



**ENGINEERS  
AUSTRALIA**

**2005**

**AUSTRALIAN**

**INFRASTRUCTURE REPORT CARD**

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## Chief Executive's Communique

World-class infrastructure is vital to the Australian economy. It underpins the delivery of essential services, drives economic growth, supports social needs and is closely linked to the high quality of life that Australians enjoy today.

The quality of Australia's infrastructure is an indicator of the nation's current and potential economic viability. The benefits and costs associated with infrastructure performance are continuous and, over time, assume major economic significance. It is therefore vital that Australia's infrastructure meets today's needs and through careful planning, maintenance and construction, tomorrow's needs as well.



Engineers Australia is the peak professional association representing engineers in Australia, and in 2005, has around 79,000 members. Since its formation in 1919, Engineers Australia has had a continuing interest in infrastructure issues, not only from an engineering perspective, but from a public interest point of view.

Engineers Australia has produced a series of infrastructure reports.

- In 2000, *A Report Card on the Nation's Infrastructure* was published. This report examined roads, bridges, railways, water and wastewater.
- The 2001 *Australian Infrastructure Report Card* expanded on the previous report.
- The *New South Wales Infrastructure Report Card* was first of the State-specific publications, and was published in 2003.
- This was followed in 2004 by the *Queensland Infrastructure Report Card*.
- In 2005, the remaining State and Territory report cards were progressively produced.

The results of all the State and Territory report cards have been compiled to produce this comprehensive update of the state of Australia's infrastructure. State and Territory ratings have weighted according to their by Gross State Products.

Because of our own resource constraints we have confined our investigations to fairly traditional engineering infrastructure such as transport and related facilities, water and wastewater, and energy. We hope to address communications separately next year.

This report highlights infrastructure issues to provide an increased understanding by decision makers, business and the general community of the importance of good infrastructure to underpin Australia's quality of life, and economic and social growth.

A handwritten signature in black ink, which appears to read 'Peter Taylor'. The signature is written in a cursive, flowing style.

Peter Taylor  
**Chief Executive**



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## 1. INTRODUCTION

The purposes of the Engineers Australia 2005 Australian Infrastructure Report Card and Engineers Australia's State and Territory Infrastructure Report Cards include:

- Raising awareness that infrastructure underpins the community's quality of life and that inadequate infrastructure impedes economic and social growth.
- Generating debate on the quality and level of infrastructure provision required to meet society's needs (which includes condition, distribution, funding and timing).
- Encouraging the implementation of best practice infrastructure provision and management, including adopting total asset management principles, a sustainable approach and demand management.
- Identifying the state of the infrastructure sectors and the challenges facing infrastructure providers.

The Infrastructure Report Cards have been developed to provide a published resource focused on key infrastructure assets within Australia. All previous reports were researched and documented in conjunction with GHD Pty Ltd.

The reports examine key infrastructure sectors, evaluate the status of assets and planning processes and assign ratings, which can range from A (very good) to F (inadequate).

<b>A</b>	<b>Very Good</b>	Infrastructure is fit for its current and anticipated purpose in terms of infrastructure condition, committed investment, regulatory appropriateness and compliance, and planning processes.
<b>B</b>	<b>Good</b>	Minor changes required in one or more of the above areas to enable infrastructure to be fit for its current and anticipated purpose.
<b>C</b>	<b>Adequate</b>	Major changes required in one or more of the above areas to enable infrastructure to be fit for its current and anticipated purpose
<b>D</b>	<b>Poor</b>	Critical changes required in one or more of the above areas to be fit for its current and anticipated purpose.
<b>F</b>	<b>Inadequate</b>	Inadequate for current and future needs.

The assessments were carried out through research and consultation. Interviews were held with relevant stakeholders and industry groups, and various publicly available documents were researched and analysed.

The assessments relied on publicly available information and, in line with its aims, have focused on strategic issues, supplemented by quantitative performance measures where these were readily available.

Engineers Australia's Infrastructure Report Cards highlight issues relating to Australia's physical infrastructure, outlining key themes and areas for improvement. The documents provide readers with the ability to understand the complexity, scope and issues facing our infrastructure, which should lead to an increased level of understanding by the general community.

This Australian Infrastructure Report Card provides an up to date strategic overview of Australia's infrastructure that other organisations can use when they undertake detailed analysis of particular infrastructure types. It also provides a benchmark that the community can use to identify needs and evaluate alternative infrastructure priorities over time.

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There is much public debate and discussion about infrastructure at present. Many associations and consulting firms are publishing reports on this subject. These reports have common themes that are very similar to the views that Engineers Australia has been presenting for many years. They highlight the importance of well-maintained and timely new infrastructure in the national economy and the need for better data collection, planning, and more funding. A substantial part of the present debate is that transparent and reliable information to make judgments about infrastructure adequacy is not readily available.

The difference between Engineers Australia's Report Cards and the recent infrastructure reports is that Engineers Australia has specifically focussed on the current state of infrastructure, and what needs to occur to ensure that Australia has the infrastructure to underpin the delivery of essential services and drive economic growth. While it does not pretend to be a complete asset register, it does provide a comprehensive overview of Australian economic infrastructure.

## **2. AUSTRALIA'S INFRASTRUCTURE**

For most of the twentieth century, economic infrastructure in Australia was used to promote national and regional development. As well, it provided employment opportunities.<sup>1</sup> Infrastructure was primarily owned and controlled by governments. Governments did not run their infrastructure businesses on clear commercial principles. Investment and operational decisions often reflected political considerations. Many services were unprofitable, had under-utilised capacity, and were inefficient. The reforms of the last twenty years have sought to address this.

Infrastructure is not only the glue that holds economic activity together, but it is an important economic activity in its own right. Infrastructure is a key component of a nation's capital stock. The services from economic infrastructure account for more than 12 percent of GDP and employ 6.5 percent of the workforce. Infrastructure services are major intermediate inputs to Australian businesses. In turn, businesses represent some 70 percent of demand for power, sewerage and water, road and rail transport and postal and communications services. Economic infrastructure also accounts for some 5 percent of consumer expenditure.<sup>2</sup>

There is a substantial body of economic research which shows that investment in infrastructure results in large direct and spin-off benefits to productivity and to economic growth. An important contribution to consolidating the evidence was a World Bank review in 1994. This demonstrated that the research results were consistent between different authors and applied across different countries.

It is now widely acknowledged that there is a positive relationship between investment in infrastructure and productivity. Cross-country differences in productivity growth can be explained by differences in levels of infrastructure investment. Infrastructure is a key determinant of comparative advantage between countries and, in turn, international trade.

A review of Australian studies has found the following results:<sup>3</sup>

- There is a statistically significant positive relationship between investment in road and other infrastructure and private sector output.
- A one percent increase investment in road infrastructure increases private sector total factor productivity (output) by 0.27 percent.<sup>4</sup>
- An additional \$1 billion investment in roads would yield annual increases in GDP. These might range from \$810 million for urban arterial roads to \$270 million for local roads. In addition, some 19,000 jobs could be created for arterial roads and some 2,400 jobs could be created for local roads.<sup>5</sup>

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- Further benefits from infrastructure reform in the energy sector at 0.41 percent of GDP.<sup>6</sup>
  - Rail reform will benefit GDP by 0.15 percent.<sup>7</sup>
  - Urban water reform will benefit GDP by 0.35 percent.<sup>8</sup>
  - Urban transport reform will benefit GDP by 0.13 percent.<sup>9</sup>

### 3. SECTOR SPECIFIC ISSUES

#### 3.1 Roads

In 2001, ratings for roads ranged from C to D. The ratings today are: national roads C+, State roads C, and local roads C-, all marginally improved since 2001.

Overall, national roads are only adequate, despite upgrade work on the eastern seaboard. State roads vary greatly in quality and increased traffic is reducing local amenity. Rural roads have not improved, although the “Roads to Recovery” program of \$1.2 billion over 4 years is making a difference.

The improvements to the Pacific Highway are commendable, and since 1991, fatalities have halved. However, heavy vehicles are transferring from the New England Highway to the Pacific Highway, greatly adding to the problems on those sections yet to be upgraded.

In Australia’s major cities, the physical growth and social attitudes have developed around the relative convenience of the private vehicle, placing demands on the road system that are becoming unsustainable.

There are both current and future issues with congestion. The total cost of congestion is estimated to be \$3 billion per year and is expected to triple in the next 20 years if remedial measures are not taken.

Initiatives are needed to reduce private vehicle usage and congestion in metropolitan areas of Australia. Freight traffic and freight volumes in Australia are expected to increase, with the freight task expected to double in tonnage terms by 2020. Therefore, action must be taken to review freight routes and improve inter-modal transfers, particularly at ports.

The highly decentralised nature of Australia’s population means that the transport industry is pivotal to the effective functioning of the economy. Future traffic growth will affect the entire network, not just those areas surrounding population centres.

Some State roads, particularly those in rural areas, require attention to raise them to an acceptable level of service. A lack of renewal expenditure on the local road network has led to the generally poor quality of local roads.

Improvements to substandard sections of State roads and bridges are progressing at a slower rate than desirable and local government infrastructure standards are falling behind (mainly in the rural areas).

A national framework for planning and allocating priorities for road funding has been lacking. The *AusLink* initiative is a step in the right direction. The Federal Department of Transport and Regional Services has stated that *AusLink*’s focus is not on meeting ‘here and now’ needs, but on establishing a framework for transport infrastructure investment that will meet Australia’s long-term transport needs.

One of the major concerns of Engineers Australia has been the level of funding allocated to maintenance of Australia’s road infrastructure. Existing infrastructure is, in some cases, in a disturbing state.

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The emphasis of *AusLink* is on the development of new projects. However, investments in existing infrastructure, and overall system performance, need to be safeguarded as well. It is essential that the national infrastructure programming methodology adopt a whole of life analysis approach when prioritising investment in the expanded National Land Transport Network.

### 3.2 Rail

In 2001, rail was graded between A and F with an overall grade of D-. In 2005, rail has improved its rating to C-. There have been some notable improvements, but widespread delays remain and there are uncertainties with new investments.

There is emerging congestion in many metropolitan rail networks. As well, an integrated transport network is needed to meet regional activity centres, and to encourage the transfer of commuters from road to rail.

Improved infrastructure is required to support the transfer of inter-State freight from road to rail and rail access to ports should have an appropriate level of investment.

The Melbourne to Sydney to Brisbane corridor is still sub-standard and is seriously affecting rail freight viability. There is an urgent need for funding.

Solutions include urgent upgrading of existing infrastructure, implementation of proposed projects, better national co-ordination and a less complex regulatory environment. Engineers Australia is strongly supportive of an integrated approach to land transport planning and funding, and applauds the inclusion of rail in the *AusLink* initiative.

### 3.3 Potable Water

Potable water was graded C in 2001. In 2005, potable water has improved to B-. The latest rating recognises increased investment in renewing pipe networks, improved treatment, and reduced water losses from the system.

However, spending on renewals is not keeping up with the rate of asset deterioration. Problems still exist with excess water use and encroachment on catchments by urban areas. Both are solvable through appropriate policy development such as reconsideration of pricing principles to reflect the true cost of water.

Record droughts in recent times have highlighted the need for new sources of supply. The magnitude of anticipated water efficiencies through demand management is ambitious and will require permanent community behavioural change. Water restrictions and other conservation measures will not solve all of the problems.

Planning and development of water sources and infrastructure to keep up with increasing population growth, demand for water and declining rainfall and runoff into reservoirs has identified that major capital expenditure is necessary for many years to come. There is a need to develop water treatment technologies to a higher level of efficiency and to lower costs.

### 3.4 Wastewater

The rating for wastewater in 2001 was C-. It is now C+. This result has been achieved largely through increased investment since 2000. Rehabilitation of existing infrastructure and improved treatment have resulted in reduced discharge of pollutants into waterways. But problems still exist.

The level of re-use has been disappointing. However, there are increasing instances of local government operating wastewater reuse schemes. This is a positive development within the water industry that protects the nation's natural waterways and also leads to greater sustainability of Australia's water resources.

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Many collection systems are old and suffering from advanced deterioration. As many sewer mains are operating at their capacity limits, and many of those systems are nearing the end of their useful service life, there is a need for detailed strategic planning of the upgrading and replacement of those assets.

### 3.5 Stormwater

In 2001, stormwater was rated D. In 2005, it is rated C-, a marginal improvement. The quality of stormwater infrastructure varies widely. Much stormwater infrastructure is old and lacks of funds for maintenance, repairs and renewals are lacking.

Funding for maintenance is a key issue, and was recognised by a Senate Inquiry into urban water in 2002. The Inquiry noted that Federal Government capital grants do not cover ongoing maintenance costs and commented that *“without proper maintenance many of these facilities not only become ineffective, but may even exacerbate the problem. The Commonwealth must therefore ensure that when making grants, adequate checks are made to ensure that provision has been made for long term maintenance funding”*.

Flood damage is the most expensive source of natural disasters in Australia and averages over \$300 million per year. Stormwater pollution also contributes to waterway degradation, which in urban areas such as Sydney, is a major issue. Fragmentation of responsibilities for management, regulation and control is also a problem. Solutions include co-ordinated catchment management, improved land use policies and implementation of systems which reduce runoff and replicate natural water cycles.

New development in the Coomera area between Brisbane and the Gold Coast is a good example of integrating potable and recycled water with stormwater management.

Knowledge on the condition of many stormwater assets is limited, and increasing demand and the aging of assets, has created a need for improved strategic planning in the management of stormwater assets.

### 3.6 Irrigation

In 2001, irrigation was rated D-. In 2005, it has improved its rating to C-.

Across Australia, our significant reliance on irrigation for agricultural purposes is contributing to widespread land degradation from salinity. Difficulties in addressing this arise from the sheer scale of the problem, the huge number of affected stakeholders, the potential social dislocation of introducing competition policy principles into the market, as well as a lack of consolidated information on the sector.

As for urban water, rural pricing is currently inadequate to fund the needs of water infrastructure on a sustainable basis. However, it is anticipated there will be significant improvements on economic performance through the introduction of water trading.

On the whole, rural irrigation infrastructure is largely inadequate, inefficient and unsustainable.

### 3.7 Electricity

The quality of the infrastructure in the Electricity sector was rated B - in 2001. In 2005, the rating is a disappointing C+, which reflects distribution problems, higher peak loads and difficulties related to future investment.

Growing summer demand for electricity presents challenges to the adequacy of the existing infrastructure. Given Australia's projected growth in energy use and the current dependence on high emission fossil fuels, the required increase in electricity production presents a significant challenge.

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For instance, Victoria is faced with particular challenges associated with their reliance on brown coal for generation. The CSIRO forecasts that Australia will require between 74 and 102 percent more electricity to be produced by 2020.

For the transmission network, the next decade is likely to present significant new challenges as the current configuration adjusts to changes in the pattern of supply and demand and, in particular, as the future of brown coal generation becomes clearer.

For the distribution networks, maintaining network performance and responding to the dynamic changes flowing from the introduction of interval metering will provide new challenges.

There are problems related to the lack of interconnections between the various State grids. This lack of interconnectivity inhibits the full benefit of the National Electricity Market being realised and contributes to lower supply reliability than is desirable.

In the future, the electricity industry must reduce greenhouse gas emissions, accelerate the development and use of sustainable energy resources, and actively educate consumers to reduce consumption.

There will continue to be an increased uptake of renewable sources as utilities work towards the Federal Government's renewable energy targets and public sentiment encourages more sustainable activity. However, the distribution networks are not easily able to accept power from renewable sources like wind or hydro in some instances.

### **3.8 Gas**

In 2001 gas was rated C. In 2005, the rating is C+. However, while the condition of assets is good, many pipeline systems do not have adequate capacity to meet future demand.

Demand for natural gas is projected to increase due to the growing availability and competitiveness of natural gas and increased incentives for, and competitiveness of low emission energy sources. Much of the new demand is predicted to come from a growing share of gas fired electricity generation

At projected levels of gas consumption for eastern Australia, gas reserves in the Otway and Gippsland Basins will be depleted between 2015 and 2030, unless significant new discoveries are made. Over the longer term, in the absence of significant discoveries, eastern Australia will rely on gas shipped from other markets.

There is a need for continued investment as gas supply and delivery infrastructure assets age. This, coupled with the natural process of resource depletion (requiring development of higher cost reserves and/or more remote greenfield reserves), will make maintaining competitive prices more challenging over time.

### **3.9 Ports**

In 2001, Ports were rated B. The rating declined in 2005 to C+. The main concerns with ports are urban encroachment, which limits a port's ability to expand, as well as co-ordination with land and air transport systems.

Channel deepening is required for the Port of Melbourne to meet future growth in the size of ships. The impending deepening of Melbourne Port will necessitate deepening of Fremantle Port to maintain competitiveness.

The current and continuing boom in the minerals sector in Western Australia, particularly those industries at the Burrup Peninsula, will necessitate the continued upgrading and provision of facilities to ensure that State's ports can compete domestically and internationally.

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The current system, whereby common user facilities are built only with a guaranteed return on investment (ie. requires commitment from industry before more infrastructure is built), could create a bottleneck, with facilities not being provided in a timely manner. There are localised bottlenecks, with some ports facing immediate capacity restraints, as identified by the Prime Minister's Exports and Infrastructure Taskforce in May 2005<sup>10</sup>.

For some ports, the time and cost issues with obtaining permits for strategic developments, capital works and maintenance works, including dredging, is an issue that requires resolution.

### **3.10 Airports**

Airport infrastructure is generally in good shape and was rated B in 2001 and achieved the same rating in 2005. Certified and registered airports are required to undertake annual technical and safety inspections. Airports are heavily regulated for safety and security, which tends to mean that assets are in a good condition.

However, future expansion will be needed to support increased passenger movements. Expansion will be accompanied by noise impacts on nearby residential areas, and this will remain a problem. Solutions to date include quieter aircraft, noise insulation and flight path sharing. These measures assist, but a total solution, is a long way off.

### **3.11 Telecommunication**

Telecommunication was rated B in 2001. This has not been rated in 2005, as Engineers Australia will be producing a separate report on communications infrastructure in 2006.

## **4. FUTURE DIRECTIONS**

While noting the generally sound state of infrastructure, Engineers Australia is concerned that:

- Significant parts of Australia's infrastructure are ageing and nearing the end of their economically useful lives.
- Current funding commitments are either inadequate or yet to be identified, to support the substantial costs of renewal and replacement.
- Current planning and political processes do not provide the necessary long-term focus.
- Only limited infrastructure information is available in some key areas.

In researching the Report Cards, several key themes came to the fore. These are: sustainability; levels of service; funding; and planning, coordination, and integration.

### **4.1 Sustainability**

Sustainable development of infrastructure is essential. Development is defined as sustainable if it meets the needs of the present without compromising the needs of future generations. In concrete terms, this means ensuring that our infrastructure is environmentally, socially and economically sustainable.

Examples of challenges to environmental sustainability include reducing greenhouse emissions, lowering pollutant levels in stormwater and effluent discharges into rivers and oceans. Resources (particularly water and energy) are limited and need to be managed through conservation, reuse and renewable strategies.

Improving social sustainability outcomes includes reducing commuter times, increasing road safety, improving air quality and providing access to broadband communication to all citizens.

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Economic sustainability means ensuring that we have taxation and regulatory systems that promote new private sector investment in all infrastructure capable of generating adequate returns on investment.

Most infrastructure organisations now incorporate sustainability objectives into their plans.

#### 4.2 Level of Service

Determining the appropriate level of service depends on understanding the expectations of the community. This is typically obtained by comprehensive customer satisfaction and importance surveys.

Even with these data, it is still often very difficult to determine relative community priorities, as those issues that generate considerable community debate are often treated in isolation and insufficient consideration may be given to relative demands or opportunities for addressing more than one problem with an integrated solution. Issues also are often influenced by media headlines, talkback radio, and political discussion.

While National Competition Policy has undoubtedly resulted in efficiency improvements and reduced consumer costs, there have been some negative effects. For example, where responsibilities for potable water, wastewater and stormwater have been disaggregated into separate businesses, the emphasis has tended to shift to maximising sales rather than optimisation of the complete water cycle. The focus of governments on substantial dividends from privatised service providers too often has resulted in disastrous consequences from reduced capital or maintenance expenditure. For example, Queensland experienced problems with the electricity distribution network in the high temperatures and storms of the 2003-2004 summer. This was a result of a lack of focus on remedial works and a focus on providing an improved financial result over an extended period.

There is a clear need to understand from the community's perspective what improvements are required, how those improvements will impact other services, and their relative priority and criticality in terms of achieving strategic objectives. This requires appropriate community/stakeholder education and a transparent approach to the provision of information to ensure all are adequately informed. Increasingly, there will be the need to trade-off between a desirable level of service, affordability/available funds, competing priorities and competing standards and policies.

#### 4.3 Funding

Lack of funding for infrastructure is a fundamental issue. Budgetary commitments to critical infrastructure elements are often only short-term, long-term planning benefits. As well, Governments have been reluctant to utilise public debt funding.

There are numerous competing priorities for limited funds and there is little provision for funding to address changing community expectations and levels of service, such as for effluent reuse or improved public transport.

The provision of infrastructure grants often only cover capital works with no allowance for ongoing maintenance. Infrastructure renewal studies undertaken within various infrastructure sectors throughout Australia have generally found that the level of investment in infrastructure renewal and maintenance is not sufficient to maintain service level standards or achieve the best lifecycle cost outcomes. There is an immediate need for increased funding for maintenance and renewals.

Econtech<sup>11</sup> has estimated that significant infrastructure investment backlogs had developed in Australia. In particular:

- Electricity has an under investment of \$1.15 billion.

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- Gas has an underinvestment of \$2.6 billion.
  - Road has an underinvestment of \$10 billion.
  - Rail has an underinvestment of \$8.06 billion.
  - Water has a potential underinvestment of \$3 billion.
  - The total estimated under investment is \$24.81 billion.

Recent public debate has emphasised the need for much better funding mechanisms to provide for current infrastructure needs and, just as importantly, to provide infrastructure for future generations.

There must be a significant increase in the amount of investment for both new infrastructure and on-going maintenance of existing infrastructure. Funding must come from both the private sector and the public sector if Australia is to have the infrastructure it needs to be socially, environmentally and economically healthy.

There is an increasing recognition that the declining state of existing infrastructure will not be addressed without government leadership and co-ordination. There is recognition that greater public investment in infrastructure is both justified and effective and there is a realisation of the need for a better balance between public and private investment, and a more realistic assessment of the potential of public private partnerships.

The challenge for governments is to find ways in which to fund public sector infrastructure.

While government debt is one way, another option is hypothecated taxes, which are more appealing to a tax-resistant paying public. As well, infrastructure bonds may provide a popular way in which Australians could invest in nation-building activities. There is also potential to use the Futures Fund announced in the Federal budget to invest in Australia's infrastructure.

The increased need for infrastructure investment will not go away. Billions of dollars will be needed to address the backlog of work as well as meeting the changing needs caused by the aging and growing population, and its move to new housing estates and to the coastal fringe.

#### **4.4 Strategic Planning, Coordination and Integration**

More than one hundred years after Federation, the development and maintenance of our infrastructure assets suffer from a lack of integration and co-ordination. This is obviously related to our form of Government with the three tiers each having separate and sometimes overlapping roles and responsibilities. This issue is magnified by the general lack of long term planning.

Strategic planning needs to incorporate updates to accommodate changes in strategies and include long-term (at least 20-year) schedules of works and budgets to be effective.

There are some very good examples of both longer term planning and infrastructure wide plans in other States. Some examples include:

- Victoria - Melbourne 2030 (a 30 year strategic plan); and the Victorian Government White Paper on Water.
- South Australia – South Australian Strategic Plan; the Strategic Infrastructure Plan for South Australia; the Regional Overview and the Draft Planning Strategy; and the Urban Stormwater Management Policy for South Australia.
- Queensland - Integrated Transport Planning Framework; the Queensland State Infrastructure Plan; the South East Queensland Infrastructure Plan 2005; and the appointment of an Infrastructure Coordinator General.

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- Northern Territory - long-term strategic planning over a 20-year time horizon.
  - Western Australia - A Department for Planning and Infrastructure; a State Government Strategic Asset Management Framework; and an Investment Advisory Group.
  - NSW - State Infrastructure Strategic Plan 2002; NSW Infrastructure Council; and the recent announcement of the establishment of a new major projects unit.

With such good initiatives occurring at a State and Territory level, it is difficult to understand why there is such a difficulty in taking a practical national approach to infrastructure.

The Council of Australian Governments released a communiqué on 3 June 2005 indicating agreement in principle to:

- Hasten the long-term planning being undertaken under AusLink.
- Extend AusLink planning and co-ordination to ports and associated shipping channels.
- Each jurisdiction providing a report to COAG every five years on infrastructure.
- The Commonwealth facilitating the establishment of groups to co-ordinate logistics chains of national importance.
- Reinvigorate the agenda for harmonising road and rail regulations.
- Establish “one-stop shops” in each jurisdiction for project facilitation and approvals.

Engineers Australia believes this need to be taken further, and recommends the establishment of a National Infrastructure Council to ensure proper integration and co-ordination.

## **5. RECOMMENDATIONS**

For well over a decade, Engineers Australia has been calling for a new approach to the maintenance of existing infrastructure and the provision of new infrastructure.

One of the major challenges facing Australia is meeting demand for new infrastructure which will result from population growth, while maintaining, upgrading or replacing aging infrastructure.

All infrastructure sectors require significant enhancement before they meet Australia’s current and future needs. The only way that this will occur is if infrastructure planning, maintenance and development become a priority for the Federal, State and Local Governments.

As with the 2001 Australian Infrastructure Report Card, a major objective of the 2005 Australian Infrastructure Report Card is to provide a baseline for future analysis and benchmarking so that progress can be assessed. It is also intended to raise awareness and enhance the level of debate. In this way, the Report Card contributes to achieving a national focus, overcoming sectoral interests and leading to improvements.

Adequate infrastructure underpins the Australian economy and the standard of living of all. As the current generation greatly benefits from the vision and commitment of those from the past, it is incumbent on them now to provide at least an equal legacy for future generations.

The development of infrastructure assets typically requires long lead times, reflecting the significant planning required to ensure the community is appropriately consulted, needs are prioritised in accordance with funding constraints, and the regulatory and urban planning requirements are worked through.

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## Recommendations

1. Planning and provision of infrastructure become a true partnership between the three spheres of government, business and the community.
2. The Council of Australian Governments take immediate steps to establish a National Infrastructure Council to provide independent advice on policy, planning and delivery of infrastructure in Australia. The Council would:
  - Determine priorities for nationally significant infrastructure on the basis of a 20-year rolling program.
  - Determine which infrastructure is best funded by the public sector and which by the private sector.
  - Determine which infrastructure is best provided, maintained and operated by each sector.
  - Provide advice on further reforms to regulation and taxation legislation to facilitate the provision of essential infrastructure.
  - Provide advice on whole of life infrastructure management, including solutions for overcoming current backlogs.
  - Provide advice to optimise funding sources including superannuation funds, hypothecated taxes, user charges and infrastructure bonds.
  - Increase communication with the public and key stakeholders to encourage active participation in the debate about infrastructure and service standards.
  - Not interfere in State and Local Government infrastructure except in cases of national significance.

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