

# Closing the Loop 2018

Driverless vehicles — Safety, convenience and the future

## The Mobility Evolution

Ron Shanks

Australia and New Zealand Driverless Vehicle  
Initiative

OUR VISION:

To accelerate the safe and successful introduction of driverless vehicles onto Australia and New Zealand roads.

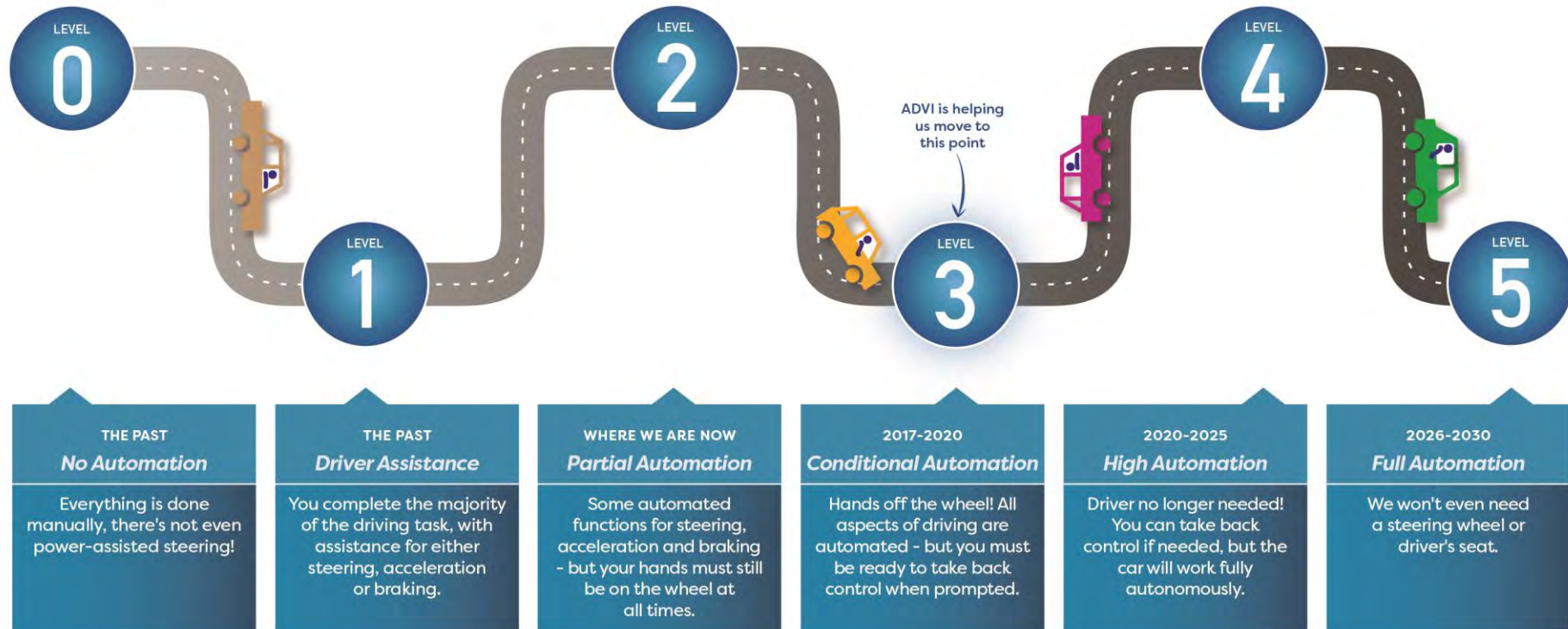
# ADVI PARTNERSHIP | June 2018



# The state of the nation

See what's going on around Australia and New Zealand



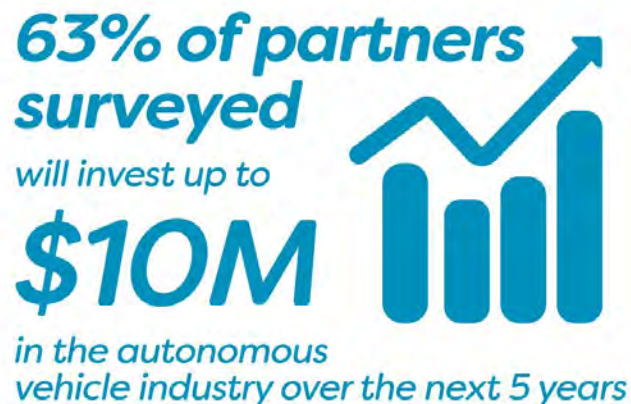
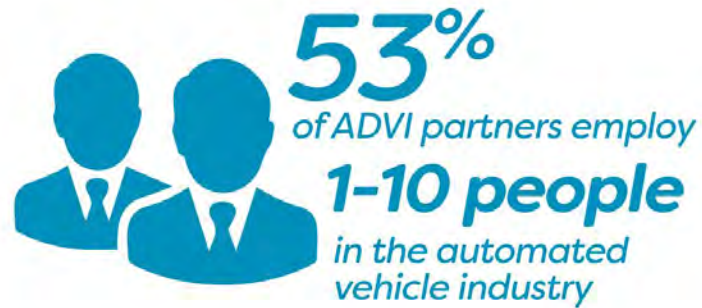


Sources:  
 ERTRAC Automated Driving Roadmap, 21 July 2015 [http://www.ertrac.org/uploads/documentsearch/id38/ERTRAC\\_Automated-Driving-2015.pdf](http://www.ertrac.org/uploads/documentsearch/id38/ERTRAC_Automated-Driving-2015.pdf)  
 SAE International's J3016 Levels of Driving Automation, 2014 [http://www.sae.org/misc/pdfs/automated\\_driving.pdf](http://www.sae.org/misc/pdfs/automated_driving.pdf)



***Australia &  
New Zealand  
Driverless Vehicle  
Initiative***

# Economic Uplift Survey



# Possible future scenarios

Autonomous High End Vehicles



Autonomous widespread deployment



Self-driving taxi



Car sharing / self-driving taxi



	1	2	3	4
<b>Vehicle population</b>	-1%	-8%	-46%	-59%
<b>Implications for cities</b>	No benefits – No major change	Some benefits – No major change	Considerable benefits – <b>But major change and Investment</b>	Most benefits – <b>But major change and Investment</b>
<b>Implications for car manufacturers</b>	Business model as is – No major change	Business model as is – No major change	New business model – <b>Major change</b>	New business model – <b>Major change</b>
<b>Implications for insurers</b>	One transport mode out of many – No major change	One transport mode out of many – No major change	May become the primary transport provider – <b>Major change</b>	May become the primary transport provider – <b>Major change</b>
<b>Impact<sup>1</sup></b>	<b>Limited city and consumer benefits</b> Emissions: + 17% Parking space: - 1% Accidents: - 18% Mobility cost + 5%	<b>Some city and consumer benefits</b> Emissions: + 12% Parking space: - 8% Accidents: - 51% Mobility cost - 16%	<b>Sizable benefits, but not without costs</b> Emissions: + 37% Parking space: - 46% Accidents: - 73% Mobility cost - 16%	<b>Highest benefits for city and consumer</b> Emissions: - 8% Parking space: - 59% Accidents: - 68% Mobility cost - 51%
<b>Matrix of Efficiencies</b>	~ \$0.97	~ \$0.63	~ \$0.46	~ \$0.31

<sup>1</sup>In year ten, note: calculations based on model city with tidal-style traffic and approx. 5M inhabitants and 1.34M private vehicles and taxis, modelled over a 10 year horizon. Assumes no power train mix shift. Source: World Economic Forum; BCG analysis



# Autonomous Cabs/Taxis



RN 01E39

京Q-U7

WSJ

# Electric Vehicles



**TOYOTA**

# Truck Platooning and Autonomous Trucks

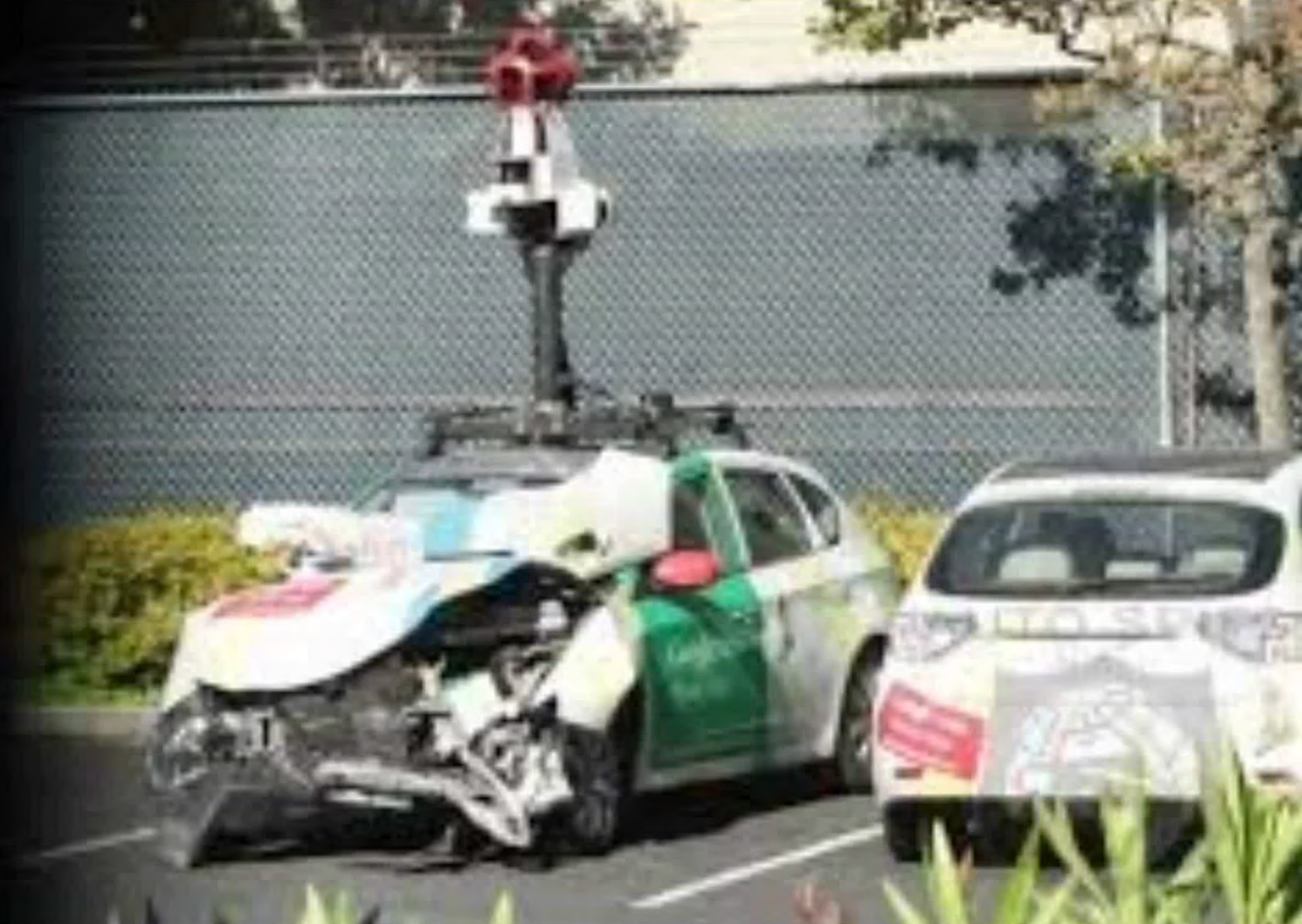


# Australian & New Zealand Test Beds





# Safety and Risk Factors





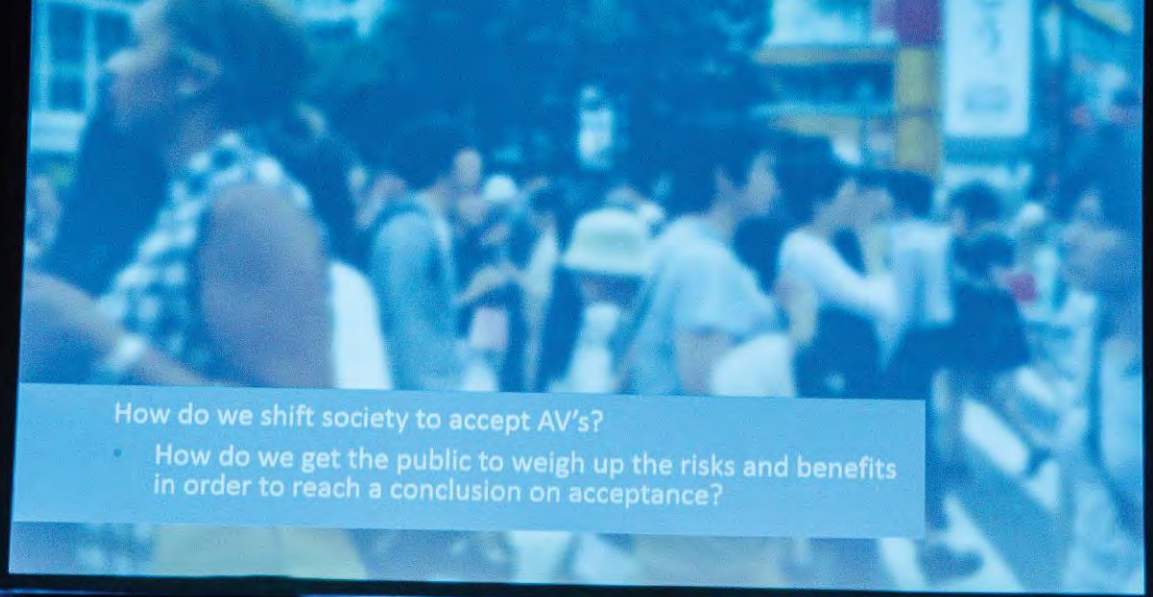
**A>>CELERATING THE  
MOBILITY EVOLUTION**

# **3RD INTERNATIONAL DRIVERLESS VEHICLE SUMMIT**

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How do we shift society to accept AV's?

- How do we get the public to weigh up the risks and benefits in order to reach a conclusion on acceptance?

**נספח**

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