



INFRASTRUCTURE SA 20-YEAR STATE INFRASTRUCTURE STRATEGY

RESPONSE TO THE DISCUSSION PAPER

JULY 2019

Infrastructure SA 20-Year State Infrastructure Strategy Response to the discussion paper



ABOUT US



Consult Australia is the industry association representing consulting firms operating in the built and natural environment sectors. These services include design, engineering, architecture, technology, survey, legal and management solutions for individual consumers through to major companies in the private and public sector including local, state and federal governments. We represent an industry comprising some 48,000 firms across Australia, ranging from sole practitioners through to some of Australia's top 500 firms with combined revenue exceeding \$40 billion a year.

Some of our member firms include:



INTRODUCTION

Consult Australia welcomes the opportunity to provide this submission to the Infrastructure SA 20-Year Infrastructure Strategy.

Consult Australia believes infrastructure provides a critical role in unlocking economic opportunity for our State, and when planned well and delivered efficiently unlocks a number of flow-on benefits to all - a great place to live, social wellbeing, sustainable environmental management, sustainable population growth providing a prosperous future for all who choose to work and live here.

Our members have played vital roles in the creation of some of Australia's iconic public infrastructure, including road, rail, hospital, airport, educational facilities, water and energy utilities, justice, aged care, sports stadia, and urban renewal projects. Our members are passionate about getting the planning and investment right in South Australia to make our state more liveable, more workable and more sustainable – both economically and environmentally.

Our focus is on four key industry issues:

- People – strengthening our talent pipeline
- Pipeline – strengthen the Built Environment Pipeline
- Practice – improve the regulatory and business environment for firms
- Procurement – improve procurement for better project outcomes

A transparent and robust infrastructure strategy is therefore an issue of particular importance to our members, as well as the wider industry we represent. It is critical that South Australia has the right framework in place to enable holistic infrastructure strategies that are interconnected and sustainable. Delivering an integrated strategic approach to infrastructure planning and prioritisation, will facilitate better urban and regional development through support for a long-term pipeline of coordinated infrastructure projects, supporting productivity and jobs growth. It will also allow for our member firms to invest in a secure future in South Australia as well as their people to avoid the brain drain to the eastern states.

The strategy will also provide better procurement outcomes through better planning and business cases and providing Government agencies more time to plan and procure their projects with a more appropriate allocation of risk.

This submission is structured to address Consult Australia's advocacy priorities to ensure that both concerns and opportunities regarding our State's Infrastructure Strategy are highlighted in the best possible way and responding to questions posed throughout the discussion paper:

1 | Infrastructure - the biggest impact to unlocking economic growth in South Australia in the next 0-5, 5-10 and 10-20 years

Consult Australia believes the biggest bang for buck does not lie with any one individual project, rather it lies with the investment of time spent in preparing a clearly defined long-term strategy, with a focus on productivity, liveability, and sustainability. This would deliver the biggest impact to unlocking economic growth in South Australia. The strategy should then be delivered through a series of shorter-term infrastructure plans (as per the approach in NSW and Victoria). Refer to Consult Australia's report [iBodies, Infrastructure Governance in Australia](#).

The Organisation for Economic Co-operation and Development (OECD) has conducted a considerable amount of work into best practice for the governance of infrastructure. This includes the development of a Framework for Better Governance¹. The first recommendation for the Framework is:

“A long-term national strategic vision for the use of infrastructure should be in place, which takes into account the multi-dimensionality of the challenges.”

To be successful the strategy should be politically sanctioned, co-ordinated across levels of government, with cross sectoral consideration, taking stakeholders views into account and be based on clear assumptions. It should also be aligned with spatial and land-use planning policies.

As identified by the OECD, collaboration and connectivity between the jurisdictions is critical to ensuring a comprehensive approach to Australia's infrastructure needs. It is important to note that a key risk to the success of the state/territory strategies is lack of buy-in from:

- Government agencies responsible for delivery;
- Private sector infrastructure owners;
- The communities to which the strategy applies.

Integration with planning policy is arguably the biggest stumbling block for many long-term strategies if the planning bodies do not buy-into the plans.

The strategy should consider

- Where economic growth is expected
- Where population growth is expected
- Integrated Transport and Land Use Planning
- What infrastructure would service the above – ports, airports, roads, rail, IT, hospitals, schools etc

With the strategy in place, the plan for prioritised individual projects can then follow – what projects are imperative to deliver on productivity, liveability, sustainability and economic growth. Better planning allows time for provision of clear, well structured, accurate briefs and allows reasonable review and response times. This will also allow for better coordination of projects between Government Departments.

The listed prioritised projects must then be considered from a business case point of view – what stacks up? A business case is not just a vehicle through which to justify a project, rather is it a mechanism through which to clearly define and understand 'the problem' to find the right 'solution' to achieve the required outcomes. Business cases ensure public confidence in the investment decisions of governments provided a robust process has been followed based on sound evidence. Sound business cases better inform procurement

¹OECD (2017), Getting Infrastructure Right: A framework for better governance, OECD Publishing Paris.

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methods, appropriate risk assessment, management and allocation, which allows for innovation and collaboration – resulting in beneficial project outcomes.

Consult Australia's upcoming report **Business Case Development in Australia (embargoed copy provided with this submission)** aims to develop guidelines for governments and industry with the aim of improving the infrastructure business case process.

Recommendations

That Infrastructure SA invests time to produce a clearly defined long-term strategy, with a focus on productivity, liveability, and sustainability to deliver the biggest impact to unlocking economic growth in South Australia.

That the planning of Infrastructure SA's pipeline of prioritised projects is integrated with planning policy and across government departmental and agency collaboration.

That Infrastructure SA applies a robust process to all business case reviews which is based on sound evidence as outlined in Consult Australia's report *Business Case Development in Australia*

2 | Changing Adelaide's infrastructure for a population of 2 million.....Changes to the transport system in South Australia through technology

A population of 2 million would realise a need to focus on how we move people around the wider metropolitan area - and the impact on those regional areas that may experience a population growth. Adelaide currently has the lowest public transport uptake in the nation, the lowest spend on the maintenance of our road assets and also the slowest moving traffic nationally as well, indicating population growth will need a change to our current approach.

New technologies, for example autonomous vehicles, will continue to change transport systems and how they are used. Continued urban infill will continue to increase road traffic and should make public transport options more desirable. The use of new technology to 'green up' public transport, along with a plan to incentivise its use or take up would also go some way in reducing emissions and reducing the carbon footprint.

Moving large numbers of people around efficiently is of course, public transport. To be successful this would need an integrated approach across all forms of public transport and consideration should also be given to a renewed focus on Transit Oriented Development (TOD's) which recognise the need for higher density development, and focus on transport nodes to reinforce transport efficiency while achieving viable patronage.

Underpinning the uptake of public transport would be a renewed focus on Transit Oriented Development (TOD's) and Transportation Corridor Preservation (CP), used as a strategy to ensure that the network of rail, highways, roads, and streets will be available to serve existing and future development needs with minimal capital, environmental, and social costs.

Recommendations

That the infrastructure strategy addresses the key transport and access issues for suburban Adelaide with the need for an improved public transport system to take the load off the roads.

That the infrastructure strategy and plans consider integrated land use and transport planning with TODs, transport corridor preservation, autonomous vehicles.

3 | Preparing South Australia's infrastructure to be able to adapt to and embrace future technological disruptions?

Both now and with future population growth, Adelaide has the opportunity to become a smart city, one that uses technology, data and intelligent design to enhance the city's liveability, workability and sustainability.

As our economy transitions to a full, knowledge based economy, the demands upon our cities and built environment grow relentlessly. To respond to these changes and to take advantage of the emerging digital economy we need to rethink the way our built environment is planned, constructed and managed. We must adopt a new approach – one which harnesses information and communication technology (ICT) to enhance liveability, workability and sustainability. The development of a smart city embodies this approach.

Consult Australia have developed a [Smart Cities Guide](#) to support stakeholders overcome the barriers and challenges and take advantage of the smart technologies that allow us to reimagine our cities and towns.

The guide considers the reliance of a smart city on data and technology enablers, which not only includes security and privacy, but also the collection, communication and crunching of data.

A key for Adelaide's future infrastructure is the Smart City approach, and the key consideration of resilience in such an approach.

Recommendations

That the infrastructure strategy considers Adelaide's future as a smart city.

4 | Factors to be considered when making inevitable trade-offs for investment in public infrastructure in the context of funding constraints...what opportunities are there to better leverage private investment to drive public infrastructure development?

Policy or regulatory barriers may prevent profitable private investment in socially beneficial infrastructure and services from taking place. The commercial viability of some infrastructure projects may depend on the government (in its 'policy setter' role) providing a clear policy environment, appropriate regulatory approvals or access rights. In these circumstances, the government can play a facilitation role to allow investment to proceed on a commercial basis by resolving uncertainties, including those arising from its own policies. Conversely, inconsistent or unpredictable government actions could create uncertainties and discourage investment.

There are several alternative funding measures available for delivering public infrastructure. Consult Australia does not consider any single financing or funding policy will by itself provide a stand-alone solution to the substantial challenge for the government, however all options present opportunities for reform.

Asset recycling provides governments across Australia with a valuable tool that can help address the current challenges of keeping pace with infrastructure investment demands in our growing cities and regions. Asset recycling 'unlocks' capital from an existing infrastructure asset through a transfer agreement with private sector investors, with proceeds from the transfer re-invested into priority areas, such as new infrastructure. This enables governments to increase and maximise the value realised from infrastructure

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investments, particularly when needs are growing, while minimising the need to increase taxes and public debt. Asset recycling also provides a counterweight to the circumstance where future operations, maintenance and renewal costs are not adequately accounted for in budgets – under asset recycling these costs must be accounted for and a funding source identified. When delivered appropriately, asset recycling also results in real and direct public benefits. Consult Australia’s report [Rebuilding the Social Licence for Asset Recycling](#) examines this in more detail.

Value capture funding methods identify and collect an equitable portion of the value released through new zoning and other public improvements so the communities that create this value share in the wealth it generates. There are a number of proven approaches that help reach the goal of sharing outcomes equitably with the public, investors and developers. The funds thus collected are deposited into dedicated accounts for a set time period and are used to contribute to both the cost of projects and to other public improvements to the civic realm. Value capture is not a new tax. It allocates the uplift in benefits from public investments in ways that do not affect current or future tax rates. The “beneficiaries pay” principle lies at the heart of successful value capture programs. Importantly, these programs capture revenues that would not otherwise exist without the public investment and can permanently increase the levels of revenue to the taxing authorities. Consult Australia’s report [Value Capture Roadmap](#) provides further information.

Unsolicited Proposals enable the private sector to propose new projects which in turn will drive innovation and assist with improved service delivery. We support a clear and transparent process which gives certainty of intellectual property protection to those promoting innovative ideas and the delivery of high quality, value for money outcomes. We believe from our experience that the keys to success are a guarantee of the protection of intellectual property rights when bringing new ideas to market and an open, transparent process encouraging a broad range of projects to be submitted.

Recommendations

That a range of funding methods be considered by the infrastructure strategy to open up opportunities for investment in South Australia.

5 | Managing demand on SA’s current and future infrastructure

It is important to ensure that the planning and procurement of project delivery requirements of government are able to be effectively met by industry. There are five notable areas of consideration:

- The number and timing of projects
- Project scale, portioning and interfacing
- Industry capability, skills and workload
- Certainty of project funding
- Long term protection of infrastructure corridors

At present, across many governments there is an unprecedented level of infrastructure procurement with a significant impact on the availability of those skills required to ensure delivery as planned – expertise in some disciplines is now under pressure. It should be ensured there is a consistent long-term pipeline of projects developed and rolled out in consultation with industry. A consistent procurement pipeline, underpinned by rigorous planning and prioritisation processes, to develop local capabilities when funding is more available, means that negative pressure placed on the professional services sector during quieter periods would be alleviated. A pipeline of infrastructure projects is of limited value if industry is unaware of its existence or the details of what will be being procured over time. Limited transparency restricts the ability of industry to

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undertake workforce planning and reduces the incentive to invest in staff skills and capacities. Infrastructure planning should be a transparent process undertaken in close consultation with industry, with long term infrastructure plans and pipelines publicly known and available. This would result in local firms employing locally and keeps skills in SA, with the outcome of population growth and a stronger economy.

A well planned, long term pipeline of infrastructure projects would require across government departmental and agency collaboration.

Another factor to better manage infrastructure and the demands placed on it, is the requirement of data collection during the design, delivery and use of infrastructure by the end user.

Building Information Modelling (BIM), or Digital Engineering is the digital representation of physical and functional characteristics of a building or piece of physical infrastructure. BIM serves as a shared knowledge resource for information about a building throughout its lifecycle; supporting decision making—from strategic appraisal through briefing, design and construction to operation, maintenance and renewal.

BIM allows for more efficient methods of designing, creating and maintaining our assets. From a practical perspective, the use of BIM data improves quality and cost effectiveness of design, construction and management of infrastructure assets.

The benefits of BIM include

- **Economic benefits**

The data available to date indicate that the return on investment from the adoption of BIM is principally financial, reducing costs and producing higher profitability and productivity.

- **Improved productivity in construction, and asset management generally**

BIM offers the opportunity to realise large reductions in the cost of capital works by eliminating waste from the design, construction and handover activities. Further savings are then available through the asset management phase through better building information allowing for efficiencies to be realised. Already in countries where BIM is widely used such as the UK, Singapore and South Korea, clients are reducing costs and improving quality of the design, construction and management of their infrastructure assets, while saving on bid costs.

The Australian Building Smart survey found that using BIM could improve the productivity of the industry by 6 to 9 percent.

- **Risk reduction**

Project risks can be reduced through clear information requirements, defined processes and standards and using design modelling techniques to identify and address interface and constructability issues, including clash detection.

Asset management risks can be reduced by ensuring that relevant information is provided to the required quality and is stored in a structured way.

- **A potential export market for Australian “know-how”**

Increased adoption of BIM offers the opportunity for Australia to export our design and construction services to the developing world. Countries such as the UK are already starting to globally export their BIM services, and there is an opportunity for Australian industry to build competence and experience in BIM and export that expertise to other countries.

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- **Safety improvement**

BIM has been shown to reduce safety risks and assist industry in meeting their safety in design obligations under existing WHS legislation, including communicating safety information to the supply chain.

- **Sustainability**

Improved environmental outcomes are another outcome of using BIM, by ensuring environmental data, such as energy consumption and embedded carbon are used to drive performance improvements once a building is opened for use.

Consult Australia recommends that governments leverage their purchasing power and adopt the use of BIM on all government (federal, state and territory) building projects by 2020 and all infrastructure projects by 2023. This phased approach gives industry participants adequate time to adapt.

At this point Consult Australia would add that the use of BIM should be adopted for all building and infrastructure projects in a phased approach to give industry participants adequate time to adapt. This adoption should be in a clear and consistent manner using LOD 500 as the benchmark for each BIM element, and with all BIM resources contributing positively to a network of information assets that maximise the benefits for the public.

This data collection would help in the understanding of current usage and trends, which would in turn inform future growth, demand and possible services likely to be used into the future that will require supporting digital infrastructure.

If government takes up appropriate digital requirements on all building and infrastructure projects the gathered data would allow flexibility to change as new technologies become available and more widely used. Collected data would also provide information needed for the asset management, maintenance and planning of future infrastructure.

Recommendations

That a consistent, publicly known and available long-term pipeline of projects underpinned by rigorous planning and prioritisation is developed and rolled out in consultation with industry.

That BIM, or Digital Engineering be adopted as a standard requirement on all building and infrastructure projects as outlined above.

CONTACT

We would welcome any opportunity to further discuss the issues raised in this submission. To do so, please contact:

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