

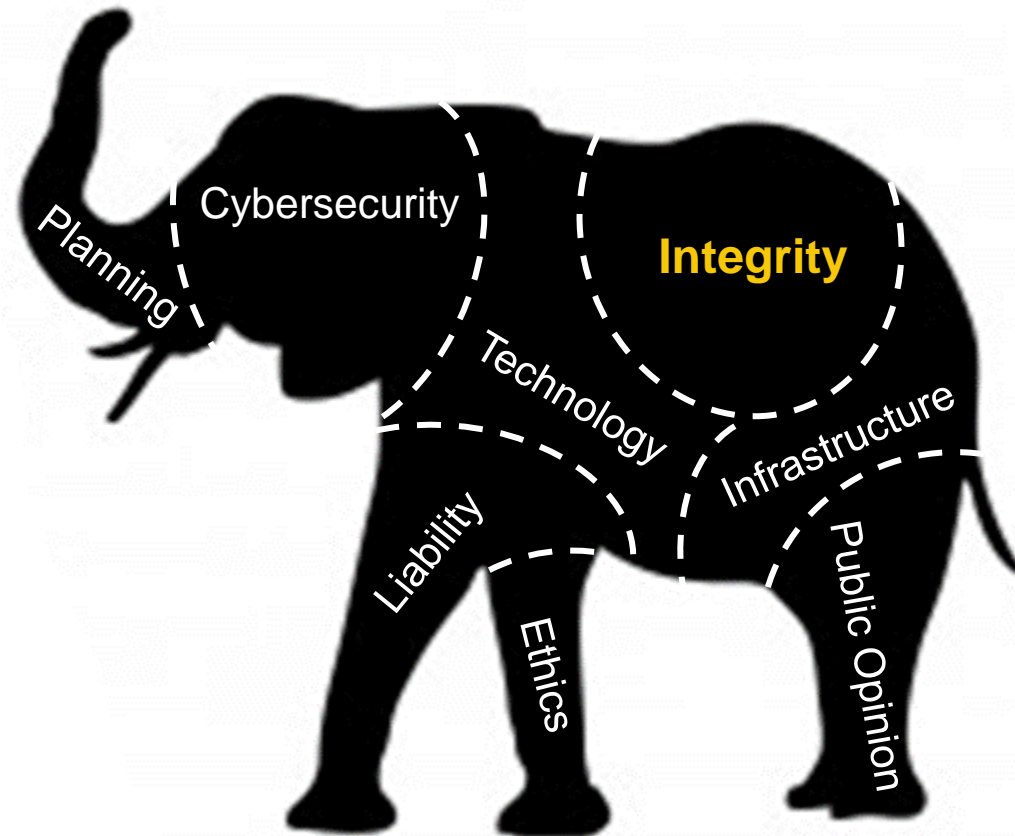
# Autonomous Vehicle Certification: Eating the Elephant

JESSICA TUCKER

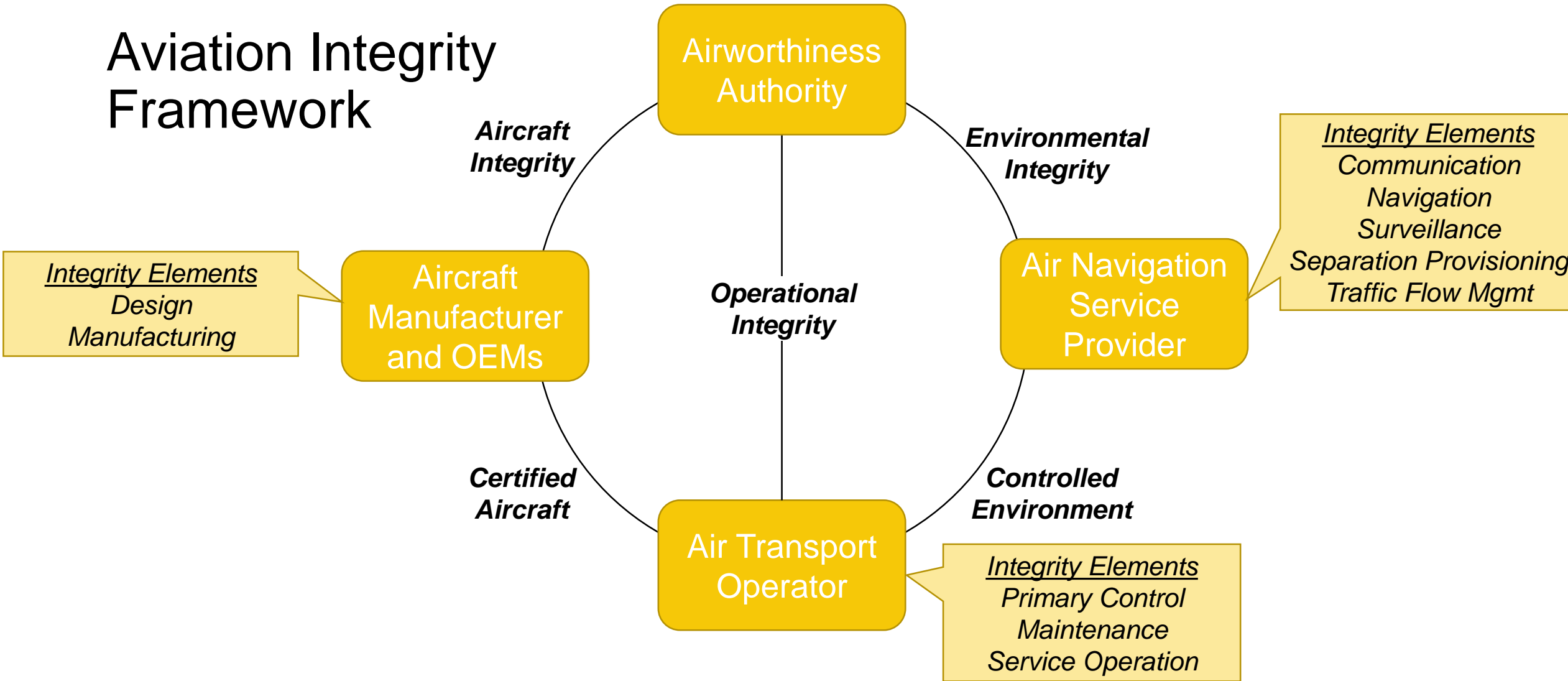
BECA APPLIED TECHNOLOGIES

# Overview and Introduction

- A framework for safety and integrity modelled on aviation
- Translation for safety and integrity in autonomous vehicles

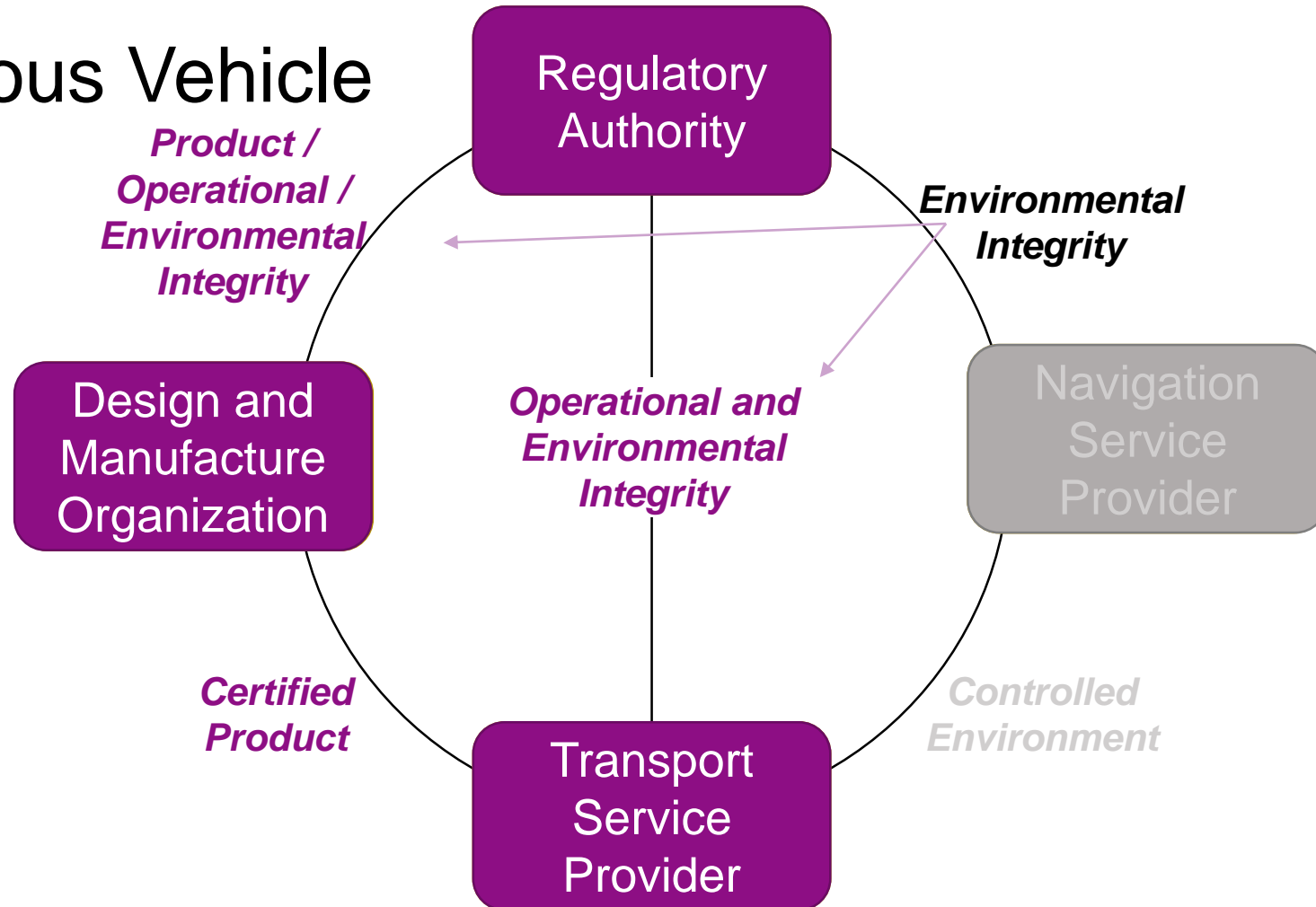


# Aviation Integrity Framework

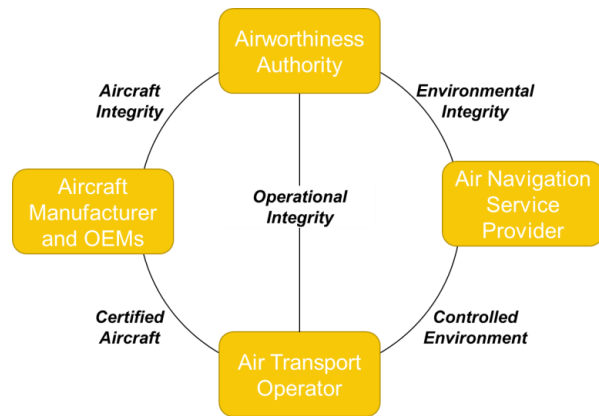


OEM: Original Equipment Manufacturer  
Mgmt: Management

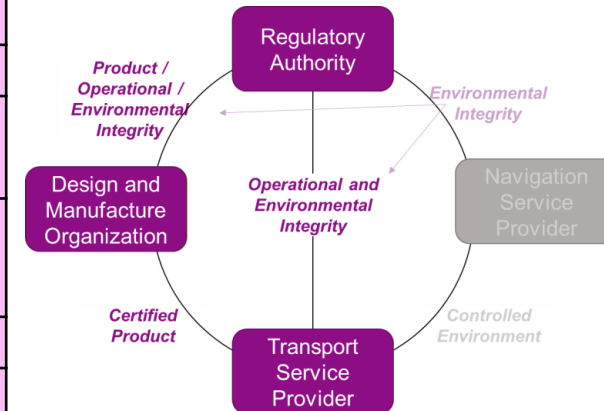
# Autonomous Vehicle Integrity



# Translation of Frameworks



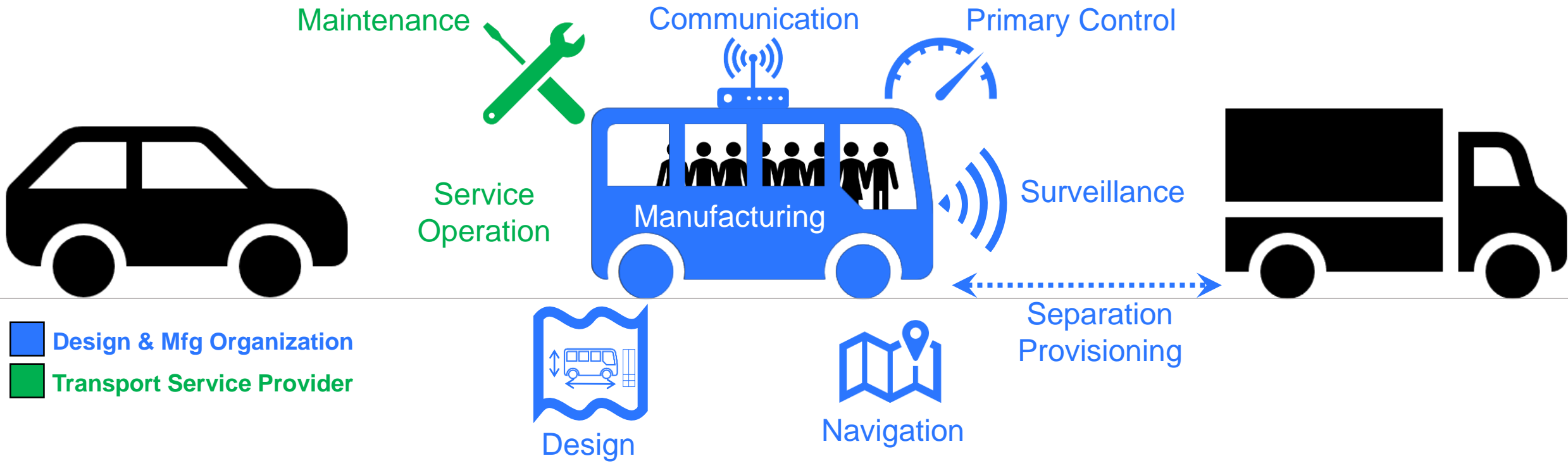
Aviation	Element of Integrity	Autonomous Vehicle
Manufacturer	Design	Design/Mfg Org.
Manufacturer	Manufacturing	Design/Mfg Org.
Operator	Primary Control	Design/Mfg Org.
Operator	Service Operation	Transport Service Provider
Operator	Maintenance	Transport Service Provider
ANSP	Communication	Design/Mfg Org.
ANSP	Navigation	Design/Mfg Org.
ANSP	Surveillance	Design/Mfg Org.
ANSP	Separation Provisioning	Design/Mfg Org.
ANSP	Traffic Flow Management	Domain/architecture dependent



OEM: Original Equipment Manufacturer  
Mfg: Manufacturing  
Org: Organization  
ANSP: Air Navigation Service Provider

# Applying The Model: An Autonomous Bus

## Traffic Flow Management



# Conclusions and Recommendations

- Presented a regulatory framework for aviation drawn from lessons hard-learned
- Translated and mapped this framework to a general model applicable to autonomous vehicles
- Enables accelerated and safe deployment of autonomous vehicles in New Zealand

