

Smart Road Connect: Cellular Vehicle-to-Everything (C-V2X) / Connected Autonomous Vehicles(CAV) End-to-End System

ASTRI's Smart Road Connect is a comprehensive V2X solution offering in-vehicle systems, roadside edge computing, a cloud platform, and AI-powered traffic models. Proven in commercial deployments in Hong Kong, and factory-installed on double-decker buses, it adapts to minibuses, autonomous vehicles, and engineering fleets. It enhances real-time traffic management through fused perception, traffic event recognition, and low-latency communication.

Industry Challenges

- Incompatible multi-brand AV systems delay responses
- Single-AV limited vision leads to inadequate risk identification
- Traditional traffic operations lack intelligence, reducing efficiency

Major Benefits

- Seamless interconnection of multi-brand autonomous vehicles
- Real-time policy negotiation optimises AV operation across 25+ V2X/CAV use cases
- Multi-vehicle collaborative risk-avoidance boosts safety
- Data-driven traffic management enhances efficiency and safety, reducing transit time by over 20% in key areas (e.g., roundabouts, unlit intersections)

Application Areas

- V2X In-vehicle system
- Roadside operation system (sensor fusion, event management, I2V communication)
- Pretrained large traffic model
- Smart mobility simulation platform
- AI-enabled, smart mobility management platform

Collaborator(s)

Telecommunications provider, infrastructure, public transportation

Award(s)

International Exhibition of Inventions Geneva,
Hong Kong ICT Awards,
Asia Exhibition of Innovations and Inventions Hong Kong



"Smart Road Connect" is a comprehensive 5G C-V2X solution designed for safer and more efficient traffic ecosystem

