

Annual Report April 2018 – March 2019

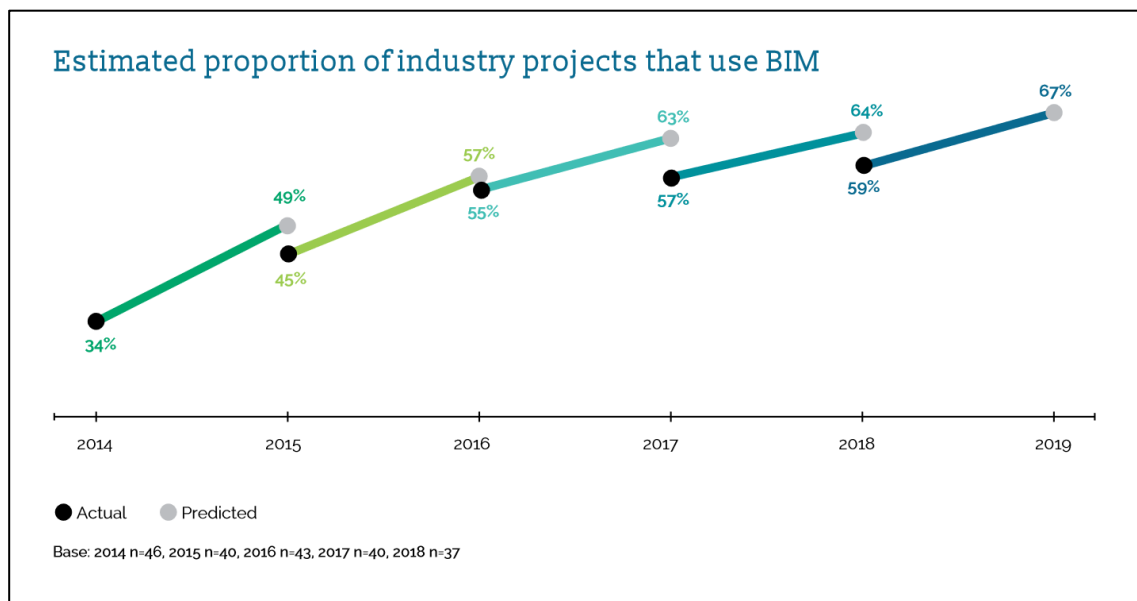
Purpose of this report

This report provides a short summary of the achievements of the Acceleration Committee for the financial year (Apr 2018 – Mar 2019). It is provided to the major funder, BRANZ, ahead of inclusion on the BIMinNZ site so our wider stakeholders are informed of our progress.

Achievements April 2018 to March 2019

The major achievements over the 2018/2019 financial year were

- Continued growth in the use of BIM across the design, build and operate stages of the lifecycle of constructed assets



Source: BIM in New Zealand — an industry-wide view 2018 (EBOSS)

- Undertaking quantitative research for greater use of BIM across the value chain through the annual EBOSS industry and client surveys
- Producing the third edition of the NZ BIM Handbook to maintain the Handbook as a key BIM resource for industry
- Establishing strong, collaborative relationships with industry organisations including NZIOB, NZIQS and IPWEA
- Completing the planning and preparation for the highly successful BIMinNZ Conference 2019
- Continued delivery of case studies showcasing the value of BIM in the project design phase and for Asset and Facilities Management.

The BIM Acceleration Committee's 2018/2019 strategic focus

The Acceleration Committee continues to focus on six key strategic areas in achieving its goal of accelerating the adoption of better building process for improved building performance across the full lifecycle of constructed assets.

1. Conquer the digital divide to better enable BIM uptake for those smaller and further down the value chain.
2. Develop and deliver BIM training to build BIM expertise in industry and tertiary educations.
3. Create more client-side demand for BIM through the education of government and other large clients in the benefits of BIM, specifically in facility and asset management.
4. Increase the support for collaboration that maximises the benefits of BIM use.
5. Develop data quality and process standards to facilitate the exchange of reliable data along the value chain.
6. Communication and general awareness raising. Telling the BIM story to existing and new audiences.

Targeted projects were developed to deliver against the strategic focus areas, above, including:

- The NZ BIM Handbook Update – to maintain the Handbook as a key BIM training resource for industry, the handbook revision expanded on the previous release with the incorporation of industry feedback and global developments
- The BIMinNZ Conference 2019 – this project aimed to deliver a 'by industry, for industry' conference to provide examples of where BIM sits in the NZ project environment as well as a forum for NZ BIM users and innovators to engage and communicate
- Case Studies – five new case studies were identified, based on recent, NZ-based projects, to exemplify and communicate the benefits of BIM in the design phase and in asset and facilities management
- Industry Engagement – a plan of engagement with key industry associations was developed to facilitate the telling of 'the BIM story' to new audiences
- Subcontractor Engagement – a research plan was developed to better understand the barriers to BIM uptake for smaller organisations, further down the value chain
- Asset Metadata Standards Handbook – the Acceleration Committee agreed to support the University of Canterbury in developing a guide to the NZ Asset Metadata Standards in line with the Acceleration Committee's strategic focus on data quality and process standards

Understanding BIM use across the value chain

‘Greater use of BIM across the value chain’ is a corner stone of the BIM Acceleration strategy for the three years ending March 2020; increasing the use of BIM across both the life cycle of a construction project, and deeper within the value chains that support these projects.

The annual EBOSS survey of BIM use for the control group and clients was undertaken again in 2018 to continue to build a longitudinal view of the BIM adoption journey for different groups across the value chain. This research helps us to understand how to support those smaller / further down the value chain to achieve greater use of BIM.

[Completion of the annual EBOSS survey of BIM in New Zealand – an industry-wide view 2018](#)

This survey was the fifth instalment in a series that follows the progress being made in accelerating the introduction of BIM into New Zealand. This longitudinal study, one of only a few in the world, follows an industry control group of large and influential organisations in New Zealand’s built environment. This year also marked the third year a specific client control group of asset owners and managers from organisations with large property/constructed asset portfolios were surveyed. Their inclusion was to better understand attitudes, drivers, and barriers towards BIM use.

The findings from the industry control group survey show consistent progress in terms of the number of projects using BIM, continuing the trend of the past 3 years. Design has always been the main area for BIM use across the project lifecycle within the industry group, however, in 2018 there was evidence of increased use within the construct and operate phases. The indication from the control group was that the use of BIM in asset management and building preventative maintenance is likely to see increased focus in 2019. The survey indicated the key areas for support in increasing BIM usage within the industry group centre around collaboration and seamless transition between parties to help realise the value of BIM and reduce cost, more training and increased industry acceptance.

Among the client survey group there is full awareness of BIM as a means to achieve the integration of digital spatial information with asset management systems and almost half of the clients surveyed are already undertaking this integration. Amongst those clients who are not considering, or haven’t started, integrating digital asset and spatial information the key barrier would seem to be a belief that it is a particularly difficult process. This suggests an important workstream is helping clients work through the details of how to integrate multiple, disparate systems.

These themes and focus areas aligned well with the Acceleration Committee’s strategic focus and were used to inform and direct the 2019-2020 specific research projects/activities to deliver on its strategy.

Achieving greater use of BIM across the value chain

From previous market research undertaken by the committee, the Acceleration Committee identified the need to engage a wider audience and improve BIM research knowledge dissemination across the value chain. This led to the development of a communications plan for dissemination of BIM research and resources to existing and new audiences, with a particular focus on the wider group of people using BIM in design and construction of larger commercial construction and their specialist trades and product suppliers. This, in turn, has prompted the development of a subcontractor engagement project to look in to the use of BIM by specialist trades and product suppliers and to identify barriers to its uptake at this level, to inform the supporting activities of the committee going forward.

A plan of engagement with key industry organisations is also ongoing in order to reach the myriad of small enterprises within the construction industry through the industry organisations which represent them. The Acceleration Committee aims to support these organisations in formulating BIM strategies which address the peculiar interests of their members. In particular, good progress towards a collaborative relationship has been made with NZIOB, NZIQS and IPWEA.

Developing BIM industry training and education

Industry training and education on BIM continues to be at the forefront of the Acceleration Committee's agenda, through, for example, the provision of essential industry training resources such as the NZ BIM Handbook and various forums for communication and knowledge dissemination.

Between December and March, a revision of the NZ BIM Handbook was undertaken to build in industry feedback and recent developments in international standards, including the release of ISO 19650. The revision also aimed to reflect the maturity in the understanding and use of BIM by designers and contractors and the improving awareness of the benefits of BIM for asset operation. The update will maintain the relevance and importance of the Handbook as an essential industry resource.

The Acceleration Committee, in conjunction with the NZ Institute of Building (NZIOB), also undertook the planning of the BIMinNZ conference 2019. The premise of this project was to deliver a 'by industry, for industry' forum to connect NZ BIM users and innovators and promote knowledge dissemination and conversation around BIM in New Zealand.

Expanding the evidence of the benefits and value of BIM for clients

In line with the Acceleration Committee's communication plan and the focus on the benefits of using BIM for clients, two new case studies were developed to exemplify the range of benefits of BIM for Asset and Facilities Management (AM/FM). The Pukete Waste Water Treatment Plant case study looks at the long-term value in leveraging BIM technologies to provide good quality asset data for new works and maintenance. The Bracken Rd Flats Refresh case study revisits a pilot project which applied BIM retrospectively for asset data collection and reviews the ongoing benefits of the project and how the process was successfully scaled-up.

Highlighting the importance of data quality and process standards across the value chain

The committee has a strategic focus on supporting the exchange of reliable data across the value chain, facilitated by good quality data and standardised process. The NZDF Whenuapai Gym case study was developed to give an oversight into the use of metadata standards to inform data capture within the BIM process and the importance of clear requirements to ensure the ready availability of common data for all stakeholders.

In line with this strategic focus the Acceleration Committee also provided support to University of Canterbury towards the development of a guideline for the use of the NZ Metadata Standards.

The future of BAC

The BIM Acceleration Committee has seen significant success in accelerating the use of BIM in NZ as supported by the trending in the annual EBOSS survey series. With this maturation in the awareness and use of BIM in NZ, the focus of the committee is beginning to change from accelerating BIM use, to industry involvement as a pathway to change.

Additionally, with the current, 3 year BRANZ funding period coming to an end in March 2020, there was a need for the committee to determine its future direction and form. A strategy planning session was planned for April 2019 to brainstorm and discuss what support the industry might need to further increase the use of BIM going forward, what form that support might take and relatedly, the future of the Acceleration Committee.

Financial summary and programme

The 2018/2019 budget and programme are included below.

2018/2019 Financial Summary	
Income - BRANZ annual funding	\$250,000.00
Budget	\$265,000.00
Total Actual Expenditure	\$184,031.00
Total Actual Expenditure vs Income	-\$65,969.00

The discrepancy between actual expenditure and income for 2018/2019 was largely down to timeline adjustments on three projects.

The Industry Training Virtual Project Workshop, scheduled for December, had to be postponed due to the unexpected unavailability of the 3rd party trainer for the course. This will now be progressed in 2019.

Due to work commitments of the committee leads for the BIM and Procurement and Subcontractor Engagement projects, the deliverables and related funding for these, had to be transferred to the 2019/2020 programme and budget.

Despite the above adjustments, as at March 2019, the committee had substantially completed 70% of the overall deliverables that were set for the financial year.



BIM ACCELERATION COMMITTEE																											
2018 - 2019 PROGRAMME - UPDATE																											
ID	Task Name	Resource Names	Duration	Start	Finish	Apr '18	May '18	Jun '18	Jul '18	Aug '18	Sep '18	Oct '18	Nov '18	Dec '18	Jan '19	Feb '19	Mar '19	Apr '19	May '19	Jun '19	Jul '19	Aug '19	Sep '19	Oct '19	Nov '19	Dec '19	Jan '20
46	Implementation BAC communications/ knowledge dissemination strategy		200 days	Mon 2/04/18	Fri 4/01/19																						
47	Network & Website Development		60 days	Mon 7/01/19	Fri 29/03/19																						
48	BIM Conference	DB	250 days	Mon 2/04/18	Fri 15/03/19																						
49	Plan for the BIMinNZ Conference		250 days	Mon 2/04/18	Fri 15/03/19																						
50	Improving Consistency in Industry's Current BIM uses		337 days	Mon 2/04/18	Tue 16/07/19																						
51	BIM State of the Nation/ Defining BIM BAU	AR,BB	180 days	Mon 2/04/18	Fri 7/12/18																						
52	Identify status of BIM in NZ		80 days	Mon 2/04/18	Fri 20/07/18																						
53	Review Case Studies: KiwiBuild MDH and High Density	AR	100 days	Mon 23/07/18	Fri 7/12/18																						
54	Develop Client Briefing papers for BIM	AF	180 days	Mon 23/07/18	Fri 29/03/19																						
55	Understand mutual expectations between clients and industry		180 days	Mon 23/07/18	Fri 29/03/19																						
56	Collaboration Standards/ Guidelines		251 days	Mon 2/04/18	Mon 18/03/19																						
57	Assess Procurement Strategies and Culture - scoping	AF,JW,SR	151 days	Mon 2/04/18	Mon 29/10/18																						
58	BIM & Procurement: present thinking at BIM Conference 2018	AF,SR	0 days	Mon 29/10/18	Mon 29/10/18																						
59	Develop inputs for the updates to the NZ BIM Handbook	AF,JW,SR,SD	80 days	Tue 30/10/18	Mon 18/02/19																						
60	Produce thought piece on industry issues and IPD	AF,JW,SR	100 days	Tue 30/10/18	Mon 18/03/19																						
61	Develop the case for BIM - maturity and long term benefits		100 days	Tue 30/10/18	Mon 18/03/19																						
62	Digital Standards/ Guidelines (Technology)	BB,AR,RA	250 days	Wed 1/08/18	Tue 16/07/19																						
63	Metadata Standards - relevance and relationship to industry		150 days	Wed 1/08/18	Tue 26/02/19																						
64	Asset Meta Data Standards Handbook development		60 days	Wed 27/02/19	Tue 21/05/19																						
65	Review use and benefits across the Value Chain		100 days	Wed 27/02/19	Tue 16/07/19																						
66	BIM and Clients	SC,DD,HS	100 days	Mon 2/04/18	Fri 17/08/18																						
67	Re-frame Govt as a Client: NZDF, NZTA, ADHB, MBIE		100 days	Mon 2/04/18	Fri 17/08/18																						
68	BIM and Design		160 days	Mon 2/04/18	Fri 9/11/18																						
69	Resolving LOD difference between design and Construction documentation		100 days	Mon 2/04/18	Fri 17/08/18																						
70	Review and understand industry norms and expectations		60 days	Mon 20/08/18	Fri 9/11/18																						
71	Understand the role of specialist trades, detailers, fabricators and proprietary systems		60 days	Mon 20/08/18	Fri 9/11/18																						
72	Understand the role of Design Consultants		60 days	Mon 20/08/18	Fri 9/11/18																						
73	BIM and Construction		260 days	Mon 2/04/18	Fri 29/03/19																						
74	Improving Built Quality through BIM: Scope Definition, Quality		100 days	Mon 2/04/18	Fri 17/08/18																						
75	Review if outcomes meet Quality Expectations		100 days	Mon 20/08/18	Fri 4/01/19																						
76	Subcontractor engagement to determine barriers to BIM use		160 days	Mon 2/04/18	Fri 9/11/18																						
77	Refine Project Work Streams incl: procurement issues		100 days	Mon 12/11/18	Fri 29/03/19																						
78	Supply chain capability, capacity and trusted relationships		100 days	Mon 12/11/18	Fri 29/03/19																						
79	Lack of detail in design models, Seismic Restraints, BEP use, Clashes		100 days	Mon 12/11/18	Fri 29/03/19																						
80	BIM and Operations		180 days	Mon 2/04/18	Fri 7/12/18																						
81	Asset and Facilities Management interface and industry maturity		80 days	Mon 2/04/18	Fri 20/07/18																						
82	Support shifts in approach - long term benefits for Asset Owners		100 days	Mon 23/07/18	Fri 7/12/18																						
83	Accelerating Industry's BIM Use		180 days	Mon 2/04/18	Fri 7/12/18																						
84	BIM Barriers		180 days	Mon 2/04/18	Fri 7/12/18																						
85	Continue identification of the Barriers to BIM Adoption (EBOSS/ Client Surveys)		180 days	Mon 2/04/18	Fri 7/12/18																						
86	BIM NZ Acceleration		180 days	Mon 2/04/18	Fri 7/12/18																						
87	Future Trends at a National and International level		180 days	Mon 2/04/18	Fri 7/12/18																						
88	Transforming the Industry through BIM		280 days	Mon 2/04/18	Fri 26/04/19																						
89	BIM and Industry Transformation		280 days	Mon 2/04/18	Fri 26/04/19																						
90	Develop scenarios for what this could look like		240 days	Mon 2/04/18	Fri 1/03/19																						
91	BAC Strategy - Workshop and outcomes		40 days	Mon 4/03/19	Fri 26/04/19																						

Committee membership to deliver the strategy

The Acceleration Committee saw a small number of membership changes during the 2018/2019 financial year.

Departing members included:

- Brian Berg
- Steve Davis
- Jon Williams

New members include:

- Fiona Westerkamp as Network Coordinator for the BAC
- Gary Davenport, Lead Building Services Engineer, University of Auckland
- Vicente Gonzalez, Senior Lecturer, Department of Civil and Environmental Engineering, University of Auckland

The committee's current membership is well placed to support the strategy's direction.