
The Parliament of the Commonwealth of Australia

Moving on intelligent transport systems

House of Representatives
Standing Committee on Transport and Regional Services

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Foreword

This inquiry began as an examination of the potential to use variable speed signs as a case study for intelligent transport systems (ITS) on selected portions of the Hume Highway, the Federal Highway and the F3 Freeway in New South Wales.

However, the committee soon found that variable speed signs were one, already well tested, element of an approach to improving transport safety and efficiency. Therefore, the committee concluded that there was no necessity to conduct additional studies of the usefulness of this single component of any intelligent transport system.

The committee discovered that there was, however, a larger, nationally more significant issue: the degree to which Australians have implemented ITS and grasped the opportunities the ITS sector offers.

There are clear benefits in using ITS as a means of controlling traffic. ITS leads to lower fuel consumption, better safety, and enhanced economic performance of industry. The committee also saw the export successes and further export opportunities.

ITS is likely to play an important role in the enhanced national security environment that had emerged over this past year; however, such matters were outside the scope of the inquiry.

The committee was impressed by examples of ITS in New South Wales and Queensland, and received information on ITS developments in Victoria. In each case, the road system in those jurisdictions has improved in efficiency, thereby reducing the need for additional road construction. As well, there has been increased safety and some of the technology developed has been exported.

The committee was disturbed, however, by the apparent lack of coordination of ITS at the Commonwealth level and the lack of a focused ITS administration to coordinate a national policy and a national system.

The committee discovered that important elements of a national ITS system, such as nationally consistent electronic toll standards, had not been implemented. As a result, the country faces a 21st century version of the infamous rail gauge problem that has plagued Australia's development since before Federation.

Moreover, given the current national security climate, the committee is concerned that there may not be within the Commonwealth administration, an acute appreciation of the benefits of ITS or, indeed, its necessity.

The apparent state of Commonwealth engagement in ITS is unlike the United States, the European Union or Japan. These countries have specific ITS administrations overseeing the implementation of ITS.

The committee noted the initiatives in transport funding proposed in the Auslink green paper, released by the Deputy Prime Minister, the Hon John Anderson, MP on 7 November this year. AusLink will expand the range of projects that are eligible for Commonwealth Government funding, to include ITS. However, Auslink proposes to treat ITS on a par with all other projects, rather than a crucial element requiring focused attention.

In view of the approach taken in other developed economies, the committee feels a more active, focused program should be developed. This program should promote the deployment of ITS within Australia and realise its potential, not only as a facilitating mechanism in road and traffic control, but its potential as an export product.

Maintaining international competitiveness, improving the safety and efficiency of our transport system and earning export dollars, motivated the committee to recommend the creation of an ITS bureau directly responsible to the Minister for Transport. This bureau would oversee the deployment of ITS in Australia, and ensure that the nation benefits from the export opportunities ITS offers.

As part of this more active approach, the committee believes there should be a coordinated approach to research and development, also administered by the proposed bureau.

The committee concluded that ITS should form a fifth category for road funding, in addition to the National Highway, Roads of National Importance, the Black Spots program and Roads to Recovery.

If Australia is to remain a competitive nation, benefiting from technology and exporting it to the world, we must remain at the cutting edge of innovation. We must remain eager to implement new, smarter approaches to old activities.

ITS represents a society doing just that. It represents a society moving forward confidently, ready to tackle the challenges of the future while seizing the opportunities that technology and innovation offer.

Paul Neville MP
Chair



Membership of the Committee

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Deputy Chair Mr Steve Gibbons MP

Members Mr Peter Andren MP

Mr Frank Mossfield MP

Mr Barry Haase MP

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¹ Ms O'Byrne, on leave from the House, was replaced on the committee by Ms Livermore from 20/8/2002 to 2/12/2002.

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List of abbreviations

| | |
|---------------|---|
| BCC | Brisbane City Council |
| BCE | Brisbane City Enterprises |
| BLISS | Brisbane Linked Intersection Signal System |
| DoTaRS | Department of Transport and Regional Services |
| ERTICO | European Road Transport Telematics Implementation Co-ordination Organisation |
| EU | European Union |
| FTL | Freight Transport Logistics |
| HERO | Highway Emergency Response Operations |
| ITS | Intelligent Transport Systems Transport systems that use information, communication and other forms of high technology, for the efficient and safe movement of goods and people. |
| ITS JPO | Intelligent Transportation Systems Joint Program Office |
| NOIE | National Office of the Information Economy |
| NRAWG | National Reference Architecture Working Group |
| NTTWG | National Ticketing and Tolling Working Group |
| PUFFIN | Pedestrian User Friendly Intelligent crossings |
| Ramp Metering | The practice of regulating the rate at which cars enter an urban freeway by means of traffic signals at entrance ramps. |
| RTA | Roads and Traffic Authority, New South Wales |

| | |
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| SCATS | Sydney Coordinated Adaptive Traffic System |
| TEA-21 | Transport Equity Act |
| TMC | Traffic Management Centre |
| VICS | Vehicle Information Communication System |
| VMS | Variable Message Signs |
| VSL | Variable Speed Limits |



List of recommendations

Recommendation 1 31

The Committee recommends that the Hume Highway, the Federal Highway and the F3 not be used as case studies for variable speed limits.

Recommendation 2 31

The Committee recommends that, in addition to the National Highway, Roads to Recovery, Roads of National Importance and the Black Spots Programs, the Commonwealth establish a fifth category, a regional ITS program, to provide for the allocation of seeding funds for the implementation of integrated ITS and that as part of this program funds should be made available for selected arterial roads, and provided on the basis of:

- demonstrated need;
- existing quality of road;
- the significance of the arterial nature of the road; and
- benefit/cost analysis.

The seed funds be made available to state and local authorities on a competitive, benefit/cost basis to encourage appropriate and cost effective ITS signage on significant state highways and major arterial roads.

Recommendation 332

The committee recommends that the government designate as a 'National ITS Corridor', certain roads of national significance, such as the Hume Highway, the Federal Highway and the F3, and that

- such corridors have installed on them appropriate and cost effective ITS technology; and
- they be used to test integrated ITS infrastructure.

Recommendation 444

The Committee recommends that the current policy framework for ITS be reviewed and that a new, comprehensive policy framework be developed that:

- identifies strategic directions and national priorities;
- identifies funding options; and,
- recommends appropriate institutional and legal arrangements to give effect to national ITS policy and programs.

Recommendation 549

The committee recommends that the government establish an ITS implementation bureau as an executive agency directly responsible and accountable to the Minister for Transport and Regional Services.

Recommendation 649

The committee recommends that the specific responsibilities of this bureau must be to:

- act as a national forum for resolving differences in standards, and approaches;
- coordinate Commonwealth government activity in the area of ITS;
- develop and implement national ITS policy, including identifying national goals;
- set standards for inter-operability and national architecture;
- coordinate R&D; and,
- provide assistance to other Commonwealth agencies to facilitate the export of ITS technology.

Recommendation 755

The Committee recommends that the government:

- resolve, if need by legislation, the current disputes and inconsistencies between technical and other ITS inter-operability standards; and
- establish as soon as possible, but no later than 31 December, 2003, a system, administered by the Commonwealth ITS bureau, to develop national standards for ITS, inter-operability, systems architecture, and, if necessary, establish such standards by legislation and or regulation.

Recommendation 857

The Committee recommends that the Commonwealth enter into negotiations with the states and stakeholders, and establish, no later than 31 December 2004:

- a single national traveller information number;
- a national tourist and transport information radio network along major tourist routes; and
- a system of national ticketing to enable tourists to purchase a single, electronic rail, road, toll and public transport ticket.

Recommendation 961

The Committee recommends that the government commission the Bureau of Transport and Regional Economics to:

- survey the export potential of ITS;
- review Australian ITS industry and export policy;
- develop an Australian ITS industry marketing plan; and,
- make other such recommendations as may be appropriate.

Recommendation 1061

The Committee recommends that the Minister for Transport and Regional Services, the Minister for Communications and Information Technology, jointly develop in co-operation with other associated agencies and related agencies a plan for the representation of Australian ITS companies at appropriate future ITS forums.

Recommendation 1164

The Committee recommends that the government review the national ITS R&D strategy as soon as possible and that the government:

- establish an ITS R&D forum that brings together industry, academia and government, the task of which is to facilitate the exchange of information and identify national R&D priorities;.....
- establish a targeted ITS R&D fund to be administered by the previously recommended Commonwealth ITS Bureau;
- allocate a portion of the Commonwealth road allocations as seed funding for an ITS R&D fund; and
- establish a cooperative research centre for ITS.

