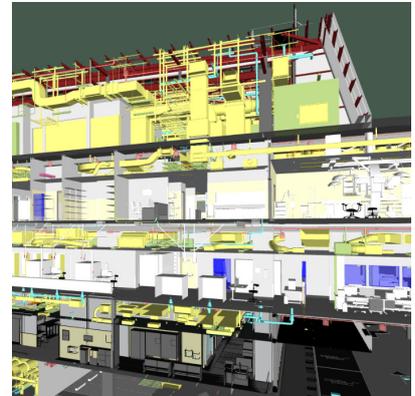
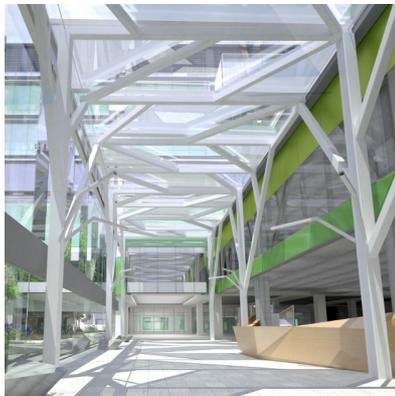




Inquiry into the Commonwealth Procurement Framework

buildingSMART Australasia Submission

MARCH 2017



Prepared by:

Mr Rodger Hills – Executive Officer
buildingSMART Australasia (bSA)
Telephone: +61 438 740 240
Email: eo@buildingsmart.org.au

Executive Summary

With the introduction on March 1, 2017 of the new Commonwealth Procurement Rules (CPR17), Australia has entered into a new era in procurement policy and one that buildingSMART Australasia (bSA) applauds. In order to better implement these recent changes, the Joint Select Committee on Government Procurement has been tasked with inquiring into the changes embodied in CPR17 and report by 31 May 2017.

Over the last decade bSA has seen a deterioration in the integrity of the building and infrastructure supply chain and the continued reliance by all parties (governments and private industry) on outdated, inefficient paper-based procurement practices. CPR17 is the perfect opportunity for the Commonwealth government to bring this costly system into the 21st century and adopt BIM (Building Information Modelling) for procurement on public projects, specifically through the use of open information exchange standards (Open BIM).

We are confident that the measures outlined in CPR17, strengthened by the following recommendations made by bSA, will help create:

- Better, faster and more rigorous project selection and project funding decisions (resulting from rapid options analysis and scenario planning).
- The secure collection of readily accessible digital data that will enhance future decision making (superior and enduring public records).
- Lower cost public buildings and infrastructure.
- Increased conformity with specifications and performance targets.
- Delivery of public projects as promised (on time, on budget and to the expected standard).
- Transparency and accountability in government project decision making.
- Development of a technology skill base that enables Australia to be more internationally competitive.
- Improved construction industry productivity and labour market improvements including safety.
- Accelerated adoption of digital innovation throughout Australia.
- Greater opportunities for further economic stimulus.
- Improved operation, maintenance and sustainability of public assets.
- Harmonisation of information across departments and agencies, leading to better public records and reporting associated with public assets.

This of course will in turn lead to considerable cost savings to the Commonwealth Government, good outcomes for consumers and tax payers, as well as strengthening the Australian economy.

Inquiry Terms of Reference

bSA understands that the Joint Select Committee on Government Procurement, is established to inquire into the implementation of the recent changes to the Commonwealth Procurement Rules which came into effect on 1 March 2017 and report by 31 May 2017. bSA would like to make a submission on the following matters being considered by the Committee, specifically:

- The Commonwealth procurement framework.
- Consideration of the Commonwealth Procurement Rules to come into force on 1 March 2017 (CPR17) and, in particular:
 - i. Clauses 10.10, 10.18, 10.30, 10.31 and 10.37 (the 'new clauses').
 - ii. How the new clauses can most effectively be implemented.
 - iii. Weighting and other mechanisms that should apply to any Commonwealth procurement decision making, taking into account CPR17.
 - iv. Its interaction with any other Government policies and programs (including grants), instruments, guidelines and documents relating to procurement, including the Department of Finance's Resource Management Guide No. 415.
- The extent to which CPR17 and any related instrument and rules can be affected by trade agreements and other World Trade Organization (WTO) agreements, including:
 - i. Existing trade agreements Australia has entered into.
 - ii. Trade agreements that the Commonwealth Government is currently negotiating, including the WTO Agreement on Government Procurement.

The following points provide bSA's comments on the above matters.

Commonwealth Procurement Rules (CPR17)

Specifications and Standards ('new clauses')

CPR17: 10.10

Where an Australian standard is applicable for goods or services being procured, tender responses must demonstrate the capability to meet the Australian standard, and contracts must contain evidence of the applicable standards (see paragraph 10.37).

bSA Recommendations:

- 1 bSA strongly endorses this clause because not only does it emphasise compliance with Australian standards, but it requires supplier and tenderers to provide evidence of compliance. To facilitate the intent of this clause bSA suggests the following:**
 - 1.1 In addition to the requirement for demonstration of compliance with Australian standards, all evidence should be provided by suppliers and tenderers in open information exchange standards (Open BIM) format.**

Contract management/Standard verification ('new clauses')

CPR17: 10.37

Where applying a standard (Australian, or in its absence, international) for goods or services, relevant entities must make reasonable enquiries to determine compliance with that standard:

- this includes gathering evidence of relevant certifications; and
- periodic auditing of compliance by an independent assessor.

bSA Recommendations:

2 bSA strongly endorses this clause and to facilitate its intent suggests the following:

2.1 That government entities adopt BIM (Building Information Management) and digital engineering procurement systems to speed up the procurement process and reduce the cost to taxpayers that is associated with existing paper/PDF based processes. In setting out specifications in a statement of requirements, government entities should insist that tenderers and suppliers provide the evidence in open information exchange standards (Open BIM) format. This would significantly minimise red tape and additional costs to suppliers bidding for government contracts. The significant economic benefits of BIM in helping achieve policy targets such as energy efficiency have been detailed in a number of recent reports and inquiries such as:

- Productivity Commission – *Inquiry Report into Public Infrastructure* – July 2014 (Recommendation 12.5).
- Infrastructure Australia – *Australian Infrastructure Plan – Priorities and reforms for our nation’s future* – February 2016 (Recommendation 10.4).
- House of Representatives, Standing Committee on Infrastructure, Transport and Cities – *Report on the inquiry into the role of smart ICT in the design and planning of infrastructure* (March 2016).

Given that the benefits of BIM have been quantified and thoroughly documented for many years, the average taxpayer could be forgiven for concluding that the Government appears to be deliberately and irresponsibly wasting public money by not adopting BIM for all public procurements.

2.2 When government entities are setting out specifications in a statement of requirements that details forms/types/weighting of evidence for compliance, there is the potential for overlap with existing compliance mechanisms such as the National Construction Code or ATO Tariff requirements, as well as voluntary schemes like GreenStar or ISCA. Such overlap creates an unreasonable cost burden for tenderers and suppliers in having to collect data/evidence in different formats for different schemes. Therefore all effort should be made by government entities to not duplicate these existing compulsory and voluntary compliance scheme requirements when drafting tender documents.

- 2.3** In addition to periodic auditing of compliance, government entities and officials should impose penalties against awarded tenderers that provide procurement outcomes which deviate below modeled/predicted outcomes.

Conditions for participation ('new clauses')

CPR17: 10.18

Officials must make reasonable enquiries that the procurement is carried out considering relevant regulations and/or regulatory frameworks, including but not limited to tenderers' practices regarding:

- labour regulations, including ethical employment practices;
- occupational, health and safety; and
- environmental impacts.

bSA Recommendations:

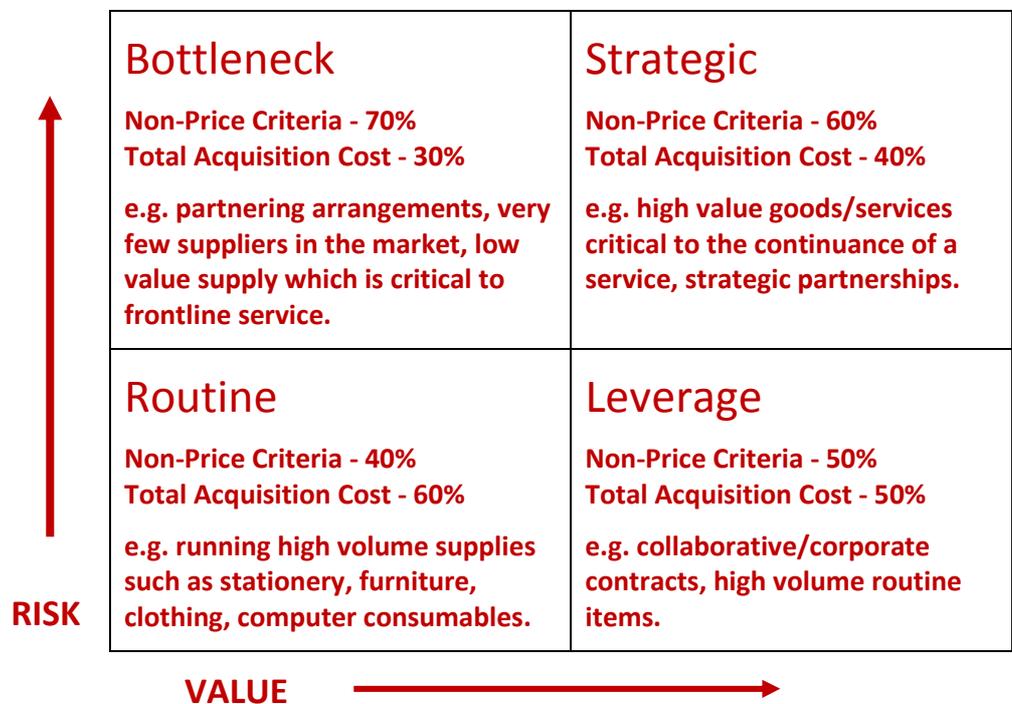
- 3** bSA strongly endorses this clause. To facilitate the intent of this clause bSA suggests the following:

3.1 Officials should also consider the following tenderers' Non-Price or Quality practices regarding:

- **Digital Innovation:** Demonstrated digital engineering and Open BIM capabilities as well as strategies for securely capturing, protecting, updating and maintaining procurement related information digitally.
- **Modelling/Predictive Analysis:** Demonstrated successful track record of producing modelled performance outcomes of procurements that closely or exactly match actual performance outcomes.
- **Sustainability:** Demonstrated commitment to whole-of-life sustainability principles.
- **Commissioning, Training and Handover:** Clear, cost efficient strategies for delivering and handing over the procurement so it meets the needs of the end user.
- **Facilities/Operational Management -** Clear, cost efficient strategies for managing the delivered procurement.
- **Financial Performance:** Ability to maintain financial viability during and after the delivery of the procurement.
- **Delivery Performance:** Demonstrated successful track record of procurement delivery on time, on budget and to the expected standard, as well as the full acceptance of liquidated damages for failure to provide tendered requirements to stated expectations.
- **Technical Skills:** Competence of key management, professional and technical personnel that the tenderer proposes to engage on the project.

- **Management Skills and Systems:** Availability within the tenderer's organisation of personnel with appropriate management skills together with effective management systems and methods appropriate to the successful management of the procurement.
- **Resources:** Equipment, including facilities and intellectual property, which the tenderer proposes to for the procurement.

3.2 With regard to weighting, bSA suggests that Commonwealth officials position the type of goods/services being procured into a classic Kraljic four box model and thus arrive at the most appropriate Non-Price/Quality:Cost ratio for the evaluation of each tender, with a stipulation that those evaluating the performance/technical/quality aspects of a tender should not have sight of the Total Acquisition Cost element (or any other pricing data) until such time as the performance/technical/quality scores have been concluded:



Value for Money and broader benefits to the Australian economy ('new clauses')

CPR17: 10.30

In addition to the considerations at paragraph 4.4, for procurements above \$4 million, Commonwealth officials are required to consider the economic benefit of the procurement to the Australian economy.

bSA Recommendations:

- 4 **bSA strongly endorses this clause and believes this threshold to be reasonable and practical. To facilitate the intent of this clause bSA suggests the following:**

- 4.1 In addition to better use of resources and increases in productivity as economic benefits, Commonwealth officials should also consider the more extensive economic criteria being adopted by large national and multi-national organisations, namely the Quadruple Bottom Line (QBL). The QBL requires businesses to consider environmental, social and cultural sustainability when assessing the performance of projects, in addition to existing economic measures.
- 4.2 Commonwealth officials should investigate and identify overseas best practice models for intended procurements and adopt these where appropriate. As an example, New Zealand is able to source pharmaceuticals for its Pharmaceutical Schedule (pharmaceuticals subsidised by the NZ Government), at significantly lower costs than Australia is able to do for its Pharmaceutical Benefits Scheme (pharmaceuticals subsidised by the Australian Government) largely due to differences in the procurement model adopted.

CPR17: 10.31

The policy operates within the context of relevant national and international agreements and procurement policies to which Australia is a signatory, including free trade agreements and the Australia and New Zealand Government Procurement Agreement.

bSA Recommendations:

- 5 **bSA strongly endorses this clause and believes it demonstrates good practice for government entities.**

International Role Models

The United Kingdom (UK) Government recently announced that BIM is now a minimum required by government from 2016.

Their chief construction adviser, Paul Morrell, has identified BIM as one way that government can deliver better value for the UK taxpayer. In his view, using BIM will lead to significant innovation and integration across the supply chain. Furthermore, his guiding statement is that BIM is not about a specific technology or product, but a process to give clients all the data that is of use to manage the facility after hand over. The United Kingdom is expecting to achieve a 20% reduction in procurement costs for government buildings compared with traditional practice through the introduction of its requirement for full 3D collaborative BIM to be used on government building procurements.

Other overseas jurisdictions that already require the use of BIM for government building procurements include the United States, Norway, Finland and Denmark. In our region, China, South Korea and Singapore have taken steps to achieve BIM implementation through a planned approach. For example, the Singaporean Government is well into applying a mandate for BIM, offering incentives to those willing to be the early pathfinders towards a goal of increased industry adoption, and ultimately full BIM submissions.

The Role of buildingSMART Australasia (bSA)

buildingSMART provides the worldwide chapter network, plus the necessary technical and process support, to develop open standards that support information workflows.

buildingSMART Australasia (bSA) is the body tasked with driving the uptake of BIM and digital engineering in Australia and New Zealand. bSA is a chapter of buildingSMART International and as such is able to bring considerable international experience to bear in support of the adoption of digital construction technologies. bSA's mission is to work with key industry and government leaders to develop, maintain and facilitate the use of open BIM standards, collaborative processes and integrated practices. We are committed to ensuring the improved exchange of information between software applications used in the construction and infrastructure industries in Australia and New Zealand.

bSA's objectives are to:

- Improve the policy and regulatory environment for the adoption of common specifications for sharing construction data.
- Facilitate the sourcing of practical information to the industry about common specifications for sharing data.
- Publish common specifications for sharing data to create synergy among the languages of the building and construction industries leading to interoperability of the industry's information systems.
- Help integrate the industry into the global electronic market and improve productivity of the design, construction and operation process in Australasia.

bSA works to fulfil these objectives by gathering and supplying practical and current industry information on behalf of bSA stakeholders and other organisations and companies that follow bSA through various means. This industry-wide approach to responding to technology, policy and regulatory issues, helps to ensure that Governments are informed of potential opportunities in the building industry and are provided with appropriate industry-considered recommendations.

bSA Corporate Members include:

Platinum Supporter

Australian Department of Defence, Infrastructure Asset Development Branch

Gold Supporter

CIMIC Group (EIC Activities)

Silver Supporters

Laing O'Rourke Australia

John Holland

BIM Consulting

Investa Office Management

Master Builders Queensland

Lend Lease Building

bSI International Supporters

Autodesk Australia

Arup

Corporate Supporters

Masterspec - Construction Information

Norman Disney & Young

BRANZ

Architectus

Hansen Yuncken

Exactal Technologies

Aconex

Architekton

Mitchell Brandtman

Information Quality

12D Solutions

New Zealand Transport Agency

Academic Supporter

University of South Australia

Definitions

BIM (Building Information Modelling) is generally regarded as a process whereby a full 3D digital prototype of a planned facility (whether that is a building, piece of infrastructure or an urban precinct) is created during the planning and design stage and then maintained and updated throughout its life cycle to facilitate design collaboration across all disciplines, coordination during the construction and delivery phases, with handover of the as-built model to support on-going asset management and operation of the facility.

Digital Engineering is also known as BIM (Building Information Modelling). The two terms are interchangeable.

Open BIM is a term used to describe the same process when the digital prototype is structured in a non-proprietary, open-standard format and the associated processes are supported by industry-standard tools for managing information exchange between proprietary software tools and open access to standardised object libraries that host manufacturer's product data.