

**Ipswich Connected Vehicle Pilot****QUT Ethics Approval Number 1900000098****Principal researcher**

Prof Andry Rakotonirainy Research Leader

**Centre for Accident Research and Road Safety–Queensland (CARRS-Q)**  
**Queensland University of Technology (QUT)**

Please see the final page for full details about the research team and contact details.

**Why is the study being conducted?**

People who drive regularly in Ipswich are being sought to test a new technology that will send visual and audio messages that provide real-time warnings about safety risks they may face when they're driving. Information about participants' driving behaviours will be automatically collected by sensors attached to the car and participants will also be asked about their attitudes and opinions towards the new technology in a series of short questionnaires.

The study is being conducted by the Department of Transport and Main Roads Queensland (TMR) , QUT, and iMOVE Cooperative Research Centre (CRC) and is called the [Ipswich Connected Vehicle Pilot](#) (ICVP). The ICVP will include up to 500 vehicles that will have Cooperative Intelligent Transport Systems (C-ITS) technologies (also known as Connected Vehicle technologies) installed in them for approximately 9 months. C-ITS enables vehicles to 'talk' to other C-ITS equipped vehicles, roadside infrastructure and traffic management center systems to share relevant safety-related messages for drivers. The driver is still in control of the vehicle, and the C-ITS technology does not convert a vehicle into an 'automated' or 'self-driving' car.

**Participant criteria**

Hold a valid Queensland Provisional 2 or Open Driver Licence (or an Interstate or International equivalent)

Drive a minimum of 3 hours per week in the vehicle to be equipped with the C-ITS technology in the ICVP area (i.e., in and around Ipswich and the Ipswich Motorway)

Intend to keep using/have access to the vehicle to be equipped with the C-ITS technology during the ICVP (i.e., plan not to sell or replace the vehicle for 9 months)

Are contactable via mobile phone and email

Are in sufficient good health to see the HMI device screen and hear the alerts (i.e., you are able to see what is on a standard mobile phone screen at arm's length)

Are able to speak, read, and understand English

Are the owner of the vehicle to be equipped with the C-ITS technology and willing to have the technology installed and remain in your vehicle for the length of the ICVP, or have permission from the vehicle owner to have the vehicle equipped and used throughout the ICVP

### **Vehicle criteria**

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Is comprehensively insured with any of the following insurers - RACQ, Suncorp, Allianz, QBE, AAMI, APIA, Bingle, Shannons, Vero, NRMA, Budget Direct, QANTAS, ING, Australia Post, Virgin Money, or Youi

Has valid Queensland vehicle registration for the duration of the ICVP

Is a light passenger or commercial vehicle (for example, not a motorcycle or heavy vehicle)

Meets the requirements for having the C-ITS equipment installed (e.g., vehicle make and model)

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Both vehicle owners who are participants and those who use a vehicle owned by someone else to participate should ensure that there are no constraints on the use of the vehicle in the ICVP. For example, constraints placed by another party with a controlling interest in the vehicle or its use (operation of the vehicle for work purposes, employment obligations, or perhaps financial interests in the vehicle).

### **What does participation involve?**

As a participant in the ICVP, we will ask you to have C-ITS equipment installed, maintained in, and removed from your car by our trained professional installers. This equipment will include a Human Machine Interface (HMI) similar to a smartphone, which will be mounted to your vehicle's windscreen. Also, a device will be installed beneath the drivers' seat or trunk of your car depending on the car make and model, and an antenna mounted to a custom roof rack.

For approximately 9 months, you will be asked to drive as you normally would in your day-to-day life; and in the ICVP pilot area, some participants may receive advisory information and warnings on the HMI about a number of potentially dangerous driving situations or events (see Appendix A). Your driving information (e.g. vehicle speed, location) will be collected by the C-ITS equipment and transmitted to TMR and QUT for secure storage and analysis. Detailed information about the types of warnings that may occur and a map of the ICVP pilot area will be given to you before you provide written consent.

The C-ITS equipment will be powered using your vehicle's battery. Based on testing of the equipment, the impact to your vehicle's battery is likely to be minimal if you use your vehicle regularly, and your battery is in generally good condition. It is unlikely that your battery will be drained to a level where your car will not start unless you do not use your vehicle for an extended period, for example, 3 weeks. As part of the eligibility criteria of this study, you will agree to drive your vehicle at least 3 hours each week while participating. The C-ITS equipment has been tested by the developer to ensure that it meets Australian standards applicable to a transmitting device. More information regarding the devices that will be installed in your vehicle can be found on the ICVP website and will be discussed with you before you consent to participate.

### ***Experimental groups***

Participants will be randomly allocated to different groups. All participants will have an HMI installed in their vehicle. Those participants who have an HMI that provides warnings to them are in the Treatment group. Other participants will have the HMI installed in their vehicle but will not receive any warnings. These participants will be part of the Control group. Having a Control group allows us to make a comparison between the driving of participants who receive warnings and those who do not. Therefore, both the Treatment and Control groups are important to the research being conducted, in order to verify if the technology has an impact on the safety of road users. If you are randomly assigned to the Control group, you may choose to have the technology fully activated for the final two weeks that it is installed in your vehicle. As such, in these two weeks it will be possible for Control group participants to experience the HMI warnings that those participants in the Treatment group may have experienced.

### ***Interaction with HMI and collection of driving data***

Regardless of the group you are a part of, you will be required to only minimally interact with the HMI or C-ITS equipment. Your interaction with the technology will involve using the touchscreen to confirm that you are a participant in the ICVP each time the vehicle is started but before you drive off. Alternatively, non-participants who are driving the vehicle *must select "non-participant"* on the HMI to ensure no driving data is collected from them and that they don't receive warnings. We ask that, as much as is practicable, you wait until the login screen is displayed before driving. In the event that the HMI does not ask you to make a selection before you begin driving, no data will be collected, and the system will not display warning messages (if applicable to you) when you commence driving. However, if the selection screen has been presented but you do not make a selection before you begin driving, then your driving data will be collected.

Collection, storage and use of data will strictly follow the approved privacy and ethical safeguards and procedures including a Privacy Impact Assessment and ethical review. The type of driving information that will be collected includes data such as your vehicle's speed, location, lane position, acceleration, and braking. This data can potentially identify you as a participant of the ICVP, however, TMR and iMOVE Australia do not have access to personally identifying information. Furthermore, TMR, QUT and iMOVE Australia will not report or publish information about the driving of individual participants in an identifiable manner. Security and privacy of data is explained in more detail under the heading, "*What about privacy and confidentiality?*".

### ***Self-report data collection and refresher training***

We are also interested in gaining information about your experiences, perceptions and attitudes towards the C-ITS equipment and the ICVP. To do this we will ask you to complete four online questionnaires consisting mainly of Likert-style questions (e.g., strongly agree- strongly disagree) and a short refresher training (approximately 25-30 minutes per questionnaire inclusive of training). The first questionnaire will be conducted at an interview for consent and then you will be sent a link to the other questionnaires at approximately 2, 4, and 8 months into your participation.

Example questions and items from the online questionnaires include:

- How many hours per day do you estimate that you use your smartphone (not while driving)?
- Revolutionary new technology is usually a lot safer than critics lead people to believe.
- I would drive more safely with the technology active in my vehicle.

### **Optional participation activities**

Up to 50 participants will also have the opportunity to be involved in one optional audio-recorded individual telephone interview (approx. 10 minutes conducted at a suitable time during your participation). You will be invited to indicate your interest in participating in the telephone interview by answering a question the first questionnaire that you complete while you attend the interview for consent. Alternatively, you may be able to participate in one of several optional audio-recorded focus groups (approx. 60 minutes with around 50 participants in total; 5-10 participants per group) which will be conducted after (up to 6 months) you complete the ICVP. You will be invited to provide an expression of interest for participating in one of the focus groups towards the end of your participation in the ICVP. It should be noted, however, that an expression of interest in participating in a telephone interview or focus group does not automatically guarantee that you will be invited to participate.

### **Activities to be completed during the Ipswich Connected Vehicle Pilot (ICVP)**

<b>ICVP task</b>	<b>Approximate duration</b>	<b>Approximate timeline for completion</b>
Vehicle check, interview for consent, initial training	1 hour overall	In the month prior to your active participation in the ICVP
Completion of Survey 1		
Installation of C-ITS technology	2-4 hours (but you may leave your vehicle for the day)	One to three weeks after you complete the interview for consent process
Use of C-ITS technology in vehicle	9 Months	Month 1 to Month 9 of the ICVP
Online survey 2	25-30 minutes	2 months after you begin using the C-ITS technology
Online survey 3	25-30 minutes	5 months after you begin using the C-ITS technology
Online survey 4	25-30 minutes	8 months after you begin using the C-ITS technology
Removal of C-ITS technology	2-4 hours (but you may leave your vehicle for the day)	9 months after you have the C-ITS technology installed
Optional Telephone interview	15-30 minutes	At a convenient time while the C-ITS technology is fitted to your vehicle
Optional focus group	60 minutes	After removal of the C-ITS technology from your vehicle

There will be ongoing opportunities for you to communicate with the ICVP research team, if needed. Additionally, there may be need for the ICVP research team to contact you regarding aspects of your participation throughout the ICVP.

### **How do I get involved?**

There are three main steps to get involved: (1) initial eligibility questionnaire, (2) consent interview and vehicle eligibility check and (3) equipment installation. Steps 2 and 3 will be completed at the Briggs Road, Ipswich installation site (182/250 Briggs Road, Flinders View) which will be staffed in-person from 730am to 530pm on weekdays during the period that vehicles are being equipped with

the technology (although our telephone contact hours are from 7 am – 530 pm). The vehicle assessment and installation of equipment will be conducted by a qualified and trained ICVP installer.

- (1) Individuals interested in participating will be asked to complete an online questionnaire to assess their eligibility.
- (2) If you are eligible, we will ask you to complete an in-person interview for consent where you will be provided with detailed information about the ICVP and your vehicle will be checked for its suitability for the installation of ICVP equipment. If you have a suitable vehicle, you will then complete some initial training and an initial online questionnaire. At this time, you will also be randomly assigned into, and informed as to whether you will be in, either the Treatment or Control group. Finally, we will organise a time in the next few weeks for you to leave your vehicle with the equipment installer to have the C-ITS equipment installed in it. This entire process will take approximately 1.5 hours of your time.

*Note that if during the course of the vehicle suitability check, the installer identifies an issue with the condition of your vehicle, such as a safety issue relating to the installation of the equipment or driving the vehicle, then you may be deemed ineligible to participate. If this is the case, you may arrange to have your vehicle repaired and then have your vehicle re-assessed for participation. It should be noted that this is not a formal safety inspection, so if your vehicle is deemed ineligible for participation due to an issue with its condition, you will not be issued with a defect notice.*

- (3) The installation appointment only requires 15 minutes of your time to drop off your vehicle in the morning, and pick up in the afternoon. This is similar to when you get your car serviced by your mechanic. You also have the option, during this time, to use of a courtesy vehicle free of charge. At the vehicle drop off and pick up, we will complete a vehicle condition report with you.

For research and insurance purposes, and to assist in returning your vehicle to its original state after completion of the ICVP, photographs will be taken of your vehicle each time the installer is required to access your vehicle (e.g., during the equipment installation). These photographs will include both external images of the vehicle and images of the technology once it has been installed. In some instances photographs may capture your registration number such as when completing a vehicle condition report before having your vehicle outfitted with the technology. Photographs which capture your registration number will be stored securely and will only be provided to TMR in pixelated form, except in the event of a dispute (e.g., about damage to your vehicle) where proof of vehicle condition is required. We will also ask for your consent, in writing, to use photographs for research purposes as part of the initial consent process. Examples of research purposes include the use of images in academic journals, reports or academic presentations. Photographs used for research purposes will not include registration numbers or will be pixelated if used.

Once your vehicle has been equipped with the C-ITS technology, information about your driving will begin to be collected. If needed, you may also be asked to bring your vehicle to the Briggs Rd site during your participation for repairs to the C-ITS technology. After 9 months, you will be required to bring your vehicle to the Briggs Rd site to have the C-ITS technology removed. This is similar to the installation appointment, and again, you will have the option to use a courtesy vehicle free of charge that day.

## **Participant Obligations**

As a participant in the ICVP you will be expected to act in accordance with several participant obligations which are detailed in appendix B and on the [ICVP website](#). These obligations represent what is expected of any participant in the ICVP and the obligations will be discussed with you at the interview for consent.

Please read and consider these participant obligations prior to initiating participation in the ICVP. Non-completion or non-adherence to participant obligations may in some cases be considered as you signaling your intent to withdraw from the overall study and/or may result in your participation in the ICVP being discontinued.

## **What are the possible benefits for me if I take part?**

Whilst the research project is unlikely to benefit you directly, the findings from this study are expected to benefit the community and TMR by providing detailed information about the introduction of C-ITS technologies in Queensland including how providing HMI warnings to individuals while driving may influence their driving behaviour. In turn, this may lead to improved road safety outcomes in Queensland. This research will also provide an indication of community awareness and attitudes towards C-ITS technology. This information may help guide any future implementations of C-ITS in Queensland.

To recognise your contribution should you choose to participate, individuals who complete all aspects of the study will be provided with Giftpay (or equivalent) e-vouchers to the total value of \$500 (<https://www.giftpay.com.au/egift/infowhere.aspx?gift=CG7ZMY8D4H&value=50>). Individual gift vouchers are aligned with completion of different tasks throughout the ICVP to recognise the time and effort placed into completing these individual tasks. Further detail about the timing of incentives (i.e., the “calendar of incentives”) is outlined in appendix C.

In addition, participants who complete all required aspects of the ICVP *and* participate in an optional focus group will be given the opportunity to enter a prize draw for a voucher from Personalised Plates Queensland.

The Terms and Conditions of the prize draw are attached and are also located at:

<https://survey.qut.edu.au/survey-data/67/67667/media/62/6254.pdf>

## **What are the possible risks for me if I take part?**

The following risks have been identified in relation to your participation in the ICVP:

### **Damage to vehicle:**

Only qualified and trained technicians will be responsible for installing and removing the equipment. They will use a standard, well-tested procedure to ensure your vehicle is returned in an equivalent condition at the end of the trial. If any damage has been sustained during the equipment installation, maintenance and removal please contact the QUT research team on 1800 512 352, and TMR will cover reasonable pre-approved costs for your vehicle to be repaired.

### **Exposure of illegal driving activities:**

Some of the data that we collect during the ICVP may indicate a participant has been involved in an illegal activity, such as speeding. For example, we will collect your vehicle’s speed and location. TMR,

QUT and iMOVE will not investigate or report illegal driving behaviour using the data that is collected. In addition, the Queensland Police Service have advised that location information from our C-ITS equipment is currently not part of the legislative framework to issue infringements. However, if required by law, for example if requested using an approved process by police, the QUT research team is required to disclose your information (including location data) to the police. Irrespective of this, please remember you are responsible for your own driving behaviour and need to adhere to all road rules and driving legislation as normal.

### **Incident whilst driving:**

The ICVP equipment may not always warn you of a hazard or potential collision whilst driving. Similar to other existing driver information systems, and even more so as this is an emerging technology, it may sometimes fail to provide correct information or may provide incorrect information. You will receive comprehensive training prior to it being installed in your vehicle. However, it is your responsibility to drive safely and responsibly in accordance with applicable laws during your participation in the ICVP. You should not rely solely on any information or warnings from the equipment or interact with the display whilst driving.

### **Discomfort due to disclosure of sensitive or personal information**

In undertaking surveys, interviews and focus groups you may be asked some questions relating to sensitive topics that may cause discomfort, for example if you or someone you know has been involved in a crash. You are not obligated to answer any questions, and if your participation in the ICVP raises any issues, you can access help as follows:

- QUT Psychology and Counselling clinic offers limited free services – call **07 3138 0999** (Monday–Friday only 9am–5pm) and indicate that you are a research participant.
- Call Lifeline on **13 11 14**.
- If you are under 25 call Kids Lifeline on **1800 551 800**, for free, 24 hour telephone crisis support.

\*Please note, during COVID-19 restrictions the QUT Psychology and Counselling Clinic will offer telehealth only services.

**Please refer to the attached document *Important Health Information about COVID-19 and the Ipswich Connected Vehicle Pilot* for advice regarding the measures implemented to keep participants and staff safe during the COVID-19 pandemic.**

### **What about privacy and confidentiality?**

The research project is funded by TMR, QUT, and iMOVE Australia. TMR is responsible for the overall safety evaluation of the ICVP and will lead the analysis of data collected from the vehicle outfitted with the C-ITS equipment. QUT will assist with the analysis of driving data and will also collect and analyse other data such as that provided by you through online surveys. iMOVE Australia will not be involved in the data collection, data analysis, or reporting. All comments and responses will be treated confidentially unless required by law, or regulatory or monitoring bodies, such as the ethics committee.

The QUT research team will collect your name and contact details to support your participation in the ICVP. Your name and contact details will be stored securely on QUT computer servers and will not be disclosed to other parties, including TMR and iMOVE CRC, unless required by law. The ICVP installers will be provided with your vehicle registration number in order to facilitate the installation,

maintenance and removal of the C-ITS equipment. No installer staff have direct, online access to the TMR registration of motor vehicles. The Royal Automobile Club of Queensland (RACQ) will be provided with a list of registration numbers with equipment installed. This is for the unlikely case that there is a need for after-hours emergency roadside assistance due to the C-ITS equipment. The RACQ will not be provided any other information about participants and any call outs will be invoiced directly to TMR. As such, no one outside of the QUT research team will have access to information that can be used to directly and immediately identify you. One caveat to this relates to traffic infringements incurred by participants while using courtesy vehicles provided by TMR. In this instance, QUT will be obliged to pass on name and contact details to a designated representative in TMR who will provide the details to the Queensland Police Service to issue the traffic infringement notice to the participant driving the courtesy vehicle. The designated TMR representative does not have access to any other details about participants. It should also be noted that some TMR staff will have access to data that could be used to re-identify you. However, strict controls on staff data access, usage, privacy and confidentiality have been put in place and all staff have been trained regarding data privacy and confidentiality and signed contractual agreements detailing their responsibilities with respect to data that is provided by participants.

A system of unique identifiers (IDs) will be used to de-identify and confidentially manage the full research data set including the driving data and responses to questionnaires, telephone interviews and focus groups. Only aggregate statistical data will be reported and published; interview and focus group data including quotes will only be reported or published in de-identified form.

Your driving data, including location data, will exist in cloud storage on the Amazon Web Services (AWS) platform. AWS employ a range of measures to ensure data security including data encryption and secure access to the physical hardware enabling this cloud storage. The cloud storage will be located in Australia. The driving data which is stored on AWS will only be accessible by the ICVP staff associated with the project. All staff associated with the ICVP have undergone a criminal history check. The driving data will be transferred from AWS to QUT, where it will be assigned to a participant ID and used in statistical analyses. At this time, it will be stored securely on QUT-hosted servers.

Please note that de-identified data from this research project, which will not include name and contact details but will include location data, may be used as comparative data in future projects by other research organisations. Through the location data, it may be possible for these organisations, in the course of conducting their own studies with the data, to re-identify individual participants and to have information about their travel patterns. However, the use of the data that is provided will be controlled. In order for organisations to obtain and use the data, they must first apply to TMR for the use of the data. If TMR are satisfied that the application is legitimate, the organisation applying for the data must then undergo a stringent ethics review process with an accredited Human Research Ethics Committee. This ethical review will confirm the merit of the proposed use of the data and examine and ensure that adequate controls and safeguards relating to data security, privacy, and confidentiality are in place and maintained.

Please note that there is the potential for data access requests to be made which are not subject to ethical review. For example, Right to Information (RTI) requests. However, data privacy obligations will be considered when responding to these requests.

### **How do I give my consent to participate?**

Your participation in this research project is entirely voluntary. Overall consent to participate in the ICVP will be gained from you in writing at the time of the in-person interview for consent. At this interview, you will provide informed consent regarding your participation in all aspects of the ICVP including all aspects of collection of your driving data and participation in four online questionnaires. You will also be provided opportunity to register your interest in participating in an optional telephone interview during your participation or an optional focus group after your participation has been completed.

The selection of 'participant' on the HMI installed in your vehicle prior to each trip is taken as consent for your driving data to be collected for that trip. Note that if no selection is made on the HMI, driving data will still be collected. You are asked to advise non-participants who may drive your car while the C-ITS technology is installed to ensure that they always select 'non-participant' before driving to ensure that their driving data is not collected.

Accessing the online questionnaires will be taken as you providing consent for participation given that data from partially completed questionnaires may be used in analyses. A separate consent process will be conducted for those individuals who participate in the optional telephone interview or focus groups.

You will be asked to bring along documentary proof of your eligibility to participate including your current driver licence, vehicle registration, proof of comprehensive car insurance and proof of car ownership or a proof of ownership from the car's owner and a permission letter from the owner of the car to be used in the ICVP.

Consistent with the participant obligations, you are required to advise us if your circumstances change in a way that means you no longer meet the participation criteria. You will be given the opportunity to ask questions about what the researchers will ask you to do and discuss your participation with an ICVP research team member.

### **Withdrawal of consent**

You can withdraw from the study at any time without question or comment and discontinuing participation in the study will not affect your relationship with QUT, TMR or other organisations involved in the ICVP. You are free to indicate that you want to withdraw from the ICVP at any stage and by any method (i.e., expressing this want to withdraw verbally in-person or over the phone or via email). Those who choose to withdraw will not be asked to return any incentive they have received but will not be provided any further incentives.

Throughout your participation in the ICVP, you will have access to information via the study's designated website at <https://www.qut.edu.au/research/icvp> to assist with completing various aspects (e.g. online questionnaires) of the study and decisions regarding your participation. You will also be able to contact the research team to ask questions throughout the ICVP. At various times during your participation, you will be prompted to reacquaint yourself with the participant information contained in this Overall Participant Information form (for example a link will be provided to this information before you begin each of the online questionnaires), should you wish to do so.

If you choose to withdraw, we will ask you to sign a withdrawal of consent form. We will also ask you to complete a brief questionnaire, however, you are under no obligation to complete this. The

research team will ask these questions with the intent of using any information that you provide to improve the way that future C-ITS research projects are conducted.

Should you wish to withdraw, there will be a period of time required for the system to be updated (i.e., 24 hours) to remove you as a participant and some time before the equipment is removed from the vehicle that you are using. You will be asked to select “non-participant” on the HMI for every trip that you take until you are removed from the system or the equipment is removed from your vehicle. This will ensure that no data is collected from you and no HMI warnings are provided while you drive.

If you are driving a vehicle that is being driven by another participant/s in the ICVP it may not be possible to destroy any data that is collected if you do not select “non-participant” as it may not be clear which data was provided by you. If you are not sharing the vehicle with any other participating driver/s, if you do not make a selection, it will be possible for data to be destroyed from the date you advised that you wished to withdraw.

For those who are using a vehicle that is owned by someone else, there is a possibility that you will be required to withdraw from the ICVP, even if you would like to continue, if the vehicle owner decides that they do not wish their vehicle to continue to be used in the study or another issue arises where a participant or vehicle becomes ineligible (e.g., vehicle or equipment damage).

#### **What if I have questions about the research project?**

*Prior to participation*, if you have any questions or require further information please contact the research team via email [icvpadmin@qut.edu.au](mailto:icvpadmin@qut.edu.au) or phone 1800 512 352.

*During participation*, please contact the research team on [icvpsupport@qut.edu.au](mailto:icvpsupport@qut.edu.au) or the above contact number. Please note that the team will be available for contact, in person, from 7am-530pm Monday-Friday. Instructions for assistance outside of these hours are provided to you if you consent to participate.

Note: If you require roadside assistance for **an electrical issue** with your vehicle (e.g., flat battery), please contact RACQ on 131905 or 1800 648 058 and state that you are an ICVP participant. You will be asked to provide the registration number, and the make and model of the vehicle you are driving to help enable the RACQ Roadside Service Assistant to locate you. This must be the vehicle that is registered as the one you are using during the ICVP. Help will be dispatched to you. You will not be charged for the call out if it relates to an electrical issue.

If the issue does not relate to an electrical issue (e.g., punctured tire; keys locked in car), please contact roadside assistance as you normally would. You will be responsible for the cost of this call out.

#### **What if I have a concern or complaint regarding the conduct of the research project?**

QUT is committed to research integrity and the ethical conduct of research projects. If you wish to discuss the study with someone not directly involved, particularly in relation to matters concerning policies, information or complaints about the conduct of the study or your rights as a participant, you may contact the QUT Research Ethics Advisory Team on 07 3138 5123 or email [humanethics@qut.edu.au](mailto:humanethics@qut.edu.au).

## Associate researchers

### QUT

A/Prof Ioni Lewis	QUT Project Manager
Prof Narelle Haworth	Research Professor – Vulnerable Road User Expert
Dr Gregoire Larue	Senior Research Fellow – Study Design Expert
Dr Sebastien Demmel	Research Fellow – Simulator Expert
Dr Ronald Schroeter	Senior Research Fellow – Human Machine Interface Expert
Dr Marc Miska	Traffic Engineering Expert
Dr Michael Pascale	Research Fellow – Technology Adoption Expert
Dr David Rodwell	Senior Research Officer
Dr Mohammed Elhenawy	Research Fellow – Traffic Data Analysis Expert
Ms Narjes Zarei	Senior Research Officer – Data Analysis
Ms Francine Smith	Research Officer – Participant Communications
Ms Alexandra Neary	Research Officer – Participant Communications
Ms Claudia Luke	Research Officer – Participant Communications
Ms Wanda Griffin	Research Officer – Participant Communications
Ms Rachel Stringfellow	Research Officer – Participant Communications
Dr Javier Rodriguez	Research Officer – Participant Communications
Mr Md Mostafizur Rahman Komol	Research Officer – Data Analysis

### *Department of Transport and Main Roads*

Ms Katherine Mosley	Safety Evaluation Team Lead
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**Thank you for helping with this research project. Please keep this sheet for your information.**

## Appendix A. Warnings that may be provided to you as a participant in the ICVP

The HMI will provide information to you using icons, colours, text and, if required, audible sounds. You will receive detailed training regarding the HMI and warnings as a participant. However, as an indication, within the ICVP area in Ipswich, the HMI warnings that may be provided to you include:

- **Advanced Red light warning:**  
Alerts drivers there is a risk of driving through a red light ahead.
- **Turning warning for Vulnerable Road Users:**  
Alerts drivers to pedestrians or bicycle riders potentially crossing at an upcoming signalised intersection
- **Road Hazard Warning:**  
Alerts drivers that there is a risk they are travelling at an unsafe speed for a hazard up ahead, such as water on the road, road closures or a crash.
- **Back-Of-Queue:**  
Alerts drivers there is a risk they are travelling at an unsafe speed for upcoming traffic queue.
- **In-Vehicle Speed:**  
Provides drivers with information about the current speed limit.
- **Road Works 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 drivers if they exceed the speed limit within the road works.

## Appendix B. ICVP Participant Obligations

Number	Description
1	<p>You agree to notify the QUT research team as early as is practicable if any of the following circumstances occur - if:</p> <ul style="list-style-type: none"><li>• There is a change in your circumstances which means that you no longer meet the eligibility criteria (please refer to the ICVP eligibility criteria) at any stage during the ICVP;</li><li>• Any problems arise with the device;</li><li>• You are unable to drive the vehicle in the pilot test area for a period of 7 or more consecutive days (e.g., while on holiday or injured, if you loan the vehicle to someone else, if the vehicle is broken down etc.);</li><li>• Your vehicle and/or device is stolen or damaged;</li><li>• You are involved in a crash; or</li><li>• You have a concern or complaint regarding any aspect of your participation.</li></ul>
2	<p>You agree to take your vehicle to the Briggs Road Installation site for the initial vehicle check for eligibility, and the installation, maintenance, and removal of the C-ITS equipment. You understand that RoadTek, TMR, and/or QUT staff, may need to drive your vehicle while undertaking any of the aforementioned activities.</p>
3	<p>You agree for reference photographs of your vehicle to be taken for data collection purposes as well as for insurance purposes (if required).</p>
4	<p>You agree to a Vehicle Condition Form being prepared, signed by all parties (i.e., installer technician, QUT team member, and participant), which lists any pre-existing damage to the vehicle at installation, maintenance (if necessary), and de-installation.</p>
5	<p>You agree to not tamper with, wilfully damage, or misuse the pilot equipment yourself and agree that you will make every effort to ensure that the pilot equipment is not tampered with, wilfully damaged, or misused by others.</p>
6	<p>You agree to drive responsibly throughout your participation in the ICVP and adhere to road rules and driving laws.</p>
7	<p>You agree not to be involved in any conduct or activity that will or may harm QUT and/or TMR, these organisations' names or reputation; or which brings, or may bring, QUT and/or TMR into disrepute, contempt, scandal or ridicule.</p>
8	<p>You will inform other passengers and drivers of the vehicle fitted with the C-ITS equipment, about the pilot and how to use the equipment. In the case of other drivers, you will advise them of the need to select "non-participant" on the log-in screen of the human machine interface (HMI) and that failure to select an option will result in data being collected on the assumption that it is a consenting driver.</p>
9	<p>Do not use an automatic car wash, and to take due care when using a manual car wash or washing car by hand, in order to not damage or displace pilot equipment.</p>

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<b>Number</b>	<b>Description</b>
<b>10</b>	<p>During the course of the Ipswich Connected Vehicle Pilot (ICVP), you agree to the following:</p> <ul style="list-style-type: none"><li>• To undertake training, including refresher training if/as required, in-person and online, in relation to use of the equipment in the ICVP.</li><li>• To, as much as possible, remain stationary in your vehicle and select your participant code on the HMI before driving; and to ensure that any non-participant drivers are aware that they also should remain stationary in the vehicle and select 'non-participant' before driving. The HMI selection screen should not be interacted with once you have started driving.</li><li>• To complete a series of four questionnaires during the ICVP.</li><li>• To return your vehicle to the Briggs Road Installation Station to repair or replace the equipment if we find it is not working.</li><li>• To return your vehicle for removal of the equipment, including if you choose to end your participation prior to completing the pilot.</li><li>• To allow the QUT research team and/or technicians to access the pilot equipment for data retrieval, inspection, and maintenance, at a mutually agreeable opportunity, if necessary during the pilot.</li><li>• To answer questions about your continued participation in the ICVP if limited or no data is logged for a period of 7 or more consecutive days without prior notice of your being unable to drive and/or if data is logged relatively more frequently as a non-participant than consenting participant. These questions may be asked via email or phone call, from a member of the QUT research team.</li></ul>
<b>11</b>	<p>You agree that you will not enter a military facility in your vehicle while the pilot equipment is installed. And you will not enter a high security facility in your vehicle while the pilot equipment is installed without prior permission from the facility owner</p>
<b>12</b>	<p>You agree to remove any non-standard screens (e.g., Windscreen mounted GPS or mobile phone) from your vehicle and not replace it or add any others for the duration of the ICVP.</p>

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## Appendix C. The calendar of incentives for participating in the ICVP

Timing of incentive	ICVP Participant task	Incentive type and amount
<b><i>Prior to active participation</i></b>		
After completion of eligibility screener	Consent interview, initial training with C-ITS equipment, completion of first online questionnaire, vehicle eligibility check	\$75 e-voucher
Up to three weeks after consent interview process	Installation of C-ITS equipment in vehicle and refresher training	\$100 e-voucher
<b><i>During active participation</i></b>		
Two (2) months into active participation	Online completion of second questionnaire and second refresher training and active engagement in the ICVP for <i>two months</i>	\$50 e-voucher
Five (5) months into active participation	Online completion of third questionnaire and third refresher training and active engagement in the ICVP for <i>five months</i>	\$50 e-voucher
8 months into active participation	Online completion of fourth questionnaire and fourth refresher training and active engagement in the ICVP for <i>eight months</i>	\$50 e-voucher
<b><i>After active participation ends</i></b>		
As soon as possible after active participation ends	Active engagement in the ICVP for approximately 9 months, completion of other participation tasks, and removal of the C-ITS equipment from the vehicle you are using	\$175 e-voucher
<b><i>*Additional tasks</i></b>		
At appointed time during active participation	Optional telephone interview	Prize draw for \$500 worth of Personalized license plates from Department of Transport and Main Roads
Within six (6) months of active participation ending	Optional focus group	

**Note.** \* The telephone interview and focus group are tasks that will be conducted in addition to the ICVP. These 'optional' tasks will be conducted with a portion of ICVP participants that fit characteristics required for these studies. As such, not all participants in the ICVP are eligible for the prize draw. Eligible participants may complete either an interview or participate in a focus group and will be able to enter a single prize draw for personalized plates. The chance of receiving the prize draw will be 1 in 100.