

Principles for a National Approach to Co-operative Intelligent Transport Systems (C-ITS) in Australia

Co-operative Intelligent Transport Systems (C-ITS) are interconnected systems of technologies that allow road vehicles to communicate with other vehicles, their drivers, road infrastructure and data services, and with vulnerable road users such as pedestrians and cyclists. C-ITS has the potential to deliver improved outcomes in road safety, road productivity, traffic congestion, transport equity, liveability of communities, journey times, and environmental sustainability, by enabling improved decision-making based on shared information. In the future, the benefits of C-ITS also have the potential to increase with high levels of automation in vehicles, automating the vehicle's responses to information coming from other vehicles, infrastructure and road users.

The following principles for a national approach to C-ITS in Australia have been endorsed by infrastructure and transport ministers, and are intended to enable governments and industry¹ to move forward with no-regrets investment and planning.

1. **Australian governments will work together**, and with industry, towards a **nationally consistent C-ITS environment**, including standards and a base set of use cases, with the aim of supporting a **seamless experience for road users and confidence for industry to invest**.
2. **Cooperation is key** and this work should be agreed by governments in consultation with industry, and include participation by community and researchers. Governments and industry have a **shared role in engaging the broader community** to ensure C-ITS addresses their needs and fosters consumer value and trust.
3. **Maximising the benefits of C-ITS** requires an environment where:
 - a. all C-ITS enabled vehicles can communicate relevant information with each other, as well as with C-ITS enabled equipment² and infrastructure, irrespective of make/model;
 - b. information is able to be securely transmitted to all C-ITS enabled vehicles, equipment and infrastructure from trusted sources;
 - c. information can be transmitted and received, and communicated to drivers, in a way that is safe, timely, accurate, reliable, non-distracting, and meets the needs of the relevant use case(s); and
 - d. all road network agencies can collect and share data necessary to support agreed C-ITS use cases across Australian jurisdictions
4. Australia should look to **harmonise with international approaches**, including in relation to spectrum for C-ITS use, while taking into account already deployed use cases and **ensuring flexibility for future technology transitions and upgrades**; there are benefits in **looking to align with European approaches to C-ITS where possible**, taking into account emerging consensus and directions of vehicle manufacturers.
5. The **focus for C-ITS planning, uptake and investment** in Australia should be on:
 - a. its capability to **improve road safety, transport efficiency and productivity, environmental and financial sustainability, emissions reduction and equity outcomes**;
 - b. where practicable, **leveraging and integrating with existing physical and digital infrastructure, and existing vehicle systems and consumer devices**, and
 - c. **supporting the development of new transport technologies** including vehicles with higher levels of automation.
6. Given the cybersecurity and privacy issues in sharing road and vehicle data, Australia must ensure it has effective and timely solutions to managing the **security of systems and messaging** and **privacy of data** in C-ITS, to ensure a trusted transport environment.

¹ Industry includes automotive, technology, and information service companies

² C-ITS enabled equipment includes devices used by pedestrians, cyclists, motorcyclists and other road users where this is available