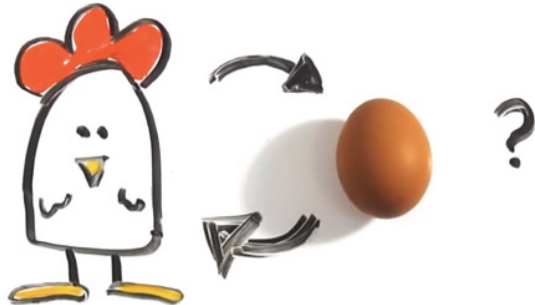FREIGHT SIGNAL PRIORITY

Freight Signal Priority

Connected Roadway Dilemma

Chicken or Egg
- Connected and Autonomous Vehicles (CAV) offer huge benefits – to the City and the Driver
- But to realize these benefits the CAV Infrastructure needs to be in place and CAVs on the road
- And if the infrastructure is not in place why will the early adopters buy a CAV?

Solution

Key to this dilemma is to find a foundation V2X application with immediate net benefit > Freight Signal Priority (FSP) is such an app
- FSP gives freight vehicles priority at signals
- Equip freight corridors with V2I infrastructure
- Equip freight vehicles with aftermarket OBUs
- Immediate benefits (USDOT)
  - Improve travel times by 20%
  - Reduce stops (saves fuel)
  - Light vehicles on the corridor benefit too (as much as 26% improvement)

Also supports Transit Signal Priority (TSP) and Emergency Vehicle Preemption (EVP)

Early stage deployment of V2I infrastructure with immediate net benefit

Freight Signal Priority

Cohda's Smart City Architecture selected by the NSW Premier's Innovative Initiative on Congestion

TfNSW Trial

- TfNSW is proceeding with a 3 month trial of the foundation FSP application
  - 120 sets of traffic signals along 3 freight corridors in Sydney
    - Parramatta Rd / King Georges Rd / Pennant Hills Rd
  - 115 heavy freight vehicles
  - Integration with SCATS
  - Measure benefits and disbenefits

Aftermarket FSP
- Immediate reduction in cost of congestion
- Cost of V2I infrastructure is covered
- Only FSP applications deployed

V2X Connected Vehicles
- V2I hardware already in place
- Expand V2I applications
- V2X early adopters see immediate benefit
- Further reduce cost of congestion
- Cost of V2I infrastructure expansion is covered

Autonomous Vehicles
- Infrastructure already in place
- Expand V2I applications further
- Realise full potential of congestion reduction