FCAI Response to Cooperative ITS Regulatory Policy Issues - NTC Discussion Paper November 2012

Federal Chamber of Automotive Industries
Level 1, 59 Wentworth Avenue
KINGSTON ACT 2604
Phone: +61 2 6229 8217
Facsimile: +61 2 6248 7673

Contact: Mr James Hurnall

(18 Mar 2013)

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The Federal Chamber of Automotive Industries (FCAI) is the peak industry organisation representing vehicle manufacturers and importers of passenger vehicles, light commercial vehicles and motor cycles in Australia.

The FCAI member companies recognise the potential for cooperative intelligent transport systems (C-ITS) to provide a significant benefit to Australia in terms of both road safety and traffic management.

Consideration of the privacy, liability, driver distraction and compliance and enforcement policy issues for C-ITS needs to recognise that the automotive industry is a globally integrated industry with many product lines sharing platforms and major components to achieve productivity gains from economies of scale. Consequently, any policy response such as introducing standards or guidelines into Australia must be harmonised with standards or guidelines used in other major automotive markets so as not to impede the introduction of new technology to be delivered with new vehicles.

The FCAI is strongly opposed to the introduction of any unique Australian requirements (i.e. standards or guidelines) for C-ITS.

The FCAI positions on the different policy areas are;

- **Privacy:**
  - The FCAI supports *'Option 1: Continue current approach'* as the existing privacy principles should be able to be readily applied to C-ITS. The FCAI does not see a need for privacy protection for C-ITS to be explicitly regulated.
  - The FCAI does not support *'Option 5: Legislate technical standards to protect privacy'* as legislating ISO standards may impede take-up of C-ITS technologies within new vehicles.
- **Liability**:
  - The FCAI supports '*Option 1: Continue current approach'* as there is no evidence that liability concerns are delaying the development and introduction of ITS technology.
  - The FCAI also supports *'Option 4: Information and education campaigns'* as these would encourage consumer acceptance and subsequent take-up of C-ITS.
- **Driver Distraction**:
  - The FCAI supports '*Option 1: Continue current approach'* of self-regulation within industry.
  - The FCAI recommends caution with implementing '*Option 3: Create guidelines or principles for manufacturers'* as some guidelines could reduce the functionality available through in-vehicle interfaces and encourage drivers to use hand-held devices.
- **Compliance and Enforcement**: The FCAI supports '*Option 2: Specific protection of data from C-ITS applications'* with the proviso that the privacy issues also raised in the Discussion Paper will need to be addressed prior to developing any necessary legislation, policy or guidelines.

1.0 INTRODUCTION

The Federal Chamber of Automotive Industries (FCAI) is the peak industry organisation representing vehicle manufacturers and importers of passenger vehicles, light commercial vehicles and motor cycles in Australia.

The FCAI member companies recognise the potential for cooperative intelligent transport systems (C-ITS) to provide a significant benefit to Australia in terms of both road safety and traffic management.

The automotive industry is a globally integrated industry with many product lines sharing platforms and major components to achieve productivity gains from economies of scale. Even with more than one million vehicles sold annually, Australia comprises less than one and a half percent (1.5%) of the global market.

Australia is part of the global industry with a very competitive automotive market and vehicles sold in Australia are designed, developed and built in all parts of the world including Japan, Korea, Thailand, India, Europe and the US (see Appendix A). Locally manufactured vehicles are designed and developed in accordance with OEMs global standards.

For Australia to receive the benefits from C-IT'S the responses to the policy issues must be consistent with major overseas markets (i.e. Japan, Korea, Europe and the US) to not impede the introduction of new technology to be delivered with new vehicles. Consequently, any policy response such as introducing standards or guidelines into Australia must be harmonised with standards or guidelines used in other major automotive markets so as not to impede the introduction of new technology to be delivered with new vehicles.

The FCAI is strongly opposed to the introduction of any unique Australian requirements (e.g. regulations or guidelines) for C-ITS.

Many car brands are already introducing advanced driver assistance systems (ADAS) into the market and the policy issues identified, especially liability and driver distraction, are already of significant interest to the FCAI. While OEMs are pursuing different strategies for introduction of ADAS, all OEMs base their design and development programs on the principle that the driver must remain responsible for the operation of the vehicle. The OEMs recognise their responsibility to design systems that will operate correctly and provide the correct information to the driver at the right time to assist drivers to make decisions.

2.0 SCOPE OF COOPERATIVE ITS (C-ITS)

The NTC Discussion Paper recognises the benefits of C-ITS and the need for Governments to ensure that regulatory policy does not impede the uptake of C-ITS. The Discussion Paper considers the impact of C-ITS in the areas of privacy, liability, driver distraction and compliance and enforcement.

C-ITS is defined as a "group of technologies that allow different elements of the transport network, including vehicles and infrastructure, to exchange information. Effectively, these systems allow vehicles to 'talk' to each other and to the infrastructure[1]." The FCAI agrees with this interpretation of C-ITS and consider that C-ITS covers vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) technology.

There are other ITS systems where the vehicle collects and then provides information only to the driver (i.e. does not exchange the information to other vehicles or the infrastructure) via the vehicle's human-machine interface (HMI) as audible, visual or tactile feedback. These systems are generally referred to as Advanced Driver Assistance Systems (ADAS). Examples of ADAS include lane keeping warning, following distance warning and blind spot monitoring. The NTC's Discussion Paper acknowledges that some of the policy issues identified are relevant to ADAS and consequently, any policy or regulatory response to C-ITS also needs to consider their impact on ADAS.

As many car brands are already introducing ADAS into the market the policy issues identified, especially liability and driver distraction, are already of significant interest to the FCAI. While OEMs are pursuing different strategies for introduction of ADAS, all OEMs base their design and development programs on the principle that the driver must remain responsible for the operation of the vehicle. The OEMs recognise their responsibility to provide systems that will operate correctly and provide the correct information to the driver at the right time to assist drivers to make decisions.

The FCAI supports the Policy Framework for Intelligent Transport Systems in Australia[2] and agrees that these principles apply to C-ITS. The policy principles that the FCAI considers are particularly relevant to the vehicle industry are:

- *Be outcome focused – make a tangible contribution towards solving key transport challenges (e.g. reducing congestion and freight delays, lowering emissions, improving energy efficiency, attaining higher levels of safety and security including for vulnerable road users)*
- *The policy environment for ITS will provide for both regulatory and non-regulatory processes when market interventions are considered necessary.*

[1] Standing Council on Transport and Infrastructure, *Policy Framework for Intelligent Transport Systems in Australia, 2012*, in NTC Discussion Paper, p. 1.

[2] Standing Council on Transport and Infrastructure, *Policy Framework for Intelligent Transport Systems in Australia, 2012*, in NTC Discussion Paper, pp. 15-16.

3.0 FCAI RESPONSE ON DISCUSSION PAPER ISSUES

Consideration of the privacy, liability, driver distraction and compliance and enforcement policy issues for C-ITS needs to recognise that the automotive industry is a globally integrated industry with many product lines sharing platforms and major components to achieve productivity gains from economies of scale. Even with more than one million vehicles sold annually, Australia comprises less than one and a half percent (1.5%) of the global market.

Australia has a very competitive automotive market and vehicles sold in Australia are designed, developed and built in all parts of the world including Japan, Korea, Thailand, India, Europe and the US (see Appendix A). Locally manufactured vehicles are designed and developed in accordance with OEMs global standards.

Consequently, any policy response such as introducing standards or guidelines into Australia must be harmonised with standards or guidelines used in other major automotive markets so as not to impede the introduction of new technology to be delivered with new vehicles.

The FCAI is strongly opposed to the introduction of any unique Australian requirements (i.e. standards or guidelines) for C-ITS.

3.1 PRIVACY

The NTC Discussion Paper recognises that C-ITS applications generate significant volumes of data and that consumers must be confident that their personal information is collected and used only for appropriate purposes[3]. OEMS recognise the privacy concerns of consumers and as such privacy is a primary design focus for C-ITS, especially V2V systems.

The FCAI supports *'Option 1: Continue current approach'* as the existing privacy principles should be able to be readily applied to C-ITS. The FCAI does not see a need for privacy protection for C-ITS to be explicitly regulated.

If practical experience subsequently demonstrates that existing privacy principles cannot be readily applied to C-ITS, then the FCAI would support '*Option 3: Provide guidance on best practice.'* However, due to the significant range of potential C-ITS applications, this may need to be conducted on a case-by-case basis. For example, guidance may be required where C-ITS is being used for road charges such as tolling or e-Call where vehicle/personal identity is required, but not for many V2V or V2I traffic management or safety applications where vehicle identity is not required.

The FCAI does not support *'Option 5: Legislate technical standards to protect privacy'* as legislating ISO standards may impede take-up of C-ITS technologies within new vehicles. As noted above, the Australian new car market incorporates vehicles from Asia, Europe and the

[3] Standing Council on Transport and Infrastructure, *Policy Framework for Intelligent Transport Systems in Australia, 2012*, in NTC Discussion Paper, p. 18.

US (Appendix A). Consequently, any policy response such as introducing standards or guidelines into Australia must be harmonised with standards or guidelines used in other major automotive markets so as not to impede the introduction of new technology to be delivered with new vehicles.

3.2 LIABILTY

The NTC considers that clearly defined responsibilities for liability in C-ITS is essential and any uncertainty could act as a deterrent to the investment and introduction of new technology[4]. OEMs already have liability responsibilities for their products and have continually introduced new technology in each new model.

The ITS technology currently being introduced into new vehicles is predominately advisory (i.e. ADAS) and consequently, the driver remains in control of the vehicle as required by the current Australian Road Rules. All vehicle manufacturers undertake extensive product development programs that extend over a number of years and require significant levels of investment prior to introducing any system to the market. The development program is designed to reduce the risk of a new system providing incorrect advice, such as a 'false-positive' and to ensure that the signals from any new system is delivered to the driver at the correct time in the necessary priority order to allow the driver to undertake any necessary corrective action.

With the introduction of V2V and V2I systems the C-ITS applications will move from passive systems providing advice to drivers (ADAS) to active systems where the system will intervene to attempt to prevent a crash or mitigate the consequences of a crash. As noted by the Discussion Paper these systems will not be widely available until OEMs have complete confidence the technology is mature in terms of operation and reliability over the full expected range of operational conditions (e.g. weather, traffic, driver expectations, etc.).

The FCAI and member brands support the Australian Road Rules requirement that the driver must remain responsible for the operation of the vehicle[5]. However, OEMs also recognise their responsibility to provide systems that will operate correctly and provide the correct information to the driver at the right time to assist drivers to make decisions.

The FCAI supports '*Option 1: Continue current approach'* as there is no evidence that liability concerns are delaying the development and introduction of ITS technology.

The FCAI is not in a position to comment on the liability issues in relation to exchange of information in V2V and V2I systems.

---

[4] Standing Council on Transport and Infrastructure, *Policy Framework for Intelligent Transport Systems in Australia, 2012*, in NTC Discussion Paper, p. 31.

[5] Standing Council on Transport and Infrastructure, *Policy Framework for Intelligent Transport Systems in Australia, 2012*, in NTC Discussion Paper, p. 35.

There are guidelines being developed for the operation of ADAS in Europe, Japan and the US that would meet the requirements of *'Option 3: Non-legislative approaches.'* The FCAI comments on the current development of the guidelines are outlined below in Section 3.3 in relation to the FCAI's response on driver distraction

The FCAI also supports *'Option 4: Information and Education campaigns'* as any information and education campaigns that would encourage consumer acceptance and use of C-ITS will be beneficial.

3.3 DRIVER DISTRACTION

Driver distraction is not new; it is as old as driving. Driving is a complex task that requires constant attention and complex coordination between mind and body.

It is very easy for a driver to become distracted. Passengers, mobile phones, infotainment systems and roadside advertising can all distract drivers' attention from the task of driving. Drivers have a responsibility to ignore distractions and give driving their full attention at all times. To anticipate and avoid hazards on the road, drivers must concentrate on driving.

The Discussion Paper acknowledges that C-ITS applications will provide information to drivers to assist driving decisions with road safety and traffic management benefits. Consequently, it is important that C-ITS devices are legal and are not caught in the laws prohibiting the use of mobile phones while driving[6].

The FCAI agrees there is a need to ensure that the current regulations that are designed for specific purposes based on sound research (e.g. preventing the handheld use of mobile phones) are not expanded to prevent the use of C-ITS systems that will provide benefits.

Regulation cannot eliminate the many potential sources of distraction nor can regulation keep up with or anticipate new sources of potential distraction. Many new technologies and features are initially a novelty and therefore more likely to be a potential distraction when they are first introduced but once drivers have become familiar with them they are far less likely to be a distraction.

The FCAI supports *Option 1: Continue current approach* of self-regulation within industry. Option 1 recognises that manufacturers are aligned with government objectives to ensure that C-ITS applications minimize safety risks.

The Discussion Paper proposes that *Option 3: Create guidelines or principles for manufacturers* that are consistent with standards or guidelines that are being developed in other major automotive markets should be the initial approach.

[6] Standing Council on Transport and Infrastructure, *Policy Framework for Intelligent Transport Systems in Australia, 2012*, in NTC Discussion Paper, p. 44

While the FCAI supports this approach caution must be exercised as the proposed NHTSA "Visual-Manual Driver Distraction Guidelines for In-Vehicle Electronic Devices" (issued for comment in February 2012) (referred to as NHTSA Guidelines below) in their current form, would result in reduced functionality available through the in-vehicle interfaces while driving, and may cause drivers to increasingly use their hand-held devices rather than the built-in interfaces.

Initial C-ITS deployed by OEMs will be driver warning systems that are intended to attract the attention of the driver. Most current driver distraction guidelines are for driver information systems and specifically exclude driver warning systems from their scope.

The FCAI agrees with the Alliance of Automobile Manufacturers[7] (AAM) response to the proposed NHTSA Guidelines. The AAM response included the following comments:

> *"Appropriate integration of a portable electronic device into vehicle systems enables the vehicle to manage access to these devices in a manner appropriate for the driving environment."*
>
> *"If guidelines for portable electronic devices are not implemented simultaneously with those for integrated systems, the real world result may be just the opposite of what NHTSA intends - drivers will continue to use portable electronic devices they carry into cars which have not been engineered for use in the driving environment, leading to an increase in the risk of driver distractions."*
>
> *"Research has shown that "the human factors were definite or probable causes in about 93 percent of crashes, while environmental and vehicle factors contributed to about 33 and 13 percent, respectively" (U.S. Government Accountability Office). Consequently, we must always remember that the driver retains the primary responsibility for ensuring safe operation of the vehicle under all operating conditions."*

The FCAI also agrees with the Verband der Automobilindustrie[8] (VDA) response to the proposed NHTSA Guidelines which included the following comments:

> *"As part of manufactures (sic) effort to continuously improve the user interface, the distraction potential of various system functionalities is measured and features that do not meet the acceptance criteria of ESOP and Alliance Guideline (sic) are locked out for the driver while driving." (ESOP = European Statement of Principles)*
>
> *"Given the widespread availability of integrated information and navigation systems, an increase of accidents might have been expected. However, no such increase has occurred, as evidenced by the accident figures."*

[7] Strassburger, R. 2012, Alliance of Automobile Manufacturers response to NHTSA Visual-Manual Guidelines for In-Vehicle Electronic Devices, May 2012.

[8] Ebner, H and Pfeifer, S, 2012 Statement of the *VDA on Visual-Manual NHTSA Guidelines for In-Vehicle Electronic Devices, Docket No. NHTAS-2010-0053*, May 2012.

While the driver must remain responsible for the operation of the vehicle the OEMs recognise their responsibility to provide systems that will operate correctly and provide the correct information to the driver at the appropriate time to assist drivers to make decisions. All vehicle brands undertake extensive development programs prior to introduction of new technology to the market to minimize distraction and to ensure that the signals from the system are delivered to the driver at the correct time in the necessary priority order to allow the driver to undertake any necessary corrective action.

3.3 COMPLIANCE AND ENFORCEMENT

The Discussion Paper analyses the role of C-ITS applications within existing road compliance and enforcement activities with a focus on the purposes for which C-ITS information can be used[9].

An important compliance and enforcement issue raised by the Discussion Paper that needs careful consideration in relation to encouraging the uptake of C-ITS in passenger vehicles is the privacy of the data and the ability of the C-ITS signal to be anonymous. Greater or wider levels of enforcement of C-ITS enabled passenger vehicles could result in low levels of consumer acceptance of the technology, leading to a lower or delayed uptake and subsequent delivery of the benefits of C-ITS.

Therefore, the FCAI supports *Option 2: Specific protection of data from C-ITS applications* with the proviso that the privacy issues also raised in the Discussion Paper will need to be addressed prior to developing any necessary legislation, policy or guidelines.

[9] Standing Council on Transport and Infrastructure, *Policy Framework for Intelligent Transport Systems in Australia, 2012*, in NTC Discussion Paper, p. 52.

5.0 CONCLUSION

The FCAI welcomes the opportunity to provide a response to the NTC's Cooperative ITS Regulatory Policy Issues Discussion Paper as FCAI member companies recognise the potential for C-ITS to provide a significant benefit to Australia in terms of both road safety and traffic management.

Consideration of the privacy, liability, driver distraction and compliance and enforcement policy issues for C-ITS needs to recognise that the automotive industry is a globally integrated industry with many product lines sharing platforms and major components to achieve productivity gains from economies of scale.

Consequently, any policy response such as introducing standards or guidelines into Australia must be harmonised with standards or guidelines used in other major automotive markets so as not to impede the introduction of new technology to be delivered with new vehicles.

The FCAI is strongly opposed to the introduction of any unique Australian requirements (e.g. regulations or guidelines) for C-ITS.

BIBLIOGRAPHY

Australian Government, Department of Innovation, Industry, Science, Research and Tertiary Education (DIISRTE), 2011, *Key Automotive Statistics 2011*.

Australian Government, Department of Innovation, Industry, Science, Research and Tertiary Education (DIISRTE), 2011, *Automotive Industry Data Card, November 2012 Automotive Update.*

Ebner, H and Pfeifer, S, 2012 Statement of the *VDA (Verband der Automobilindustrie) on Visual-Manual NHTSA Guidelines for In-Vehicle Electronic Devices, Docket No. NHTAS-2010-0053*, May 2012

Federal Chamber of Automotive Industries (FCAI), Vfacts, *National Report, New Vehicle Sales December 2012.*

National Transport Commission (NTC), 2012, *Cooperative ITS Regulatory Policy Issues: Discussion Paper, November 2012.*

PWC, 2011, *The Australian Automotive Industry and a Changing Competitive Environment*, December 2011.

Strassburger, R. 2012, *Alliance of Automobile Manufacturers response to NHTSA Visual-Manual Guidelines for In-Vehicle Electronic Devices*, May 2012

APPENDIX A THE AUSTRALIAN AUTOMOTIVE INDUSTRY

The automotive industry is a globally integrated industry with many product lines sharing platforms and major components to achieve productivity gains from economies of scale. Even with more than one million vehicles sold annually, Australia comprises less than one and a half percent (1.5%) of the global market.

The automotive industry is a major contributor to Australia's lifestyle, economy and community and is Australia's largest manufacturing industry. The industry is wide-ranging – it incorporates importers, manufacturers, component manufacture and distribution, retailers, servicing, logistics and transport, including activity through Australian ports and transport hubs.

The Australian automotive sector exported around $3.3 billion in vehicles and components in 2011 and annual turnover in the industry exceeds $160 billion. The industry directly employs almost 52,000 people through Australia's three vehicle manufacturers, dozens of importers and thousands of related component manufacturers. Further, the automotive industry employs nearly 280,000 people directly and indirectly throughout Australia. Around $470,000 worth of product is generated per employee, a significant contribution to the Australian economy. The industry paid around $3 billion in wages and salary in 2009/10 and over the last 10 years annually invests between $600 and $800 million on research and development[10].

As the tariff barriers on automotive products have reduced from 57.5% in the 1980's to between 3 and 4% the number of vehicle brands and models in the Australian market has increased.

There are now over 60 brands and more than 350 models in the Australian market, with just over one million new vehicle sales per year. That is a lot of brands to service a market of our size equating to 16,849 new vehicles sold per brand. The following table provides a comparison of the competitiveness of global markets with double the number of new vehicles sold per brand in Canada, almost three times as many in the UK and more the 230,000 new vehicles sold per brand in the USA.

Table A1 - Competitiveness of Global Vehicle Markets[11]

	Australia[12]	Canada	UK	USA
No. of brands in market	66	48	54	51
Sales	1,112,032	1,583,388	2,293,576	11,772,220
Market size per brand	**16,849**	**32,987**	**42,474**	**230,828**

[10] DIISRT, Key Automotive Statistics 2011

[11] DIISRT, Automotive Industry Data Card, November 2012 Automotive Update

[12] Australia sales figures updated to reflect 2012 Vfacts sales data

Table A2 below shows the major countries/regions of origin of new vehicles sold in Australia during 2012. In 2012, only 13% of new vehicles sold were manufactured locally with the remaining 87% of new vehicles imported from many countries and regions of the world including Asia (Japan, Korea and Thailand accounting for more than 60%), Europe (14%), North and South America (3%) other Asian countries (3%) and South Africa.

Table A2 - Origin of New Vehicle Sales in 2012[13]

Country/Region of Origin	% of New Vehicle Sales
Japan	35%
Thailand	15%
Europe	14%
Korea	13%
Australia	13%
Americas	3%
Other Asia (incl China and India)	3%
Other (incl South Africa)	3%

The motor vehicle is increasingly a global product and one of the most comprehensively regulated products. In considering regulations, the government's role is to balance social and economic benefits with safety and environmental performance.

As economies of scale are critical in the automotive industry all manufacturers have tended to limit the number of locations any one model is produced and that model is then cross-shipped to markets where there is demand. This approach initially benefits the manufacturer through reducing costs and ultimately benefits the consumer by improving affordability and increasing product choice.

Australia is a small player with less than 1.5% of the global build sold in this market. Consequently, Australia's ability to influence global design and investment is limited and as individual states are even a smaller proportion of the market and their ability to influence multi-national companies is correspondingly very limited.

It has become much easier to afford a new car since the mid-1990s, as earnings growth has exceeded the movements in motor vehicles prices. Motor vehicles are more technologically advanced today than ever before. Whilst the structural changes in the Australian market, in terms of lower tariffs and more brands, has resulted in significant consumer benefits with improved affordability and choice it has also greatly increased the knowledge base required of repairers. The repair industry has had to change to compete in this global market place and cannot slow the rate of adoption of these technologies, or limit consumer choice.

[13] FCAI, Vfacts National Report, New Vehicle Sales December 2012

The expansion of new and global brands and models into the market has led to the introduction of advanced security, safety and environmental features in motor vehicles. The introduction of these features is in response to increasingly strict environmental regulations and growing demands from consumers for advanced security and safety features.

Vehicle brands face a range of pseudo regulations in the form of safety and environmental star ratings and buyer requirements. They face a range of competitive pressures to continually improve environmental performance and safety standards. For example, around 30-50% of vehicle sales are sold to governments and fleets that frequently require a 5 star ANCAP rating and/or 4 star GVG rating.