

MAXIMISING THE BENEFITS OF INFRASTRUCTURE INVESTMENT

Infrastructure investment is increasingly recognised as an important productivity driver not just in its operation, but in the shorter-term through its design and construction.

In recent years, the infrastructure pipeline in different jurisdictions has been characterised by a boom/bust, often pro-cyclical economy. When governments have stronger balance sheets, a surplus of projects enters the market pushing up costs; too often followed by a sudden downturn in supply—consistent with the economic fortunes of the government—resulting in redundancies across dependent industries.

This cycle does not maximise the potential benefits for infrastructure investment to deliver shorter-term increases in employment, spending and investment when it is most needed. A counter-cyclical approach and a consistent pipeline of work across the longer-term, should moderate construction costs, support investment, and those related industries in design, construction and operation.



Seaford Rail Extension photo courtesy of Aurecon.

THE RISE AND ROLE OF MEGA PROJECTS

In addition, in this environment, the increasing entry of mega-projects into the market can further multiply the pro-cyclical risks summarised above. These projects, and mandated limits on the number of participants, risk constraining funds available for smaller projects, and often limit funds entering the market to a smaller number of successful bidders. Additional challenges for industry arise from the large bid costs required to tender for these projects, and the need to import skills to meet larger project demands.

This can result in a 'win or die trying' culture across firms bidding for work. These firms either win the bid and remain commercial or fail both in the bid and risk their commercial success. Where there is not an even spread of projects available to industry, firms that are not successful on these mega projects risk being permanently locked out of work in the longer term. When larger projects come to the market again in the future, unsuccessful firms will not have the ability to demonstrate currency, knowledge and relationships—hence their long-term viability is threatened. Industry convergence is a consequence with fewer, larger consulting entities reducing overall competition in the market.

All spheres of government have to varying degrees indicated an appetite for increasing infrastructure investment. They have promoted the need for consultants and contractors to build their workforces to cope with the demand, but in parallel many governments reduced investment in smaller projects, undermining associated industries and resulting in wholesale redundancies that are ongoing.

In this context, and with a constrained market for infrastructure investment more broadly, there is a case for governments to carefully consider opportunities to break-up major projects or package works with a view to distributing work more evenly. Governments should be cautious of succumbing to the temptation to deal with a single winning party, and should not assume that economies of scale will always be realised through project aggregation. Not all the best ideas reside with a single consultant, and a mega project can benefit significantly from the involvement and contributions of multiple consultants.

A considered and case-by-case approach to opportunities to de-aggregate projects may encourage more innovative solutions, timely delivery and increase efficiencies. Packaging major projects can encourage shared learnings across project interfaces, help mitigate risks, and encourage collaboration, diverse perspectives and solutions. Ongoing assessment of local industry participation through the packaging of works, monitoring the use of smaller firms, will support industry breadth. In addition, this approach could help sustain a more competitive industry, better able to respond to projects of all sizes in the longer-term.

Opportunities to package works and/or break-up major projects into smaller components must be considered on a case-by-case basis and with a view to value for money.

FACTORS TO CONSIDER

A range of factors need to be considered when evaluating the case for breaking up projects. Critical to success will be early engagement with industry, where all the factors can be considered as part of the overall design process.

All these factors should provide clarity for project stakeholders around the rules of engagement, risks, costs and benefits:

Partitioning

Partitioning via discipline and scope, or geography needs to be carefully evaluated alongside timing, disciplines and outcomes sought, interfaces and preferred delivery models.

Delivery Models

Delivery models should be reviewed with regard to delivering value for money, minimising risk and facilitating efficient delivery.

Interfaces & Project Staggering

Interfaces between projects should be carefully considered and construction of multiple interfaces in the same timeframe should be avoided to minimise risks and unnecessary complexity.



Tonkin Highway Dunreath Drive interchange. Photo courtesy of Gateway WA.

A Relationship-Based Approach

The ability for participants to work collaboratively across project interfaces and with other stakeholders in a more complex delivery environment should be evidenced as part of tender documentation. Consideration should be given to the development of interface teams across projects to build collaboration.

Flexibility

Flexibility should be encouraged and be built-in to projects and packages to manage risk and uncertainty. Interface selection should not be seen as fixed, but subject to change where that is warranted.

Capability & Skills

Both internal project management capability and external market capability should be considered in detail. E.g. opportunities for smaller firms should be considered, as should demand for skills from other projects and interstate.

Risk

Risks to cost, quality (design innovation) and timing should all be carefully evaluated as part of all of these factors.



Darra to Springfield Transport Corridor Stage 2. Photo courtesy of Aurecon.

infrastructure spending has a role to play in sustaining growth and also in generating confidence.
[...] it would be confidence-enhancing if there was an agreed story about a long-term pipeline of infrastructure projects, surrounded by appropriate governance on project selection, risk-sharing between public and private sectors at varying stages of production and ownership, and appropriate pricing for use of the finished product. [...] The real economy would benefit from the steady pipeline of construction work – as opposed to a boom and bust. It would also benefit from confidence about improved efficiency of logistics over time resulting from the better infrastructure.

Glenn Stevens - Governor, Reserve Bank of Australia. Brisbane. 10 June 2015



Break-through: Tunnel Boring Machine 2 Florence arrives at the Showground station site. Photo courtesy of Transport for NSW.

AN INVITATION

Opportunities to package works and/or break-up major projects into smaller components must be considered on a case-by-case basis.

Disaggregation will not always be the appropriate policy response. The factors outlined above are provided for further discussion and reflection, helping to deliver better value for money for governments and ultimately the tax-payer.

All these factors demonstrate the importance of early engagement with industry in the planning and design of projects. Investment of time and resources through the design phase will: assist in mapping capability across industry; understanding timing and risks; and the broader case for packaging of works project by project.

With a view to upcoming projects across Australia, Consult Australia invites a more detailed discussion on these issues with all interested stakeholders.



OUR INDUSTRY

Consult Australia is the industry association that represents the business interests of consulting firms operating in the built and natural environment across Australia. Our member firms' services include, but are not limited to: architecture, landscape architecture, engineering, planning, cost consulting (quantity surveyors), project management and environmental science.



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