



**AUSTRALIAN**  
DRIVERLESS VEHICLE INITIATIVE

The most significant program of cooperative activity in the transport space this century. Australia's policies and regulations arising from this work will dictate our international competitiveness for many decades to come.

# WHAT IS A DRIVERLESS VEHICLE?



A Driverless Vehicle or a Self-Driving Vehicle is a fully connected and automated vehicle that replaces the human driver in the management of all dynamic driving tasks.

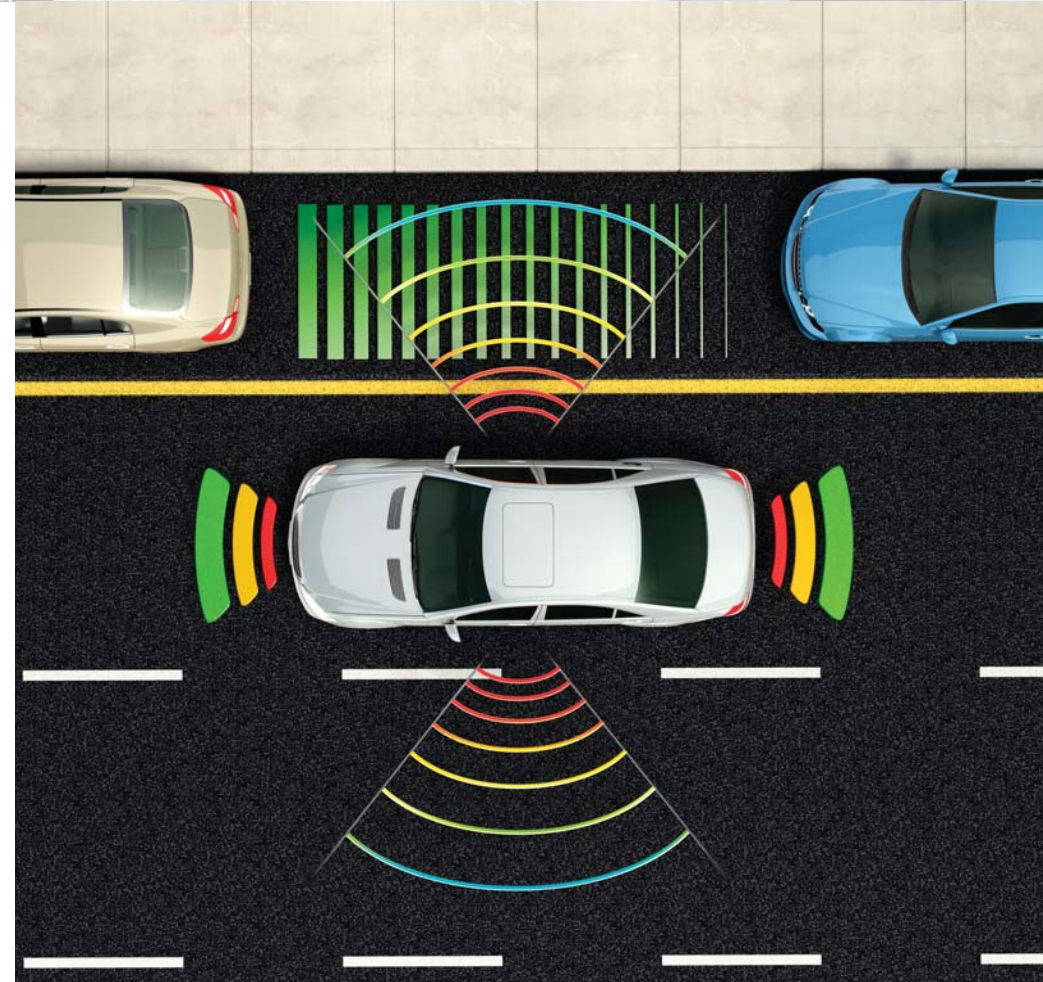
# WHERE DOES AUSTRALIA SIT?

- Australia is not prepared for self-driving vehicles
- Other countries are rapidly progressing towards bringing driverless vehicles to market
- Australia spends twice as much on transport than the average OECD country. Falling behind the world in adopting automated vehicle technology will keep Australia uncompetitive in terms of transport costs
- New business models will be required for car manufacturers and infrastructure providers to remain relevant and responsive to community needs
- Australian law and policy needs to adapt and keep up with the rapid changes in transportation and infrastructure



# WHAT ARE THE BENEFITS?

- Increased economic competitiveness and the attraction of new investment
- Road capacity could more than triple if cars are able to communicate with each other and safely negotiate their speed and distance
- Enormous savings to the cost structure of mobility:
  - less cars will be required (because of car sharing)
  - vehicles will be cheaper to make
  - vehicles will be cheaper/more fuel efficient
  - less traffic infrastructure will be required to operate vehicles, e.g. less roads, narrower road lanes, less signage and signals, and so on
- Immense community benefits. This is hugely important for a country that spends twice as much on transport as the average OECD country/\$ of GDP:
  - improved road safety leading to a significant reduction in the \$27 billion cost of road trauma per year
  - reduced road congestion leading to a substantial saving in the approx. \$20 billion it costs the economy each year
  - positive environmental impacts from less greenhouse gas emissions
  - increased freedom and mobility for the elderly and people with disabilities, etc.
- Travel can be faster and time previously used to commute will become productive and more meaningful



# WHERE DO THINGS STAND AT THE MOMENT?

Developments in the automated vehicle space are moving very rapidly across the globe. Australia needs to move quickly so as not to be left behind.

International automotive and technology companies have been piloting their technology overseas in real life traffic situations and in some cases logging large travel distances.

Current forecasts suggest that vehicle technology levels will increase exponentially over the next few years.

This means a movement from semi-automated to fully driverless technology occurring within a few short years.

Imagine 75% of all cars on our roads being fully automated within two decades. And while the existing vehicle fleet will take many years to phase out of operation, new enabling infrastructure, legislation, policy and processes will need to be implemented much sooner.



# HOW WILL IT HAPPEN?

As a cooperative of its members, ARRB will work with government, industry and academia to investigate and ultimately identify options and outcomes to help inform the development of robust national policy, legislation, regulation, facilities and operational processes to bring self-driving vehicles safely to Australian roads.

A staged program of activity is planned, which will deliver valuable outcomes within agreed timeframes. The major process is as follows:



# WHY ARRB?

- ARRB has a deep insight into the challenges and benefits that these new technologies will bring, has a good working knowledge of relevant agency issues, and has the necessary technical expertise internally to both lead and evaluate the required activities to enable the transition to driverless vehicles in Australia
- ARRB has mobilised a local and international network of the 'who's who' of relevant industry organisations and experts, and is able to take advantage of many long standing existing relationships
- ARRB is the 'national road and transport research institute of Australia' – ultimately owned and directed by federal, state and local government
- ARRB is experienced in developing and delivering effective outcomes drawing upon the benefits of multidisciplinary, multinational teams



# Express your interest in ADVI now:

ARRB is currently working to transition Australia to a driverless vehicle future.  
To join ARRB on this revolutionary journey, please write to:

The Managing Director  
ARRB Group Ltd  
500 Burwood Highway  
Vermont South VIC 3133

Email: [driverlesscars@arrb.com.au](mailto:driverlesscars@arrb.com.au)



MATERIALS, PAVEMENT & CONCRETE DESIGN & TESTING | TRANSPORT POLICY, OPERATIONS & ECONOMICS |  
INFRASTRUCTURE ASSET MANAGEMENT | EQUIPMENT MANUFACTURE & DATA COLLECTION SERVICES |  
SAFE SYSTEMS | ROAD SAFETY | TRAFFIC ENGINEERING | HEAVY VEHICLE TESTING & SIMULATION | PARKING |  
LAND TRANSPORT RESOURCES & INFORMATION | KNOWLEDGE TRANSFER & CAPACITY BUILDING |

## Victoria | Head Office

500 Burwood Highway, Vermont South  
VIC 3133, Australia.  
P: +61 3 9881 1555  
F: +61 3 9887 8104  
[info@arrb.com.au](mailto:info@arrb.com.au)

## New South Wales

2-14 Mountain St, Ultimo NSW 2007,  
Australia.  
P: +61 2 9282 4444  
F: +61 2 9280 4430  
[arrb.nsw@arrb.com.au](mailto:arrb.nsw@arrb.com.au)

## Queensland

123 Sandgate Road, Albion QLD 4010,  
Australia.  
P: +61 7 3260 3500  
F: +61 7 3862 4699  
[arrb.qld@arrb.com.au](mailto:arrb.qld@arrb.com.au)

## South Australia

Level 7, Suite 713,  
147 Pirie St Adelaide SA 5000,  
Australia.  
P: +61 8 8235 3300  
[arrb.sa@arrb.com.au](mailto:arrb.sa@arrb.com.au)

## Western Australia

191 Carr Place, Leederville WA 6007,  
Australia.  
P: +61 8 9227 3000  
F: +61 8 9227 3030  
[arrb.wa@arrb.com.au](mailto:arrb.wa@arrb.com.au)

## About ARRB

ARRB Group Ltd (formerly the Australian Road Research Board) is a not-for-profit organisation established in 1960 to facilitate the national road research task on behalf of its members.

## Acknowledgements

Front cover image on far right hand side courtesy of GM media China, [www.media.gm.com/media/cn/en/gm/photos.html](http://www.media.gm.com/media/cn/en/gm/photos.html)

Image on page 5 courtesy of GM media China, [www.media.gm.com/media/cn/en/gm/photos.html](http://www.media.gm.com/media/cn/en/gm/photos.html)



DRIVEN BY: