About ACIF
The Australian Construction Industry Forum (ACIF) is the meeting place for leaders of the construction industry in Australia. ACIF facilitates and supports an active dialogue between the key players in residential and non-residential building, engineering construction, other industry groups, and government agencies.

Our members are the most significant associations in the industry, spanning the entire asset creation process from feasibility study through design, cost planning, construction, building and management.

ACIF’s Agenda
ACIF seeks to develop a successful, strong and sustainable construction industry in Australia.

ACIF is focused on creating a competitive construction and property industry that is a leader in building Australia’s prosperity. As well as facilitating communication within the construction sector, ACIF provides governments and other agencies with a central and efficient industry liaison point.

ACIF Members
- Air Conditioning and Mechanical Contractors’ Association of Australia
- Association of Consulting Architects Australia
- Australian Institute of Architects
- Australian Institute of Building
- Australian Institute of Building Surveyors
- Australian Institute of Quantity Surveyors
- Engineers Australia
- Fire Protection Association Australia
- Housing Industry Association
- Insulated Panel Council Australasia
- Master Plumbers Australia
- National Fire Industry Association
- Property Council of Australia

Find out more at www.acif.com.au

The Challenge
The construction industry is a major contributor both directly and indirectly to the Australian economy. It is an industry that employs around 1 million Australians, and had turnover of $212 billion in 2015-16 equating to 12.7% of GDP. In addition, it creates the buildings, cities and infrastructure that makes Australia more productive, liveable and sustainable, adding substantially to our national wealth and well-being.

However, the construction industry in Australia has not substantially improved its productivity in decades, and can waste up to 30% of its efforts. This is not a uniquely Australian issue. Rather, it is a product of the structure of the construction industry, the increasing complexity of its services, and the creation and operation of “silos” within that structure.

If that wasted effort were to be reduced by only one third, it would lift Australian residential and non-residential construction output by more than $10 billion annually. If the changes required to achieve that reduction were to “ripple” through the industry, it is conceivable that within a few years the improved output would be substantially higher.
The Solutions

This challenge has been the subject for numerous studies, reports, reviews and inquiries over at least three decades, most recently the Productivity Commission inquiry into Public Infrastructure Costs (2014).

These landmark studies point to a diverse range of common denominators in reducing wasted effort. In particular, three key themes are evident; depth of procurement and project management skills, better supply chain integration and the use of technology to improve project outcomes.

Yet despite these themes, and many particular recommendations, reappearing in study after study, there has been slow, if any, adoption of better practice. This is despite evidence from other jurisdictions (e.g. the UK) or industries (e.g. resources sector), that adopting these recommendations result in massive productivity uplifts, less waste, lower costs and happier industry participants.

ACIF and its members believe that there is no need for more inquiries or reports. The imperative is to act on a handful of potential drivers of improvement that are developed collaboratively by governments, clients and service providers.

The Role of Government

The importance of governments is twofold. As policy makers, governments have ultimate influence over the legislative and regulatory arrangements governing the industry. Even more important, however, is government in its role as client. As major and ongoing clients of the construction industry, and the ways in which governments and industry interact have a profound impact on both the health of the industry and the success of governments in delivering their capital programs.

Industry is already doing a great deal of heavy lifting from the bottom up, but it is limited in achieving the pace of change required to remain competitive with major trading partners without top down political and government leadership.

Leadership from government in both these roles is critical if we are to substantially increase Australia’s construction productivity.

Recommendation 1

Establish an Independent Australian Centre for Procurement Excellence

With large amounts of public funds being spent on infrastructure, it is incumbent on governments to ensure they get maximum value for money through the procurement process. To buy wisely you need wise buyers: there are substantial opportunities for governments and business to share expertise, and identify and deliver solutions that improve productivity and value for money across the procurement process.

To overcome persistent deficiencies in procurement skills and practices, we recommend a whole of government approach supporting the establishment of an Australian Centre for Procurement Excellence, building on the work of the Australasian Procurement and Construction Council (APCC).

The Procurement Centre of Excellence will expand the APCC’s role and remit, broadening government engagement and building on work across jurisdictions considering efficiencies in procurement. The Centre would be tasked with building a stronger relationship between government and business and supporting best practice procurement in Australia at all levels of government. The Centre should:

- be established as independent of government;
- build stronger linkages between government and with industry sectors;
- provide transparent expert advice to all levels of government;
- develop guidelines, build capability and improve standards; and
- work with Infrastructure Australia and other government agencies to develop long term visionary thinking and planning for investment in economic and social infrastructure.

The Board of the Centre for Procurement Excellence should include equal levels of representation from industry and government.

See Fact Sheet I – Australian Centre for Procurement Excellence
Recommendation 2
Fairer, Standard Contracts

Devolved responsibility for agencies has resulted in greater autonomy, but also significant re-inventing of wheels. Specific approaches to project definition, initiation and contracting have increased regulatory and administrative burden, decreased trust and certainty and increased waste.

ACIF believes that a ‘leading practice’ approach can be reflected in a consistent public sector framework of capital works procurement policies and practices, used by all government agencies.

ACIF recommends a suite of leading practice procurement policies, delivery strategies and contract and sub-contract conditions be developed by the Centre for Procurement Excellence, to be used by government agencies on an “if not why not” basis that would:

- provide best fit between end user and project requirements and delivery strategy;
- reduce the cost of contract administration and of providing appropriate procurement and commercial skills whether in house or by consultants;
- minimise wasted effort and disputes; and
- embody equitable risk allocations whilst ensuring best value for end users and owners.

See Fact Sheet II – Fairer, Standard Contracts

Recommendation 3
Promote Building Information Modelling

Building Information Modelling (BIM) is being used around the world to complement better collaboration and coordination between the supply chain participants in construction. Using technology as a facilitator to bring project teams together and design a virtual prototype of an asset is helping to enhance collaboration, test and re-test business case objectives, and plan for more efficient asset delivery.

Moving an entire industry to a new way of doing things, however, is not an easy task. There are up-front capital investments, significant industry up-skilling, regulatory frameworks and standards to be developed and changes to culture to be considered. However, the productivity dividend is undeniable. Numerous reports, experience from other countries and existing Australian examples provide a significant evidence base to substantiate making the change.

Thus it is imperative that governments, through their significant purchasing power and whole of industry influence, lead the way.

ACIF recommends that governments promote the use of BIM on all Federal and State government building projects and all infrastructure projects.

The Procurement Centre of Excellence would be tasked with the execution of this across governments.

See Fact Sheet III – Promote Building Information Modelling

Contact

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Background

Why Procurement Skills Matter

With large amounts of public funds being spent on infrastructure, it is incumbent on governments to ensure they get maximum value for money through the procurement process. To buy wisely you need wise buyers: there are substantial opportunities for governments and business to share expertise, and identify and deliver solutions that improve productivity and value for money across the procurement process.

Governments around Australia spent nearly $43 billion on public sector infrastructure building and construction work in 2013. A one per cent efficiency dividend would equate to nearly half a billion dollars in savings. When this figure is extended to include public sector procurement across 6 states, 2 territories and 562 local governments, the opportunities to translate better procurement into savings are substantial.

In the construction sector alone, a 2009 report estimated the cost of disputation at $7 billion per year, a figure that is likely to have grown. The 2015 Deloitte Access Economics report, Economic Benefits of Better Procurement, commissioned by Consult Australia, found that conservatively, public sector clients could save 5.4% on professional services costs alone through better procurement.

Similarly, a 2008 survey of pressure points in the Australian construction industry found that poor procurement practices had led to 26 percent of projects worth over $1 billion in Australia running over budget by $200 million or more, while a 2006 study found that only 56 percent of projects were completed on time. Better procurement practices could have prevented, or limited this waste.

ACIF believes that better procurement practice includes procurement practices which do not cost industry unduly in dispute costs, insurances, and corporate failures that ultimately are passed on in contract prices, and/or cost government and the community in support mechanisms outside the construction and infrastructure sphere. ACIF believes such better procurement practice involves, as one example, the use of fairer standard contracts, as we discuss further in this document. Another example is the wider use of BIM, also discussed in this document.

There is now ample evidence that a small investment by Government in skills development of its procurement officers will ultimately save Government money, while also making it easier for industry to do business with the public sector and in turn supporting the economy.

Bridging the Gap: A Procurement Centre for Excellence

To address the shortage in procurement skills, we recommend establishing a Procurement Centre for Excellence.

Such a Centre would be tasked with developing models of what best practice procurement looks like, and then training procurement professionals from each jurisdiction around Australia. This training would cover topics relevant to those new to managing procurement, as well as ongoing training for experienced professionals. The Centre would be tasked with building a stronger relationship between government and business and supporting best practice procurement in Australia at all levels of government.

The Centre need not be a new organisation, but could be situated within an existing agency such as the Australasian Procurement and Construction Council (APCC) or Infrastructure Australia.

What Would it Look Like?

There is broad scope for a Centre for Procurement Excellence to make a difference to the quality and cost of infrastructure development in Australia.

To maximise its impact, the Centre should:

- be established as independent of those government agencies that act as a client to the construction industry;
- build stronger linkages between government and with industry sectors;
- provide transparent expert advice to all levels of government, which may be considered in the context of infrastructure planning, governance and decision making; and
- develop guidelines, training to build capability and improve standards across the full range of procurement related issues relevant to government.

The governance of the Centre for Procurement Excellence should include representation from industry and government.
Responses to Common Criticisms

We already have best practice

The evidence, presented at the beginning of this brief, suggests that there is still scope for further improvement in procurement skills, policy and practice. Already a number of worthy suggestions have been made for procurement reform, and the Centre could build on these to the benefit of all stakeholders.

Why should government establish yet more bureaucracy?

The focus of this proposal is on government taking ownership of procurement skills, as they are the prime beneficiary of enhanced procurement skills. There need not be more bureaucracy established, if this function is situated within an existing agency. However, there is significant evidence that a relatively small investment in procurement skills by government will yield a significant benefit in terms of cost savings, quicker project delivery time and improved quality of the final infrastructure.

Isn’t there a cheaper way to develop procurement skills?

No. The alternatives to this proposal are “business as usual” without enhanced procurement skills, or individual jurisdictions and agencies undertaking their own procurement skills development. In the case of the first option, the existing inefficiencies will continue to occur and cost government more, while the second option means costly duplication of effort. A Centre for Procurement Excellence will be a central point for procurement skills development that operates across all jurisdictions and public sector agencies.

Making it Happen

Government should start consulting with relevant stakeholders in industry and the public sector about developing such a Centre, and what it might look like.

Two important steps to pave the way to establish a Centre for Procurement Excellence include:

1. Highlighting opportunities across all sectors to share expertise, increase productivity and deliver savings and efficiencies through better procurement, which could then be incorporated into the Centre’s mandate; and

2. Identifying key stakeholders, determining the terms of reference and appropriate governance supporting the Procurement Centre of Excellence, including where it is situated in respect of other agencies.
Background
Issues with Contracts Today

Contracts with the private sector are an important tool for government to manage the risks involved in public infrastructure projects.

It is established best practice that to achieve effective and efficient management of risk at the lowest cost, contractual risk is allocated to the party in the contract best able to manage that risk. As noted by Infrastructure Australia in the National Infrastructure Audit, this may involve various risks being retained by government, transferred to the private sector, or shared between the parties.

In the construction sector alone, a 2009 report estimated the cost of disputation at $7 billion per year, a figure that is likely to have grown. The 2015 Deloitte Access Economics report, *Economic Benefits of Better Procurement*, commissioned by Consult Australia, found that conservatively, public sector clients could save 5.4% on professional services costs alone through better procurement.

While contracts are an important tool in allocating project risk to the parties best able to manage them, the reality is that many contracts instead allocate risk according to bargaining power, with government clients transferring risk they would be better placed than their industry partners to manage.

At present, a multitude of different contracts are used across public sector construction projects, with different approaches to risk and a range of other factors. This approach represents a significant deviation away from the best practice described above, and also serves to greatly increase the cost and time spent on negotiations.

The increased use by government of standard contracts that fairly allocate risk and reward between the parties would lead to significant cost and time savings, as well as avoiding many of the less desirable project outcomes that may result from the use of onerous contract terms. The impacts of these terms are described below.

The Impacts of Onerous Contracts

Onerous contract terms (namely, those that have an imbalance of allocating risk and reward between the parties) may lead to a range of less desirable outcomes. These include:

1. Increased cost of the project, as industry prices additional risk into their bids, or decides not to bid for a particular project if it is beyond their risk appetite. Other increased costs may result from over-engineering designs to a project, taking a higher level of project insurance than is necessary, or simply costs arising from the realisation of unmanaged risk.

2. Contract terms are an important driver of behavioural responses, including increased disputation, as service providers respond to the higher risk allocated to them by taking a more conservative approach to undertaking the project. As contracts also serve to establish a working relationship, unfair contracts have been shown to lead to a lower level of good faith between the parties, and in turn greater disputation may arise.

3. Inferior project quality may also result from onerous contracts, as they create a significant disincentive to provide an innovative solution that may either create a better outcome or save on project costs. Similarly, reduced competition also reduces the options to select an optimal solution to a project.

4. Insurance might not respond to claims where parties are allocated project risks better allocated to another party. It is fairly standard for professional indemnity insurance policies to not cover any risk “assumed” in the contract, and where policy extensions do exist, they are costly and not necessarily available to everyone. A number of firms are proceeding to work uninsured, whether knowingly or not, and the possibility of public infrastructure projects leading to an uninsured liability should be of great concern to government.

5. Delays are a result not just of increased disputation, but also of the increased time and resources required to review and enter into contracts for public infrastructure projects.

6. Reputational damage also results to public sector clients that routinely use onerous contracts with the private sector. This in turn means that those agencies will struggle to attract the best service providers to work with them, and indeed many of the less desirable outcomes described here may become endemic.
The Solution: Standard and Fairer Contracts

Already a number of standard and fairer contracts exist around Australia, and have been used with great success by government agencies.

The use of standard and fairer contracts negotiated between industry and government, with input from relevant stakeholders, reduces the need for costly legal review and gives all parties the comfort of knowing that risk and reward is allocated fairly to avoid the negative outcomes described above.

While we acknowledge that standard contracts will not be appropriate on all projects, such as, for example, major infrastructure projects, ACIF strongly recommends that government agencies use unamended standard contracts on an “if not, why not” basis, whereby they are required to use that standard contract without altering the contract’s inherent risk allocation. Government and industry partners have worked to develop these contract forms in a spirit of compromise between competing interests. The balance of risk achieved in these standard forms of contract should be preserved in their use, unless there is an appropriate reason for them not to do so that is explained to their industry partners.

Some standard contracts already in use with great success when unamended, include:

- For consultants: AS4122-2010: The Australian Standard contract for engagement of consultants in the construction sector was developed through Standards Australia, with the input of industry and government representatives.

- For building contracts: Various Australian Standard contracts which suit different procurement forms, such as AS4000-1997 [or their planned replacement, AS11000 when available]; AS 4300-1995, and others.

- The Commonwealth Suite of Contracts for projects valued at up to $200,000. This contract retains a fair allocation of liability, and leaves industry to determine the best insurance management process themselves.

Making it Happen

We recommend that a suite of leading practice procurement policies, delivery strategies and contract and sub-contract conditions be developed by the Centre for Procurement Excellence, taking into account all current government agency and industry association ‘standard’ contracts.
Background

What is Building Information Modelling?

There are a number of definitions of Building Information Modelling (BIM) currently used, but in general, BIM is a 3-dimensional digital model of the physical and functional characteristics of a building, serving as a shared resource for information about a building throughout its life-cycle, and 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.

Benefits of BIM

Economic benefits

The data available to date indicate that the return on investment from the promotion 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 promotion 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.

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.
The Case for Action

*Given the potential savings from BIM, government clients should consider provision of initial designs in a BIM format when the project is of sufficient complexity to provide for lower construction costs and the selection of the lowest ‘whole-of-life’ design option. [...] Governments, in consultation with industry and other private sector procurers, should coordinate the establishment of common technical standards to ensure that the greatest benefits from the adoption of BIM are realised.*


A number of government agencies around Australia have independently started moving towards using BIM. These include the Department of Defence, Tasmanian Department of Health and Human Services, NSW Health Infrastructure, Transport for NSW, South Australian Department of Planning, Transport and Infrastructure, and the Northern Territory Department of Infrastructure.

A number of countries, including the UK, China, South Korea and Singapore, have promoted the use of BIM, and are enjoying the benefits of BIM being deployed at a rapid rate.

However, currently Australia has no policies to drive the promotion of BIM systematically.

Without the coordinated involvement from government, Australia risks getting left behind. Particular risks include:

**Uniformity**
There presently is the risk of BIM developing in Australia in piecemeal fashion, with multiple agencies and jurisdictions developing the use of BIM in a different way. Through a uniform promotion of BIM, Australia could achieve a greater competitive advantage.

**Cultural inertia**
Many procurement officials in Australia will continue to procure infrastructure in line with past practice, rather than being open to new and improved ways of doing things. This means that government involvement is needed to overcome resistance to using BIM and realising its benefits on behalf of the Australian taxpayer.

**Skills**
At present, insufficient skills exist within the built environment sector to fully utilise BIM. However, if BIM were widely promoted, there would be great impetus for educational institutions to include those skills as part of their training, and for industry to focus on ongoing training for the use of BIM.

Making it Happen

ACIF recommends that governments leverage their purchasing power and promote the use of BIM on all Federal and State government building projects and all infrastructure projects.

The Procurement Centre of Excellence would be tasked with the execution of this across governments.