

Transmax C-ITS capabilities

Transmax is proud to be working with the Queensland Department of Transport and Main Roads (TMR) as it progresses the **Ipswich Connected Vehicle Pilot project** by lending its specialised cloud-based software development expertise to the project. The Pilot is being delivered by TMR to help prepare the public and the department for the arrival of new vehicle technologies with safety, mobility and environmental benefits on Queensland roads.

Queensland Government-owned Transmax has been a part of this exciting project to pilot Cooperative Intelligent Transport Systems (C-ITS). C-ITS allows vehicles to communicate with other vehicles, traffic signals and roadside infrastructure to share real-time safety-related warnings, but the driver is always in control. The Pilot is the largest on-road connected vehicle and infrastructure testing in Australia and is currently in the development phase.

The TMR pilot will involve up to 500 vehicles retrofitted with C-ITS technologies, employing vehicle-to-infrastructure communication paradigms. Six safety cases will be tested as part of the pilot:

<p>ARLW</p> <p>Red light warning</p>  <p>This warning alerts drivers there is a risk of driving through a red light ahead.</p>	<p>TWVR</p> <p>Turning warning for cyclists & pedestrians</p>  <p>This warning alerts drivers to pedestrians or bicycle riders potentially crossing at an upcoming signalised intersection.</p>
<p>RHW</p> <p>Road Hazard Warning</p>  <p>This warning alerts drivers that they are travelling at an unsafe speed for a hazard up ahead, such as water on the road, road closures or a crash.</p>	<p>BOQ</p> <p>Back-Of-Queue</p>  <p>This warning alerts drivers there is a risk they are travelling at an unsafe speed for upcoming traffic queue.</p>
<p>IVS</p> <p>In-Vehicle Speed</p>  <p>This display provides drivers with information about the current speed limit including speeds signed, reduces speed zones (schools) and variable speed limit devices.</p>	<p>RWW</p> <p>Road Works Warning</p>  <p>This warning alerts drivers there is a risk they are travelling at an unsafe speed for upcoming road works, giving them time to slow down or change lanes. It also alerts the driver if they exceed the speed limit within the road works.</p>

What are connected vehicles and what are the benefits?

Cooperative or connected vehicles are those that can **'talk and listen'** to other connected vehicles, roadside infrastructure, traffic management systems, and other users, using cooperative intelligent transport systems (or C-ITS).

The vehicle uses the information from its sensors and other connected users to determine if there is relevant information or warnings to present to the driver. The driver then takes evasive or alternative action. The driver is in control at all times.

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Information and warnings presented to the driver are intended to improve comfort, safety, mobility and emissions - there are a large number of use-cases that can be deployed under a standardised development environment.

The technology is already available internationally in some vehicle models in the EU and US. In Japan, the Toyota Prius has a right turn collision warning; red light caution; traffic signal advisory change; and an emergency vehicle notification.

Transmax involvement

Transmax is committed to developing solutions that improve the safety and journey reliability of road users. This pilot is enabling Queensland to influence national developments in this transformative transport technology space. Transmax is therefore pleased to be contributing to the development of cooperative vehicle technologies that have the potential to significantly reduce accidents and congestion.

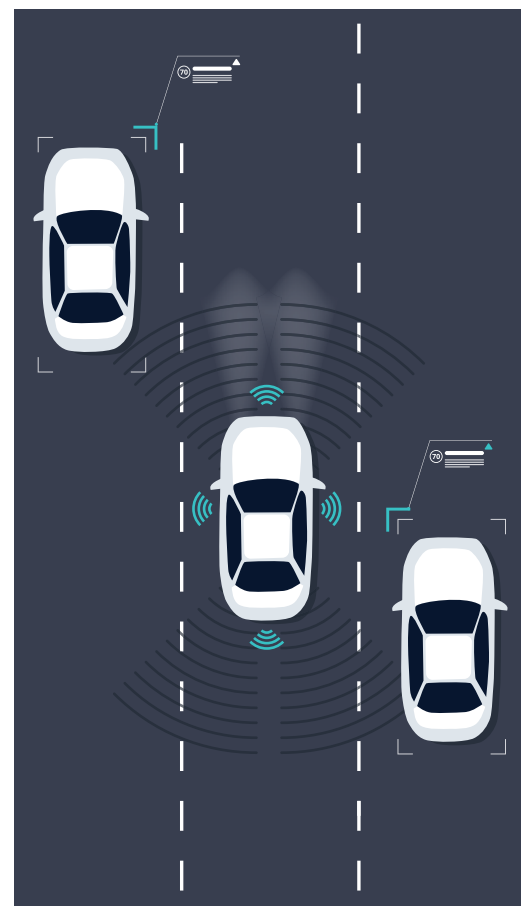
Alongside TMR, a team of ITS and cloud specialists from Transmax has spent over two years developing the necessary software infrastructure for a real-time interface with vehicles and edge devices, allowing connected messages to flow in and out of the trial system. This team will continue to offer its expertise to the Ipswich Connected Vehicle Pilot project team, as they progress this exciting initiative that the Queensland Government believes will contribute to its vision of a single integrated transport network accessible to everyone.

About Transmax

Transmax is the solutions provider of the international award-winning ITS platform STREAMS. We exist to improve people's lives by providing industry-leading transport solutions and help move millions of commuters around Australian road networks every day.

We place our customers at the centre of everything we do and work collaboratively to ensure our ITS solutions meet their needs. Transmax offers customers systems engineering, software design and development, along with a range of consulting and support services throughout the entire ITS lifecycle, all delivered with customer service excellence.

With 50 years of experience developing, implementing and managing ITS for road authorities right across Australia, we support our customers to realise the community benefits of optimising transport networks by providing smarter, more sustainable ITS solutions.



Contact us

For more information on Transmax, please visit our website.

For more information about TMR's CAVI project, please visit the TMR website.

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C-ITS