



Our autonomous future

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Everyday a new headline...



- self-driving taxis in four London boroughs by 2021
- approval by California DMV for fully driverless testing on public roads
- Honda technology to ‘see around corners’ at intersections

Paving the way for CAVs in Australia...

Regulatory reform process currently underway to allow legal & safe operation

- conditionally automated vehicles BEFORE 2020
- fully automated vehicles FROM 2020



Paving the way for CAVs in Australia...



In the last 18 months, Roads Australia has led joint industry - government study visits to Europe/North America and Japan/Korea/Singapore



Successful adoption of CAVs requires...



- strong national leadership
- national and international consistency in laws and regulations

Successful adoption of CAVs requires...

- fully understanding and preparing for the broad societal and economic impacts of change, and
- leveraging the true value of our public road assets



What are our expectations?



- ‘Will I still own a car?’
- ‘Am I liable if something goes wrong?’

What's at stake?



In the past:

The road...

owned by the state

The horse...

owned by the individual

The journey...

free

What's at stake?



In the future:

The road...

owned by the state

The horse...

owned by conglomerates

The journey...

charged

What's at stake?



The commercial value of road usage in Sydney

16 million journeys a day X
10 dollars for each journey =
\$1 billion-plus a week

What's the end game look like?



- . I won't own a car
- . Instead, I'll call up a vehicle from a privately-owned fleet
- . It's 'public transport', but not as we know it

Why own a car?



- . The average cost of owning a car in Australia is \$17,000 a year
- . The cost of using a driverless fleet vehicle may be 10% of that
- . So, why would you own a car?

But, isn't this innovation?



NO. It's simply transferring value from a benign provider to a commercial one.

Dad, whatever happened to the postman?



The old communications monopolies have paid the price for missed opportunities

There shouldn't be any such thing as a free ride



Our road infrastructure is a multi-billion dollar public asset... so why give it away?

If our roads become commercial resources in the future, we must not grant access under a pricing structure that ignores the commercial value of the infrastructure

Road-user charging: time we moved the debate on



- To date, RUC models have been predicated on charging the vehicle owner/driver
- The debate needs to anticipate fleet vehicle ownership
- Why not charge individuals for the journey, regardless of who owns the vehicle?

Data is the 'new currency'



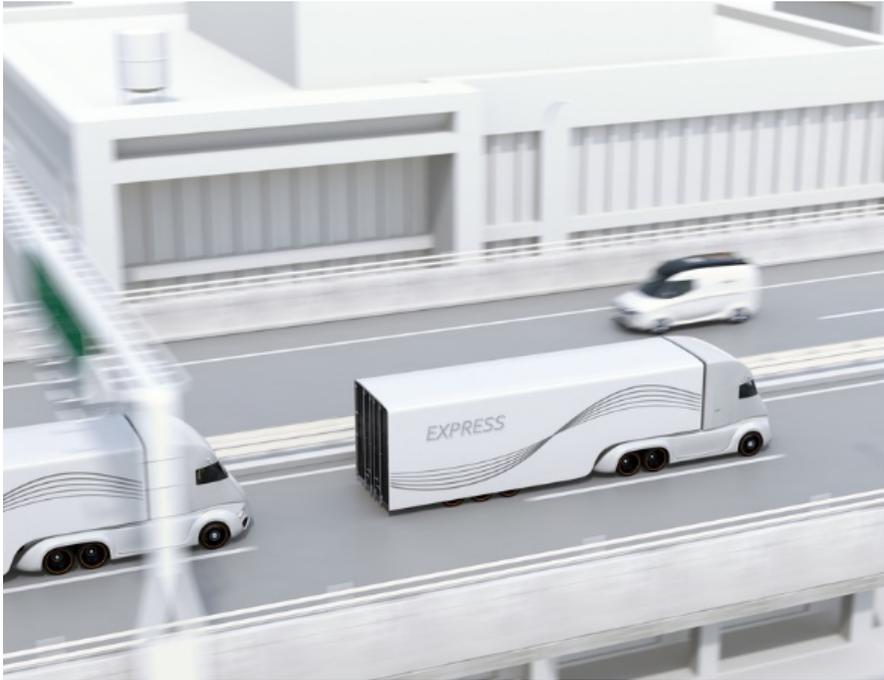
- Despite government assurances, the horse has bolted on privacy
- Our personal data is an invaluable commercial commodity

The business of mobility



- Governments and industry are yet to get their heads around this new paradigm
- The new players are putting up smokescreens

The freight revolution



- Door-to-door autonomous freight: it's coming faster than you think
- A massive industry shake-up may be on the way

The freight revolution



- eRoadArlanda in Sweden, based on transference of power to the vehicle via an electrified slot rail in the road
- Siemens-Scania catenary system

Are we anticipating the future?



- We're still opening roads today with 30-year concessions
- What review provisions are built into the concession deeds?

Who will the construction industry be working for?



- Governments will **own** the networks to ensure:
 - *equitable access*
 - *safety*
 - *fair return for taxpayer*
- New players will **manage** urban roads and assume the role of 'client'

How soon?



- All new cars will be Level 4 (fully autonomous in controlled areas) within five years

Don't blink or you'll miss it



Fifth Ave, NY –
circa **1901**

Don't blink or you'll miss it



Fifth Ave, NY –
circa 1913

Is our Kodak moment nigh?

