



TELSTRA CORPORATION LIMITED

Submission to:

**Department of Infrastructure, Transport, Regional Development,
Communications and the Arts consultation on**

Principles for a National Approach to Cooperative Intelligent Transport Systems

Public Submission

1 February, 2022



01 Introduction

Telstra would like to thank the Department of Infrastructure, Transport, Regional Development, Communications and Arts (DITRDCA) for constructing the Draft Principles and its continued engagement with state jurisdictions and industry on this topic. The principles as they stand represent an important development and will promote further cooperation and investment in C-ITS, and we welcome the opportunity to provide this confidential submission to this important consultation.

Our submission is structured as follows:

- In Section 02, we present our view that principles are necessary to ensure a single, cohesive C-ITS ecosystem in Australia. We consider that overall, the Draft Principles developed by the DITRDCA are suitable for this purpose, although some minor amendments are required to Principle 4. We also consider government leadership is required to ensure the principles are implemented to achieve the DITRDCA's objectives.
- In Section 03, we outline Telstra's various V2X / C-ITS developments and activities, including where we are already working with some state governments.
- Finally, in Section 04 we go into greater detail about the topology and capabilities of our solution.

We would welcome the opportunity to further discuss our submission at a time that is convenient for DITRDCA.

02 Proposed principles

The consultation seeks views on whether the draft six principles¹ "*... for a national approach to C-ITS in Australia are necessary*", and if so, "*... are the draft principles, as articulated, sufficient to inform investment by industry in C-ITS?*" Overall, we consider the principles are fit-for-purpose and will guide industry investment, although we have some concern with anchoring Principle 4, which we address in section 2.2 below.

2.1. Government leadership is also required

Telstra considers that in addition to the development of principles, Government leadership is also required for C-ITS to succeed in Australia. One of the central pieces in regulation and policy development will be the exchange of vehicle-generated and road infrastructure data (V2X), particularly between jurisdictions, road operators and industry to enable key safety use cases. Such exchange needs to be consistent across states and territories as well as consistent with leading international standards and industry associations (5GAA, ETSI protocols, etc). Alignment of communication to the global standards is critical, particularly with the recent move away² from Dedicated Short Range Communication (DSRC) throughout the world in favour of modern mobile-based (i.e., 4G/5G) alternatives. Leveraging existing mobile networks provides instantaneous coverage for connected

¹ <https://www.infrastructure.gov.au/sites/default/files/documents/hys-nacits-draft-principles-for-national-approach-to-c-its.pdf>

² For example, in the US, the FCC has reallocated 45 MHz of the 75 MHz earmarked for DSRC to Wi-Fi, with the remaining 30 MHz already allocated to C-ITS. See FierceWireless coverage dated 15 Aug 2022 on the topic at <https://www.fiercewireless.com/tech/court-upholds-fccs-decision-59-ghz>



vehicles, without the need to deploy bespoke roadside infrastructure to gather data from the vehicles. Further detail can be found in section **Error! Reference source not found.** below.

Security, privacy and anonymity (Principle 6) are a must in the interests of public safety, hence the C-ITS / V2X data exchange needs to be in accordance with privacy laws, guidelines and best practices. Furthermore, we need to ensure that the platform(s) / solutions are open-standards, extensible (API-based), modular, interoperable, scalable and future-proof (Principle 2). These are key areas where Government guidance, aligned to the Principles, is required to ensure a cohesive and effective Connected and Autonomous Vehicle (CAV) ecosystem.

Given that C-ITS / V2X connectivity will pave the way for autonomous driving, the communication options need to be reliable, low-latency with sufficient bandwidth. Also, the Australian geography and population need to be considered for accessibility by all / most road users. Hence, the need for sufficient coverage in urban and rural areas as well as the breadth of V2X ecosystem (vehicle to infrastructure / vehicles / cyclists / pedestrians).

In the interests of reducing timeframe and costs of deployment, existing infrastructure should be utilised as much as possible, leveraging existing assets and current developments. While the approach of deploying new Road Side Unit (RSU) infrastructure may be suitable for densely populated areas (particularly in Europe), it is quite expensive for broad deployment throughout Australia due to low population density and geography.

2.2. Concerns with anchoring Principle 4 to European approach

We have some concern with the wording of Draft Principle 4, which is to “harmonise with international approaches”. Our concern lies with pre-emptively proposing the harmonisation should be to “*European approaches*”. The DITRDCA proposes harmonisation with European approaches because “... *Australia currently bases vehicle safety regulations upon the United Nations Economic Commission for Europe (UNECE) World Forum.*” Clearly, safety regulation is an essential aspect of vehicle operation and regulation, however, it’s only one factor that needs to be considered for the development and implementation of C-ITS.

To illustrate our point, we observe in section 3 of the WSP report³ provided with the consultation, that Finding 13⁴ states: “*Dedicated Short-range Communications (DSRC) is currently the most mature technology for short-range communication deployment, has been used in all Australian pilots, and is prioritised for the European uptake of safety-related use cases.*” Contrary to this finding, we note that the Council of the European Union has been advocating for technology neutrality for C-ITS.⁵

³ WSP Report – Advice on Strategies to support C-ITS in Australia, March 2022. Available at <https://www.infrastructure.gov.au/department/media/publications/wsp-report-advice-strategies-support-c-its-australia>

⁴ Ibid, p.42.

⁵ See 5GAA article welcoming the Council of the European Union’s objection against the proposal for Delegated Regulation on C-ITS at <https://5gaa.org/5gaa-welcomes-council-objection-against-c-its-delegated-act/> Further detail on the Council of the European Union’s objection can be found in Report A9-0265/2022, available at https://www.europarl.europa.eu/doceo/document/A-9-2022-0265_EN.html. The Explanatory Statement at the end of the report comments on Technology Neutrality, where it states: “*This is a safety related application that will save lives: to this extent technology neutrality, coexistence, interoperability and compatibility are the leading principles*” and “*Technology neutrality - specifications should describe the result to be achieved, but neither impose nor discriminate in favour of the use of a particular type of technology to achieve the result.*”



To this end, we recommend Draft Principle 4 is reworded to simply retain the first sentence (i.e., remove the second sentence altogether), and we suggest some care is taken in following the recommendations of the WSP report, as DSRC may not end up being the dominant technology for C-ITS.

03 Telstra's V2X / C-ITS developments

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04 Telstra's solution – topology and capabilities

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