Constructing the Future

A framework for a more sustainable construction industry



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Introduction

2020 will long be remembered as the year that a virus changed our world, severely impacting the health of the Nation, closing borders, creating economic hardship and forever changing the way we work.

Throughout the pandemic, construction has been considered an important industry, and with collaboration by the key stakeholders and a commitment to the well-being of our workforce, it has been able to continue operating.

Given that the construction sector employs close to 10% of the working population and contributes 7.2% of GDP, significant sums of money are now being invested by all levels of Government in the construction of new infrastructure to lead the economy out of a COVID-19 induced recession and to provide employment opportunities for thousands of workers made redundant from heavily impacted sectors such as retail and hospitality.

The rebuilding and prosperity of our nation are therefore heavily reliant on the strength and stability of the construction industry. Reliance on an industry where profits are declining, productivity has barely improved in 20 years, cost/time over-runs are commonplace, and many projects end in contractual dispute¹ has the potential to be problematic.

Many within the industry have long championed the need for fundamental change to the way in which projects are procured and delivered to address these problems. Initiatives such as the Construction Industry Leadership Forum (CILF) and Construction Industry Culture Taskforce (CICT) have resulted in some positive outcomes, but these initiatives intentionally don't cover the whole of Australia and only apply to some industry sectors.

The time has therefore come for a more holistic approach to tackling the Australian construction industry's problems; an approach that covers all geographic regions and industry sectors and aligns the needs and expectations of all industry stakeholders.

In our response to Infrastructure Australia's most recent Infrastructure Audit (2019), we identified ten actions to improve industry sustainability, including:

An Independent Agency should facilitate and coordinate this [Industry Reform] process nationally. This involves achieving an industry-wide consensus on an overarching framework for sustainability and establishing a task force to assist and report on progress by each jurisdiction in achieving collaborative structures and reforms to infrastructure delivery that boost productivity, industry sustainability and long term value for money.

The Framework for a Sustainable Construction Industry, detailed in this document, outlines such a holistic approach and details a clear way forward for the industry for the betterment of all.

ACA hopes that with the publication of this framework, 2020 will be remembered not just for a virus but will also become known as the year that the construction sector in Australia took its first serious steps towards becoming a vibrant and sustainable industry, where high value social and economic project outcomes are delivered consistently in a collaborative and inclusive environment that is seen as a role model for other industries.

¹ ACA Response to IA Audit



The Importance of the Construction Industry

Construction of new infrastructure is an important tool for any government seeking to stimulate their economy following an economic recession, such as the current COVID-19 induced recession here in Australia.

Multiplier Effect

Every dollar spent on construction projects has a multiplier effect. It directly results in increased employment by the contractors and consultants engaged in doing the work, it increases the demand for goods and services required to build the project, and it results in increased spending by the new workers employed. This, in turn, leads to further employment and therefore, stimulus in the broader economy.

In monetary terms, the total multiplier for the construction industry is 2.99 – meaning that every dollar spent on construction boosts economic activity by nearly \$3²

Employment

Over 1.1 million Australians³ are employed within the construction sector, accounting for almost 1 in 10 jobs. As a sector, construction is interlinked with society like no other, with opportunities afforded to professionals, skilled and unskilled workers in every state and territory. Construction is ranked behind only Retail Trade and Healthcare and Social Assistance in terms of employee numbers.

- 3. Australian Bureau of Statistics Labour Force, detailed, quarterly, cat. no. 6291.0.55.003 February 2019
- 4. Australian Bureau of Statistics 8165.0 Counts of Australian Businesses, including Entries and Exits, June 2015 to June 2019

Sector Size

In 2018–19⁴ the construction sector accounted for 16.6% of all businesses in Australia and had the largest number of business counts across all industries at 394,575 total enterprises.

Wider Benefits

Chosen wisely, new infrastructure also has the capacity to improve the performance and competitiveness of the economy as a whole by increasing the efficiency of production, transportation, and communication

In addition to the considerable economic benefits, construction of new infrastructure can also reduce social inequality and provide significant societal benefits through the use of targeted training programmes, direct employment of disadvantaged people and engagement of social and indigenous enterprise.

With all these benefits at stake, Australia must have a healthy and sustainable construction industry to realise them and effective procurement and delivery methods to optimise them.





^{2.} ABS 5209.055.001 table 5 for FY2018

A Troubled Industry

As identified in our response to the 2019 Infrastructure Audit published by Infrastructure Australia, the construction industry is facing several significant challenges:

Profitability

Construction industry profits collapsed between 2014 to 2018⁵ and many well-established construction businesses have gone out of business or been sold. The construction industry currently has the highest number of insolvencies of any major industry sector in Australia⁶.

Considering mega projects in isolation, the picture is even worse, with a recent report identifying that Australian contractors incurred losses of \$6 billion on mega projects completed between 2000 and 2015, representing an average project loss of 16%. The report predicted if no action was taken there was the potential of \$11 billion of losses for projects undertaken between 2015 and 2020⁷. This is likely to be an underestimate given the recent spate of highprofile project issues.

Unsustainable financial outcomes for the construction industry create broader industry sustainability challenges in terms of greater workplace stress, longer hours and less ability to support training and innovation initiatives – in turn, making the industry a less attractive destination for employment and investment.

- 5. ABS (2020) Business Indicators, Australia, Cat. No. 5676.0, March 2020, Australia.
- 6. ASIC Insolvency Statistics March 20
- 7. Ryan, P and c. Duffield (2017) Contractor Performance on Mega Projects Avoiding the Pitfalls Engineering Project Organization Society, Fallen Leaf, CA USA
- 8. As noted in many capacity and capability reviews such as, for example, BIS Oxford Economics (2018) for Infrastructure NSW.

Boom and Bust Pipeline

The boom/bust cycle of investment in infrastructure adds to the sustainability pressures felt by the industry. Although 'smoothing the pipeline' has been long established as important to relieving capacity and capability concerns and improving efficiency,⁸ industry work done data shows the sector remains subject to large investment cycles.

While concern over debt and budget deficits (at the State and Commonwealth level) saw public investment fall back over the first half of the 2010s, another substantial wave of investment, focused on major transport projects, saw publicly funded engineering construction rise again between FY2015 to FY2019.

An even bigger cycle is forecast for the coming decade based on the rollout plans for existing transport projects, and this will likely only be magnified by COVID-19 stimulus measures such as the \$40 billion of additional spending on major projects by the States advocated by Reserve Bank Governor Philip Lowe in a recommendation tabled to National Cabinet on 21 August 2020.





Mega Projects

Furthermore, an increasing proportion of economic infrastructure investment is being concentrated in high value 'mega-projects', as shown in Figure 1. This is particularly true for transport investment. While BIS Oxford Economics is forecasting transport engineering construction to rise from \$30 billion in work done in FY2020 to \$44 billion in FY2024, the value of work done in the 'mega' transport project space is expected to nearly double during the period. These projects are not only very costly, but more complex, reflecting predominantly overbuilds rather than greenfield developments, substantial underground works, tunnelling and multiple interfaces. All of which brings substantial additional risks that the industry is expected to manage but the contracts utilised to deliver these projects have not changed to reflect this.

Diversity

Unsustainable financial outcomes for the construction industry create broader industry sustainability challenges in terms of greater workplace stress, longer hours and less ability to support training and innovation initiatives which in turn make the industry a less attractive place to work.

Critically, the construction industry is still an extremely male-dominated environment which itself can be a constraint on attracting women into the sector. The industry has a significantly higher proportion of men relative to the average across all industries. In 2020, the construction industry was comprised of 12% women and 88% men, against a workforce average of 47% women and 53% men.

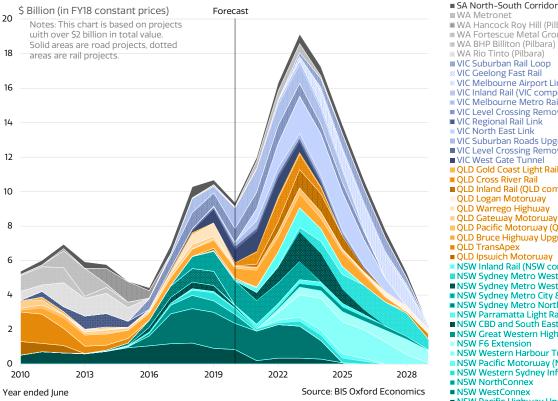


Fig. 1: Major Transport Projects (over \$2bn), Australia, Constant FY2018 Prices

- WA Metronet WA Hancock Rov Hill (Pilbara) WA Fortescue Metal Group (Pilbara) WA BHP Billiton (Pilbara) WA Rio Tinto (Pilbara) WIC Suburban Rail Loop VIC Geelong Fast Rail VIC Melbourne Airport Link VIC Inland Rail (VIC component)
 VIC Melbourne Metro Rail VIC Level Crossing Removal Program (Rail) VIC Regional Rail Link VIC North East Link VIC Suburban Roads Upgrade
 VIC Level Crossing Removal Program (Road) VIC West Gate Tunnel QLD Gold Coast Light Rail QLD Cross River Rai OLD Inland Rail (OLD component) QLD Logan Motorway QLD Warrego Highway QLD Gateway Motorway QLD Pacific Motorway (QLD Component) QLD Bruce Highway Upgrade QLD TransApex QLD Ipswich Motorway NSW Inland Rail (NSW component)
- NSW Sydney Metro West
 NSW Sydney Metro Western Sydney Airport
- NSW Sydney Metro City & Southwest
- NSW Sýdneý Metro Northwest
 NSW Parramatta Light Rail
- NSW CBD and South East Light Rail
- NSW Great Western Highway Duplication
- **NSW F6 Extension** NSW Western Harbour Tunnel & Beaches Link
- NSW Pacific Motorway (NSW Component)
- NSW Western Sydney Infrastructure Plan
- NSW NorthConnex NSW WestConnex
- NSW Pacific Highway Upgrade



Mental Health

Financial sustainability (or lack thereof) can also have an impact on mental health. When projects run into trouble, it is very likely it will start taking a toll on employee stress levels, anxiety and work-life balance.

Even in normal times, the average hours worked in the construction industry is typically higher than that of the industry average across Australia and this will likely only increase further as workload increases as a result of COVID-19 stimulus measures.

Workforce related harassment and bullying is another contributor to poor mental health. Safe Work Australia found that in 2020 the "Civic, professional, and other interest group services industry" – which Construction falls in to – had the second-highest incidence rates of work-related harassment or bullying, with an average of 56.3 claims of harassment per 100 million hours worked.

Overall, the construction industry has significant challenges in terms of managing the physical and mental health and well-being of its staff. This can prove a disincentive to join the industry or an incentive to leave in favour of higher wage, lower risk industries.

Productivity

Labour productivity in the construction industry has grown at just 1.2 per cent per annum on average since 1989/90, compared to 2.4 per cent per annum for selected industries. If productivity in the construction industry had at least matched selected "other industries" performance, multifactor productivity would have improved a further 25% over the last 30 years on top of the meagre 6% growth registered.

Another way of thinking about this is saying that for every four similarly costed infrastructure projects built today; we could have built a fifth at no further cost.

Attraction and Retention

Given all of the above problems, it is perhaps not surprising that the construction industry is struggling to attract and retain the skills and capability necessary to deliver the upcoming pipeline of work.





An Opportunity for Change

As an Association, we are grateful that the construction and infrastructure industry has largely continued to operate throughout the COVID-19 crisis, despite some disruption and delay to normal operations. Whilst the pandemic has been a challenge, it has provided an opportunity for us to see that we can adapt and change very quickly and do things that we never thought possible.

The ability of the construction and infrastructure industry to lead the way forward out of the COVID-19 crisis is well understood and includes:

- Construction of economic enabling projects to support improved national efficiency
- · Employment opportunities for displaced employees from other sectors
- Increased economic activity throughout the supply chain and wider economy
- Increased engagement of Indigenous and Social Enterprise

Given a desire by Government at all levels to leverage these benefits and mitigate any capacity and capability constraints, there exists a once in a generation opportunity to reassess and reset the way in which our sector operates and delivers infrastructure for our clients. This can improve the sustainability of our industry and in turn result in a step-change in performance for all stakeholders.

A sustainable industry is a forward-looking industry. It is an industry focused on the next decade rather than the next project. It is a productive industry that embraces new technology and new ways of doing things. It is a champion of diversity and is an industry of choice for the next generation of the workforce looking for a safe, challenging and rewarding career.





A Framework for a Sustainable Future

In order to facilitate a coordinated approach to reform, we seek support for a framework that defines the elements necessary for a sustainable industry, an industry able to leverage the social and economic benefits that flow from construction of new infrastructure, make the infrastructure dollar go further and deliver value for money outcomes.

This framework should guide all discussions and be the basis of all plans and protocols related to the future of the construction industry in Australia.

Three Pillars

Based on the extensive work undertaken by CILF and CICT, we believe that there are three pillars which are essential to support a sustainable construction industry:

- · Positive Industry Culture
- · Equitable and Aligned Commercial Frameworks
- · Sufficient Capacity, Capability and Skills



These pillars are inextricably joined, meaning that the ability to achieve improved outcomes for any of them relies on improvements in the other two. As an example, it is widely understood that adversarial commercial frameworks negatively impact on the culture of the industry and industry culture is a key factor in attracting people into the industry.

Similarly, it is not possible to realise a sustainable industry without a focus on all three pillars.

Positive Industry Culture

Whilst there have been some improvements in recent times, construction workplaces and behaviours need a step change if we are to make our industry more resilient and an attractive industry to work in.

From improved employee retention, increased diversity of workforce, unity of purpose, reduced absenteeism and increased innovation, culture and business performance are interlinked⁹. Addressing workplace and industry culture, therefore, needs to be a key pillar for a sustainable construction industry and must be addressed for everyone within our Industry, including staff, workforce representatives, subcontractors, consultants, and the supply chain.

The Construction Industry Culture Taskforce (CICT) has developed and is prosecuting an agenda to do this, but ACA acknowledges that our members can and should lead the way by removing behaviours and practices that are inappropriate, inefficient, disruptive, and intimidating.

There must be a focus on:

- Safety Continued world-class safety standards and protocols to protect our people.
- Mental Health and Well-being Providing access to resources and services to support mental health and well-being whilst building industry resilience and care.



- Work-Life Balance Introducing working practices, rostering, and culture to enable flexible and healthy work-life balances that enhance performance and productivity and lifestyles.
- Diversity Promoting diversity in our workplaces and creating a culture of acceptance of all regardless of race, gender, background, or orientation.
- Behaviour Questioning and acting on poor behaviour with zero tolerance shown for workplace behaviours such as bullying and intimidation.
- Trust Creating trust across all stakeholders is strong and apparent and founded on respect, mutual understanding and healthy communication and discourse.

It is clear from the above that all three pillars of a sustainable construction industry are interlinked and improvement in one requires improvement in all.

Equitable and Aligned Commercial Frameworks

Historically, the commercial frameworks utilised to deliver projects in Australia have changed in line with market conditions. At times of peak demand, these frameworks generally tend to be more collaborative in order to attract contractors to bid. Conversely, in tight markets, project owners will seek to utilise commercial frameworks that transfer the majority of project risk to the Contractor in the knowledge that the market will accept such risk in order to win work.

This simplistic model based upon supply and demand implies that a project owner's interests are best served by less collaborative commercial frameworks that transfer most project risk to the Contractor who in turn seeks to pass this risk down through the supply chain.

Recent history has shown that such an approach does not work, particularly in respect of largescale public infrastructure. When risk materialises on these projects and performance is impacted, project owners have in many cases been compelled to negotiate a commercial resolution with the Contractor despite an apparent lack of contractual entitlement, in order to mitigate reputational damage that on public projects accrues to the Client not the Contractor when a project runs into problems. The choice of commercial frameworks can have a huge impact on the profitability of the whole industry supply chain from Contractor to designer to subcontractors and suppliers. This, in turn, can impact industry culture through the promotion of adversarial relationships which then leads to increased levels of employee stress and anxiety on all sides.

A business that does not know whether it will make money from one project to the next is unlikely to be a business that will invest in capability and capacity or productivity enhancing tools and processes. Which is why equitable and aligned commercial frameworks are a key pillar of a sustainable construction industry.

In order to achieve true value, leverage community benefits, reduce the prevalence of disputes and provide a platform for investment, project commercial frameworks need to align the interests of all parties to the greatest extent possible and be drafted to achieve best for project outcomes rather than favouring any one particular stakeholder.

Sufficient Capacity, Capability and Skills

The construction industry is labour and skills intensive. The unique nature of projects makes automation and prefabrication difficult, particularly in respect of civil infrastructure. A sustainable construction industry is therefore heavily reliant on the capability, capacity and skills of its workforce.

To improve industry capability, capacity, and skills, we must:

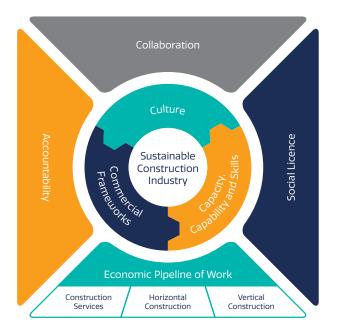
- Adopt commercial frameworks that provide more predictable and equitable project financial outcomes and therefore a more conducive environment for investment in training.
- Develop a consistent economic pipeline of work that provides secure, long-term employment.
- Improve the culture of the industry so that it is a more desirable place to work for all participants in the workforce, including women and indigenous Australians.
- Improve work-life balance and provide development opportunities to retain those already working in the industry.

9. Harvard Business Review - Proof That Positive Work Cultures Are More Productive



Strong Foundation

These pillars also require a strong foundation on which to sit. We believe that there are four essential elements required to build this strong foundation:



Economic Pipeline of Work

A transparent economic pipeline of projects across all industry sectors, that avoids periods of boom and bust, is crucial to the long-term health of the industry as a whole. It encourages people to join the industry and provides opportunities for their career development. It minimises the need for significant skilled migration and, most importantly, it gives industry confidence to invest in the future.

An economic pipeline of work:

- Provides visibility across project planning, business case formation and approvals so that all stakeholders have clear and accurate roadmaps of the short, medium and long-term infrastructure planning across Australia.
- Reduces workload volatility both nationally and regionally, minimising periods of boom and bust.
- Provides opportunities for all levels of the industry to participate and grow.
- \cdot Considers industry capability and capacity.
- Is determined by need and not ideology or election cycles with a long-term view taken on infrastructure development.
- 10. International Association for Contract and Commercial Management – Most Negotiated Terms Survey

Collaboration

For too long, construction has been treated as a zero-sum game, a game where there can only be one winner. Contracts are drafted accordingly, and more time is spent negotiating the clauses that address what happens when things go wrong than the clauses that deal with ensuring value outcomes¹⁰.

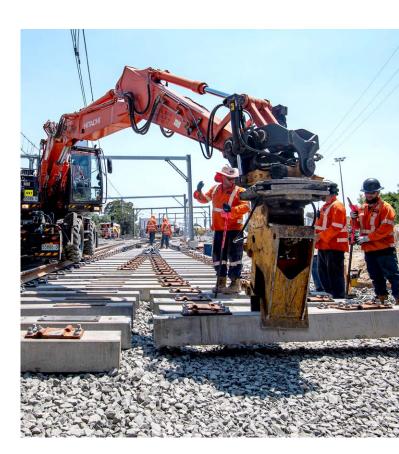
All stakeholders involved in construction and delivery of infrastructure projects need to work together to ensure their mutual success as in reality, there is rarely a real winner in the construction zero-sum game.

True value is only achieved when all the parties' interests on a project are aligned and the best way to achieve this is by Collaborative Frameworks.

Improvements in industry culture are reliant on improved collaboration between all stakeholders, such as; between workers' representatives and employers, between contractors and designers and designers and Clients.

For Capacity, Capability and Skills to improve there needs to be increased collaboration between government, industry, educational institutions and workers' representatives.

Initiatives such as CILF and CICT show the power of collaboration but more needs to be done.





Accountability

As an industry, we must be committed to working accountably in an open and transparent way. In the past we have been guilty of not holding ourselves to the same standards that we apply to others. We have also frequently said one thing and done another.

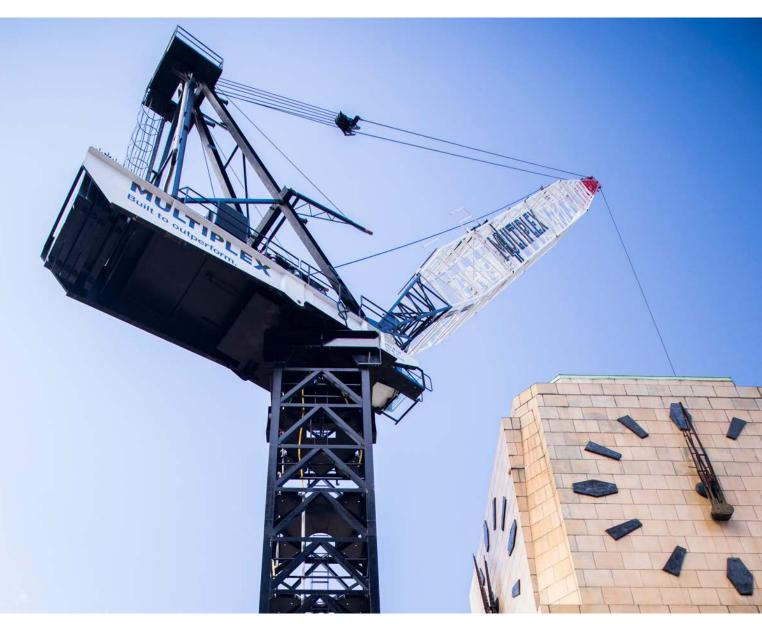
We will regularly review how well industry demonstrates leadership and lives by the values we espouse. Real change will only be possible if all stakeholders are held publicly accountable for progress towards achieving clear, agreed and measurable outcomes.

Social Licence

In order to be successful, an industry needs to count on the support of its employees, stakeholders and the public. This is commonly referred to as a Social License to Operate.

Social Licence is particularly important for the Construction and Building Industry as the construction of new infrastructure can cause significant disruption to the lives of those living close by but only deliver diffuse benefits.¹¹

Social Licence is also important when considering any significant change to how the industry operates. It is a well-understood principle of change management that for change to be implemented successfully it is necessary to obtain the support of those that will be affected by the change.



11. Infrastructure Partnerships Australia, Building Trust: Social Licence for Infrastructure

Next Steps – Adoption of the Framework

There is much work to do to ensure the Construction Industry emerges from COVID-19 pandemic stronger and able to deliver better value for money and increased employment outcomes.

A Common Approach

CILF and CICT are examples of good initiatives to improve the sustainability of the construction industry. Many of these initiatives were already underway before the arrival of COVID 19, and more have commenced since but none currently cover the whole of the Country or all of the sectors within the industry.

Whilst any positive action is welcome, history has shown that a more holistic approach is required to achieve real and lasting change. Ideally, steps should, therefore, be taken to combine or coordinate initiatives. In all cases, this framework can be used as a unifying guide for identifying action that needs to be taken.

Coordinated Action

The Federal Government is uniquely placed to coordinate efforts to improve the sustainability of the industry and has much to gain from doing so given the level of expenditure disbursed through National Partnership Agreements to the States and Territories.

There are a number of Federal Government Agencies, Councils and Commissions that could be utilised for this purpose:

Infrastructure Australia (IA)

IA was created to be the nation's independent infrastructure advisor.

One of Infrastructure Australia's Strategic Goals is to:

'Consult, and establish productive working relationships with, key infrastructure stakeholders, across all levels of government (Commonwealth, state, territory and local governments) and other relevant bodies and organisations, including industry and state infrastructure advisory bodies.¹²

IA produced their first Australian Infrastructure Plan in 2017 that '... provides a positive reform and investment roadmap for Australia. The Plan sets out the infrastructure challenges and opportunities Australia faces over the next 15 years and the solutions required to drive productivity growth, maintain and enhance our standard of living, and ensures our cities and regions remain world-class.'

This plan is currently being updated for release in 2021.

Following appropriate consultation with other industry stakeholders, including State and Territory Governments, actions could be included in the plan based on ACA's sustainability framework to ensure the industry has sufficient capability and capacity to deliver a national infrastructure pipeline that has been significantly expanded in response to COVID-19.

12. Infrastructure Australia Corporate Plan 2019



Transport and Infrastructure Council

In December 2013, the Council of Australian Governments (COAG) agreed to a new Council System to better enable COAG to focus on, and progress, nationally significant reforms. The Transport and Infrastructure Council brings together Commonwealth, State and Territory Ministers with responsibility for transport and infrastructure issues, as well as the Australian Local Government Association.

The Council's terms of reference are:

"... to improve the efficiency, safety and productivity of Australia's infrastructure and transport systems. The Council's work program focusses on ensuring these systems drive economic growth, increase employment opportunities, support social connectivity and enhance quality."

Following the replacement of COAG by National Cabinet, a number of Councils were disbanded, but the Transport and Infrastructure Council remains

Whilst the Council is focused on the operational efficiency of transport networks this is in turn driven by improvements in infrastructure delivered by the Construction Industry. Such improvements rely on the existence of a sustainable construction industry.

National COVID Coordination Commission Advisory Board (NCCAB)

On 26 July 2020, The Prime Minister announced that:

"... the National COVID-19 Coordination Commission is moving into a new mode, shifting its focus to concentrate on creating jobs and stimulating our economy as we learn to live with this pandemic."

At the same time, the National COVID Coordination Commission was renamed the National COVID Coordination Commission Advisory Board.

Given the new remit, the NCCAB should be interested in coordinating efforts to improve the sustainability of an industry being heavily relied upon to lead the nation's economic recovery.



Industry's Commitment

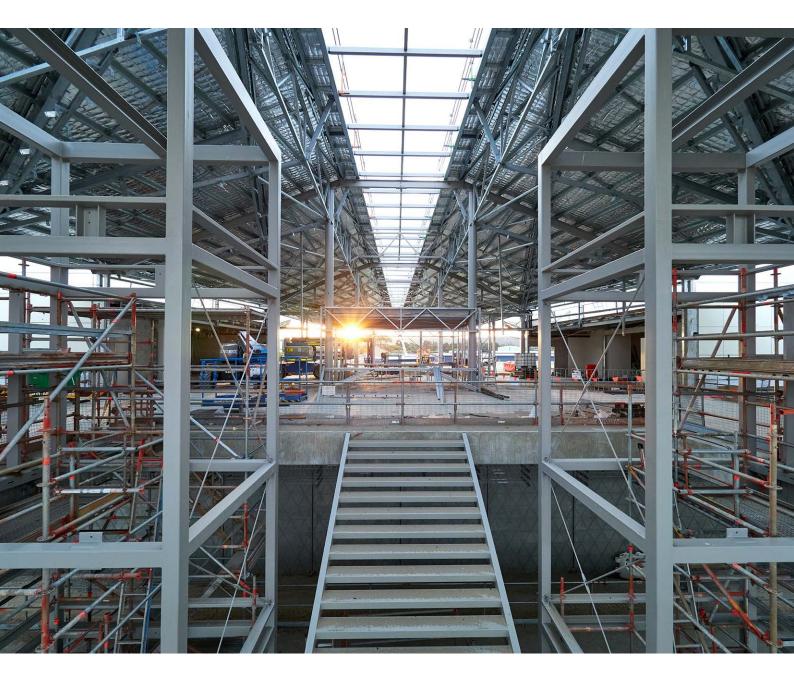
Industry understands that it also needs to change if it is to become more sustainable. ACA will shortly release a document setting out its charter of commitments, to which it and its members will adhere, in order to achieve lasting, positive change and a sustainable construction industry. Progress towards achieving these commitments will be openly and transparently monitored and reported.





Conclusion

The COVID-19 pandemic has aligned the interests of all construction industry stakeholders on keeping the industry operating and people safely employed. This alignment also provides a rare opportunity for much needed reform. It is incumbent upon us all to grasp this opportunity with both hands and collaborate to develop a more sustainable industry for the benefit of all Australians.





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