



*BIM-SA welcome you to our Networking
Drinks, March 24.*

We are BIM-SA

As a response to forthcoming BIM policies in Australia as well as emerging international standards, BIM-SA was resurrected in 2016 and chaired by Rebecca De Cicco. The core aim is to support industry in their uptake of BIM and Digital Engineering.

The BIM-SA 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.

Due to COVID restrictions, please remember to:

1. Make sure you have checked in using the venue QR code reader.
2. Maintain 1.5m distance where possible.
3. Make sure hands are kept clean.
4. Enjoy your night!

Who Am I?

Rebecca De Cicco FCIOB

Chair of BIM-SA

Principal, Digital Enablement, Aurecon

Former Director, Digital Node (acquired by Aurecon)

Global Chair of Women in BIM



BIM-SA aims to support industry with education and by doing so partners with other initiatives to address our current skills gaps.





Rebecca De Cicco
BIM-SA Chair



Stewart Caldwell
Chair Build-SA &
BIM-SA Founder



Nicole De Cicco
BIM-SA Marketing &
Communications

Meet the Core Team

The BIM-SA core team believes in business transformation through BIM leadership.



Matt Rumbelow
Core Team



Joseph Sifostratoudakis
Core Team



Vesal Rafiei
Core Team

Industry Update

Australian BIM Advisory Board (ABAB)



[HOME](#) [PURPOSE](#) [PROJECTS](#) [NEWS](#) [RESOURCES](#) [ABOUT](#) [CONTACT](#)

Projects

The following projects have been initiated by the Board to support a consistent approach to the adoption of BIM across jurisdictional boundaries:

1. **Asset Information Requirements (AIR) Guide:** provides guidance for clients, their agents and lead consultants on formulating and defining their asset information requirements for building and infrastructure projects they are planning. [Download ABAB AIR Guide](#)
2. **BIM Process Consistency Report:** will assist the Australasian construction industry by creating a common framework and language for everyone involved in the construction process. It identifies and promotes which BIM elements should be consistent across Australasia to ensure the optimisation of BIM benefits and therefore eliminate waste in construction practices. [Download BIM Process Consistency Report](#)
3. **Digital Twins Position Paper:** written to assist the ABAB Board formulate its objectives and agenda regarding Digital Twins. To this end it provides a brief overview of the subject including Digital Twins' relationship to concepts such as BIM, Digital Engineering, Smart Cities and Intelligent/Smart Infrastructure. It examines frameworks for evaluating them and factors government and industry organisations should consider when planning, procuring or using them. [Download Digital Twins position paper](#)
4. **Australian BIM and DE Education Position Paper:** outlines ABAB's position on the strategic approach required to establish a formal Digital Delivery Education Framework necessary for the upskilling of the Australian workforce. It builds on the work of ACIP's BIM Knowledge and Skills Framework. [Download Australian BIM and DE Education Position Paper](#)

ABAB update

2020 successes

- Release of the Digital Twins Position Paper
- Eco-system of BIM adoption initiatives in ANZ to enable coordination of effort
- ABAB recognised as peak body across jurisdictions for BIM/DE
- Successful transition to virtual meetings
- Regular communiques keeping government and industry informed



2021 successes

- 2021 Australian Infrastructure Plan promotes 'Digital by Default'
- AIP mentions ABAB as an enabler for national coordination and leadership
- Submission to the House of Representatives Inquiry into procurement practices in government projects
- Release of the Australian Building Information Modelling and Digital Engineering Position Statement
- Six jurisdictions now implementing a BIM/DE strategy
- Ongoing monitoring of the growth in digital delivery adoption by ABAB members

▶ 2:46 / 6:08



2022 plans

- Progress the Asset Management Digital Roadmap Generator
- Drive consistent approach to BIM across all jurisdictions
- Analysis of BIM Benefits Metrics pilots
- Work with Infrastructure Australia to support Australian Infrastructure Plan 2021 – Digital by Default
- Promote BIM as an enabler for environmental sustainability
- Promote ABAB as the conduit for information sharing across governments and industry



ABAF Australian BIM Academic Forum

BIM education at Australian universities: 2020 insights

Australian BIM Academic Forum

Presented by
Dean (Faculty), Adelaide University of Technology, Adelaide, SA, Australia
Deputy Vice-Chancellor (Academic), Monash University, Victoria, Australia
Professor (School of Architecture), Queensland University of Technology, Queensland, Australia
Associate Professor (University of Technology, Sydney) and Director (wi3)



This report provides an update of Building Information Modelling (BIM) education and training at Australian universities. Concomitant objectives are exploring the latest BIM advancements while identifying shortcomings to be addressed in improving the quality of training and education offered to students in Australian universities. The report aims to establish a more robust, shared vision between academic, industry and student stakeholders regarding BIM education in Australia.

For policymakers and industry professionals, this report maps the status quo of BIM education in Australian universities, providing plan wider adoption of BIM. The report outlines how BIM can be incorporated into existing education and training offered at Australian universities to inform related research.

A large part of BIM training occurs in industry and training institutions. This report, however, is re-education and training at Australian universities fulfilling requirement: degree. Any form of BIM education that does not meet this definition falls outside the scope of this report.

Global BIM market growth at a Compound Annual Growth Rate of 14.5%



Figure 1: Building Information Modelling market overview (adapted from Markets 20)



Lack of in-house expertise



Lack of training

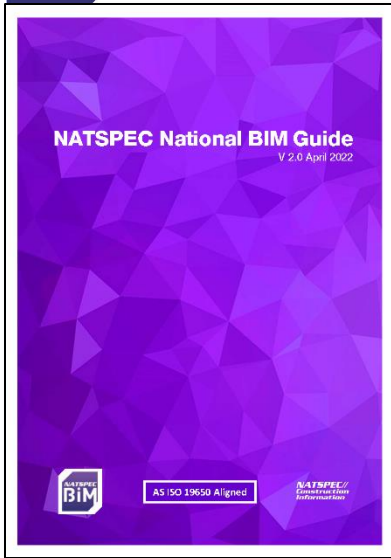


No client demand

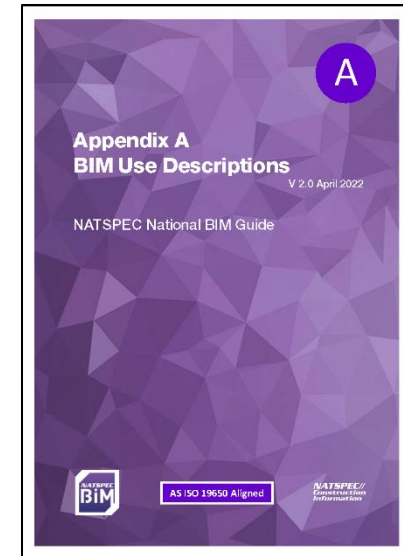
NATSPEC National BIM Guide Update



National BIM Guide core document



- Informative only
- Overview of 'need to know' topics:
 - Implementation considerations
 - Roles and responsibilities
 - BIM uses and deliverables
 - Information management practice
- ISO 19650 concepts & principles
- BIM use definitions
- Minimum modelling requirements
- Descriptions of AS ISO 19650 information delivery resources



NATSPEC National BIM Guide Update



Appendices – Templates

NATSPEC/ Construction Information **AS ISO 19550 Aligned** **national BIM**

V1.0 – April 2022

BIM Execution Plan Template Combined

Project Reference: _____

Project name: _____

Project address/location: _____

Brief project description: _____

Client: _____

Prepared by: _____

Title: _____

Organisation: _____

Contact details: _____

Revision	Date	Changed by	Approved by	Nature of revision

1

- 2022 release
 - Project BIM Brief / PIR
 - BIM Execution Plan
- Potential releases
 - Information requirements (PIR, AIR, EIR)
 - Invitation to tender resources
 - Tender response resources

BD-104 *BIM*

SA Mirror Committee of ISO TC 59/SC 13

ISO: International Organization for Standardization

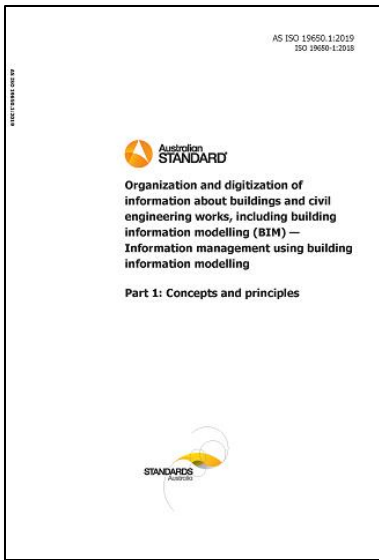
TC 59: Technical Committee 59 *Buildings and civil engineering works*

SC 13: Subcommittee 13 *Organization of information about construction works*



BD-104 BIM

AS ISO 19650 *Information management using BIM*



Part 1: *Concepts and principles*

Part 2: *Delivery phase of the assets*

Part 3: *Operational phase of the assets*

Part 5: *Security-minded approach to information management*

All adopted as Australian standards

AS ISO 19650 *Information management using BIM*

Pending publication:

Part 4: *Information exchange*

Under development:

Part 6: *Health and safety*

AS ISO 19650.2 *National Annex and Guide*

Continued Government Adoption Digital

Australian Government BIM Implementation Policies

SA / WA lacking digital direction / leadership

NSW – Transport NSW Digital Engineering Framework

VIC - Victorian Digital Asset Strategy (VDAS) Digital Build Policy / DEWLT
Digital Twin

QLD - QLD BIM Policy & SEQ Digital Twin Solution

Australian Infrastructure Plan 2021



Infrastructure
Australia

August 2021

Infrastructure investment

The Government is supporting jobs now and into the future with a record \$110 billion 10-year infrastructure investment pipeline

The Government is building on its 10-year infrastructure pipeline by committing an additional \$15.2 billion to infrastructure projects over the next ten years which will support over 30,000 jobs over the lives of those projects. This builds on the 100,000 jobs already being supported by projects currently under construction through the existing pipeline.

Reforms to meet Australia's future infrastructure needs

2021 Australian Infrastructure Plan
Executive Summary

3.3 Digital by default

3.3 Recommendation

Increase productivity and embed a culture of innovation in the infrastructure sector by adopting an evidence-based digital by default approach to infrastructure planning, delivery and operations.

Proposed sponsor: Department of Infrastructure, Transport, Regional Development and Communications

When this should impact:



Where this should impact:



Uptake of Digital Twins

In Australia alone we are seeing many governments discussing the implementation of the Digital Twin outcome. *This needs to be clearer and identified as an outcome (rather than a product) as the DT is a realistic digital representation of something physical. What distinguishes a digital twin from any other digital (information) model is its connection to the physical twin.*

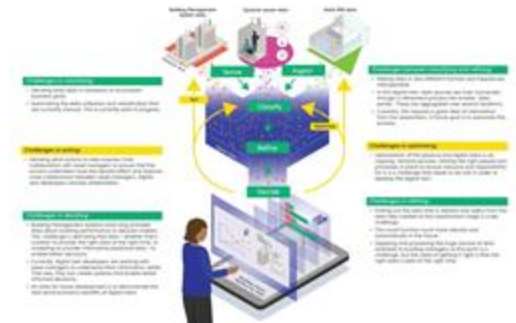
Strategic Position - e.g. Gemini Principles



An implementation policy e.g. Information Management Framework



Communities driving these across Government / recommendations.



South Australian Election Impact

New Labor Government Impacts

- Health Care Focus
- Increase spending on possible health care facilities
- Koutsantonis New Transport Minister
- Change in structure and new executive leadership
- Infrastructure SA Continues
- Uncertainty around Labor Promises on Infrastructure sped



VIC - VDAS & The Digital Build Policy



Luke Belfield
*Victorian Chief Engineer
Office of Projects Victoria (OPV)*



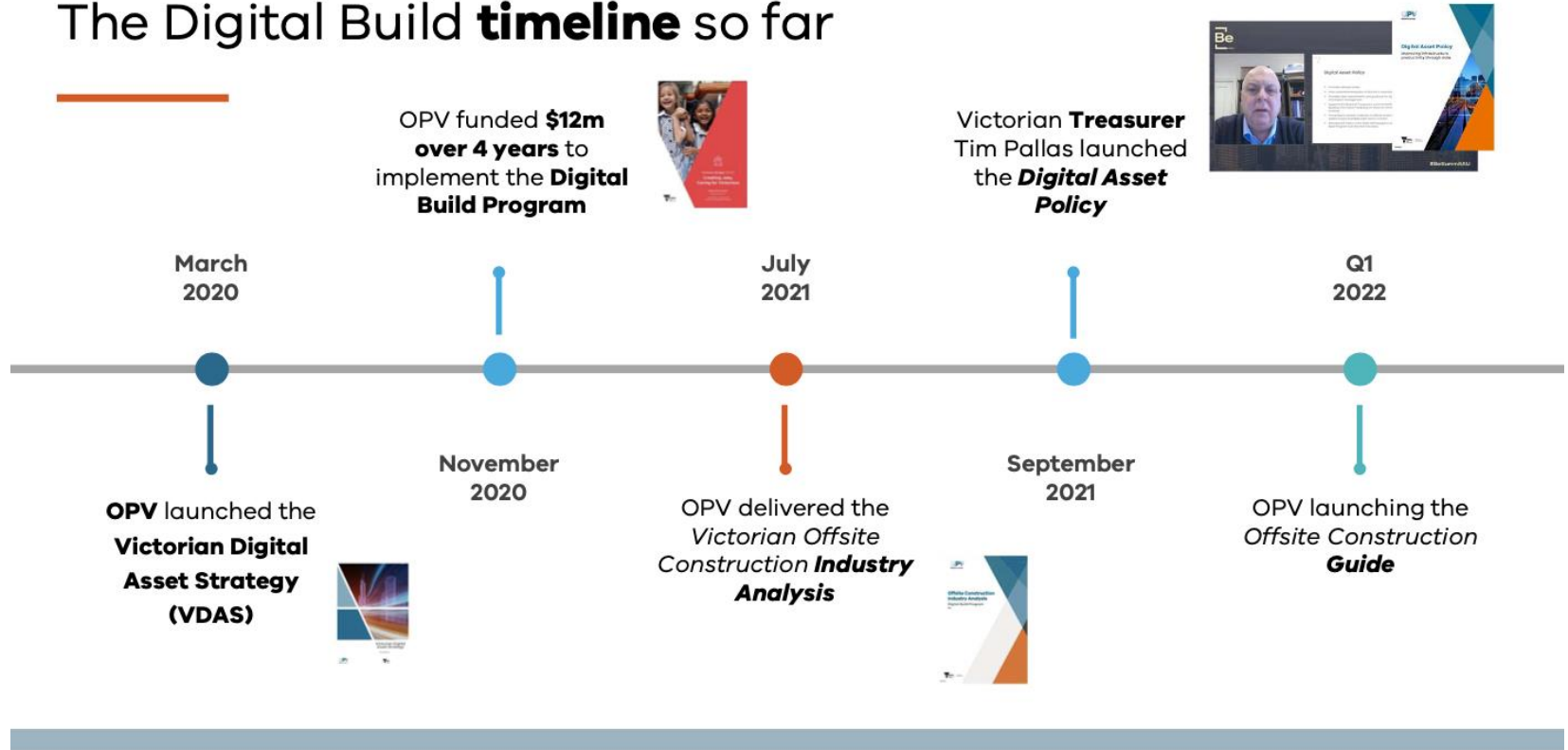
Digital Build Program

Digitising Victoria's infrastructure

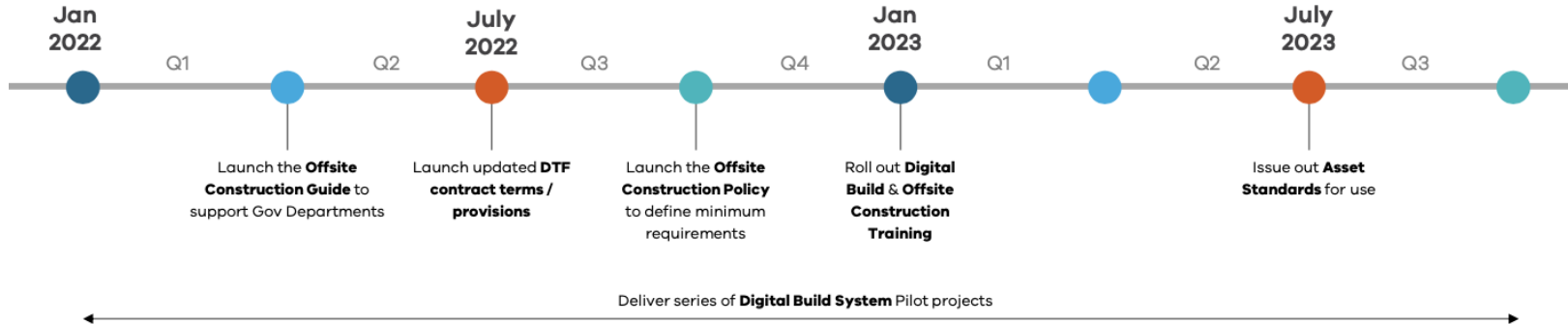
March 2022



The Digital Build **timeline** so far



Deliverables update



LAND USE VICTORIA

LAND REGISTRATIONS | VALUATIONS | SURVEYING | GEODESY | GEOGRAPHIC NAMES | VICMAP | GOVERNMENT LAND ADVICE



3.5M land transactions & searches per year.

\$120B land bought or sold annually, almost 100% digital



\$140B+ government projects supported through crown surveys, valuations, registration, place naming



3.3M property valuations valued annually totalling **\$2.5T** in value



Subdivision process creates **70,000** new lots per year or **10,000** new addresses each month



471 surveyors registered through the Surveyor Registration Board



2cm real-time positioning across Victoria, aligning all spatial data and services



Strategic advice on **\$300B** government land estate

100% of all government land transactions verified for probity and assurance

2

Digital MEGA projects

\$37.4m Digital Twin Victoria

\$47m Digital Cadastre Modernisation project



6000+ customers
100M times a year (up 20% in 2020)



- BUILDING + UTILITIES
- ELEVATION
- PLANNING
- VEGETATION
- CROWN LAND
- ADDRESS
- BOUNDARIES
- HYDRO
- TRANSPORT
- IMAGERY
- POSITION
- FEATURES
- PROPERTY



NSW - Digital Engineering Framework Release

4, 5 & beyond

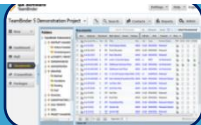


Project Data Building Blocks

Alignment with new Integrated Design Review Process

TRACC

Release 3



Enterprise Content Management (ECM)



2D/3D GIS



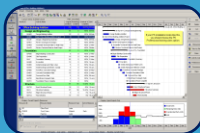
Visualisation



Digital Survey



3D 'BIM' Model

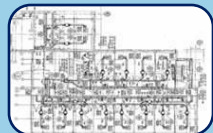


Scheduling*

Release 4 – Multi-modal (April 2021)



Traditional Survey*
(Road/External Utilities)



CAD Draw ings*



Handover Asset Register*

Release 4 – Hybrid Roads (April 2021)



Traditional Survey
(Other Utilities & Assets)



Geotechnical

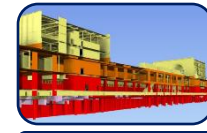


Asset Handover Guidance

Next Release



Cost (TOTEX)



Constructability

API links

O&M integration

Agency-wide implementation

Digital Twin

Smart Places

Future releases

* Note: Release 4 included hybrid Survey Utilities, CAD, and Asset Register solution for Roads projects. Final integrated multi-modal standards currently being developed by the business. Will incorporate Survey assets and Geotech in future release.

TfNSW DE Framework Training

Fundamentals

Module 1
TfNSW Setup

Module 2
Procurement

Module 3
The DEXP

Module 4
TfNSW Delivery

Module 5 - DE Delivery for Contractors

Specialist training

Managing DE
Tenders

BIM & CAD

Digital Survey

Scheduling

Future training (Under Development)

Project Data
Building Blocks

Systems
Engineering

Scope
Management

3D Visualisation

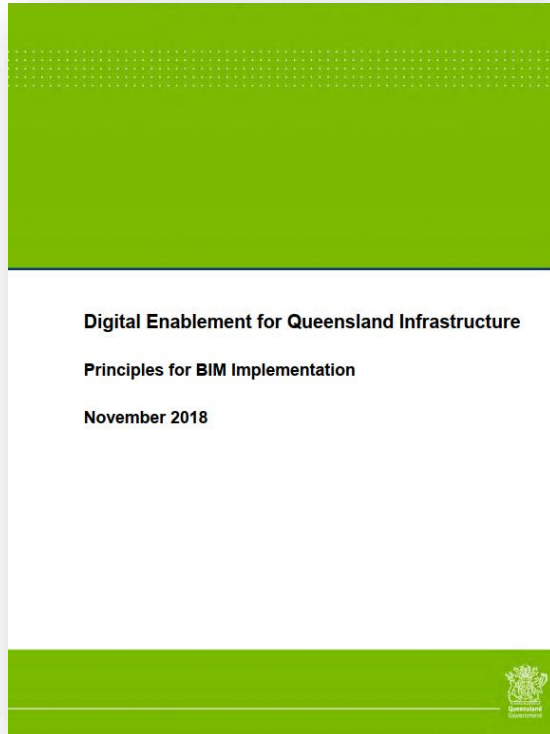
GIS

Cost

Traditional Survey

Asset Handover

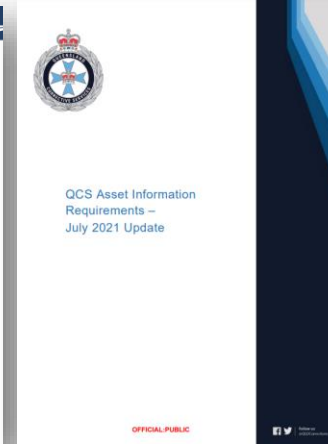
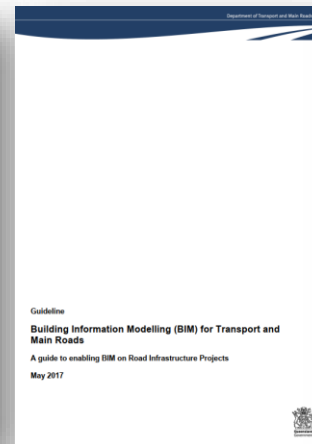
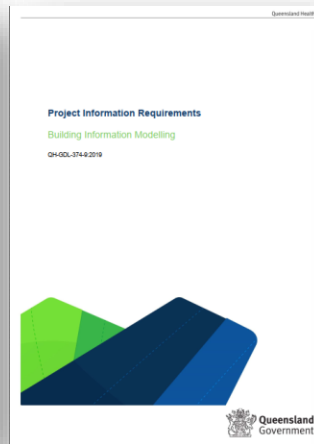
QLD – Digital Enablement



From 1 July 2019, all Queensland Government construction projects with a value of \$50 million or more are required to use BIM from the early planning phase.

All major government infrastructure projects will transition to implement BIM across the asset lifecycle by 2023. BIM is also a requirement for all Olympic Games related infrastructure delivery.

QLD

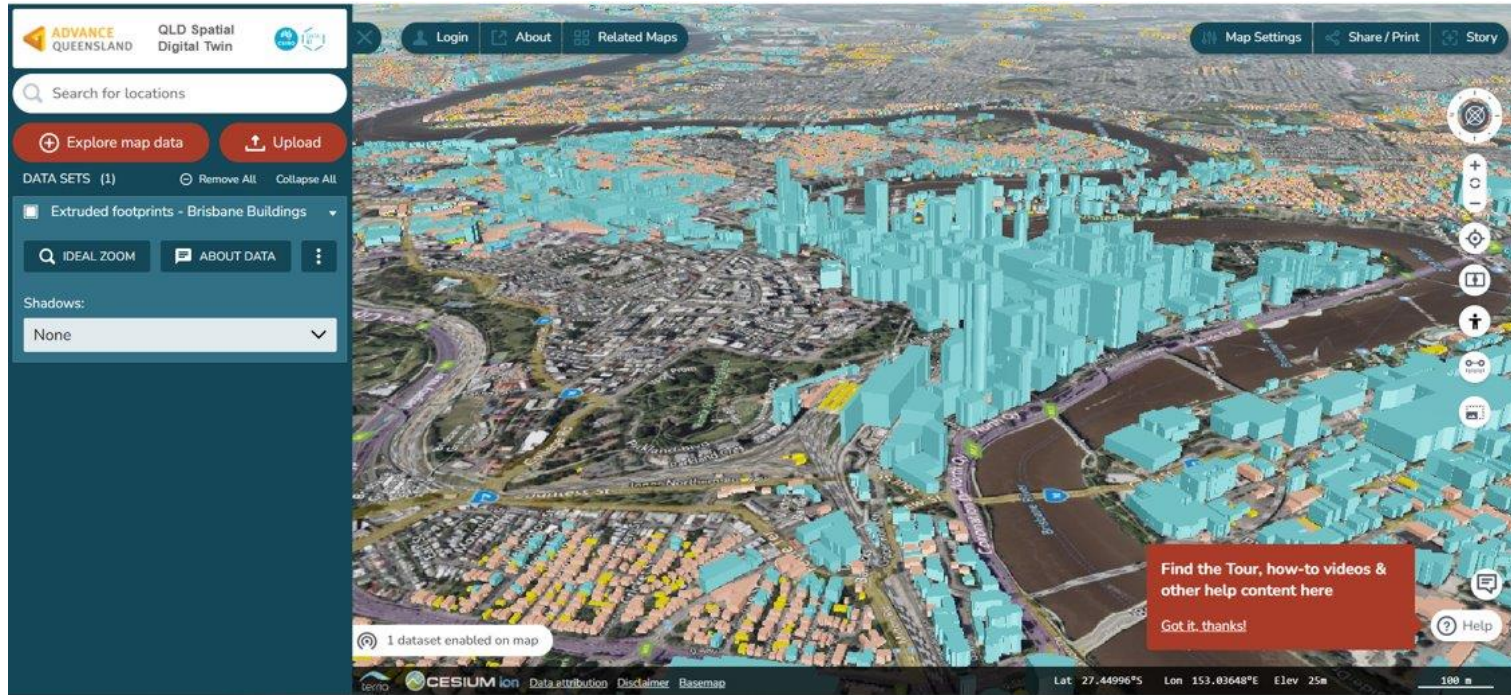


sunwater



<https://www.statedevelopment.qld.gov.au/industry/infrastructure/infrastructure-planning-and-policy/building-information-modelling>

QLD – South East Qld & Spatial Digital Twin



QLD – State Infrastructure Strategy

OUR GUIDING OBJECTIVES



Encourage jobs, growth and productivity

Invest in productive infrastructure to drive industry diversification and deliver a sustainable infrastructure pipeline.



Enhance sustainability and resilience

Reduce our environmental impact and improve infrastructure resilience and adaptation through better design and management.



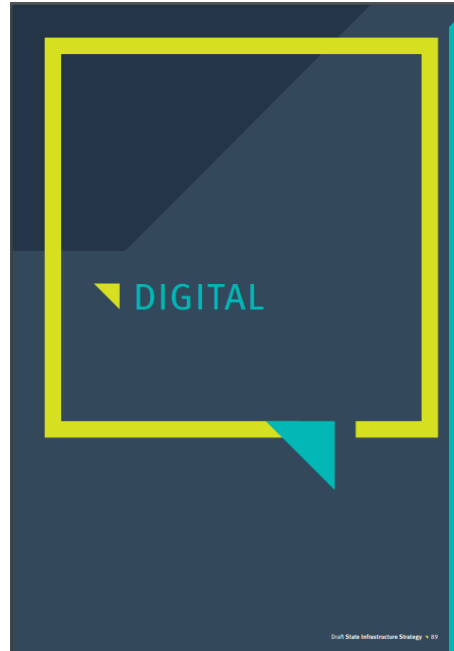
Develop regions, places and precincts

Create accessible, resilient and liveable communities through place-based infrastructure planning and delivery.



Adopt smarter approaches

Improve productivity through innovative approaches to delivery, operation and maintenance, including 'digital by default'.



5 Adopting digital engineering and asset management (DJAG, QPS, QFES, QCS, DCYJMA)



Adopt a more integrated approach to strategic asset planning, performance and management practices for infrastructure investment by adopting digital engineering principles and software systems, such as the use of BIM for large scale projects.

https://www.statedevelopment.qld.gov.au/_data/assets/pdf_file/0026/57653/draft-state-infrastructure-strategy.pdf



Women in BIM

A powerful collaborative network

BIM-SA supports the Women in BIM initiative and aims to provide links to Women in BIM related roles all over the world in order to address three key areas:

1. Retainment of Women in BIM
2. Attracting Young Women into Industry
3. Celebrating Women leaders

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

WiB – Sponsors Secured for 2022 (so far)

APAC – Gold,
Silver & Bronze



UK – Silver Only



USA – Silver Only



Mentor Scheme



WiB are still looking for more sponsors for 2022 – We aim to gather a good sector of global industry organisations to help us to grow our cause. Further details on sponsorship can be found here: <https://womeninbim.org/about/sponsorship/>

Local Representation - Australia

WiB Global Chair



Rebecca De Cicco
Aurecon

WiB Global Management



Nicole De Cicco
Aurecon

RL WA, Australia



Belinda Thompson
GHD

RL NSW, Australia



Jenny Tseng
Mott MacDonald

RL VIC, Australia



Rachel Strauss
BIMco

RL QLD, Australia



Kelsey Stein
Autodesk

Global Growth



Dec 2020 729 Website Members	Dec 2020 1377 Members	Dec 2020 269 Followers	Dec 2020 4703 Followers
Feb 2022 1255 Website Members	Feb 2022 1813 Members	Feb 2022 1819 Followers	Feb 2022 4974 Followers

Group

Company Page

Regional Leads

Women
in BIM.

Meet your WIB Regional Leads.

WIB Regional Leads support and promote women in BIM in their respective region of the world. These Regional Leads volunteer their time to help connect you locally with a wealth of innovative thinkers, provide educational opportunities and expand your network, to enhance your BIM-related career.

If you would like to speak to one of our Regional Leads, please click on one of the markers below to be directed to their LinkedIn profile.

WIB Regional Leads

51 Regional Leads
across 30 different
countries

Continuing to grow
week by week



Careers in BIM Summary Paper



Women in BIM Australia have published their first paper.

We have also supported ABAF in the development of key documentation across Australia supporting BIM and Education.

WIB Mentor Scheme



Women in BIM have been running a Mentor scheme for young women and we are now entering our third year for this scheme.

The aim of this scheme is to provide support, education and insight to young women within the industry looking to move to BIM related roles.

WIB Mentor Scheme

170

2022 Mentee Applicants

Increase in number of Mentees from last year by 20. Shows more people are wanting mentoring.

2021 Mentee Applicants
85

2020 Mentee Applicants
65

94

2022 Mentor Applicants

Shows the level of support is consistent although larger numbers would be preferred.

2021 Mentor Applicants
51

2020 Mentor Applicants
51

43

Number of countries represented 2022

Increase of global interest for the WIB Mentor scheme.

2021 Countries
25

2020 Countries
18

TBC

Mentor & Mentee Matches 2022

We aim to increase last year's 33 matches in 2022.

We are so very excited to match a larger number to support industry in their uptake and knowledge of BIM.

Webinars & Podcasts



Women in BIM

6 subscribers

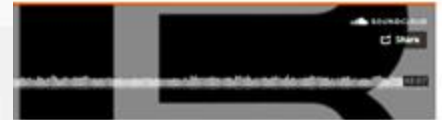
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WIB: A summary & discussion on the state of... 1 view • 3 weeks ago	WIB Webinar: End of 2020 Virtual Networking. No views • 3 weeks ago	WIB Webinar: Our projects, passion & people 1 view • 3 weeks ago	WIB Webinar: The Importance of Allies - how... 2 views • 3 weeks ago	WIB Panel Debate: How to develop a resilient mindset ... No views • 3 weeks ago	WIB Mentoring: Why Diversity is Important. 5 views • 1 month ago



[CUSTOMISE CHANNEL](#) [MANAGE VIDEOS](#)



WiB Digital Twin Webinar

WiB **WEBINAR**
Demystifying Digital Twins
TUESDAY 15 MARCH 2022 | 13.00 - 14.00 (AEDT)

Rebecca De Cicco
Principal, Digital Enablement
Aurecon
Global Chair
Women in BIM

Carys Evans
Director
Digital Twin
Victoria

Amanda Wyzenbeek
Technical Director
Digital Advisory NSW Lead
Mott MacDonald
Committee
Digital Twin Hub
Community Council

Dr Marie Truelove
Head of Product Management
Data61 CSIRO

Upcoming Events 2022



1-2 June, 2022
**SYDNEY BUILD 2022,
SYDNEY**



19 August, 2022
**SID2022,
ADELAIDE**



27 – 29 September, 2022
**AUTODESK UNIVERISITY
2022,
NEW ORLEANS**



24 - 26 November, 2022
**BILT ANZ 2022,
GOLD COAST**

**Call for proposals are now
open!**

Thank you for attending.

Get in touch..

bim-sa.com.au/

info@bim-sa.com.au