



# We are Built Digital South Australia BDSA

*Welcome to the Built Digital SA Lunch Event  
Wednesday 3rd May 2023*



The Built Digital SA (BDSA) Team acknowledge the Aboriginal and Torres Strait Islander People as the traditional Custodians of the land on which we live and work.

We would like to pay respect to our elders past, present and future.

## Who am I?

### **Rebecca De Cicco FCIOB**

Principal, Digital Enablement, Aurecon  
Co-Chair & Founder BDSA  
Chair and Founder WIB

*Key contributor to local, international industry groups around BIM, Digital Engineering and Digital Twin/Smart City Initiatives. Feedback and reviewer Industry standards, developer industry groups and innovation drivers. Education and training and strategic capability expert across the digital built environment. Expert and influential keynote speaker globally and detailed knowledge across both international and local standards published in the construction industry around BIM/Digital.*



# Today's Agenda



**Rebecca De Cicco**, Aurecon & Women in BIM  
*Introduction & Industry Update*



**Franco Rea**, Director Alexander Symonds  
Adelaide Riverbank Precinct complex 3D Land Tenure visualisation utilising BIM, GIS and digital data

**Questions and Interactive Discussion - ALL**

The intention of the group is to act as a conduit between the construction industry, education and digital by giving attendees to our events updates on the BIM, Digital Engineering and wider digital initiatives occurring locally and internationally.

Built Digital SA discusses wider concepts than just basic digital delivery and looks at global impacts around digital, sustainability and gender equality and we provide insight and opportunity to educate, learn and share ideas across a multi disciplinary network.

We Support  
We Educate  
We Collaborate



**Rebecca De Cicco**  
BDSA Director



**Stewart Caldwell**  
BDSA Director



**Nicole De Cicco**  
BDSA Management

## Meet the Committee

The BDSA core team believes in business transformation through BIM & digital leadership.



**Matt Rumbelow**  
Member



**Joseph Sifostratoudakis**  
Member



**Vesal Rafiei**  
Member

# Thank you to our 2023 Sponsors



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*Get in touch at [info@builtdigitalsa.com.au](mailto:info@builtdigitalsa.com.au) to discuss 2023 Sponsorship options and help support industry.*

# What and who are Built Digital South Australia





An aerial photograph of the San Francisco skyline at dusk, featuring the Transamerica Pyramid and other skyscrapers. A semi-transparent digital grid and data visualization overlay is applied to the right side of the image, extending from the text area down to the bottom edge. The overlay consists of a grid of blue and white squares, with some squares containing small icons or data points, suggesting a digital or data-driven theme.

**The world as we know it is changing. Impacts such as global populations, energy use and environmental concerns are all at the forefront of government policy.**

**Here in SA we acknowledge the impact that digital is making on the built environment and we felt that as a community group and organisation we are able to influence change and provide insight to industry in this space.**

# Importance of Digital across the Built Environment

## BIM and Digital Engineering

We recognise that BIM and Digital Engineering is only one part of the requirements demanded by clients

## Digital and Data focused twins

The focus on data and digital twin outcomes is becoming more and more commonplace across industry

## The Digital Built Environment

## Smart Cities and urban digital landscapes

The impact of digital assets and how we utilise them is a key consideration in smart cities and communities

# 2023 Event Timeline

<b>BDSA Launch Night Networking Event</b>	30/03/2023
BDSA Lunch Event	3/05/2023
BDSA Webinar #1	1/06/2023
BDSA Lunch Event	28/06/2023
BDSA Webinar #2	27/07/2023
BDSA Night Networking Event	24/08/2023
BDSA Webinar #3	12/10/2023
BDSA Christmas Networking Event	7/12/2023

## Upcoming Events

If you are new to networking within the BIM & digital construction community, there has never been a better time to start!

Particularly during the pandemic crisis, there was a need for being part of a community. We warmly welcome visitors to our in-person and virtual events, where you can meet like-minded professionals within the construction industry with shared common interests.



**A small part of industry updates across digital...**

## 2023 Commitments



- Mission: Improved productivity and asset outcomes for people and places.



### INTEGRATED BEST PRACTICE APPROACH TO BIM

- Integrate a whole of built environment approach to the development and adoption of the critical solutions that support best practice in BIM.



### CONSISTENT APPROACH TO BIM

- Drive consistent approaches by governments and industries to BIM requirements including standards, protocols, systems, contracts, tools, guidance and training.



### ADVICE ON BEST PRACTICE

- Provide advice on best practice and promote, advocate, champion and influence widespread adoption of best practice.



### WHOLE OF INDUSTRY VOICE

- Provide advice and guidance to governments and industries on the most pressing issues and priorities facing the adoption of BIM and digital built environment within Australia.

OUR  
COMMITMENTS

# 2023 Deliverables



OUR DELIVERABLES



## INTEGRATED BEST PRACTICE APPROACH TO BIM

- The Facilities and Asset Management Digital Roadmap Generator fARC funding submission completed.
- Establish the Industry Consultation Technical Working Group to share experiences and initiatives, engage and collaborate across the sector.
- Review and expansion of ABAB membership to be representative of stakeholders in the built environment.



## CONSISTENT APPROACH TO BIM

- Expansion of ABAB Member's projects. Reports provided by members demonstrates a steady increase of BIM adoption across all phases.
- Finalise drafting of the Consistent Procuring of Digital Engineering Guide.
- Expand jurisdictions' agencies implementing a BIM Strategy.



## ADVICE ON BEST PRACTICE

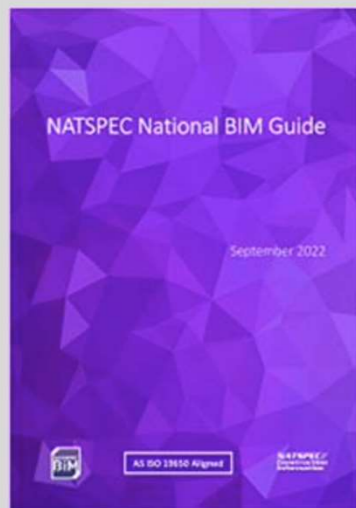
- BIM Benefits Metrics piloted across a range of different types and sizes of government projects.
- ABAB website continues to grow its audience with continuous steady increase in daily hits.
- Demonstrating best practice, shared learnings via presenting at conferences, and presentations to ABAB.
- Separate and aggregated submissions to various inquiries into BIM.



## WHOLE OF INDUSTRY VOICE

- Encourage all State and Territory governments, the Commonwealth Government, and the New Zealand Government to join ABAB.
- ABAB seen by industry as the 'Peak Body' through invitations to join like-minded associations and present to various conferences.
- Communiques delivered following meetings to keep government and industry informed of developments.

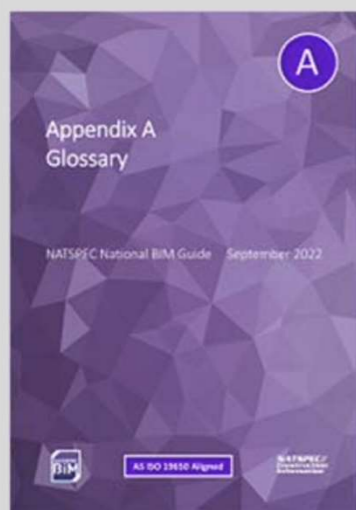
# NATSPEC National BIM Guide Release 2022



## NATSPEC National BIM Guide

The Guide's core document covers topics including:

- Issues such as industry BIM requirements, BIM capabilities and education.
- An introduction to key AS ISO 19650 concepts and principles including appointing parties, appointed parties, teams, defining information requirements, common data environments (CDE).
- General implementation considerations such as procurement strategies, roles and responsibilities, legal and contractual aspects, and information security.
- Information management practice based largely on AS ISO 19650.
- Modelling practice including model set-up, federation and coordination.
- BIM uses including cost management and asset management.
- Technologies and methodologies that add further value to BIM such as laser scanning, augmented reality, digital fabrication, GIS digital set-out, and IoT.
- BIM deliverables.
- Technology and project infrastructure to support BIM



## Appendices

Reference documents providing more detailed information and guidance on topics found in the Guide. They also provide guidance and resources for using the Templates. There are currently four appendices:

- **Appendix A – Glossary:** Includes definitions and explanations of terms and abbreviations used in the Guide.
- **Appendix B – AS ISO 19650 Resources Descriptions:** Includes brief descriptions of documents and resources that support the information management processes described in AS ISO 19650.
- **Appendix C - BIM Use & Enabler Descriptions:** Includes descriptions of BIM uses and enablers including their potential value, scope considerations and useful references that can be used as a resource when selecting and specifying BIM uses for a project.
- **Appendix D - Defining Information Requirements:** Includes guidance and resources for using the information requirements templates.



## Templates

Editable templates for specifying project-specific requirements. Guidance to assist users is incorporated throughout. There are currently four templates:

- **Asset Information Requirements (AIR) Template:** (AS ISO 19650 aligned) For specifying the asset information required by the client/appointing party for decision making during the operational phase of built assets.
- **Project Information Requirements (PIR) Template:** (AS ISO 19650 aligned) For specifying the information required by the client/appointing party for decision making during the delivery phase of built assets.
- **Exchange Information Requirements (EIR) Template:** (AS ISO 19650 aligned) For specifying appointment-based information requirements derived from the AIR and PIR.
- **Project BIM Brief (PBB) Template:** This serves a similar function to the PIR and EIR templates. Useful for simpler projects and eliciting a BIM brief from clients.

All documents can be freely downloaded from the NATSPEC BIM Portal

<https://bim.natspec.org/documents/natspec-national-bim-guide>

Users of the Guide are encouraged to email NATSPEC with any suggestions for improving it to [bim@natspec.com.au](mailto:bim@natspec.com.au) Your suggestions could benefit many others in the industry.

# Information Requirements Support

[https://www.cdbb.cam.ac.uk/files/air\\_guidance.pdf](https://www.cdbb.cam.ac.uk/files/air_guidance.pdf)  
[https://www.cdbb.cam.ac.uk/files/eir\\_guidance.pdf](https://www.cdbb.cam.ac.uk/files/eir_guidance.pdf)

As much as we've found the Australian documents useful, they are still not 100 percent compliant with the International Standards ISO 19650.

## 1.1 Exchange information requirements (EIR) purpose

Explain the purpose of the exchange information requirements (EIR) and how they should be used during this appointment.

The exchange information requirements (EIR) provide a specification of the information requirements that are to be met throughout the delivery phase of an asset. This includes the acceptance criteria of the information standards, information production methods and procedures.

<The following example demonstrates the document's purpose, providing a summary for the reader(s). When completing the template, use this section to explain the function of the exchange information requirements (EIR), keeping in mind that this may be some task teams' first experience of building information modelling (BIM) processes and associated documentation.>

This exchange information requirements (EIR) document and its annexes form part of the invitation to tender suite of documents. It outlines the information requirements that the delivery team must comply with.

All existing project information will be supplied within the invitation to tender documentation suite, via the common data environment (CDE).





# Current workings

BD-104 Working group current projects

ISO 19650-6 –  
Health and  
Safety

*ISO/DIS 7817 Building  
information modelling – Level  
of information need –  
Concepts and principles*





# ISO 19650-4 Published 2022

INTERNATIONAL STANDARD ISO 19650-4

First edition  
2022-08

ISO 19650-4 was published in 2022 to support the detailed processes and requirements for decision making when executing an information exchange on a construction project.

This document details the concepts and application of any information exchange within the delivery stages and operational stages of built assets.

ISO 19650-4 forms part of the wider 19650 suite of standards, published to enforce consistency and efficiency when applying and implementing BIM.

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**Organization and digitization of information about buildings and civil engineering works, including building information modelling (BIM) — Information management using building information modelling —**

Part 4:  
**Information exchange**

*Organisation et numérisation des informations relatives aux bâtiments et ouvrages de génie civil, y compris modélisation des informations de la construction (BIM) — Gestion de l'information par la modélisation des informations de la construction —  
Partie 4: Échange d'informations*



Reference number  
ISO 19650-4:2022(E)

© ISO 2022

# Common Misconceptions

- Level of Information Need is **NOT AN ACRONYM** - it is a term to communicate how information models grow in terms of their geometrical, non-geometrical and documentation requirements
- There is no such thing as an LOD Matrix or table - ISO 19650 documents the use of a 'Responsibility Matrix' which must specify Level of information need requirements across projects
- BIM is not just about buildings, but in relation to **ALL BUILT ASSETS ACROSS THE BUILT ENVIRONMENT**
- The term Digital Engineering (DE) was initially founded by Laing O'Rourke in the UK and now holds positioning in Australia only in precedence of BIM - they are one of the same thing!
- BIM and DE must be underpinned by Consistent Information Management principles
- No EIR = No BIM

INTERNATIONAL STANDARD **ISO 19650-4**

First edition  
2022-08

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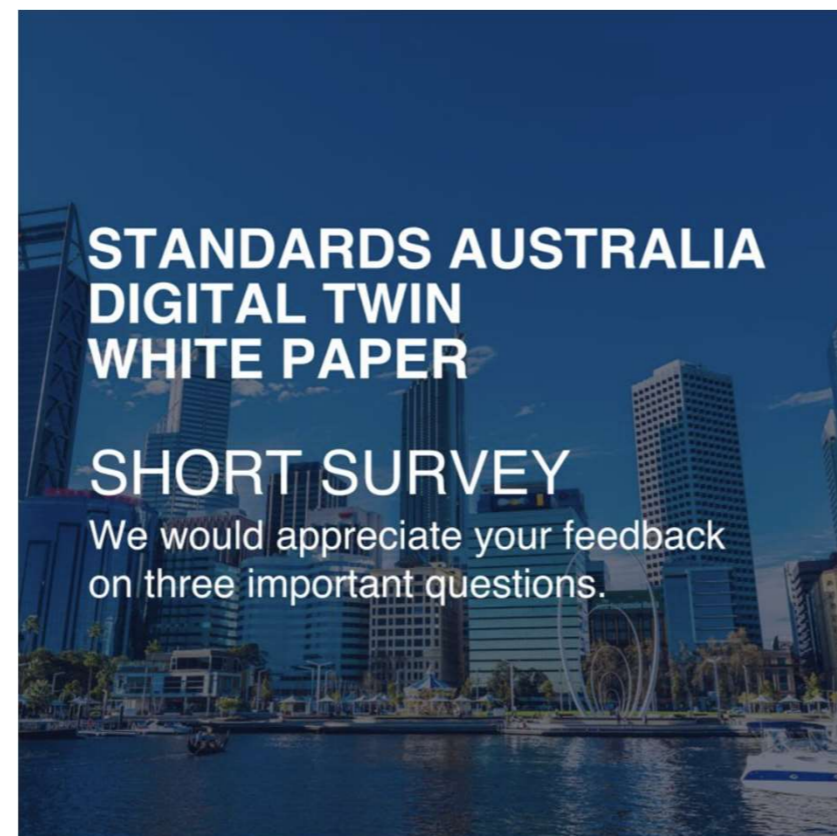
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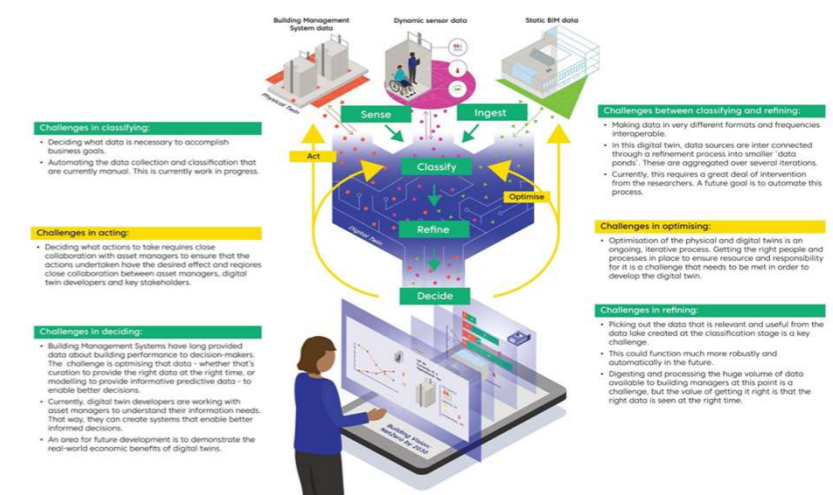
# Uptake of Digital Twin Outcomes and tech

In Australia alone we are seeing many clients (public and private sector) discussing the implementation of the Digital Twin outcomes/ implementation of Digital Twin technology.

Key References for support:



Communities driving these across Government / recommendations.



# United Nations Sustainability Goals



## Momentum leading up to 2030 must translate promises into action on gender equality

The latest available SDG 5 data show that the world is not on track to achieve gender equality by 2030. Despite progress in reforming laws, closing gaps in legal protections and removing discriminatory laws could take up to 286 years based on the current rate of change. COVID-19 and the backlash against women’s sexual and reproductive health and rights are further diminishing the outlook for gender equality. Violence against women remains high, global health, climate and humanitarian crises have further increased risks of violence, especially for the most vulnerable women and girls, and women feel more unsafe than they did before the pandemic. Women’s representation in positions of power and decision-making remains below parity. Nearly halfway to the 2030 endpoint for the SDGs, the time to act and invest in women and girls is now.

### 5.5.1

Proportion of seats held by women in (a) national parliaments and (b) local governments

### 5.5.2

Proportion of women in managerial positions



Target

**5.5**

Ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life



# Women in BIM

A powerful collaborative network

BDSA supports the Women in BIM initiative and aims to provide links to Women in BIM and digital roles all over the world in order to address key areas:

1. Encouraging & supporting women
2. Attracting Young Women into Industry
3. Celebrating Women leaders
4. Retainment of Women in construction

## WIB objectives and core drivers.

### Encourage and Support.

Supporting one another is crucial as we strive to develop a more inclusive industry. Our network of Members is in place to support, share and encourage each other to grow their skills and take advantage of new opportunities across the world.

### Attract and Promote.

We wish to attract women into BIM-related careers by showcasing role models and maintaining a support mechanism across our network. We also aim to help women excel in their careers by continuously boosting their confidence and expanding knowledge.

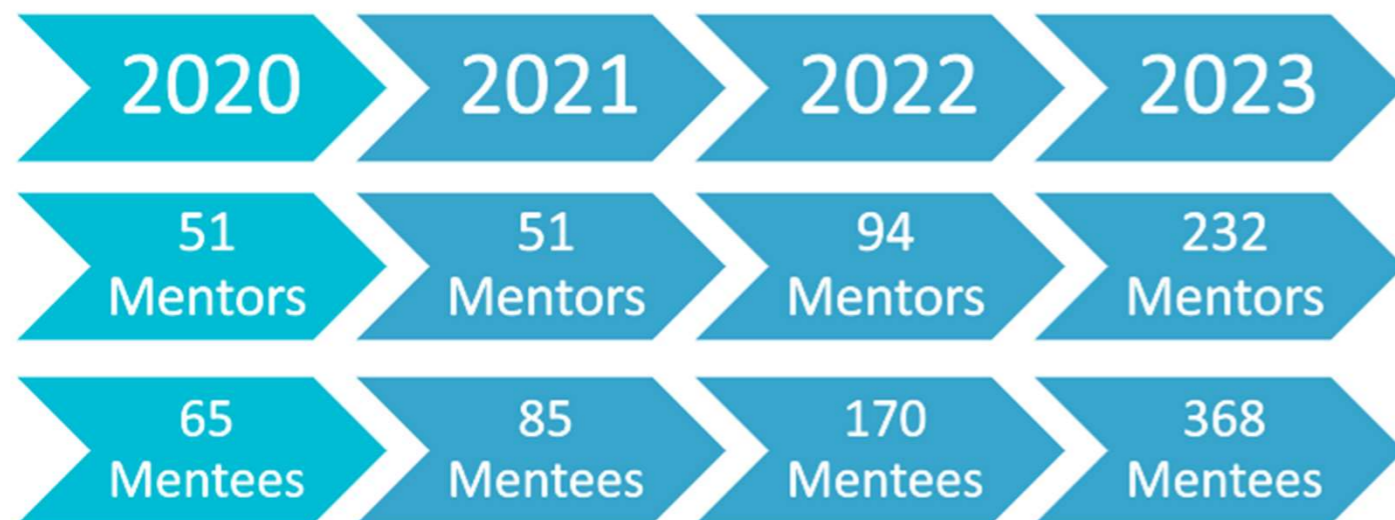
### Advance and Retain.

Research shows that a number of women are leaving careers in construction after only a few years. WIB wish to celebrate women in BIM roles and provide opportunities for further advancement. This will help to increase the representation of women in senior construction roles.

[www.womeninbim.org](http://www.womeninbim.org)

# WIB Projects to Support Industry

## WIB Mentor Scheme



*Now in our fourth year of the scheme, the numbers and requirements have continued to grow across our sector and community*

## WIB Roles & Responsibilities



*This project came together as a result of the same types of conversations with our members across the globe around roles, responsibilities and remuneration in BIM and Digital Construction related roles.*



## Franco Rea

Franco Rea is a Director of Alexander Symonds and has more than 28 years of experience in the Australian surveying industry. He oversees all technology and innovation needs within the business.

Adelaide Riverbank Precinct complex 3D Land Tenure visualisation utilising BIM, GIS and digital data



# Interactive Q&A

Go to [www.menti.com](http://www.menti.com) and use the code 3349 5615 OR scan the QR code to submit your questions.

## Facilitator

Rebecca De Cicco, Principal Digital Enablement, Aurecon

## Panel members

Franco Rea – Director, Alexander & Symonds

Stewart Caldwell – Director, Russell & Yelland Architects

Carl Willis – Global Leader, Digital Transformation GHD

**WIB**

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**Thank you for attending**  
**[info@builtdigitalsa.com.au](mailto:info@builtdigitalsa.com.au)**

womeninbim.org

builtdigitalsa.com.au