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?