

WELCOME TO THE ADVI NEWSLETTER



CONNECTED VEHICLES WILL BE GAME-CHANGERS, SAYS WILSON PARKING

Wilson Parking has always been at the forefront of technology. Whether that is the full automation of car parks, the development of a national control room or launching the country's first and largest multi city, multi-site online booking platform, the organisation has continued to refine its operations and facilities for the benefit of customers and landlords.

Wilson Parking National Development Manager, Luke Field, describes the rapid evolution of autonomous and connected vehicle technologies as real game-changers that will critically influence the future focus of Australia's most experienced and largest car park operator.

"There can be little doubt that the arrival of connected vehicles will drastically change the way in which we engage with our customers, as well as how our facilities are utilised, operated and maximized," says Luke.

"Currently a driver chooses where to park their vehicle, and while they might use websites and apps to assist in their decision-making, in the future it may be the connected vehicle that makes these decisions based on a number of pre-set factors by the user," he says.

"A connected vehicle may take into account price or proximity to a location, and would see the vehicle communicating direct with the parking facilities to ensure that the customer's requirements can be met. The vehicle itself will act as the credential to access, exit and make automated payment at the car park – which means an end to tickets, access passes and queuing at pay machines."

"In order to achieve this communication and transactional interface, the parking industry must ensure that sites are equipped with the appropriate technology and information to allow the potential customer or vehicle to communicate to facilities, make an informed decision and, most importantly, enter into a transaction."

Luke predicts that there will be a number of other future changes which will fundamentally change transport option.

"We anticipate that the volume of car sharing, whether that is in an autonomous or self-drive vehicle, will continue to grow over time. This is likely to see a decline in car ownership and the way in which parking is utilised," Luke says.

"In future, the commuter may be able to opt for a driverless vehicle to travel to work rather than have to drive and park a private vehicle, with the autonomous vehicle then going to its next job, reducing the number of customers reliant on parking solutions," he says.

On the flip side, autonomous vehicles may allow for significant capacity increase to certain car parks, because they will be able to park much closer to each other without the need for drivers or passengers to open their doors. The requirement for two way ramps and aisles may also be removed, creating more parking space.

"Wilson Parking made the decision to be a core partner of ADVI to work with the various stakeholders and partners to ensure that we remain at the forefront of the industry. As a partner Wilson Parking is preparing to recognise connected and autonomous vehicles through technology integration and will also be able to assist in their rollout," Luke says.

WELCOME TO OUR NEW SUPPORTING PARTNERS

- Nova System
- Mitsubishi Motors
- Mott MacDonald



CITY TRANSPORT MUST INVOLVE WORKING SMARTER, NOT HARDER

Professor Eduardo Nebot from the Australian Centre for Field Robotics (University of Sydney) is the author of a number of scholarly articles that focus on autonomous vehicle technologies, with a particular interest in navigation, sensing, automation and safety.



Prof. Eduardo Nebot

The Argentinian-born researcher describes the mobility and transportation of people and goods as one of the fundamental pillars of the world economy, and says new technology will have a significant impact in transport, communication and energy efficiency.

“More specifically, it is clear that electric vehicles, ridesharing and driverless technology are commonly identified as three enabling technologies of future SMART cities,” Professor Nebot says.

“The Australian Centre for field Robotics is currently running a number of projects in these areas. We are currently working with IBEO retrofitting an urban vehicle with state of the art 360 degree perception and communication technology.



This vehicle will serve as a ground truth facility for our fundamental research work in situational awareness, safety, machine learning and driverless vehicles,” he says.

“We are also starting the implementation of the SMART City campus at the University of Sydney with the automation of a number of electrical vehicles provided by an Australian manufacturer.”

The research and development work in this area will include automation, interaction with vulnerable road users and the integration of Intelligent infrastructure. The fundamental idea is to create a SMART city concept in a semi-controlled environment and use this environment to

demonstrate and validate innovative mobility applications.

The project’s second stage will look at the adaptation and deployment of mobility in more complex fully open urban scenarios. The main goal is to validate a variety of autonomous ride-sharing mobility solutions to move people from massive transport hubs to different locations within the University. This solution will need to address a wide variety of people flow and destination areas. They will also look at user centric approaches to make the mobility solution more reactive to the individual needs.

TESLA CRASH IN THE US

Like many others, ADVI was saddened to learn of the recent road crash death of a fellow driverless vehicle advocate on a Florida highway.

Tragically, more than 1 million people are killed and up to 50 million more seriously injured in road crashes every year around the world. As part of ongoing efforts to tackle these tragic events, ADVI continues to advocate the safety benefits offered by driverless cars and highlight the opportunity to save lives and reduce trauma.

While acknowledging such a tragic loss of life, ARR’s Gerard Waldron says that there is much that car manufacturers, researchers and legislators can learn from this incident.

“Despite the speculation there is any number of reasons still to be considered by investigators. The critical point lost in subsequent media attention has been the fact that human error generally accounts for 90% of fatal crashes, and that’s why driverless vehicles still present a far safer option,” he says.

Gerard says educating the community and policymakers about the future safety benefits of autonomous vehicles is needed as a priority to avoid any knee-jerk reactions in response to any isolated road incidents involving driverless vehicles.

“We know that there are already issues around trust, overreliance and misuse of technology and also the much publicised interaction of driverless, highly automated and traditional vehicles sharing our roads, with vulnerable road users as well,” Gerard says.

“Some potential new risks that may undermine potential safety benefits include human factors in relation to driver skill, engagement and ability to take back control of vehicles.”

"Australia has a unique opportunity to deliver knowledge through research and trialling which will inform the introduction of autonomous technology globally, but reactionary legislation and policy making could severely disrupt progress."

SHOWCASING OPPORTUNITY AS PART OF THE 23RD ITS WORLD CONGRESS ON INTELLIGENT TRANSPORT SYSTEMS

As part of the upcoming ITS World Conference in October, ADVI partners have opportunity to access the largest privately owned independently operated automotive testing facility in Australia to showcase their wares.



The Australian Automotive Research Centre's (AARC) vehicle proving ground at Anglesea in Victoria has operated since 1964, and has seen an array of other vehicles and technologies put through their paces.

The ITS World Congress tour of the AARC will be conducted on Monday, October 10, providing an opportunity for organisations involved in the development of Intelligent Transport Systems, particularly Autonomous Vehicles, and their potential customers to experience a variety of technologies in a safe and controlled environment. A number of leading executives from the retail, banking, mining and manufacturing sectors are expected to be among those attending the approved ADR test facility.

AARC will provide transport to and from the event and a bush barbeque lunch will be provided. During the breaks, participants will be able to interact with Australian wildlife including joey kangaroos, echidnas, fresh water turtles, endangered owls and more. There is also the opportunity for a photo to be taken with a koala.

Any organisation keen on displaying or demonstrating any technologies or capacity or wanting to find out more can visit aarconline.com or contact Professor David McInnes (0418 511 342 or david@aarcevents.com) or ADVI. Visit the AARC website at: aarconline.com.

RDM GROUP REVEALS NEXT-GEN DRIVERLESS PODS



RDM Group, Pod Zero driverless vehicle

As part of the recent delegation to Europe, ADVI Technical Leader, Dr Charles Karl, met with RDM Group to find out more about the UK-based organisation's 'next generation' of driverless pods, now available in two, four and eight-seat variations.

David Keene, CEO of RDM Group said the 'Pod Zero' range was expected to be a popular transport option in cities, airports, shopping centres and even theme parks.

"Pod Zero represents the next generation of pod and features different drivetrain, steering systems and a new striking interior that is dominated by video screens that can play adverts, information videos or just become neutral to showcase the view from outside," Mr Keene said.

"All our pods will have a range of 60 miles (95km) and will be able to travel with a top speed of 15mph (24km/h). We have also ensured that they have been designed to accommodate disabled people and have wheelchair access."

RDM Group has designed, developed and integrated its own autonomous control system, and aims to manufacture up to 200 driverless pods annually.

Any ADVI partners considering a trial involving a 4-seat pod style vehicle are invited to contact ADVI, which can assist with information and contact details of RDM Group.

PARTNER COMMENT

In this issue we welcome Dr Jamie Mackenzie from The University of Adelaide Centre for Automotive Safety Research, who shares his insights from the recent Autonomous Vehicle Testing and Development Symposium 2016.



'I recently attended and presented at the 2016 Autonomous Vehicle Testing and Development Symposium in Stuttgart, Germany. It was a fantastic opportunity to network and absorb the latest developments in the technical aspects of autonomous vehicles.

Two things stood out to me. First, was the broad range of topics encompassed by autonomous vehicle research and development.



It would be impossible for one organisation to keep abreast of all the disparate areas of development, which highlights the necessity of groups like ADVI to bring together people with different expertise to work together and share knowledge.

It was also evident that there will be a certain level of interaction, or even competition, between many of the areas of research and development. This will need to be monitored to ensure that countries like Australia back successful technologies at the best time.

The second stand out from the symposium was the speed at which progress is being made. Europe is understandably ahead of Australia in many aspects of autonomous vehicle development and in public demonstrations. But even within Europe the pace of progress was surprisingly rapid. This is due to the increasing role that software is playing in the development of autonomous vehicles. Upgrading a vehicle feature no longer occurs from one model to the next over several years, but rather with a software update that takes only minutes to deploy.'

Thanks for your thoughts Jamie. We welcome any short

articles like this one from ADVI partners, so if you have something interesting to share then we want to hear from you!

NATIONAL TRANSPORT COMMISSION (NTC) EXTENDS DEADLINE

James Williams, Policy Manager NTC webinar presentation on 2nd June was to help participants prepare submissions on their discussion paper 'Regulatory options for automated vehicles'. The webinar was well received and comments have now been extended and are due to the NTC by 11 July 2016. [View the webinar here.](#)

ITS AUSTRALIA NATIONAL AWARDS 2016

ITS Australia in collaboration with ADVI are pleased to announce a new award category: Autonomous Vehicle Award (sponsored by ADVI).

This new award is to recognise excellence from an organisation that has initiated, developed and/or delivered over the previous year a new and innovative piece of research, product, program, service, legislation, business model or other innovation or achievement that has, or will, play a key role in accelerating the safe and successful introduction of driverless vehicles on Australian roads. The organisation should be based in Australia and/or have a branch office in Australia that has contributed to the innovation or achievement. The award will be sponsored by ADVI.

Nominations for the award closes Monday, 1 August 2016.

Visit [the ITS site](#) for more information or email your expression of interest to admin@its-australia.com.au and request the nomination form you wish to apply for.



ITS Australia
National Awards
2016

CALENDAR OF CONFERENCES AND PRESENTATIONS 2016

Below is a list of conferences and presentations that ADVI will either be attending or presenting at during 2016.

	ADVI INVOLVEMENT	LOCATION	DATE
JULY			
Automated Vehicles Symposium	ADVI delegation by Rita Excell	San Francisco, Los Angeles, California	19 - 27 July
Special session for ADVI Partners 'Impressions of Automated Vehicles in Europe and the US'	Hosting – Invited speaker Dr Charles Karl	Webinar - Online	21 July
AUGUST			
South Australian Certificate of Education (SACE) Research Project Student Expo 2016	Exhibition	Adelaide	9 - 10 August
PIA TAS Conference 2016	Invited speaker	Tasmania	11 August
Special session for ADVI Partners 'Experiences at the Automated Vehicles Symposium - San Francisco'	Hosting – Delegation speakers	Webinar - Online	11 August
LGAQ Future Cities Summit	Invited speaker	Brisbane	18 - 19 August
Roads Australia Forum	Attending	Brisbane	23 August
Engineering Technology Forum	Attending	Brisbane	23 - 25 August
Road Design Conference 2016	Invited speaker	Sydney	25 - 26 August
SEPTEMBER			
ADVI Capital City Forum	Host	Adelaide	5 September
Australian Road Safety Conference 2016	Invited speaker	Canberra	6 - 8 September
ITS World Congress update	Hosting – Invited speaker Susan Harris, ITS Australia	Webinar	15 September
OCTOBER			
ITS World Congress	Exhibition and FC session	Melbourne	10 - 14 October
ADVI VIP Function	Telstra hosting	Melbourne	12 October
ITS Awards Evening	ADVI Sponsor	Melbourne	14 October
PIA in NSW	Invited speaker	Newcastle	14 October
NOVEMBER			
National Public Sector Fleet Managers Conference 2016	Invited speaker	Melbourne	3-4 November
PACE Convention	Invited speaker	Perth	8 - 10 November
27 th ARRB Conference	Invited speakers	Melbourne	16 - 18 November
Australian Airport Association	Invited speaker	Canberra	21 - 25 November
ADVI Capital City Forums	Host	Brisbane, Perth, Melbourne, Sydney & Adelaide	November/December

WEBINARS

ADVI Partners: Thursday 21 July: Dr Charles Karl, 'Impressions from the United States and Europe'. A special webinar for partners where Dr Charles Karl provides an overview of his impressions gained during his recent trip to the US and Europe.

ADVI Partners: Thursday 11 August: ADVI Delegation San Francisco and Los Angeles, "Experiences at the Automated Vehicles Symposium - San Francisco". A special webinar for partners where members of the ADVI delegation will provide an overview

of their meetings and experiences with industry leaders at the Automated Vehicles Symposium.

Registrations for our upcoming webinars will open soon. Please keep checking our website to register for the following:

September 15, webinar by Susan Harris, CEO ITS-Australia to provide a World Congress update.

ADVI IN THE NEWS

[Click here](#) to see all the latest ADVI media and news items.

If you have any online articles that you want to share, or have presented on relevant topics, then please send information through to media@advi.org.au.