

Telematics, a tool which is just another element in a safety management system

Jerome Carslake^a, Rod Baker^b, and Stephen Tofler^c

^aARRB/National Road Safety Partnership Program; ^bViva Energy; ^cVicRoads

Abstract

The use of telematics continues to grow throughout the Australian transportation industry as operators hope to take advantage of the operational and safety benefits of utilising these technologies.

This paper will explore how telematics should be treated as just another component in a safety management system and proper implementation is crucial in strengthening an organisations road safety culture. To do this, the National Road Safety Partnership Program (NRSPP) will apply a case study and consultative methodology with leading figures from the transport industry – including operators, drivers, insurers, technology providers and researchers.

NRSPP will explore the benefits of these technologies; requirements for effective implementation; and their place within an organisation's overall operations and safety management system.

Background

While the external environments facing light and heavy vehicle fleet operators differ, operational efficiency and organisational safety are two areas all operators can target to maintain a competitive edge and growth.

Rapid technological evolution has led to a diverse array of increasingly affordable telematics implementations marketed by a growing number of suppliers in Australia. The range of telematics available can include GPS tracking, accelerometers, connection to a vehicle computer to monitor seatbelt use, Electronic Stability Control (ESC) and other parameters, forward and in-cabin cameras, including in-cabin audio recording (IVCS), fatigue management compliance to name a few. With such a broad range of technological tools becoming available the operators can become concerned the focus is on 'big brother' and not improving safety. The attitude of operators is entirely dependent upon how the telematics systems are implemented and their supporting systems.

Method

The NRSPP conducted extensive consultation through 20 one-on-one interviews with a range leading figures from the transport industry. Those consulted included operators, insurers, technology providers and researchers. These interviews sought to take advantage of the different experiences and perspectives to develop a well rounded understanding of telematics on the ground in Australia and pathways for further use into the future. Of the 20 organisations interviewed, 10 expanded on case studies available on the NRSPP website and cited in [Discussion Paper: In-Vehicle Monitoring Systems \(IVMS\): Safety through good practice telematics](#).

Results

All consulted spoke in positive terms regarding the potential for telematics to provide significant benefits to an organisation if properly implemented. There was consensus in the view that it should not be seen as a 'silver' bullet, but rather as an effective tool if well integrated into an organisation's operational and safety systems.

Key findings included:

- Bottom line benefits include increased fuel efficiency and reduced maintenance and incidents, resulting in lower insurance premiums and downtime costs. Productivity was also enhanced through efficient real-time resource allocation.
- Safety benefits were seen in improved driver compliance and behaviour, through tailored training and counselling possible through data collected by telematics.
- The provision of real time location of a vehicle information to customers regarding deliveries thereby taking the pressure of drivers being contacted directly for delivery status and the receiver can be prepared.
- Critical aspects of implementation include consultation of the workforce (in most cases, drivers) about program introduction, explanation of how telematics could improve safety and reduce workload and the provision of opportunities for feedback. All of this was crucial to avoid 'Big Brother' perceptions.
- In selecting telematics systems organisations must have a clear understanding of their objectives in order to select a system that will meet their needs. Providers can assist in this process.
- Effective management of the information collected is crucial. Accountability, consistency and regular review are hallmarks of effective information management.

Good Practice Implementation: Five key considerations

The importance of implementation was continually emphasised by those consulted. Synthesis of these consultations identified five key stages required to ensure the successful implementation of telematics. The implementation stages include:

1. Clearly defined goals – consider what is the problem to be solved? What are your expectations? What technology best fits the purpose?
2. Consider current and future needs when selecting the technology, especially its limitations.
3. Building employee acceptance – bridge the gap, drivers interact with the technology in the vehicle and with management. They need to be part of the journey and develop strategies that get their buy-in.
4. Real-time monitoring & feedback – explore the driver and operator side and how both can benefit
5. Management of feedback – consider how the data is going to be managed, education opportunities and there must be accountability throughout the organisation for it. Importantly, complacency must not occur, drivers need feedback and coaching where applicable must be taken.

Benefits of good practice implementation

NRSPP engaged with operators of both light and heavy vehicle fleets for a first-hand account of their experiences with implementing telematics. Despite differences in fleet types and difficulties in quantifying exact benefits, where good practice implementation had occurred there were substantial crossovers in the benefits reported by operators.

Conclusions

Telematics can have an enormous safety benefits but should be treated as another tool which is part of an organisation's safety management system. It can be a powerful tool when properly implemented but it can also be a costly mistake if not properly integrated.

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