

Megaprojects or Megaproblems? ¹

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This article will bring to the attention of the public the different views on megaprojects that are currently being advanced in Australia. Major infrastructure projects, such as the Lane Cove Tunnel, Cross City Tunnel, M5, Sydney Light Rail, Sydney Metro, Westconnex, Second Sydney Harbour Tunnel and the Inland Rail, have all been criticized for excessive spending.

While the public can see many infrastructure projects being built and delivered and some that do provide benefits, regular news headlines about cost blowouts, delays and benefits' shortfalls, all cloud the picture. Who is reaping the benefits? Businesses like Transurban, that receive an escalating toll revenue, or motorists like you, paying these tolls? When the benefits do not meet the expectations of the contractor, the contractor can declare the project bankrupt, with the state government ultimately bearing the losses. Each time a road is built a user pays a toll that adds to the cost of living. New roads are touted as a convenience by their promoters, which they certainly are for those that can afford them, at least in the short term. In the long term, new roads are well-known to concentrate and attract traffic that slows down the flow that they were built to improve. Increased traffic in the short-term also accrues to non-toll alternative routes. Those who pay, those that live furthest from central city areas, are a demographic not readily able to defray additional costs as they are mortgagees whose choice of residence is dictated by housing availability and affordability. Given these caveats, many people cannot understand how selling off state-owned assets to fund major projects has provided better value. Rather, they have resulted in additional costs that they have to bear.

It is not only state government megaprojects that are problematic. A recent national example presents itself, which is discussed in the independent report of Dr. Kerry Schott² on the Inland Rail project. In just a two-year period the cost has doubled to 30 million dollars from initial estimates as well as the completion date being extended by four years. According to the report, the reasons for the cost increase are "mainly an increase in scope caused by immature preliminary designs and approval requirements, delays due to the prolonged approval processes, and recent escalations". In addition, the project commenced without knowing where it will either start or finish. Schott's report held the Australian Rail Track Corporation responsible as the project owner, in large part because it lacked the project management skills necessary for project delivery. There were governance issues as well. The minister responsible for its establishment, as well as its chief promoter, Barnaby Joyce, did not appoint an appropriate CEO, according to Dr. Schott. The Inland Rail Board was composed of Coalition ministerial appointments in which

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² <https://www.inlandrail.gov.au/understanding-inland-rail/independent-review>

skill and experience were not uppermost. The recommendation to the Federal government is that a subsidiary company be established for the sole task of delivering the project.

Other criticisms of the project included bypassing towns where additional train traffic could create noise and cross-town communication issues. Because double-stacked freight cannot be feasibly operated all the way to the ports in Melbourne and Brisbane, there needs to be further provision for additional terminals, two in Victoria and two in new South Wales. These costs were not budgeted. The review recommended that an independent value estimator be appointed to help provide the project with budget certainty in coming years; that an independent design specialist be appointed to “define exactly what the scope of this project is”, as well as reviewing risk management systems to allow for the “timely escalation of key risks”. There were further concerns expressed as to the financial viability of the project in the longer term, as revenue projections were in large part dependent on the amount of coal being transported on the line. Expectations are that this amount will diminish rapidly with the transition from fossil fuels.

So, what is the problem? Why has the project achieved this state in such a short time? Why was the project even attempted with so little governance, design and skills? Bent Flyvbjerg, a well-known megaprojects expert, explains that megaprojects are continuously being built despite regularly exceeding costs, experiencing delays and not delivering the benefits expected. He regards this as a paradox driven by what are termed four ‘sublimes’ inducing a state of technological, economic, aesthetic and political awe.

Flyvbjerg explains the political sublime as the rapture politicians gain from announcing megaprojects. Announcements get media with the ultimate costs being far in the future, after the press releases are long forgotten. The politicians announcing the projects are likely not to have responsibility for cost and schedule blowouts or quality shortfalls, while receiving immediate kudos for vision and photo opportunities. The economic sublime is the delight businesspeople and trade unions get from making money from megaprojects. If we are lucky there is technological innovation and aesthetic beauty produced as well.

Flyvbjerg suggests that most megaprojects suffer from an optimism bias on the part of their progenitors, eager to get the project approved and legitimated. Of course, such an analysis can only ever be an attribution of bias that is retrospective; if all megaprojects that have problems are attributed as doing so because they suffer from an initial optimism bias, it is something that will always be a post hoc rationalization. It cannot be proven without an empirical measure of bias at the outset.

Megaprojects are necessary to cater for the needs of an increasing population, as well as providing services that, to a certain extent, enhance sustainability and reduce noise and pollution. Should Australian government stop building megaprojects? Is it time to pause and rethink what can be done to convince the public that megaprojects can add value – not just economic value but also societal and ecological value?

Value, as a sense of worth, is inherently subjective, you might say. It is perceived differently by different people. Research bears this out. One of the authors conducted a sentiment

analysis of tweets by the public about Sydney Metro. People did find value but the language they used in doing so was quite different from the bureaucratic language used in the business case. What is value in practice can be difficult to predict when a megaproject is conceptualized; the value delivered often differs from the benefits often used to justify megaprojects. Value has a broader connotation.

Consider the Sydney Opera House Project, an abject failure when evaluated in terms of meeting time and cost estimates that has provided extreme aesthetic value on a continuous basis in so many ways for Sydney and Australia. New ways of creating value from this icon, such as the Vivid festival every year, are continually being found. Every tourist to the city wants to see it and capture its image, an image shared globally.

In research conducted by the authors on megaproject leaders, several examples of value were discovered that leaders tried to realize in megaprojects across the world. For example, Annegret Schaber, who led the A40 megaproject in Germany that interconnected several highways, had the option to shut down a part of the motorway to get an intersection completed faster (in three months) than if it were carried out during off-peak hours, which would take two years. She decided to go public with her plan to complete in a short time, declaring that the short-term disruption would prevent longer term pain. She created public value by engaging honestly with stakeholders. As an example of ecological value, the Korean megaproject leader Soohong Kim, led the Incheon Bridge project that connected Yeongjong island to the mainland. Yeongjong island, where he was born, contains many mudflats, whose crabs held a special place in Kim's regard as he used to visit the island on weekends. Kim considered the crabs in Yeongjong island to be a major stakeholder; he considered them to be his friends and did not want to hurt them. He found ways to protect them during the megaproject.

Both examples show the power of storytelling in positioning the value of the project. The Opera House was born out of vision and commitment, but its story was overtaken by accounting of value in the present rather than projecting value into the future. Its value resided in its sublime aesthetic, which has repaid its cost many millions of times over in dollar value. The one thousand dollars plus cost overrun, based upon dubious cost estimates data, is miniscule in comparison. Other contenders for the opera house could have been built and cost less – the models can be googled – but they would never have returned the value that Utzon's vision has delivered. They were not sublimely beautiful, which the Opera House surely is.

So how do we evaluate creating value from the conception of the project – not only economic but also societal and ecological (not just preventing harm but contributing proactively to sustainability and aesthetics)? How do we ensure that this value is delivered through megaproject processes by appropriate governance structures and processes?

Some suggestions are implicit in responses to the Schott report. Adequate governance structures and processes, that the report noted as lacking from the outset, are required. According to *The Guardian*, a contributing factor to cost escalation was inadequate consultation with communities along the proposed route best able to advise about the

impact of flood levels on the project as well as the project's impact on urban communications, a potential additional cost.

Other suggestions flow from the specialist literature on megaprojects. Kristian Kriener suggests that it is naïve to assume the accuracy of estimates from participants and suppliers of knowledge and economic resources to the project as to cost and schedule. In a commercial context they can be neither disinterested nor can they be accurate because the conditions in which the project will unfold, over time, are unknowable and unpredictable. Powerful actors in projects will always be able to exploit their power to extract promises that prove to be unrealistic as the project unfolds, whether the commitment be from politicians, public servants or infrastructure providers. While lack of governance and lack of oversight skills are reprehensible, elaborated decision procedures will not necessarily produce more valid decision premises in a notoriously uncertain and complex reality. It is not so much that there is an 'optimism bias' but that unforeseeable 'unknown unknowns' are likely to occur.

Megaprojects are an adventure into the unknown and to measure them only by the extent that they correspond to the accounts that initially established them in cost and completion terms is to run the risk of being continuously disappointed. Better still to think about the longer-term value of the project rather than the short-term costs; this can be scoped by keeping a few 'what ifs' in mind. What if the case for the megaproject cannot be clearly established in longer term values of sustainability? What if an appropriate governance and delivery mechanism is not installed at the outset? What if the necessary community consultations have not been made? What if the right skills and appointments are not made? What if those elements of the project that are modular and scalable have not been carefully pre-planned and fabricated? If these apply, then the megaproject is probably a case of sublimity over value.

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Stewart Clegg is a prolific writer and contributor of over 300 articles to top-tier journals and is the author or editor of over 60 books and hundreds of prestigious academic papers, several of which have won prestigious awards. His core interests are in social theory, power relations, organisations, and projects. He works in the School of Project Management and the John Grill Institute for Project Leadership at the University of Sydney. In the past he has been a professor at several other universities, including the University of New England, The University of St. Andrews, The University of Western Sydney, and the University of Technology Sydney, where he is an Emeritus Professor. Among his most recent books is *Frameworks of Power* (2023, 2nd edition). Prof Clegg can be contacted at stewart.clegg@sydney.edu.au.



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