

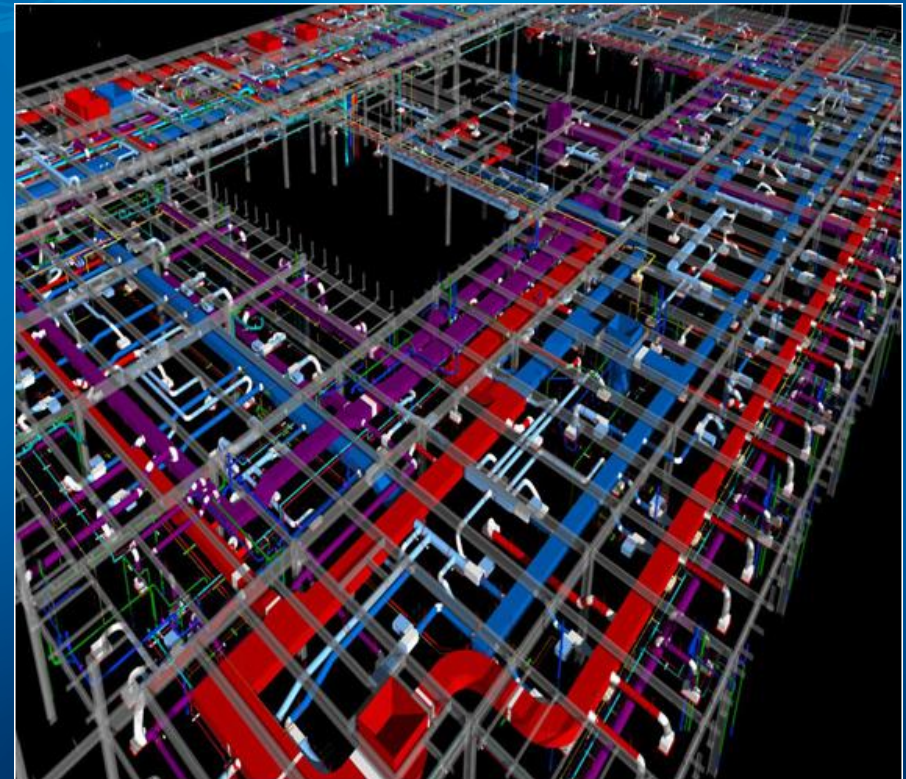


Session 3: Integrated Project Delivery

AMCA's BIM-MEPAUS

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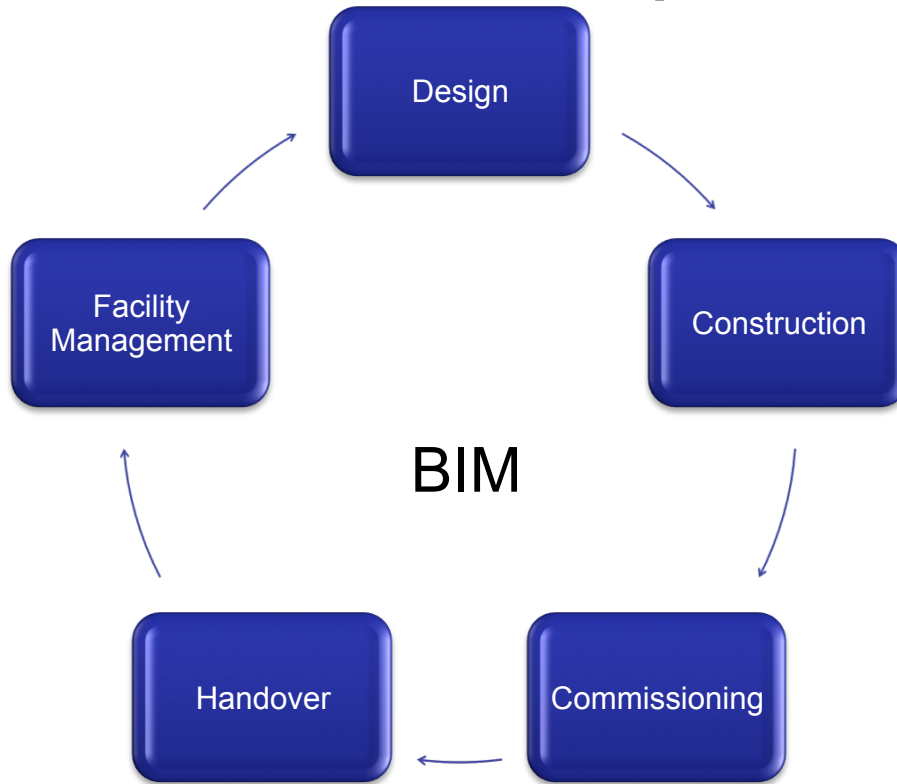
Agenda



- Key concepts, issues and challenges to BIM/ IPD implementation
- Overview of the BIM-MEP^{AUS} System
- Industry Stakeholder Benefits
- How BIM-MEP^{AUS} aligns with industry and Government
- Work Programme for 2011



BIM Workflow Concept



BIM-MEP^{AUS} Enabled BIM /IPD

- Integrated Project Delivery
- Supply Chain Integration
- Design/Procurement/Commissioning



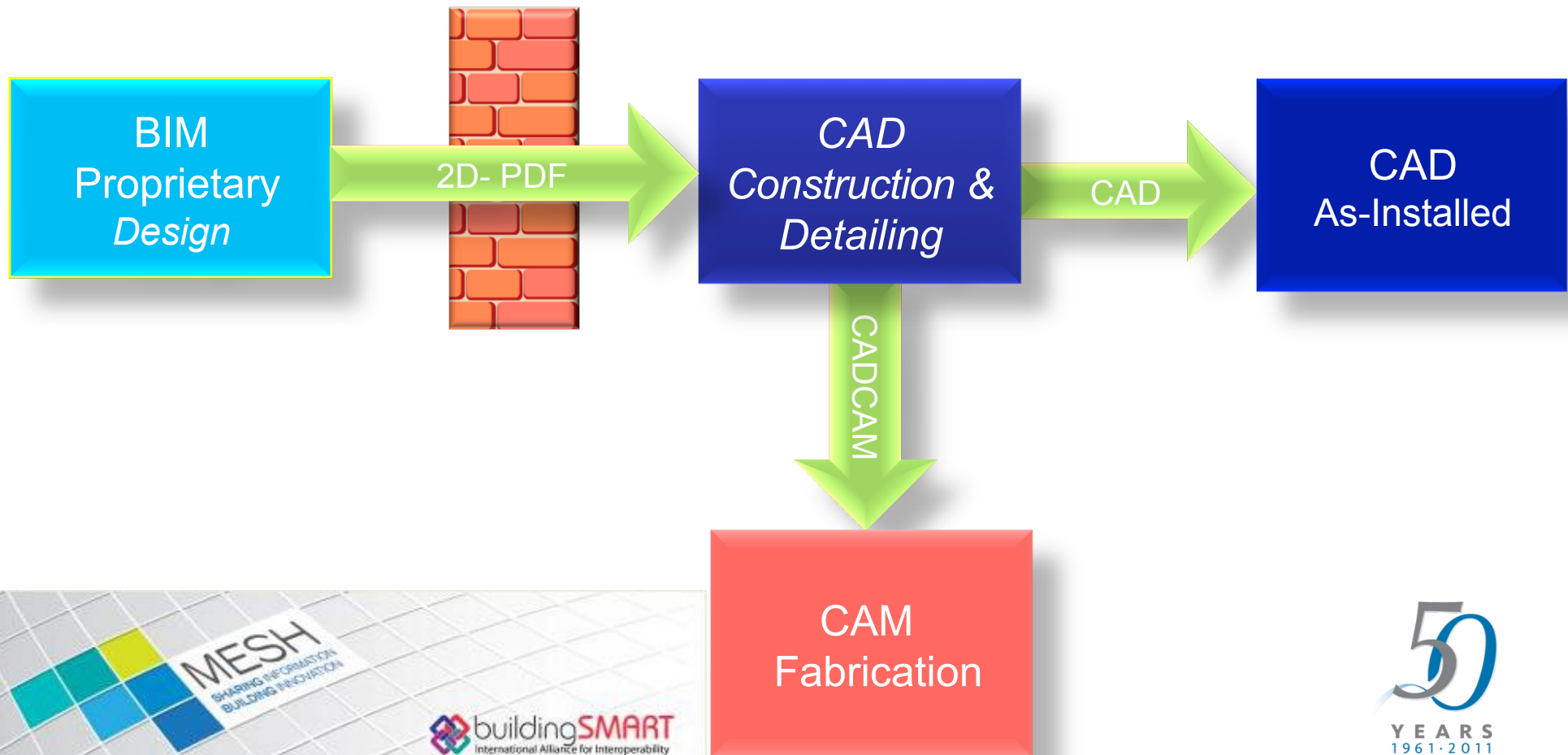
Challenges to BIM / IPD Implementation



- **Proprietary BIM**
- **Design BIM vs IPD BIM**
- **Model content**
- **Establishment of Industry Standards**
- **Engagement of supply chain**
- **File Size/File Management**
- **BIM to Fabrication Conversion**



BIM CURRENT WORKFLOW



Purpose of BIM-MEPAUS



- Enable smarter IPD Workflows within Projects through industry level standards
- Align industry supply chain to support BIM
- Improve collaboration through all phases of the project
- Reduce costs and risks for all parties involved in the services supply chain
- Deliver better client outcomes



BIM-MEP AUS System



- Vendor Independent
- Collaborative
- Inclusive
- Customized to Australian Industry Standards and workflows



BIM-MEP AUS System



BIM MEP AUS



Software

BIM MEP AUS Models



Content

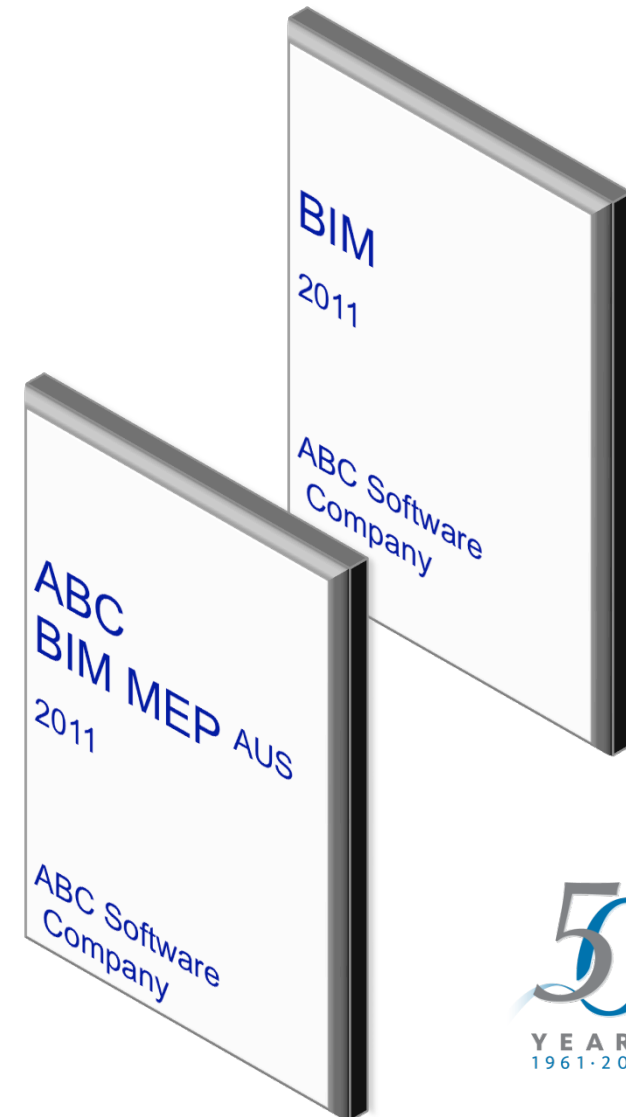
BIM MEP AUS Workflows



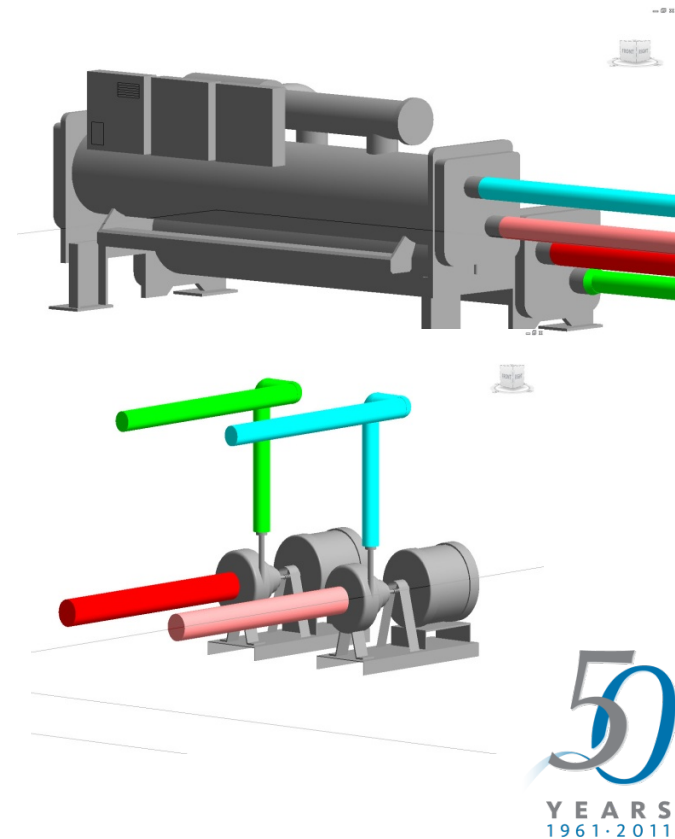
Workflows



- Duct and Piping Libraries
- Equipment Generic Models
- Embedded Documentation Standards and functionality
- Embedded Regulatory and Australian Standards
- Industry Standards
- Designed to support Supply Chain Integration

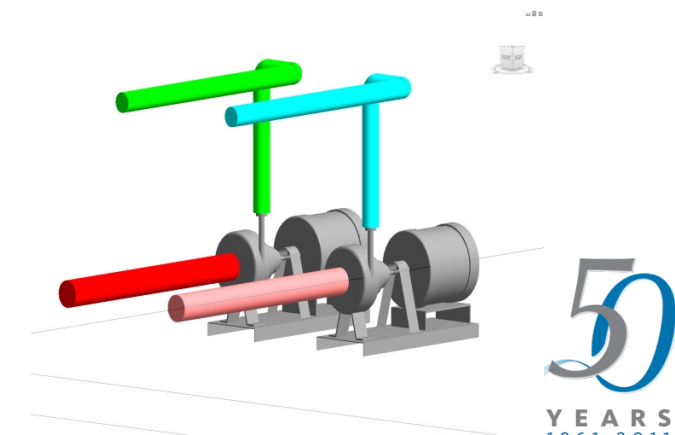
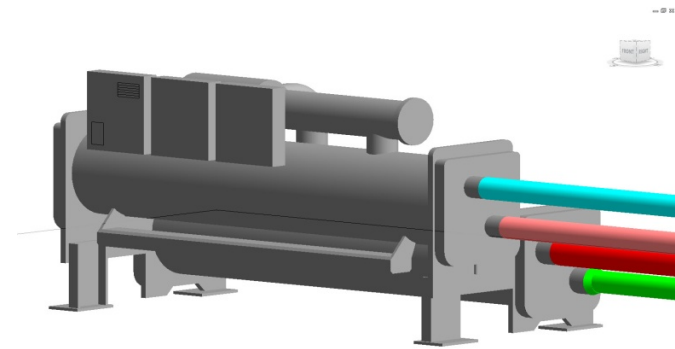


- Software Model Content Guide
- Agreed Data Sets
 - Design
 - Procurement
 - Commissioning / As Built
- Interchangeable with generic parametric models
- Tested and certified to BIM-MEPAUS
- Certified Models



Benefits

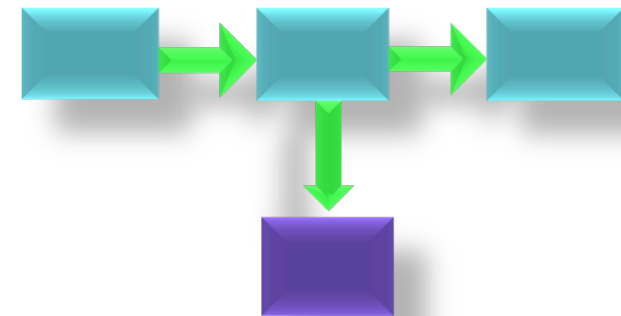
- Reduced cost to implement and manage BIM-MEP for product suppliers
- Reduced Cost to document in BIM
- Best of Breed BIM Content Models
- Model Interchangeability
- Design/Procurement/Commissioning



50
YEARS
1961-2011



- Detail Work flows and processes to cover a range of project delivery models based on IPD
- Vendor independent but vendor specific

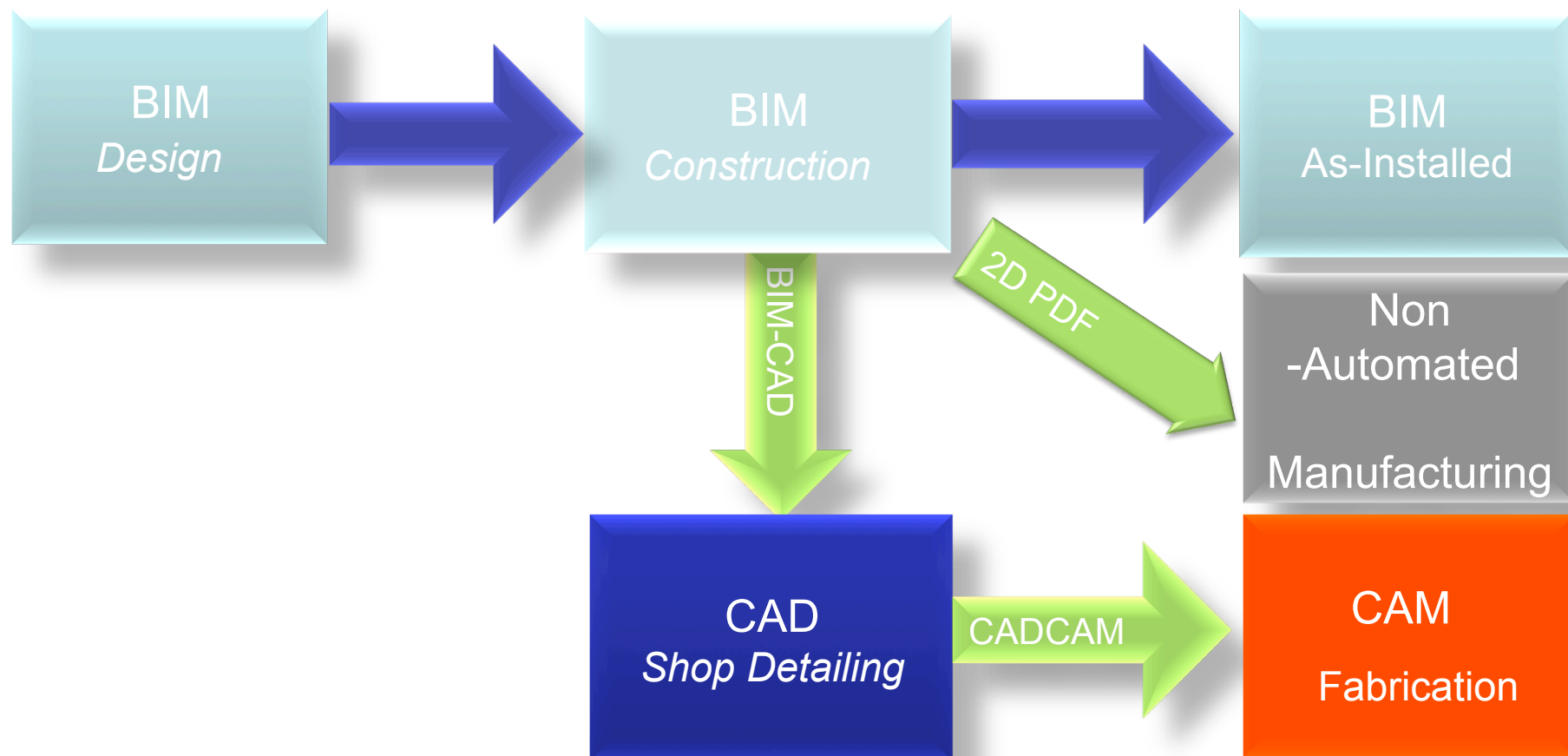


Benefits

- Enables Improved IPD and Collaboration
- Enables Supply Chain Integration
- 2-3% Project Cost Saving on Construction Documentation



BIM ENABLED IPD



Alignment of the BIM-MEP^{AUS} Initiative



BIM Australian Research

Department of Innovation, Industry, Science and Research

“Digital modelling and the built environment Issues Paper” – June 2010

The Allen Consulting Group *“Productivity in the buildings network: assessing the impacts of BIM” – December 2010*

Australian Institute of Architects *“BIM in Australia” – December 2010*



Key Issues

- Standards and guidelines
- Interoperability
- Regulatory framework
- Training and skills
- Clearer communication exchange and information failures
- National strategy required
- Support and promote the development of industry standards
- Actions to enable creation of object libraries and support regulatory compliance (e.g. BCA)
- Close or reduce skills gaps
- Leadership, Co-ordination across industry/ Government involvement/ industry association partnership
- Industry skills development
- Multidisciplinary approach to education
- Software compatibility development
- Client awareness and education strategy for BIM

BIM-MEP^{AUS}



BIM Steering Committee Members



- Aconex
- ADG Engineers
- A.G.Coombs Group of Companies
- AHI-Carrier
- ARUP
- Autodesk
- Bentley
- Brookfield Multiplex
- BuildingSMART
- C3 Consulting Solutions/ Revit Conference
- Fantech
- GHD
- KarelCAD
- Hastie Group
- Holyoake
- Lend Lease
- NATSPEC
- Norman Disney & Young
- Pump Industry Australia
- Queensland Department of Public Works
- Triple 'M' Mechanical Group of Companies
- TSI/ MAP
- Victaulic
- Watson Fitzgerald and Associates



Summary



- The BIM-MEP^{AUS} Initiative is vendor neutral; however, we have the support of all major software vendors and distributors represented in the Australian marketplace.
- The BIM-MEP^{AUS} initiative has strong representation and endorsement from the supply chain.
- The BIM-MEP^{AUS} initiative focusses on standards, protocols, workflow solutions and supply chain integration.
- The BIM-MEP^{AUS} initiative received “in-principle” support from Senator Kim Carr, Minister for Innovation, Industry, Science and Research. The AMCA will continue to work with Government to engender further support.



