

Strengthening Australia's Creaking Infrastructure: 47 billion reasons why a national approach is overdue

Key points

- Australia's infrastructure maintenance load is burgeoning
- Creating new infrastructure is often prioritised above maintaining existing infrastructure
- A risk-based approach to infrastructure maintenance is necessary to avoid infrastructure failure
- Local governments need to focus on services planning rather than asset planning

Building a strong foundation for Australian infrastructure

It's one thing to build a bridge, and quite another to maintain it – one is a short-term project, and the other is a long-term commitment that may require several decades of maintenance and upkeep. With the total amount spent on new Australian infrastructure projects almost equal to the amount spent on maintaining existing ones, the maintenance load is set to increase drastically in the coming decades. Consequently, local government leaders will need a better way to identify and prioritise the maintenance of assets that are nearing end of life.

At the first event in the IPWEA/TechnologyOne National Thought Leadership Series – held in Melbourne on 25 May 2016 – keynote speaker Jeff Roorda (General Manager of JRA, a TechnologyOne company) spoke about the infrastructure challenges facing Australian decision-makers and proposed

his own solution: a risk-based approach that prioritises service planning over asset planning. He was joined by Mark Grant (Director, Sector Performance and Development in Local Government, Victorian Department of Environment, Land, Water and Planning) and Ross Goynes (President of IPWEA Victoria and Director of Ross J Goynes Consulting).

Australasian CEO, IPWEA, Robert Fuller said that IPWEA was starting the national dialogue that has been long overdue about how we better fund, plan for and manage our infrastructure for future generations. Past practices are no longer an accurate predictor of the future given the rapid pace of technology and changing user demand.

The politics of infrastructure maintenance

When it comes to infrastructure, Mr Roorda said councils – and indeed state and federal governments – act in accordance with what their communities desire. However, this often means losing sight of long-term goals. The political and executive levels, he argued, need a better way to show their communities what the preference for new infrastructure means. “How do we bring our constituencies to understand there is actually a trade-off between funding new projects and maintaining existing assets,” he asked.

Unfortunately, the task of gauging what the community wants is complicated by the widespread perception of governments as being at times, incompetent and untrustworthy. The majority of constituents are disengaged from government, which means that their preferences go unheard unless those responsible for asset management actively seek their input via targeted surveys or focus groups. These, all too often, tend to be vocal minorities – either opponents or proponents.

Changing needs in Australian infrastructure

According to Mr Roorda – who is himself an engineer – engineers tend to prioritise the maintenance of what they already have. While this is fine in a relatively static environment, the reality is that population density, demographics and technology are changing Australian cities in a way that our planning often fails to anticipate. For example, solar panels and on-site battery storage have been installed far more widely than was anticipated by power generation planners, leading to ‘revenue headaches’. Similarly, what happens if there were a significant drop in car ownership among city dwellers (fuelled by improved public transport and services such as Uber) and instead of better roads and parking facilities they demand more parks and other social infrastructure?

Another reason for new projects being prioritised over maintenance is that disastrous failures such as collapsing bridges caused by neglect have been rare in Australia, so it can be hard to convince politicians of the importance of maintenance – until a catastrophe occurs.

A risk-based approach to infrastructure management

Mr Roorda advocated a risk-based approach, taking into account the likelihood and consequences of failure. The function and capacity of assets are at least as important as their condition, and governments either need to accept the risks or provide funding for maintenance or replacement.

Simply asking for more money has not worked, so local government professionals need to identify the risks to the community if projects are not funded. “Whoever talks about the backlog owns the problem,” he warned.

This problem is manageable, Mr Roorda reassured the audience, but there is a need to plan for different scenarios and consider the likely trajectories if we do or do not certain projects.

Local governments should focus on service planning rather than asset planning, Mr Goynes suggested. For example, a new library building might last 50 years, but nobody really knows what library services will be like in ten years.

Focusing on the future

To meet the need for a balanced approach to infrastructure creation and maintenance, Mr Roorda advocates a national asset management plan aligned with the 2016 Australian Infrastructure Plan by Infrastructure Australia and the State of the Assets Report by the Australian Local Government Association (ALGA). Covering all three levels of government, the plan will target investment, include a national reporting system, and support the upgrading and augmentation of poor but essential assets while taking into consideration service levels and risk scenarios.

With an effective strategy in place, government leaders will be better-placed to make infrastructure decisions that benefit their communities in the short-term, and for years to come after that. In this way, Australia can pave the road to a positive infrastructural future.

To be part of the national infrastructure conversation, visit www.ipwea.org/eventwebpages/nls2016 to find an event near you.

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