

TAs involvement in the Big Picture: our key issues

TAs aims to improve national well-being by influencing major transport decisions. An essential first step in this process is to identify the key issues that:

- are central to Australia's well-being, productivity and sustainability
- will continue to be important in coming decades
- recognise the full spectrum of the "transport task", including moving people and freight into and out of Australia, around Australia, and within our cities and towns.

As of 2018, the Executive committee of TAs has identified six key issues. These issues are set out below, in no special order. Over coming years, these issues will drive our activities, at both national and state level.

Six key issues

Livability of Australia's cities

Successful, livable large cities across the world are under-pinned by high quality public transport services, and roads which allow for the safe movement of freight, and people (in directions not served by public transport). Freight includes food, consumables, building materials, and waste.

Most of Australia's major cities already suffer from road traffic congestion, and overcrowded public transport. Many of our cities are likely to double in population over the next 40 to 50 years.

In recent years (to alleviate congestion and overcrowding), TAs recognizes that governments have begun major road and public transport upgrades in and around most cities. Continued population growth means these current projects will only provide short-term relief.

To ensure Australian cities maintain "high livability" rankings, TAs actively promotes:

- long-term, non-partisan, transport planning for the safe and economic movement of people and freight
- effective land use planning to achieve higher urban densities, especially around transport nodes
- policies and infrastructure to support active modes of travel (walking and cycling) around our cities and towns
- realistic demand management measures (including road pricing)
- equitable sharing of the cost burden of new infrastructure between governments, transport users, and other beneficiaries
- continuing investment in urban and interurban public transport and roads, consistent with the long term plans.

Game-changing technologies

In recent times, new technology has under-pinned the establishment of Uber and other “mobility as a service” providers. Even more dramatic changes are likely for the world’s transport system because of:

- robotics, and the imminent introduction of self-driving (or “autonomous”) land vehicles (and probably aircraft)
- new battery and non-hydrocarbon energy sources, for many transport modes
- emergence of “big data” and real-time information systems to manage our roads, public transport and aviation services.

In the next decade, these new technologies could lead to changes in Australia’s transport systems as dramatic as those at the dawn of the steam era in the 1800s, and those at the dawn of aviation and the car/truck in the early 1900s. With effective leadership, these new transport innovations could deliver huge benefits for our national well-being, productivity, sustainability and safety.

Moreover, new transport energy sources could dramatically reduce our dependence on imported hydrocarbon fuels.

TAs:

- supports members who are involved in developing new technologies
- seeks to identify benefits, and the inevitable costs, of changing technologies
- constructively contributes to Australia’s policy and regulatory frameworks to achieve “net societal benefits” from these new ways of moving people and freight
- cautions that some new technologies will have rapid “take up”, but others may take many years to “fully mature”.

Maintaining and improving international competitiveness

We are a nation that is highly dependent on international trade. Much of our import and export infrastructure is privately owned and operated. It compares favorably with infrastructure in many other countries.

TAs advocates for:

- continued investment to modernize and expand our capacity to efficiently and safely move people and freight into and out of Australia
- leading edge technologies for our ports and airports, ships and aircraft, to improve safety, environmental outcomes, and to reduce costs
- protection of vital transport nodes, and the transport corridors to these nodes.

Identifying and allocating costs and benefits

Australia’s transport systems generate important societal benefits, and they also frequently require investments of taxpayer funds for capital works, and for operational costs. These investments compete for scarce government funds against health, education, defence, and many other governmental priorities. Transport systems can also have other costs, including personal health and safety, and environmental consequences.

TAs supports:

- rigorous identification of costs and benefits of existing and new transport systems
- rigorous prioritisation of new transport projects (where they are publicly funded), including urban and rural projects, and “international facilities” such as seaports and airports

- equitable allocation of costs of transport infrastructure between governments, users and other beneficiaries.

Sustainable transport systems

This issue has two components:

Protecting the natural environment

Over the past 50 years, the environmental performance of many components of Australia's transport systems have improved dramatically, including improved fuel economy, reductions in harmful emissions, and improved construction practices. Further environmental improvements are required.

There are opportunities to reduce our environmental footprint through:

- increased use of active transport (walking and cycling), and public transport
- adopting alternative fuel sources
- adopting energy efficient standards consistent with other OECD countries.

Effectiveness and efficiency

Huge investments in transport infrastructure are necessary to cope with population growth, growth in freight volumes, replacing ageing infrastructure, and changes in transport technology.

In recent decades' delivery of transport projects has been patchy in Australia, when measured by cost, completion dates, and final functionality. Moreover, some of our existing transport services have relatively high operating costs.

TAs actively promotes:

- enhanced environmental outcomes through the construction and operational phases of transport systems
- expanded use of active transport modes, and public transport
- further improvements in fuel efficiency and adoption of alternative fuel/energy sources, notably wind and solar
- best practice for efficiently delivering transport infrastructure, and transport services, including the appropriate roles for government and the private sector.
- Implementing national standards for urban streets and rail projects (akin to current guidelines for arterial roads).

A key ingredient in this improvement process is likely to be better design and building management tools, including Building Information Modeling (BIM) systems.

Safety and Security

Over the past 40 years there have been enormous improvements in transport safety, especially road safety. Although there is still a long way to go to achieve zero fatalities, TAs notes that a high proportion of vehicle accidents are the result of human error. Hence, the advent of self-driving vehicles over the coming decade has potential to produce a "step change" improvement in safety.

In contrast, security concerns have increased over this same 40-year period, and include:

- terrorist threats affecting international flights and shipping (with flow-on consequences for Australia's air services and shipping)
- threats to information security, driven by large and small hackers
- greater reliance on imported fuels to power our land transport and air services, and

- only very modest “in-country” reserves of hydrocarbon fuels.

TAs:

- actively promotes further improvements in transport safety across all transport modes
- advocates measures which ensure “acceptable security” for all travelers, freight, and associated transport information
- advocates for adequate “in-country” fuel reserves to insulate Australia against future energy shocks and incidents, and
- wherever feasible, adoption of alternative transport energy sources such as solar-energised batteries.

TAs works with governments, industry and academia to address these key issues, and will comment publicly about issues to support our aim of a productive and sustainable future for Australia.

Over coming years, the work program of TAs is expected to focus on these key issues, including workshops and conferences.

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About TAs

TAs is a national organization. TAs has been sponsored by Engineers Australia, but is intended to be the home for all transport professionals, including transport planners, urban planners, and transport economists.

The purpose of TAs is to improve national well-being, productivity and sustainability by influencing key transport decisions.