

# Whole-of-life Value of Constructed Assets through Digital Technologies

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In the coming decades Australia and other countries will be facing challenges as a result of a changing climate and rapid technological progress. Throughout the lifecycle of community assets, new digital technologies such as Building Information Modelling (BIM) can provide benefits that are not yet being taken full advantage of and concurrently address some of these challenges. This is especially the case for constructed community assets where Key Performance Indicators (KPIs) relevant to the benefits derived from BIM could address long-term impact factors which are transferable throughout the asset lifecycle and across asset portfolios.

Early findings from SBEnrc Project 2.34 Driving Whole-of-life Efficiencies through BIM and Procurement (2014-15) identified a lack of national and international BIM value benchmarking systems. These can promote better understanding about barriers and be used as a basis for setting realistic goals for digital built environment benefits, which in turn can be linked to performance improvement and incentives.

This project (2015-17) will develop a practical online BIM value benchmarking tool that can be used by industry stakeholders across buildings and infrastructure. It will also provide insight into the potential strategic impacts of digital technologies expected to change the way constructed assets are delivered and managed. Through developing this knowledge, the project outcomes will assist in future-proofing asset investment decisions.

## Objectives

This project will improve whole-of-life value of constructed community assets by:

- Part 1: Developing an online BIM value benchmarking system that can be used for monitoring and measuring performance outcomes in the built environment across four pillars: Procurement, Processes, People, and Sustainability (including future-proofing).
- Part 2: Developing knowledge to inform strategy on impacts of digital technologies likely to change the way constructed community assets are delivered and managed, thereby future-proofing asset investment decisions.

## Industry Outcomes

This project will:

- Create a practical industry benchmarking tool that will allow objective and realistic measures to be developed relating to benefits from implementing BIM during project delivery, asset management and operations.
- Provide insight into the strategy and procurement implications of digital technologies identified as having the potential to affect the way that community assets are delivered and managed.
- Provide the means for proactive asset management and a more economically, socially and environmentally resilient and sustainable built environment.
- Provide a basis for stakeholders to improve their approach to implementing digital built environments and monitoring their progress towards a fully integrated whole-of-life asset management system.



**Professor Keith Hampson**  
BEng(Civil)(Hons) MBA PhD  
FIEAust FAIM FAICD  
Project Leader, Curtin University  
[k.hampson@sbenrc.com.au](mailto:k.hampson@sbenrc.com.au)



**Paul Akhurst**  
BSc(Hons), MSt(Cantab), CFM, MCOIB  
Project Manager, Curtin University  
[p.akhurst@sbenrc.com.au](mailto:p.akhurst@sbenrc.com.au)



**Paul Hodgson**  
BlntBus  
Chair, Project Steering Group

