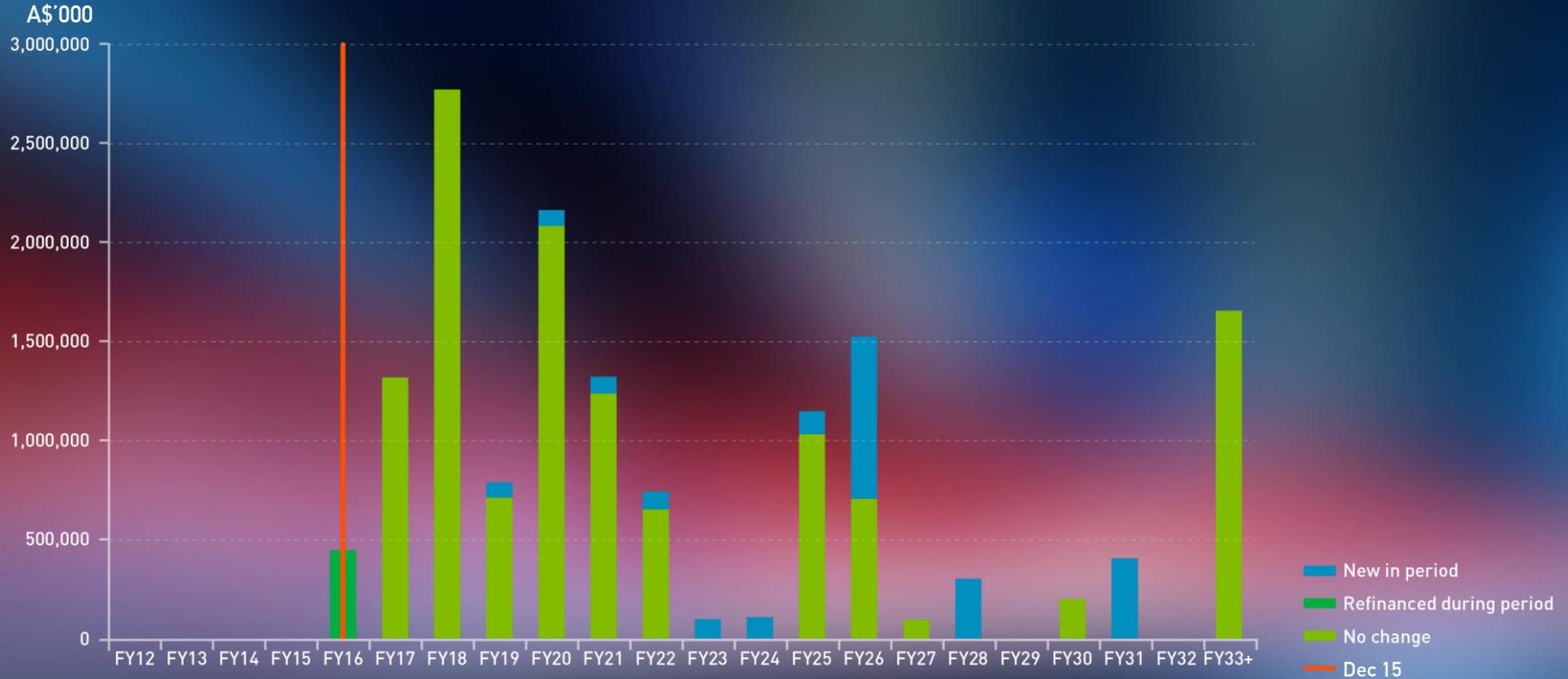


## DEC 15<sup>1</sup> GROUP DEBT



1. Proportional drawn debt. Non AUD debt is converted at the hedged rate where cross currency swaps are in place. Unhedged USD debt is converted at the spot exchange rate of \$0.7306 at 31 December 2015.

# GROUP DEBT MATURITY AS AT DEC 15



# WORKING WITH GOVERNMENT PARTNERS

TONY ADAMS

## OPPORTUNITIES TO ENHANCE TRADITIONAL PROJECT ROLES

Transurban demonstrating value to government during each project phase



Identify transport solutions



Network design



Procurement

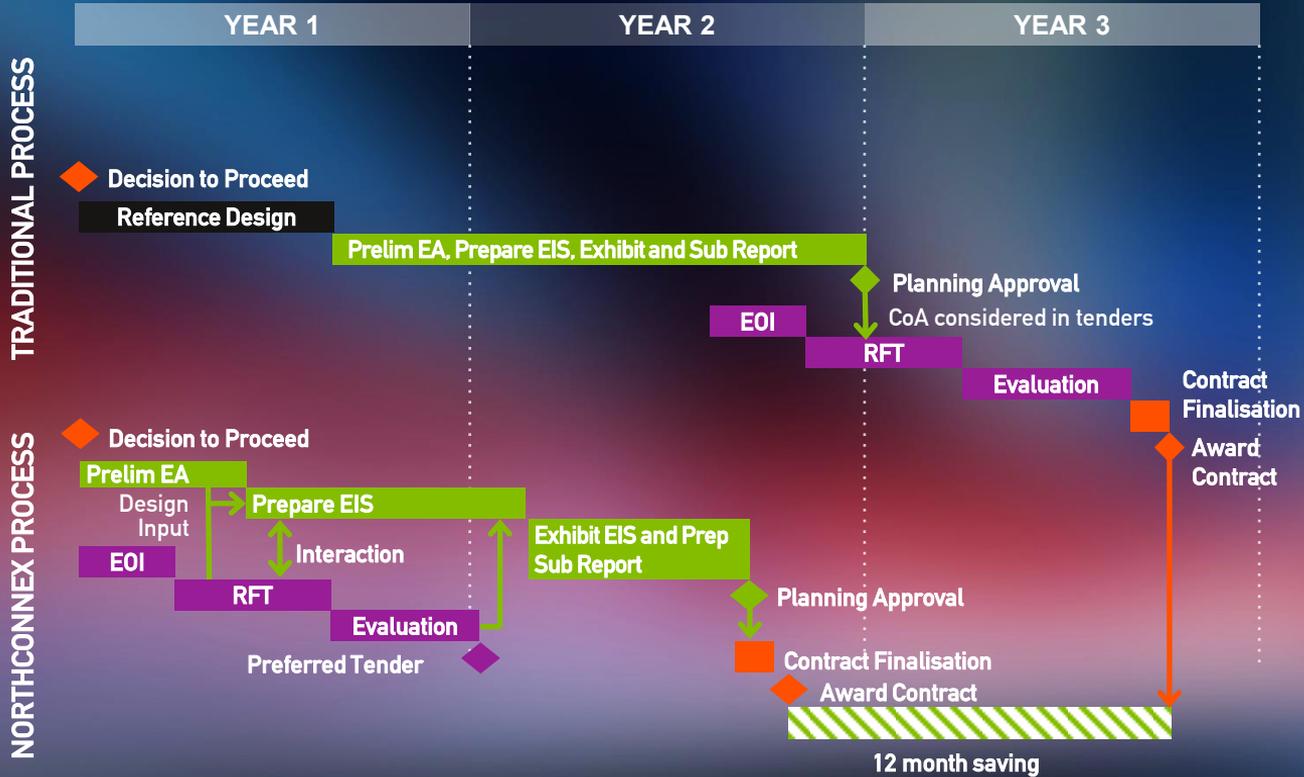


Community and stakeholder engagement



Delivery

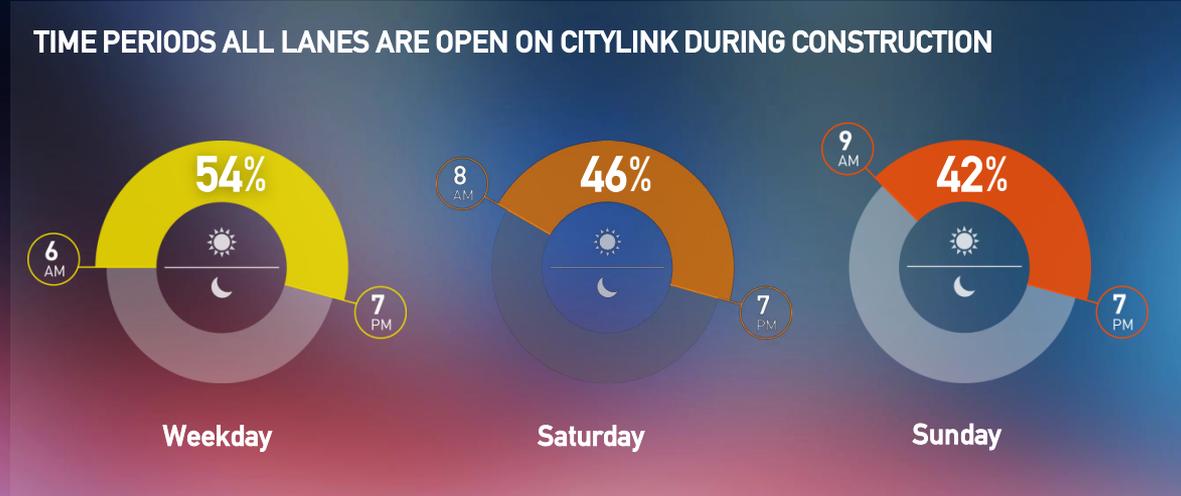
# DELIVERING EFFICIENCIES THROUGH IMPROVED PROCUREMENT PROCESS



- Benefits of Transurban's approach to NorthConnex procurement process:
  - Greater interaction with contractor to improve project design
  - More opportunities for the community to participate in the process
  - Contract awarded 12 months earlier than traditional process

## MINIMISING TRAFFIC DISRUPTION DURING CITYLINK-TULLA WIDENING DELIVERY

- Shared objective with Government to reduce impact on road users
- All lanes on CityLink open during peak periods
- Additional incident response crews
- Extensive communications program to advise road users of traffic impacts



## CITYLINK-TULLA WIDENING CONSTRUCTION ON TRACK



- Contractors working around the clock
- Bolte Bridge to West Gate Freeway traffic switch implemented March 2016. Travel times in line with modelling
- Partnership between CityLink, VicRoads and Victoria Police on 80km/h speed limit blitz
- Construction has started on major interchange upgrade, Bell Street and Flemington Road

# GREATER WASHINGTON AREA

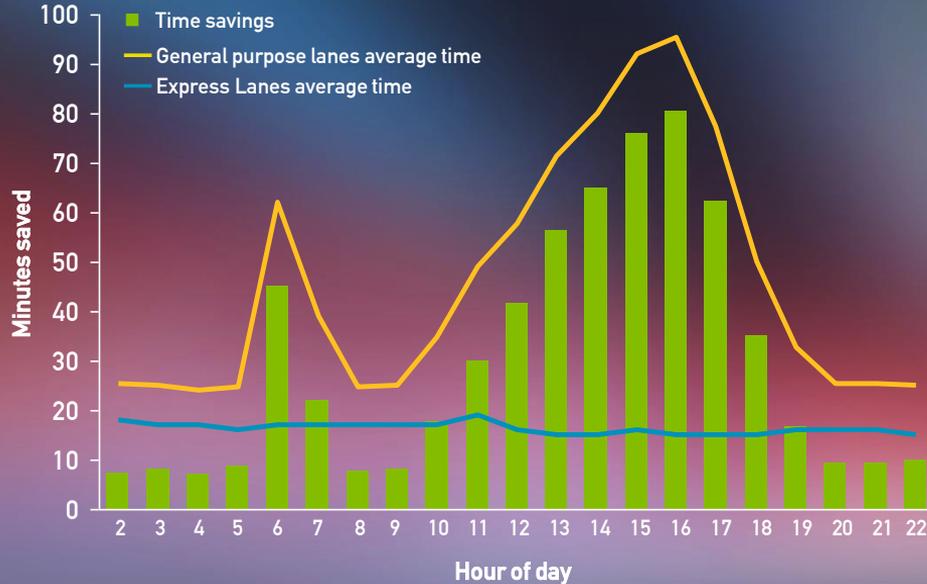
JENNIFER AUMENT

## NETWORK STRATEGY

- Deliver value to customers to increase traffic and revenue and position for expansion opportunities
- Expand 95 Express Lanes to the north and south
- Continue competitive bids for 66 Express Lanes projects
- Leverage industry position into new North American markets

# VALUE PROPOSITION FOR CUSTOMERS

95 EXPRESS LANES: DAILY PERFORMANCE EXAMPLE



- 15% reduction in incidents on 95 Express Lanes since conversion to HOT
- Average >40% higher speeds on Express Lanes vs general purpose lanes during peak
- Customer satisfaction greater than 80% when toll rates are highest

# INTERPRETING EXPRESS LANES' PERFORMANCE

TOLL ROADS

EXPRESS LANES

## FUNDAMENTALS

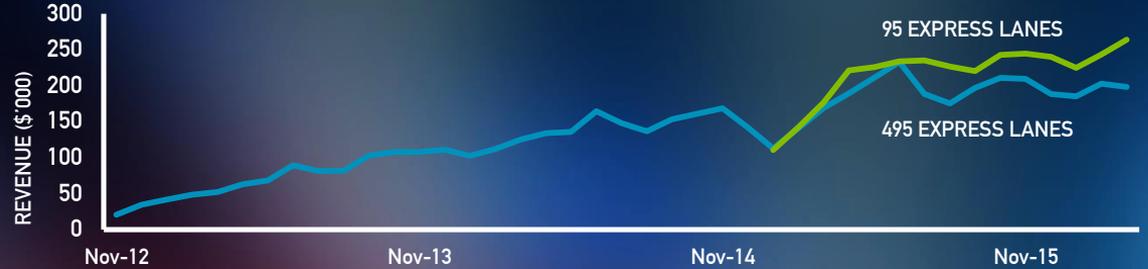
Corridor demand driven by population and employment growth, land use and network capacity constraints

## INCREMENTAL CONSIDERATIONS

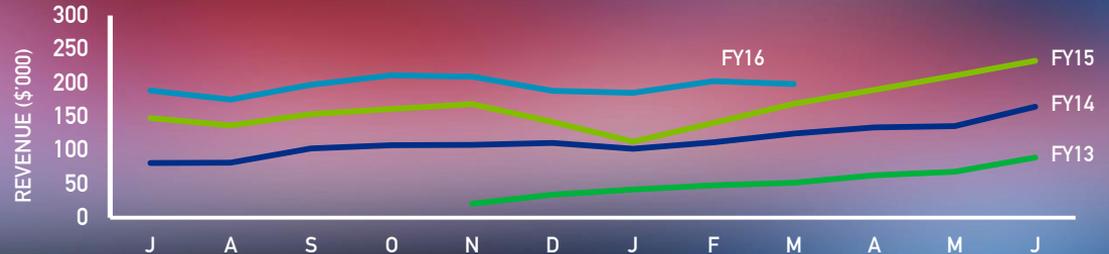
Express Lanes demand driven by general purpose lane congestion, trip purpose and user familiarity

Higher demand leads to increased average toll price

GWA EXPRESS LANES: AVERAGE WEEKDAY REVENUE

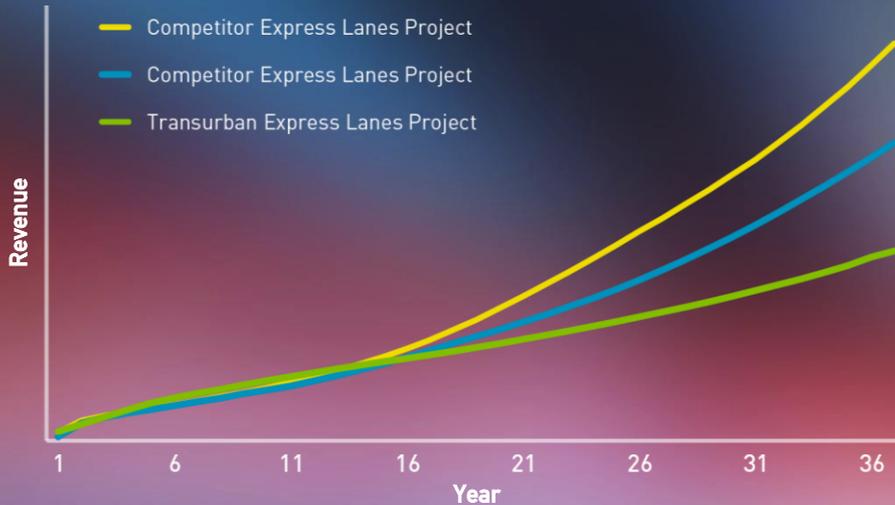


495 EXPRESS LANES: CONSISTENT TRENDS YEAR ON YEAR



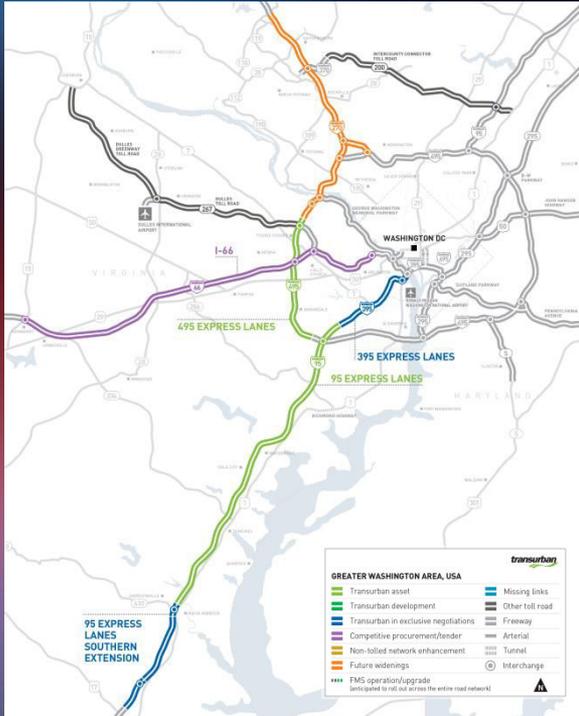
## MAINTAINING INVESTMENT DISCIPLINE

## FORECAST REVENUE COMPARISON FOR EXPRESS LANES PROJECTS



- Commitment to accurate forecasting – alignment of interest as long-term operator
- In-house traffic team understands nuances of forecasting Express Lanes projects, particularly in GWA
- Ensures investment discipline maintained while also providing realistic government revenue sharing payments

# SUCCESS OF TRANSURBAN'S EXPRESS LANES CREATING NEW OPPORTUNITIES



## 95 CORRIDOR

*Expanding network through existing concession*

- 395 Express Lanes - exclusive negotiations with VDOT to expand to the north by ~13km
- In-principle agreement executed to expand to the south by ~3km
- Negotiations underway to expand to the south by a further ~13km

## 66 CORRIDOR

*New expansion opportunities*

- Outside the Beltway - competing for DBFOM concession for ~40km of Express Lanes
- Inside the Beltway - submitted proposal to provide tolling and traffic management services for the conversion of existing HOV Lanes to Express Lanes

# LENS FOR CONSIDERING FUTURE MARKETS



Demographics



Government readiness / willingness for PPP

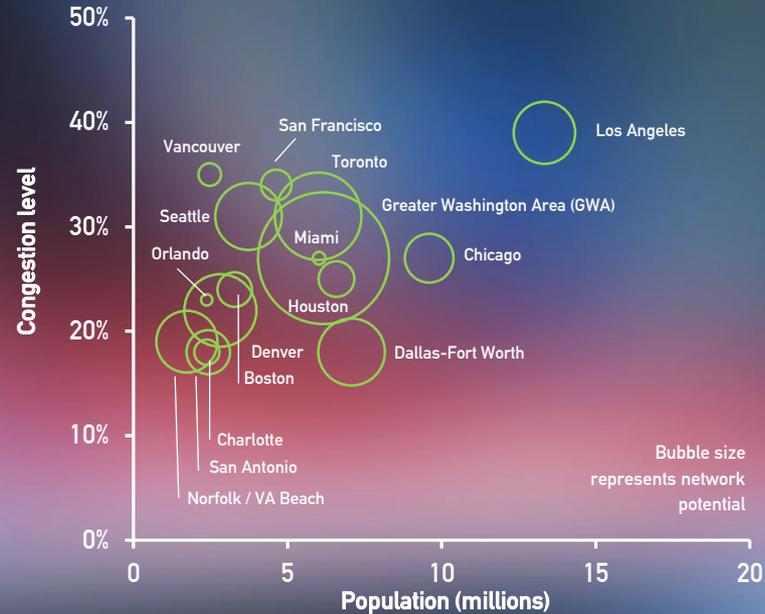


Individuals' propensity to pay tolls



Network potential

### NETWORK POTENTIAL IN NORTH AMERICA'S MOST CONGESTED CITIES



Source: Tom Tom 2014 Data

# SYDNEY

ANDREW HEAD

## NETWORK STRATEGY

- Deliver NorthConnex safely and successfully — demonstration project for Transurban's network model
- Drive O&M of our assets towards best practice
- Prepare for WestConnex sell down
- Continue to propose other network development opportunities

## BENEFITS OF FIRST GENERATION PROJECTS COMING THROUGH

PROJECT	ASSETS BENEFITS
M2 Upgrade	<ul style="list-style-type: none"><li>▪ M2</li><li>▪ LCT and Military Road E-Ramp</li><li>▪ M7</li></ul>
Lane Cove Road East Facing Ramp	<ul style="list-style-type: none"><li>▪ LCT and Military Road E-Ramp</li><li>▪ M2</li><li>▪ M7</li></ul>
M5 Widening	<ul style="list-style-type: none"><li>▪ M5 South</li><li>▪ M7 (South)</li></ul>
NorthConnex	<ul style="list-style-type: none"><li>▪ M7 truck toll multiplier</li><li>▪ Other network benefits upon completion (M2 and M7)</li></ul>

## BEST PRACTICE DELIVERY

Safety



Community and Stakeholder Engagement



Sustainability



Environment



# ENHANCING OPERATIONS IN PREPARATION FOR FUTURE GROWTH

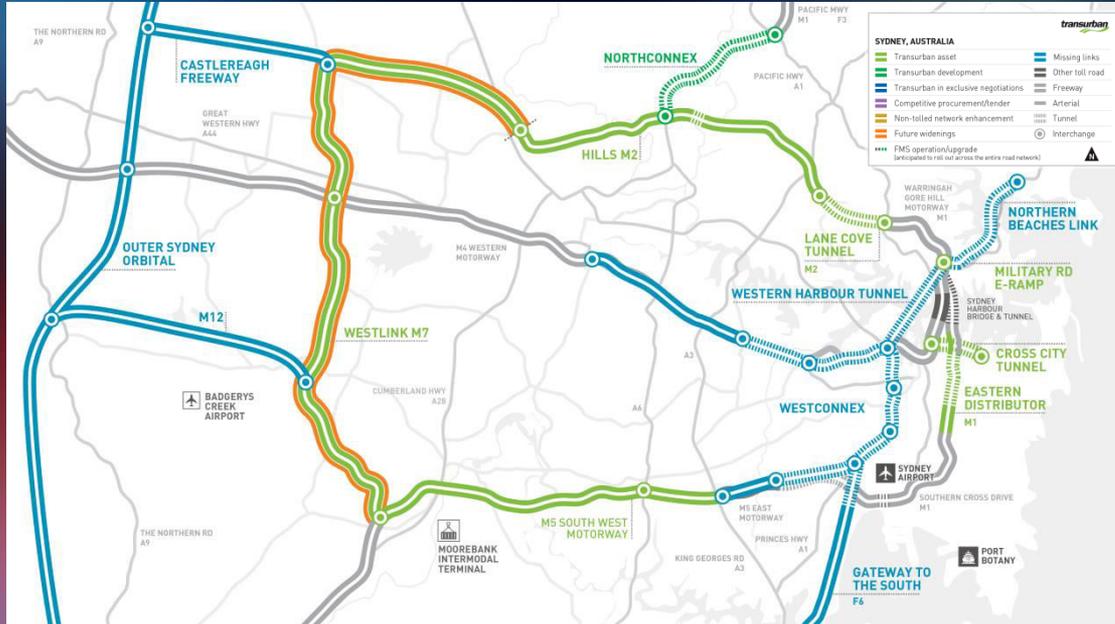
## O&M EXCELLENCE



## CONTINUOUS IMPROVEMENT



# SIGNIFICANT FUTURE OPPORTUNITY IN SYDNEY



## Western Sydney

- M12 link to planned Western Sydney airport site from M7 motorway
- Part of \$3.6 billion road investment plan for Western Sydney

## Gateway to the South

- \$300 million reserved for pinch points including A1, A3 and A6 corridors
- Scoping studies commissioned on A6 and M1 (previously known as F6) corridors

## NorthConnex

- \$3 billion Transurban project in construction, linking the M1 Pacific Motorway to the M2 Motorway
- Due for completion late 2019

## Northern Beaches Link

- \$2.4-3.1 billion project linking Northern Beaches to Warringah Freeway
- Proposed development 2024-2034

## Western Harbour Tunnel

- \$4.5 billion project providing an additional harbour crossing
- Proposed development by 2024

## WestConnex

- \$4.3 billion Stage 1 (M4 Widening and M4 East) in construction, due to be completed in 2019
- \$5.3 billion Stage 2 (new M5 project and King Georges Road interchange upgrade), due for completion 2019 and Sydney Gateway due for completion by 2023
- \$7.2 billion Stage 3 (M4-M5 link) project to be funded, anticipated to be completed by 2023

# MELBOURNE

VIN VASSALLO

## NETWORK STRATEGY

- Improve lane availability and throughput via operational improvements
- Improve capacity on network by delivering CityLink-Tulla Widening project
- Work with government partners to enhance network, through delivery of Western Distributor
- Demonstrate best practice in O&M to position for ongoing development opportunities

## IMPROVING INCIDENT MANAGEMENT TO INCREASE LANE AVAILABILITY

- Introduction of a Freeway Management System (FMS) enables Transurban to move from an 'attendance' to 'safe clearance' incident response model
  - Vehicle removed from asset as soon as possible
  - Transurban not reliant on third-party tow truck provider
- Benefits:
  - Increased safety
  - Increased lane availability

**>6,000+**

incidents<sup>1</sup> on CityLink per year

**~15**

incidents on CityLink per day

**>30%**

potential reduction in average clearance time

for **50%** of incidents

1. Examples of incidents include flat tyres, vehicles out of fuel, broken-down vehicles, debris on motorway and collisions.

# EXTENSIVE COMMUNITY AND STAKEHOLDER ENGAGEMENT PROGRESSING



## FEEDBACK INFLUENCING PROJECT DESIGN

### TUNNEL / DESIGN POSITION



- Two tunnel designs under consideration

### IMPROVED ACCESS TO PORT



- Direct connections to both east and west Swanson Dock

### UPGRADE TO WALKING AND CYCLING PATHS



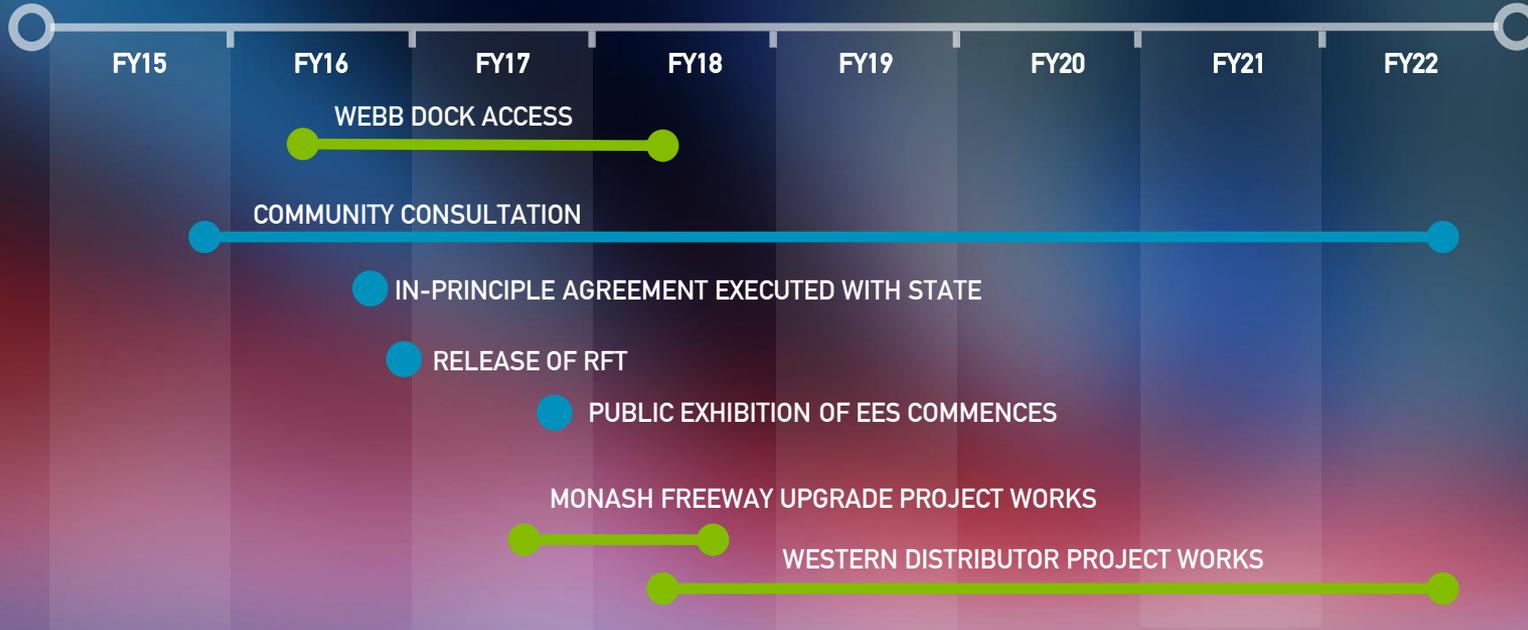
- Increased bicycle and walking tracks included in project design
- Separating existing cycling routes to remove conflicts with vehicles

### POWER LINES



- Up to 14 overhead power lines removed
- Increased amenity in local area

# WESTERN DISTRIBUTOR PROJECT PROGRESSING ON SCHEDULE

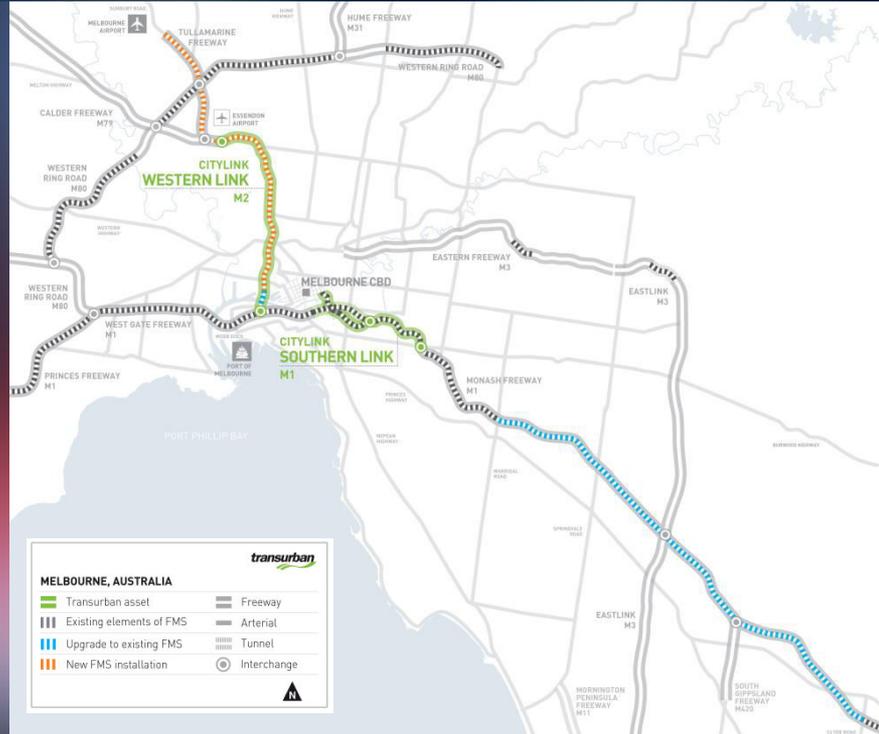


# LEADING THE WAY ON MANAGED MOTORWAYS

Working with VicRoads to implement common FMS across the network

## Components of a FMS:

- Lane use management system
  - Increased control of traffic
  - Increased capability to manage incidents safely
- Ramp metering
  - Improves flow of traffic on the freeway
  - During peak periods:
    - ~42% increase in average speed
    - ~6% increase in throughput
- Automated incident detection
  - Automated alerts of incidents, enabling faster response



# BRISBANE

WESLEY BALLANTINE

## NETWORK STRATEGY

- Complete integration of TQ and AirportlinkM7
  - Roll-out GLIDe
  - Align O&M model with Transurban's national approach
- Assist Government to successfully deliver Gateway Upgrade North project
- Achieve financial close on Logan Enhancement Project
- Explore further opportunities to deliver network solutions

## INTEGRATION PROGRAM ON SCHEDULE

EXPECTED COMPLETION

2016

LATE 2017

ONGOING

## PHASE 1

## Organisation structure



- TQ organisational structure aligned to Transurban
- AirportlinkM7 organisational structure review under way—expected completion in 60 days

## PHASE 2

## Technology



- Work underway to align back office systems and introduction of national platform
- Roll-out of GLIDe commenced

## PHASE 3

## O&amp;M



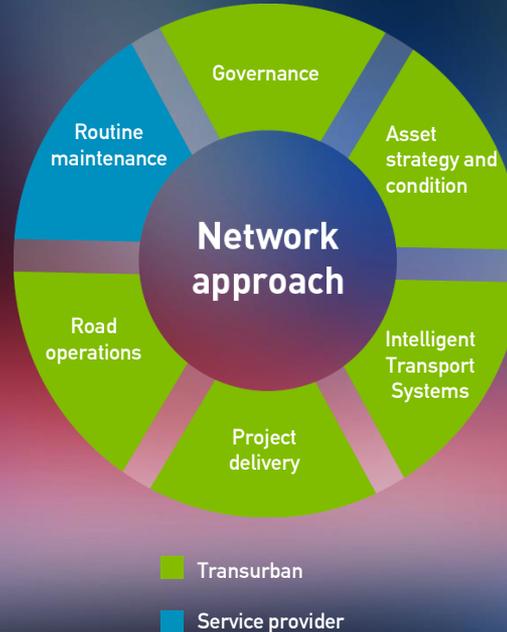
- O&M contracts to be renegotiated
- AirportlinkM7 contract up for renegotiation May 2018
- Alignment with Transurban's operating model

# FOCUSED ON PHASE 3: O&M STAGE OF INTEGRATION PROGRAM

## CURRENT STATE

Individual Assets	Road Operations	Routine Maintenance
Gateway Motorway	Transurban	GMS (Ventia /Lendlease)
Logan Motorway	Transurban	Broadspectrum Services
Clem7	BMS (Ventia/Lendlease)	BMS (Ventia/Lendlease)
Legacy Way	Transcity/Egis	Transcity/Egis
Go Between Bridge	A1 Highways/ Brisbane City Council	A1 Highways/ Brisbane City Council
AirportlinkM7	Ventia	Ventia

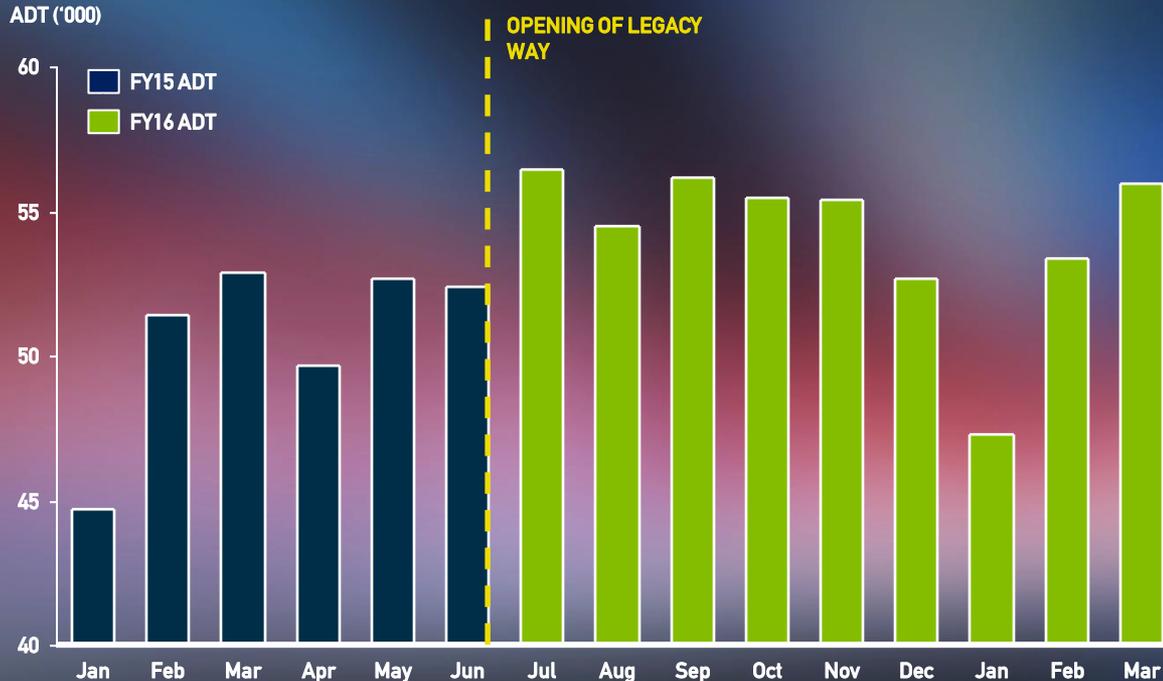
## FUTURE STATE



- External service providers currently managing road operations on four of six assets
- Transurban moving towards network approach
  - Transurban manages road operations across network
  - O&M integrated into broader network strategy

## AIRPORTLINKM7 BENEFITING FROM OPENING OF LEGACY WAY

AIRPORTLINKM7 ADT GROWTH JAN 2015 – MAR 2016



## Integration plan

- 90-day integration plan
- Target state:
  - Head count reduced by ~90%
  - Single tolling brand with all customers on 'go via'
  - Back office integrated with TQ

## LEGACY WAY REVENUE AT HIGHER END OF EXPECTATIONS

- Traffic continues to grow
- Full tolls introduced 2 May 2016

LEGACY WAY WEEKLY REVENUE SINCE OPENING



## OPPORTUNITIES ARISING FROM NETWORK POSITION



- Working with Queensland Government to identify opportunities to improve service delivery
- Control room consolidation
- Improved customer experience
  - Coordinated signage and information
  - Integrated incident response and management

# WRAP-UP

SCOTT CHARLTON

## SUMMARY

### PROJECT PIPELINE



- \$11 billion project pipeline
- One project underway and another one in discussion in each market
- Balance sheet structured to deliver pipeline

### OPERATIONS



- Deliver best in class asset O&M
- Continue to insource management of asset life-cycle model

### TECHNOLOGY



- Investing in Intelligent Transport Systems and value added transport technologies
- Working with partners to bring new innovations to market

### POLICY



- Deliver findings of road usage study
- Contribute to policy reform for future infrastructure provision

## SUMMARY



Next generation development opportunities in each market

Sustained growth profile



Strategically positioning for technology advances

Increased throughput and lane availability



Policy reform is inevitable

Transurban is preparing for change

# GLOSSARY

<b>ADT</b>	Average Daily Traffic
<b>API</b>	Application Program Interface
<b>AUD</b>	Australian Dollars
<b>BCG</b>	Boston Consulting Group
<b>BMS</b>	Brisbane Motorways Services
<b>BTS</b>	Bureau of Transportation Statistics
<b>CAVs</b>	Connected Autonomous Vehicles
<b>CCT</b>	Cross City Tunnel
<b>COA</b>	Conditions of Approval
<b>CTW</b>	CityLink-Tulla Widening
<b>DBFOM</b>	Design, Build, Finance, Operate and Maintain
<b>EBITDA</b>	Earnings Before Interest, Tax, Depreciation and Amortisation
<b>EA</b>	Environmental Assessment
<b>ED</b>	Eastern Distributor
<b>EES</b>	Environment Effects Statement
<b>EIS</b>	Environmental Impact Statement
<b>EOI</b>	Expression of Interest
<b>FMS</b>	Freeway Management System
<b>FY</b>	Financial Year
<b>GLIDe</b>	Tolling back office system
<b>GMS</b>	Gateway Motorway Services
<b>GPS</b>	Global Positioning System
<b>GWA</b>	Greater Washington Area
<b>HOV</b>	High Occupancy Vehicle

<b>HOT</b>	High Occupancy Toll Lane
<b>IEEE</b>	Institute of Electrical and Electronics Engineers
<b>KMS</b>	Kilometres
<b>KM/H</b>	Kilometres per hour
<b>LCT</b>	Lane Cove Tunnel
<b>M2</b>	Hills M2
<b>M5</b>	M5 South West Motorway
<b>M7</b>	Westlink M7
<b>MPH</b>	Miles per hour
<b>O&amp;M</b>	Operations and Maintenance
<b>NHTS</b>	National Household Travel Survey
<b>PPP</b>	Public Private Partnership
<b>R&amp;D</b>	Research and Development
<b>RFT</b>	Request for Tender
<b>TCL</b>	Transurban ASX code
<b>TQ</b>	Transurban Queensland
<b>USD</b>	USA Dollars
<b>VDOT</b>	Virginia Department Of Transportation
<b>Virginia Tech</b>	Virginia Polytechnic Institute and State University
<b>VMT</b>	Vehicle Miles Travelled
<b>VTPI</b>	Victoria Transport Policy Institute
<b>VTTI</b>	Virginia Tech Transportation Institute
<b>YOY</b>	Year on Year