

# CONCLUSION AND RECOMMENDATIONS

This Report shows that, for the first time in several years, major project activity in Queensland is rising. The appropriate identification of infrastructure gaps, choosing the most productive projects, and coming up with funding and financing solutions will remain critical if growth in major project activity is to be sustained into the future, meeting Queensland's infrastructure needs in a timely and cost-effective way.

Here, the conclusions and recommendations from previous Reports are still valid, particularly:

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- Ensure that the best infrastructure projects are picked. This means that the business cases for short and long-term public investment programs are based on maximising economic benefits through transparent cost benefit analysis (CBA). For Queensland, the creation of Building Queensland (BQ) has been a very positive development. A key function of BQ is to develop independent, rigorous business cases for projects using transparent and disciplined frameworks including cost benefit analysis on projects where potential government investment is between \$50–\$100 million and lead the preparation of business cases where investment exceeds \$100 million<sup>11</sup> – in conjunction with Infrastructure Australia – which is responsible for evaluating business cases submitted for Commonwealth funding as well as publishing national infrastructure priority lists – there is now far more rigorous analysis undertaken in project evaluation and selection in Queensland than in the past.
  - Ensure there is appropriate funding and financing solutions in place. As noted previously, Queensland's current funding arrangements will not cover the Major Projects List, let alone other projects that will be required to meet broader infrastructure challenges. Sustaining growth in major project work means moving more projects from 'unfunded' to 'funded' categories in coming years – or accelerating developments. The high cyclicity of State government revenues create challenges here for publicly funded work as it encourages more spending on infrastructure in the good economic times (at a time when industry capacity to deliver infrastructure is more stretched and costs are higher) and then pull back on infrastructure spending in the bad economic times (when the broader economy could do with the spending boost and costs can be lower). Because of this, governments should continue to look for ways to smooth and increase project finance such as through City Deals, asset leases, market-led proposals, value capture and the judicious use of debt finance. Inevitably, sustainable financing of infrastructure over the long-term will require genuine tax and expenditure reforms.
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<sup>11</sup> <http://buildingqueensland.qld.gov.au/about-us/>

This Report also highlights, however, growing risks to capability and capacity in the major projects industry, given large infrastructure programs already being rolled out in New South Wales and Victoria, as well as rising infrastructure spending overseas. As Queensland major projects activity rises, plans and policies should be put into place to minimise risks to industry capability and capacity, which in turn will limit the risk of project delays, failures and excessive construction cost escalation in coming years, with all the social challenges that it also brings (e.g. litigation, disruption).

To some degree, capacity and capability risks are driven by external factors, ranging from demographic change – affecting the availability of skills – to the state of global demand for materials and resources and trade policies – affecting the price and availability of imported materials and skills. However, there is much that is within the control of government and planning agencies to minimise capacity and capability risks. The current challenge provides an opportunity to innovate, to come up with better ways of doing things, and in so doing, to provide a long-term positive legacy that will assist in managing future investment cycles.

This includes:

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– The provision of a clear and coherent long-term project pipeline to give industry the best possible chance of responding, rather than separate pipelines by governments and the private sector. Maintaining a sustainable, strong pipeline for work (and avoiding booms and busts where possible) will also assist in leaving a legacy in that it encourages the retention of skills, training of the next generation of staff, and increasing productivity. Ideally, this pipeline will have bipartisan political support to avoid situations such as the cancellation of contracted major projects by incoming administrations (e.g. East West Link in Victoria and the Roe 8 / Perth Freight Link project in Western Australia) which increased sovereign risk. The pipeline should also identify gaps in major project activity in regional areas that could present a risk to retaining skills in those regions.

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– Develop and maintain a plan for construction materials, so that the demand and supply balance for scarce quarry products can be quantified, mapped, emerging gaps identified quickly, and strategies put into place to accelerate the development of new supply sources and related logistics where appropriate. This is particularly important for quarry products given the very long lead times required to develop and approve new quarries, affecting the supply of hard rock, aggregates and sand, and limited sources of supply. With the addition of each project to the long-term project pipeline, account should be taken of that projects call on natural material resources, how these resources are sourced and transported, and how this call could be reduced through other initiatives, such as recycling or utilising new or substitute materials (e.g. structural steel-focused engineering solutions rather than concrete) if critical input constraints emerge.

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– Continue to focus on workforce development initiatives so that demand for key onsite skills can be met. Here, there have been positive developments with the Queensland Government Building and Construction Training Policy (Training Policy) requiring that a minimum of 10% of the total labour hours on eligible projects be undertaken by apprentices and/or trainees and through other workforce training. From 1 September 2017, this core requirement increased to a minimum of 15% for major building and/or civil construction projects over \$100 million in value. The Training Policy supports employment opportunities and skills development in Queensland's building and civil construction industry. The Training Policy also focuses on increasing the economic independence for Aboriginal and Torres Strait Islander Queenslanders. This policy now also extends to Government Owned Corporations (GOCs) and Public Private Partnerships (PPPs).

Over the longer term, given changes in technology and construction techniques, a more strategic approach to workforce planning and skilling will be required to ensure that the supply of skills into the future match the likely demand by industry. Here, research undertaken by Construction Skills Queensland for this Report, as well as perspectives of Queensland construction jobs for the future remain vital.<sup>12</sup>

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12 For example, Quezada G, Bratanova A, Boughen N and Hajkowics S (2016) Farsight for construction: Exploratory scenarios for Queensland's construction industry to 2036, CSIRO, Australia

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— Similarly, attention needs to be focused on the development and maintenance of a construction transport and logistics plan to avoid bottlenecks, delays and rising costs for construction materials as a result of congested road transport networks, particularly in metropolitan regions where construction activity may be most focused (e.g. during the construction of the Cross River Rail project). This may include demand management tools, such as putting a price on road use in the CBD and nearby construction zones, but also taking more advantage of non-road transport options such as rail and water as used in other global capitals such as London (for its own £14.8 billion Crossrail project).

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— Engage with industry for improvements in procurement that encourage industry participation, innovation and investment in capacity and capability. In particular, processes should be reformed if they:

- create long-term risks to industry sustainability and costs by inadvertently encouraging contractors to take risks on quality
- take up scarce resources through the tendering process
- do not provide a sustainable risk/margin balance that will encourage firms to invest in skilled staff and new technology
- do not encourage innovation or the use of new technologies and tools, ranging from Building Information Modelling (BIM), new resource-saving materials or construction techniques, productivity improving (lean) tools and techniques or appropriate skills development.

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While engagement between government agencies and the construction industry can often be competitive and at times adversarial, the looming capacity and capability challenge will likely require a greater partnership approach that maximises the legacy of the infrastructure program. Rather than being incentivised to secure the lowest priced work on each and every project, procurement will increasingly need to encourage industry investment in capacity and capability, reward innovation (and hence productivity), and consider value for money in a “long-term” sense which results in a sustainable industry delivering quality, long-lived infrastructure.

### Risks to the Outlook

A key conclusion of this Report is that major project activity is now expanding following several years of (significant) decline. However, this outlook is subject to significant upside and downside risks; that despite the mildly cyclical profile of work projected, there is still the potential for further, more volatile, cycles ahead given Queensland's natural strengths and advantages: increasing connections with the fast growing economies of Asia, strong population growth, and access to high quality natural resources.

As in previous Reports, the biggest global risk still relates to the economic outlook for key trading partners, the strategic decisions they make in achieving sustainable growth, and how this will impact on the global trade of resources for which Queensland has a strong supply position, particularly coking coal, thermal coal, and gas. Much of this remains outside of the control of the Queensland government and industry.

Over 2017, global oil and gas prices continued to rise and, while there was also some reversal in prices for thermal and coking coal (as well as iron ore) following a spike in prices in 2016, prices still remain at higher levels compared to where they were a few years ago. Not only is this boosting royalty revenue for the Queensland government (which can assist in funding public infrastructure works), but it also has the potential to put more coal mining projects back into consideration. While there are ‘high growth’ and ‘low growth’ global economic scenarios that we have considered in preparing this Report, overall we believe that this Report represents a reasonable balance between these scenarios. Consequently, there is both upside and downside risk to the projection of major project activity.

**The provision of a clear and coherent long-term pipeline rather than separate pipelines by governments and the private sector will greatly assist industry to manage future investment cycles**

Our outlook for global economic growth is detailed in the Economic Outlook section of this Report, which is our baseline forecast. However, there are upside and downside risks to this outlook. Both upside and downside scenarios are heavily influenced by how US and Chinese policy decisions play out on their economies. Upside risks include a more stimulatory than expected stance of US fiscal policy and, particularly, the impact of corporate tax cuts and higher public infrastructure investment, which in turn could feed into demand for commodities and commodity prices. Downside risks include the distinct possibility of higher trade barriers and controls imposed by the United States and China, and possible retaliation in the rest of the world. On the domestic front, the key risk factors which may influence the projections in this Report are (i) projected housing investment activity in Queensland as well as (ii) government approaches to debt consolidation and public investment via fiscal policy and (iii) the impact of current and future energy policies.

With regards to housing investment, it is expected that the current recovery in housing activity peaked in 2016/17 and will decline in subsequent years, mainly as a result of overbuilding high density apartments in Brisbane. This, in turn, is expected to drive a weakening in stamp duty revenues from 2017/18 that may threaten public funding for major infrastructure projects.

This outlook is slightly pessimistic compared to the housing investment forecasts presented in both the Commonwealth and State Budgets. However, stronger than anticipated population growth (for example, in a “high growth” global scenario which drives high investment and population inflows into Queensland) could see higher housing investment and stamp duty revenue than in the baseline case presented here. This, in turn, could drive higher major project activity than modelled here.

The forecasts presented in this report also assume that governments – both State and Commonwealth – seek a balanced path between debt consolidation/deficit reduction on the one hand and sustaining public investment on the other. Over the next few years, it is assumed that public investment will rise in line with the Queensland and Commonwealth 2017/18 Budgets. Meanwhile, minor adjustments to recurrent tax and transfer policies, as well as stronger nominal economic growth, are expected to contribute to a gradual improvement in the underlying budget and net public debt position. However, there remains risk on both the upside and downside to this position. On the downside, failure to achieve improvements in the financial positions of governments, both State and Commonwealth, could see more significant cuts to public expenditure in future Budgets, including that slated for capital works.

On the upside, a “high growth” global scenario could see better than expected budgetary outcomes, providing scope for stronger increases in public investment.

Finally, the future direction of energy policy in Australia also presents a risk factor for this Report. Its most direct impact is on the timing and magnitude of many renewable energy projects in Queensland, spanning wind, solar and hydro. Indirect impacts may also include aggregate generation investment, the path of energy prices and confidence to invest in energy-intensive industry which affects broader construction activity. Current policies incorporate a national renewable energy target (RET) of 33,000 GWh of large scale generation by 2020, and a separate 50% RET by 2030 for Queensland. These policies have encouraged a substantial wave of investment in renewable generation projects in Queensland, as evidenced in the Pipeline. While the national RET expires in 2020, the Commonwealth Government is undertaking further analysis of a proposed National Electricity Guarantee (NEG) to encourage new investment in clean and low emissions technologies while allowing the electricity system to continue to operate reliably.<sup>13</sup> Overall, the impact of the shift from a national RET to NEG is still to be determined and presents a risk to the outlook. Furthermore, given the relatively high state-based RET, more renewables projects may emerge in coming years which could be added to the Pipeline.



**Over the longer term, given changes in technology and construction techniques, a more strategic approach to workforce planning and skilling will be required to ensure the supply of skills in the future match the likely demand of the industry**

13 [www.coagenergycouncil.gov.au/publications/energy-security-board-update](http://www.coagenergycouncil.gov.au/publications/energy-security-board-update)