Australian Government
Department of Transport and Regional Services

GOVERNMENT RESPONSE

HOUSE OF REPRESENTATIVES STANDING COMMITTEE ON TRANSPORT AND REGIONAL SERVICES REPORT ON ASPECTS OF INTELLIGENT TRANSPORT SYSTEMS

MOVING ON ITS

BACKGROUND

At the request of the Deputy Prime Minister and Minister for Transport and Regional Services, the Hon John Anderson MP, the House of Representatives Standing Committee on Transport and Regional Services conducted an inquiry into the potential for applying variable speed limits (VSL) on the F3 Freeway and the Hume Highway between Sydney and Canberra as case studies of the effectiveness of intelligent transport systems (ITS). VSL are an example of an ITS application, and recent research has indicated that, under certain conditions, the general, posted speed limit on a section of road could be varied upwards or downwards through electronic signage to reflect prevailing driving conditions.

The Committee invited submissions (a total of seven were received) from industry and other stakeholders, held a public hearing and conducted a series of inspections and briefings with key stakeholders in Sydney and Brisbane. The Department of Transport and Regional Services (DOTARS) provided the Committee with a background paper, a submission and appeared at a public hearing.

The Committee found that VSL applications were already well tested and that additional studies of the usefulness of this single component of ITS would not address the broader issue of ITS in Australia. The Committee broadened its view to examine the degree to which Australia has implemented ITS and the extent to which it has grasped the opportunities the ITS sector offers.

The Committee tabled its report, *Moving on ITS*, on 9 December 2002. The report contains eleven recommendations.

RECOMMENDATION 1

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

Response

The Government agrees with this recommendation with respect to the application of variable speed limits (VSL) along the full length of the identified routes.

The Government believes that any application of VSL on the Hume Highway, the Federal Highway and/or the F3 should not proceed without full investigation and analysis of the costs and potential benefits. A thorough examination of the accident history, usage, weather patterns and condition of the roads would be necessary in order to identify the costs and potential benefits of VSL in specific locations.

However, in light of recent analyses undertaken by the Bureau of Transport and Regional Economics, and the Monash University Accident Research Centre, the Government believes that there may be potential for VSL to be applied on parts of these routes (eg. the Hume Highway between Sydney and Canberra). This would entail reducing speed limits on sections that are subject to high traffic volumes and/or have a high incident rate of, or particularly disruptive, accidents. Conversely, speed limits could also be raised when optimal road, traffic and weather conditions exist.

The Government also believes that there is a need for further analysis of the availability or development of technologies for varying speed limits on main arterial and regional roads to reflect safer driving conditions.

In order to ensure a net safety gain, it would be necessary to conduct any such trial of VSL subject to a number of caveats. These would include automatic enforcement of any increased speed limits, the review of speed limits on adjacent and other arterial and regional roads, and the possibility of introducing a regulatory regime to permit only more experienced motorists to travel at the proposed higher speeds.

Consideration of the incorporation of other ITS applications, such as incident detection and alert systems, should be part of any analysis. It should be noted, however, that this type of analysis is not solely the responsibility of the Australian Government.

Action

The application of VSL will be considered on its merits relative to other investment priorities as part of infrastructure investment decisions under *AusLink*. The Hume Highway, the Federal Highway and the F3 have been classified as part of the *AusLink* National Network. The Department of Transport and Regional Services (DOTARS) will monitor technology developments that could allow the safe variation of speed limits on main arterial and regional roads to reflect driving conditions, including a trial on selected sections of the Hume Highway between Sydney and Canberra and the F3.

These initiatives will be progressed as part of a national ITS policy (see Recommendation 4).

RECOMMENDATION 2

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.

Response

The Government agrees with the need to implement integrated ITS in regional Australia.

However, rather than establish a fifth category of programs, the Government will consider how to progress implementation through the *AusLink* National Land Transport Plan. It should be noted, however, that *AusLink* investment priorities are for links that are on the *AusLink* National Network, and for local roads under Roads to Recovery. ITS investments could be made on these links through *AusLink*, on a shared funding basis. Other roads remain State responsibilities.

The Government recognises that the prudent application of ITS has the potential to greatly enhance the efficiency and safety of new and existing infrastructure, as well as reducing congestion, pollution and other environmental effects of transport.

The Government, as part of its considerations on *AusLink*, will look to enable ITS solutions to be considered as alternatives to, or in association with, more traditional construction solutions to infrastructure problems.

A main objective of *AusLink* is to achieve sustainable national and regional economic growth, development and connectivity. In accordance with a focus on achieving national infrastructure policy objectives, *AusLink* aims to promote the effective development and use of ITS technology through stronger encouragement of national initiatives to develop innovative solutions that meet Australia's needs.

AusLink will encourage joint development and funding of projects to improve reciprocal responsibility for developing the network through participative planning mechanisms and leveraging. This approach will build on established relationships between local councils, State and Territory governments, and local/regionally based interests.

At its meeting on 19 November 2004 the Australian Transport Council (ATC) endorsed the National Assessment Methodology Guidelines, and agreed to their publication. Further, ATC supported their extension to other areas of transport such as public transport, air and sea transport and non-motorised transport. The Guidelines adopt a total system approach to transport planning and investment. They follow a multi-modal approach and integrate infrastructure provision with travel demand management strategies including land-use planning, travel behaviour and Intelligent Transport Systems/traffic operations.

Action

The Government will seek to actively promote and implement technology solutions through *AusLink*.

RECOMMENDATION 3

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.

Response

The Government agrees with the principle of this recommendation.

The Government recognises the importance of an integrated ITS infrastructure and selected sections of the above roads could be used in a trial to test ITS technologies.

From a national perspective, one of the most important considerations for the Government in the application of ITS is to ensure its proper integration into the overall national network to maximise the potential of existing and future land transport infrastructure. There must be a full consideration of the likely needs for future connectivity of the entire transport network.

After applying ITS technologies to specific roads as part of a trial, the Government considers that the diverse application of ITS could be extended over time to cover other links in the transport network in a cost effective manner.

To further raise the profile of ITS solutions and to continue testing and evaluating ITS infrastructure, the Government has indicated that technological solutions, including ITS, will be eligible for funding under *AusLink*.

Action

Under *AusLink*, the Government will promote the effective development and use of ITS by evaluating and using technological solutions as alternatives to, or in association with, more traditional construction solutions to transport problems. The evaluation methodology being developed for *AusLink* will ensure that any chosen solutions best meet national policy objectives. *AusLink* strategic priorities and investment priorities are detailed in the National Land Transport Plan in the White Paper, released on 7 June.

To progress this recommendation further, the application of ITS technologies as part of a trial on selected routes will be investigated as part of shared funding considerations under *AusLink*.

RECOMMENDATION 4

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.

Response

The Government agrees with this recommendation.

The current National Strategy for ITS, ***e***-Transport, was launched by the Deputy Prime Minister and Minister for Transport and Regional Services, the Hon John Anderson MP, in December 1999. The Strategy was commissioned by Austroads and developed by ITS Australia. The key responsibility for implementing ***e***-Transport fell to ITS Australia, which commissioned an independent consultant to conduct a review of the effectiveness of the Strategy.

The Government recognises the need to renew the policy framework to ensure that Australia maintains its position as a world leader in the development and employment of ITS. The Government is committed to the cooperative development of a new ITS policy framework, which is designed from a national perspective with national priorities and national strategic directions. A special Standing Committee on Transport (SCOT) ITS Sub-Committee has recently been established to oversee the development of a new National ITS Strategy. DOTARS is represented on, and is an active contributor to, the Sub-Committee.

DOTARS established a Technology Taskforce in late 2001 to investigate how the Department could best play a role in accelerating technological infrastructure innovations and developments in transport as a means of transforming the sector and enabling economic growth.

As a result, a Technology and Innovation Team was formed to combine various technology functions that were previously dispersed throughout the Department, including Intelligent Transport Systems.

The outcomes of this work have been reflected in the development of *AusLink*.

Action

DOTARS will, within existing resource constraints, continue to contribute to the development of a new ITS policy framework and the work of the SCOT ITS Sub-Committee, in conjunction with State, Territory and local governments and other key stakeholders to progress national priorities and strategic directions.

RECOMMENDATION 5

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.

Response

The Government agrees with the principle of direct responsibility and accountability for ITS implementation.

However, rather than establish an ITS implementation bureau, the Government proposes to develop a new ITS policy framework in cooperation with State, Territory and local governments and other key stakeholders.

The creation of a Technology and Innovation Team of DOTARS reflects the Government's commitment to promoting and implementing appropriate ITS solutions to current and future transport infrastructure problems. DOTARS has moved to better position itself to influence technology and innovation policy by, for example, engaging in the agency level Coordination Committee on Science and Technology, and supporting the Minister for Transport and Regional Services' participation in the Prime ``Minister's Science, Engineering and Innovation Council.

However, ultimately putting 'ITS policy' into practice will require the active involvement of industry and, where appropriate, other Government agencies. This objective can be assisted however by positive encouragement of ITS under Australian Government investment programmmes such as *AusLink*

Action

DOTARS will take a leadership role, on behalf of the Australian Government, to progress national ITS policy and regularly report progress to the Minister for Transport and Regional Services.

The Government will continue cooperation with State, Territory and local governments and other key stakeholders to further progress the development and implementation of national ITS policy in Australia, including through *AusLink.*

RECOMMENDATION 6

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 interoperability and national architecture;
- coordinate R&D; and
- provide assistance to other Commonwealth agencies to facilitate the export of ITS technology.

Response

The Government agrees with the principle of this recommendation.

The Government notes that ITS Australia and some of its Working Groups are already addressing a number of the actions under this recommendation.

ITS Australia is a not-for-profit organisation, consisting of representatives from government, industry, private sector and academia, that was established in 1992 to promote the early deployment of ITS in Australia and is responsible for implementing the National ITS Strategy, *e*-transport.

ITS Australia has established a number of working groups to address interoperability and national architecture issues, including the National Ticketing and Tolling Working Group and National E-Tolling Committee whose mandates specifically include resolving interoperability issues. A National ITS Architecture Working Group has also been established.

Resolving differences in current standards, setting national standards to ensure future interoperability, and ensuring current and future applications conform to the national ITS architecture are all high priorities for the Government.

Australia's standardisation organisation, Standards Australia, has played a key role in promoting ITS standardisation by establishing a standards committee for ITS. Members of this committee and its sub-committees participate in the international standardisation work of ISO TC 204 and develop ITS standards for areas not currently addressed by ISO.

DOTARS already plays a lead role in the coordination of Australian Government activity in the area of ITS, and as indicated in the response to Recommendation 4, will lead the development of a new ITS policy framework

The Government agrees that the responsibilities identified are key elements of a national ITS policy framework and these can only be effectively implemented in cooperation with other key players.

The Government recognises the importance of ITS R&D and notes that ITS is already explicitly covered under one of the Government's identified national research priorities, "Frontier Technologies for Emerging Industries".

DOTARS has been closely involved with Invest Australia, with which it jointly hosted a Commonwealth pavilion at the 8th ITS World Congress in Sydney in 2001 to promote a theme of investing in Australian ITS. ITS Australia also has a close working relationship with Austrade.

Action

DOTARS will progress action in each of these areas, subject to resources being available, as part of implementing the national ITS policy, in cooperation with other tiers of government and industry. It should be noted that a number of other Commonwealth agencies and industry bodies, such as those mentioned above, are also progressing actions proposed under this recommendation.

RECOMMENDATION 7

The Committee recommends that the Government:

- resolve, if need be by legislation, the current disputes and inconsistencies between technical and other ITS interoperability 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, interoperability, systems architecture, and, if necessary, establish such standards by legislation and or regulation.

Response

The Government agrees with the principle of this recommendation. The Government supports the development of national standards for ITS and the interoperability of ITS systems.

Much of the activity covered by this recommendation is already being addressed. As indicated in the response to Recommendation 6, ITS Australia has also established the National Ticketing and Tolling Working Group and the National ITS Architecture Working Group to address key issues such as interoperability, standards and systems architecture.

The Government does not, at this stage, consider the enacting of new legislation and/or regulations to be necessary for the establishment of new technical and other ITS interoperability standards.

Furthermore, the Government considers that dispute resolution and current inconsistencies need to be resolved by the relevant affected parties.

The Government will continue to play a role in encouraging, promoting and contributing to the development of national standards for ITS, interoperability and systems architecture. It is in this area where DOTARS will continue to actively engage industry and State and Territory Government representatives. Specifically, DOTARS will strive to ensure that under *AusLink* Australian Government investment is used as a lever to help achieve the interoperability objective.

Action

The Government will continue to encourage the resolution of disputes and inconsistencies between technical and other ITS interoperability standards, as well as promote and contribute to the development of national standards for ITS.

Furthermore, DOTARS will continue to pursue its policy of actively promoting the need for current and future ITS applications (including all applications funded by the Commonwealth) to conform to the national ITS architecture and ensure interoperability as far as practicable. This will be a specific consideration for any ITS related funding provided under the *AusLink* initiative. It is important to note that State and Territory governments also have a key role to play in this regard as they are primarily responsible for ITS applications in their respective jurisdictions.

RECOMMENDATION 8

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.

Response

The Government is involved in the examination of the feasibility of this recommendation, but notes that much of the activity covered by this recommendation is being progressed by ITS Australia, its National Ticketing and Tolling Working Group, and the CSIRO.

ITS Australia has had a discussion paper prepared for a National Multimodal Traveller Information System demonstration project feasibility study. The Information System is an *e*-transport project, having been specifically identified in the *e*-transport ITS National Strategy.

The Government is aware of the success of the United States' '511' Traveller Information System, and of the subsequent benefits, and has indicated in the *AusLink* White Paper that it will partner with State and Territory governments and the private sector to implement a national traveller information service, which will provide real-time information on scheduled road, rail and air public transport services, road condition and traffic reports.

The CSIRO, under its Energy Transformed National Research Flagship, has also begun preliminary research into facets of a national traveller information system. This may assist effective implementation of such a system.

One of the options currently being investigated by the National Ticketing and Tolling Working Group is the feasibility of a nationally consistent standard for public transport ticketing smart cards in Australia. DOTARS is a member of the Working Group and is aware of some of the problems faced with establishing such a system, including the need for full cooperation by all States and Territories, and the technical difficulties encountered when attempting to achieve full interoperability.

Action

It is envisaged that a number of projects, including a national traveller information service, will continue to be developed. DOTARS will continue to work in conjunction with State and Territory governments and other key stakeholders to help facilitate the introduction of such systems where appropriate.

DOTARS will also work with the National Ticketing and Tolling Working Group to assess the feasibility of establishing a system of national ticketing to enable the purchase of a single, electronic rail, road, toll and public transport ticket.

RECOMMENDATION 9

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.

Response

The Government agrees that it would be useful for the type of work covered by this recommendation to be conducted.

The Government notes that ITS Australia has already developed an ITS Marketing and Communications Strategy. ITS Australia is also considering future work it can undertake to further progress these issues.

One of the Commonwealth agencies that could perform some of the work in this recommendation is the BTRE. The BTRE has indicated that a study of this nature is feasible with the collaboration of ITS Australia to facilitate industry cooperation and involvement. Subject to available resources, the Bureau will consider this type of work in its future work programmes.

Action

The BTRE will examine a possible future work program involving some of the ITS issues covered by this recommendation, subject to available resources.

RECOMMENDATION 10

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

Response

The Government agrees with this recommendation in terms of ensuring appropriate Australian representation at future ITS fora.

The coordination of Australian representation at ITS World Congresses has been conducted by ITS Australia.

DOTARS is represented on the Board of ITS Australia, and has been represented at World Congresses held so far. In addition, DOTARS was a major sponsor of the 8th World Congress (held in Sydney in 2001) and coordinated wide Commonwealth involvement in the Congress, in conjunction with Invest Australia, to promote a theme of investing in Australian ITS. DOTARS hosted a joint Australian Government pavilion at the Congress and a Commonwealth delegation was present at the event.

Action

The Government will continue its commitment, within existing resource constraints, to promoting appropriate Australian representation at ITS World Congresses, as well as at other appropriate ITS fora. DOTARS will liaise with the Department of Communications, Information Technology and the Arts and ITS Australia to review, and develop as necessary, means by which representation of Australian ITS companies at appropriate future ITS fora is achieved.

RECOMMENDATION 11

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.

Response

The Government agrees with the principle of this recommendation.

ITS Australia already brings together representatives from government, industry, academia and government. Given the depth of expertise ITS Australia is able to draw upon, it is ideally placed to identify and provide advice on national R&D priorities.

ITS is also explicitly covered under one of the Government's identified national research priorities, "Frontier Technologies for Emerging Industries".

Funding for ITS R&D is also being considered in the context of *AusLink.*

There are already a number of ITS related R&D centres, and the Commonwealth sees the development of such centres as a matter for industry, working with other Government agencies. As recommended, the Government will consult widely on how to most effectively improve ITS R&D.

Action

The Government will work with ITS Australia and key stakeholders to examine how best to support ITS R&D as part of a national ITS policy framework.

The Government may also consider allocation of ITS R&D funding under *AusLink.*