Measuring Benefits from BIM across Whole-of-life Asset Management
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Building Information Modelling

Virtual Design and Construction

Building Information Modelling and Management - BIM(M)

Computer-aided Visualisation and Design

Digital Engineering
BIM can be defined as a **virtual process** that encompasses all aspects, disciplines, and systems of an asset within a **single virtual model**, allowing all to collaborate **more accurately and efficiently** than using traditional processes.
Industry Challenge

Integrated Environments and BIM

• Emerging and transformative
• Lack of performance measurement across life-cycle
• Full benefits across whole-of-life and industry still to be achieved
Project 2.34 Driving Whole-of-life Efficiencies through BIM and Procurement

• Research objectives

- Define indicators to measure tangible and intangible benefits of BIM across a project’s life-cycle in infrastructure and buildings

- Pilot test a whole-of-life BIM value realisation framework on leading infrastructure and building case studies
Project Challenges

Inadequacy of current metrics

- Purely financial metrics shortcomings
Inadequacy of current metrics

- Uniqueness of construction projects
Project Challenges

Inadequacy of current metrics

- Lack of benchmarks
Inadequacy of current metrics

- Some traditional productivity measures become less relevant
Project Challenges

Inadequacy of current metrics

- Some benefits are inherently difficult to measure
Inadequacy of current metrics

- Variety of stakeholders and fragmentation
Project Challenges

Inadequacy of current metrics

- Rapid change of technology
Research and Collaboration

Research activities

- Leading national exemplar case studies – design, construction, asset management
- Literature and documentation review
Research and Collaboration

Research activities

- Leading national exemplar case studies – design, construction, asset management
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Collaborations
Case studies

Perth Children’s Hospital

• 26 benefits
• 20 tools and processes
• Benchmarks and metrics
• Lessons learned for Managers
Coming soon

Delivering Value with BIM – A Whole-of-life Approach

- Industry briefing reports
- Online tool
- Book to be published by international publisher Routledge
- Case study reports & academic publications
Delivering Value with BIM – A Whole-of-life Approach

Context
- BIM
- Strategy
- Case studies
- Capabilities
- Other considerations

Framework
- Detailed Methodology
- Step-by-step guide

Dictionaries
- Benefits
- Enablers
- Metrics
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