Implementation Initiatives

Connected & Automated Vehicles

Australia and New Zealand

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Future Vehicles & Technology

Who is Austroads?

- Peak organisation of Australasian road transport and traffic agencies.

- 900,000 kilometres of roads valued at more than $250 billion

- The single largest community asset in Australia and New Zealand.

What does Austroads do?

- We undertake leading-edge road and transport research which underpins our input to policy development and published guidance on the design, construction and management of the road network and its associated infrastructure.

- Austroads provides a collective approach that delivers value for money, encourages shared knowledge and drives consistency for road users.

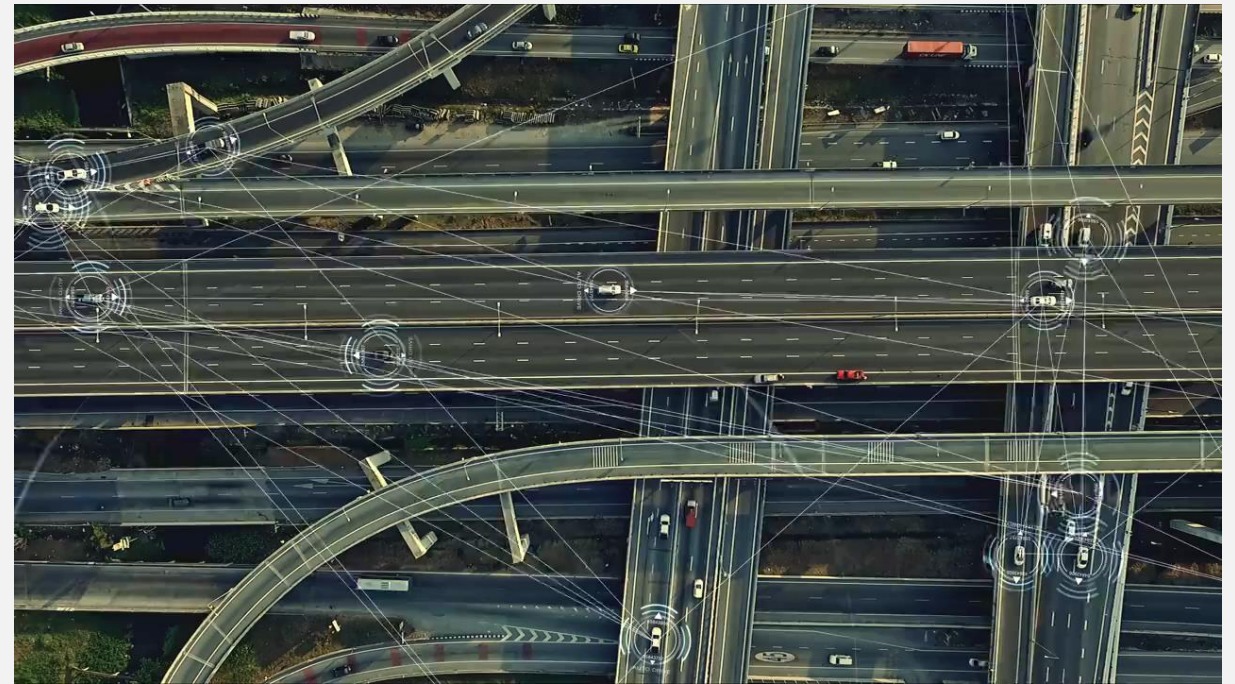# Future Vehicles & Technology Program

Themes

- Connected & Automated Vehicles

- Physical & Digital Infrastructure

- Low & Zero Emission Vehicles
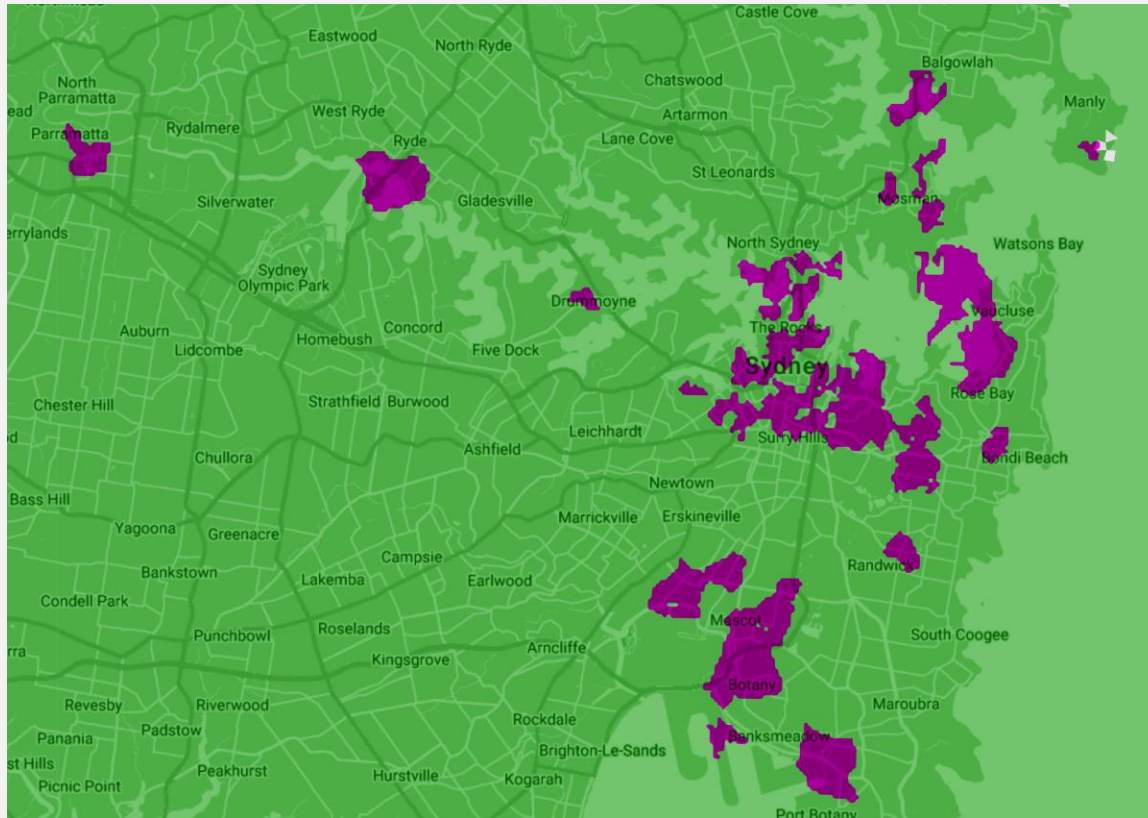
- Member Capability
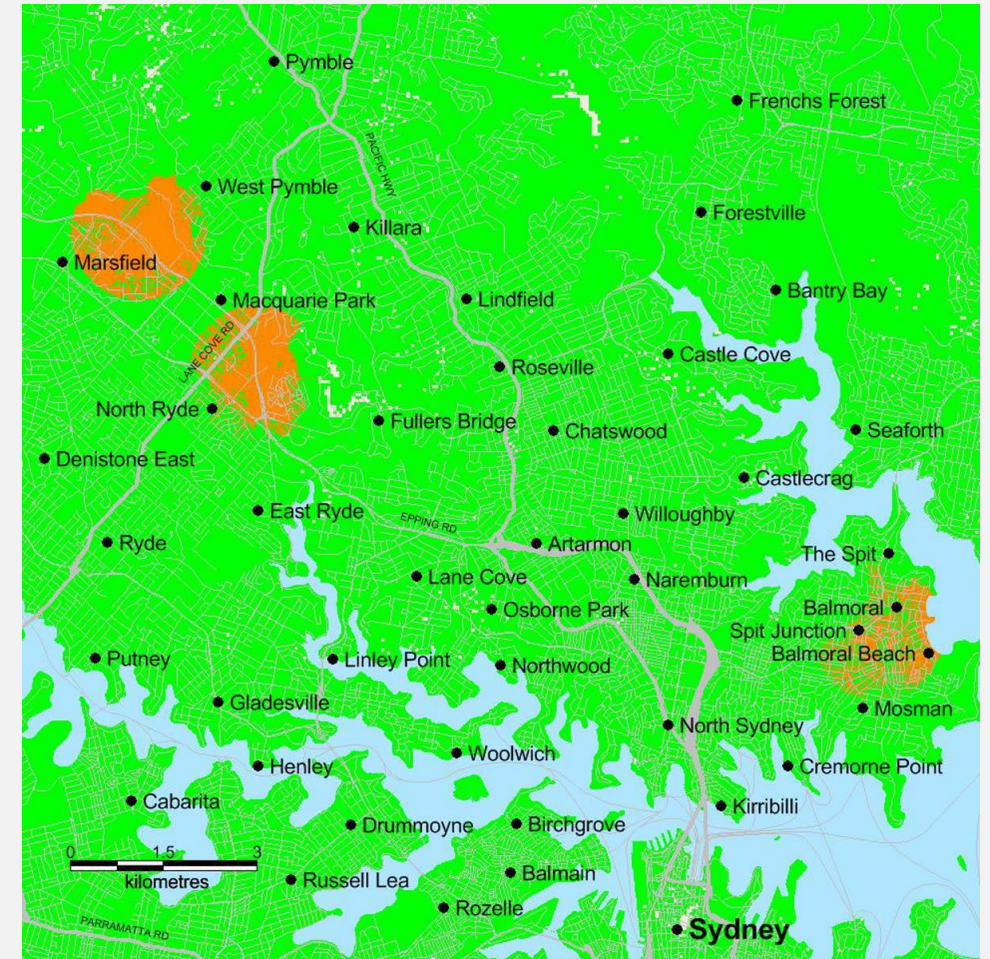
Connectivity

- 5.9GHz allocated for C-ITS
  - ITS G5 specified
- Pilot projects
  - CITI
    - Established 2013
    - Initially focused on heavy vehicles
    - Light vehicle component
    - 10 Billion records collected
  - CAVI
    - Plan for 500 vehicles
    - Security Credential Management System
    - Installs begin 2020
    - Includes Lev 4 AV
  - 5G rollout started
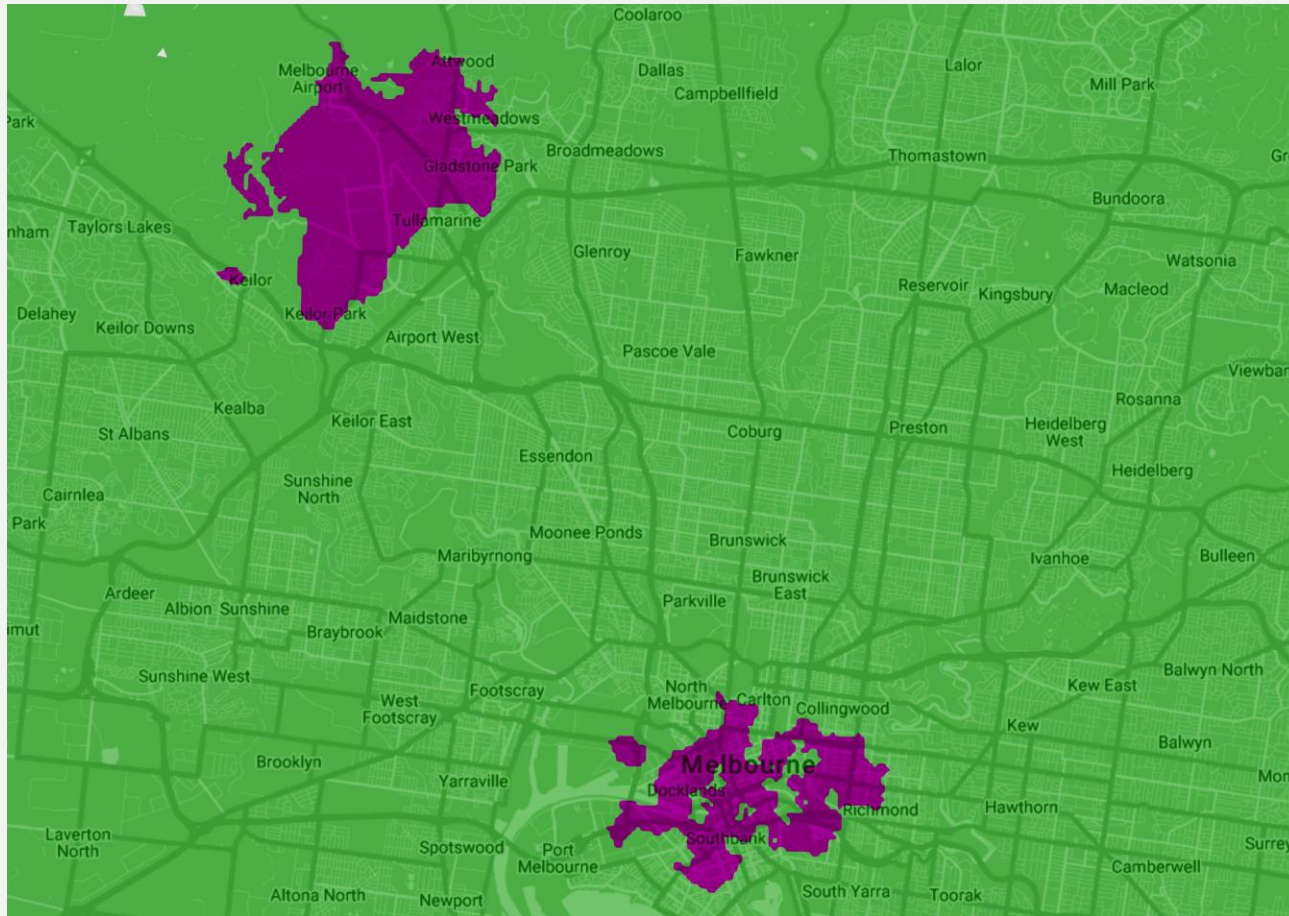
Connectivity – 5G coverage Sydney
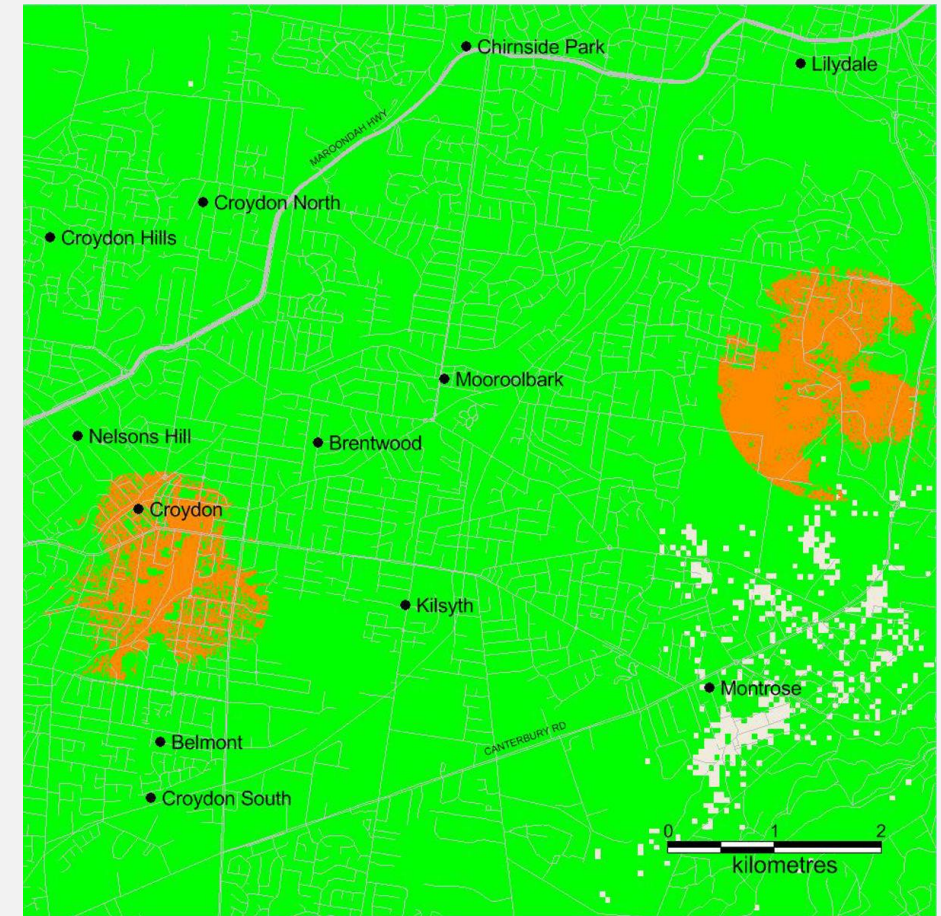

Telstra – Sydney CBD

Optus – Sydney (North)

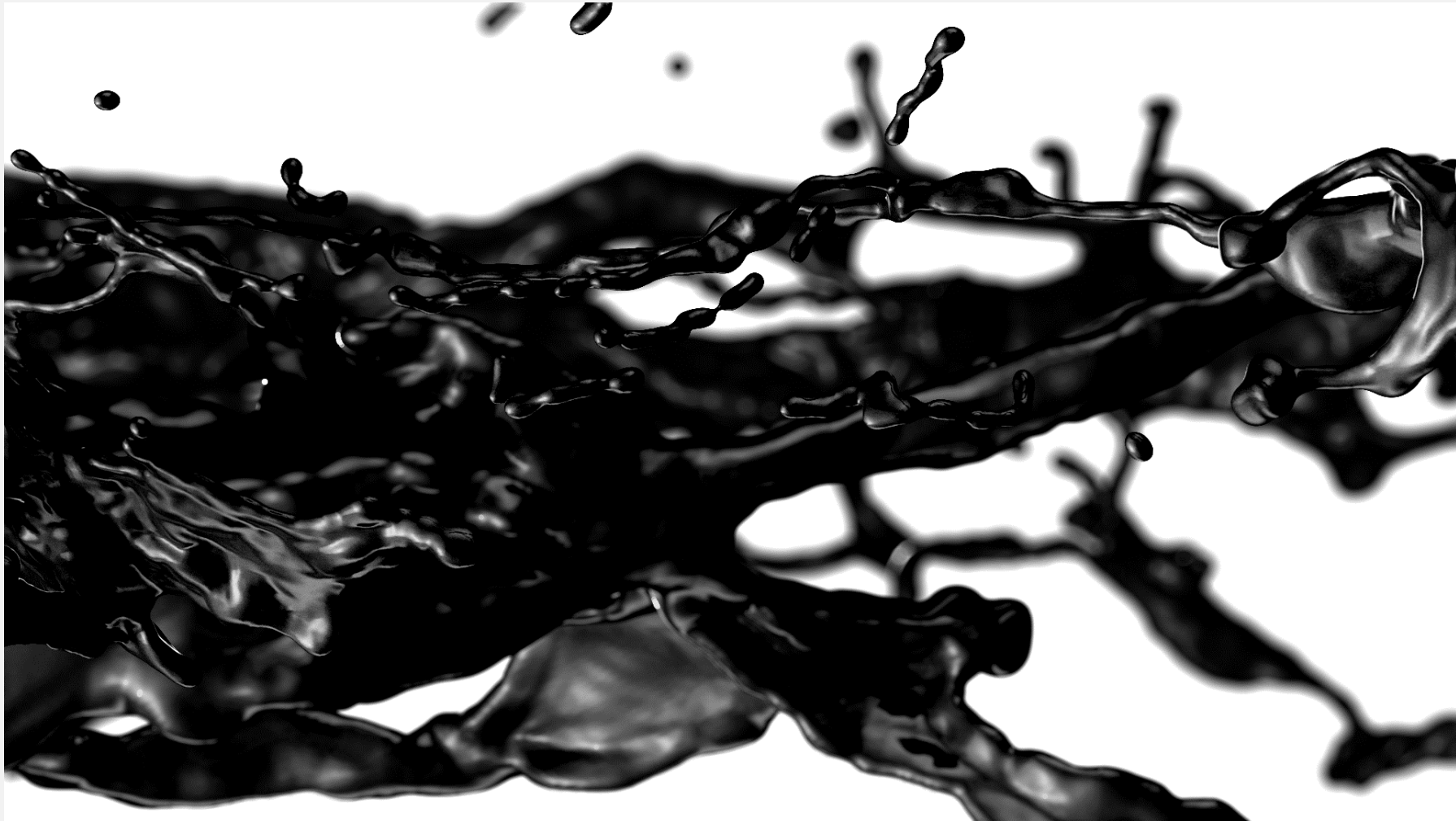# Connectivity – 5G coverage Melbourne

Telstra – Melbourne

Optus – Melbourne

Big Data

- Open data platforms
  - Avail - 8 out 9 Australian jurisdictions
  - Avail - New Zealand
- Data format
  - Human readable format
  - Increasing machine readable data sets
- Agency capability
  - Limited staff analytics capacity
  - Need for data scientists
  - Competition with private sector

Big Data

Big Data

Cybersecurity

- The **Australian Cyber Security Centre** (ACSC)

  - Established in 2014

  - Minimal information on transport applications

- Austroads reports

  - C-ITS Compliance Assessment Framework for Australia and New Zealand

  - Evaluation of the European C-ITS Platform including Threat, Vulnerability and Risk Analysis

- Security Credential Management System

  - CAVI project

  - Currently Queensland only participant

Impacts – Road Safety

- Fleet turnover limited (av age 11 years)

- Initial impact through ADAS

  - Autonomous Emergency Braking

  - Lane Keep Assist

- C-ITS

  - No large scale commercial deployments

  - Pilot deployments

    - CITI
      - 10 Billion records
      - Analysis underway
    - CAVI
      - 500 vehicle pilot
      - Installs from 2020

- Level 3 not expected to 2021 (limited)

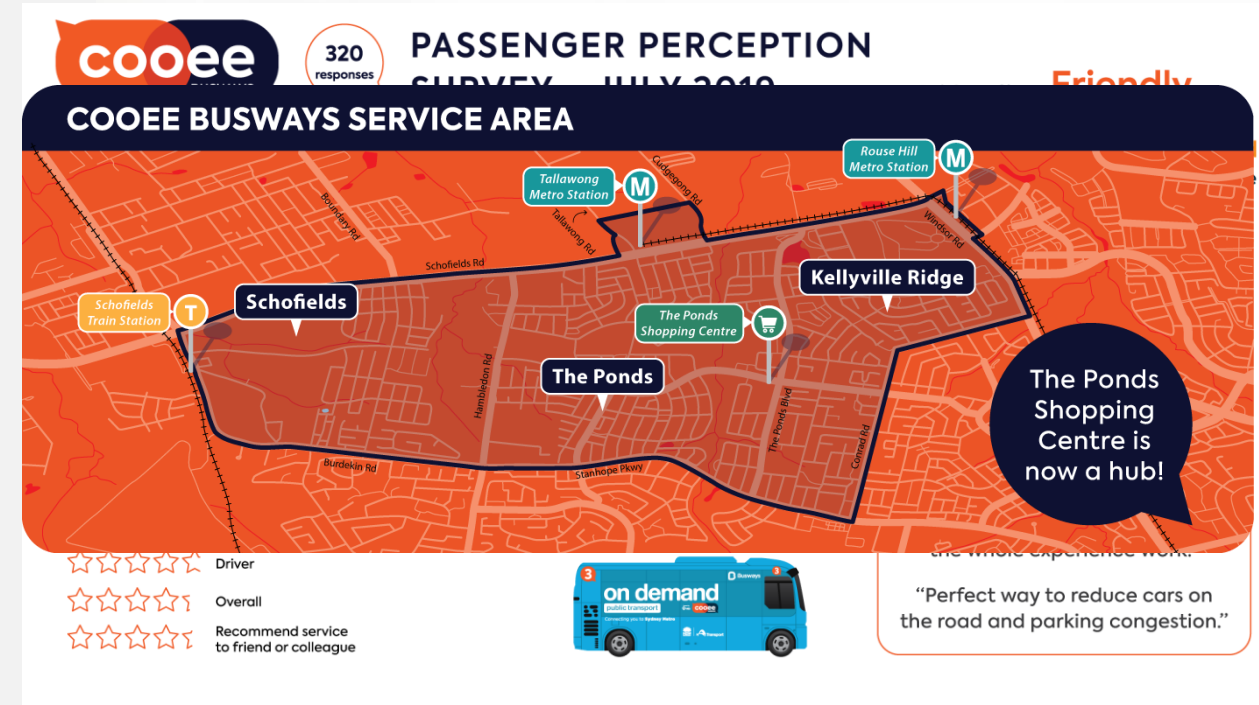 - High end luxury vehicle only

Impacts – Mobility

- Automated vehicles
    - Sydney Metro – 1st driverless passenger rail
    - No commercial road transport deployments
    - Shuttle bus trials

- Connected vehicles
    - Incident reporting systems & apps
    - Travel apps
    - Mobility as a Service Pilots

Impacts - Mobility

- Cooee – on-demand public transport
  - Western Sydney
  - Connects residents with Hubs
    - Train Stations
    - Shopping Centre
  - Weekdays only until 9:00 pm
  - Fares $1.12 - $4.80
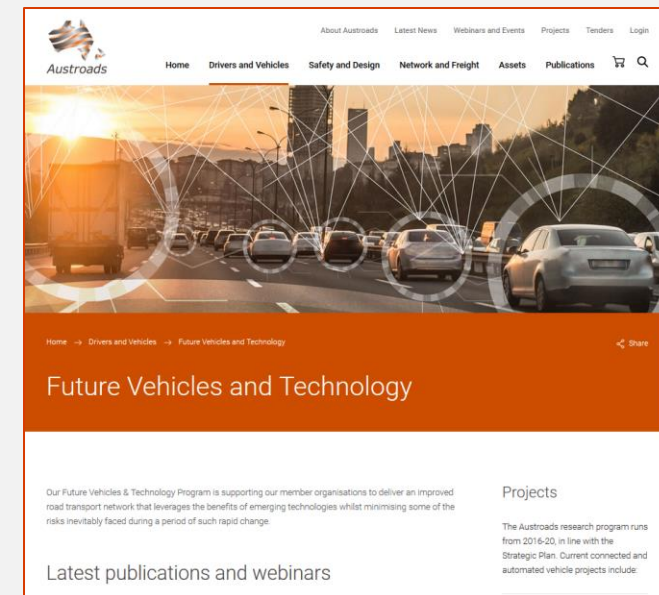 - Smartphone required

Thank you

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Connected & Automated Vehicles

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