

Building an Innovation Culture in the Australian Built Environment Industry

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Industry Innovation Council



BuildingSMART MESH BIM Seminar Series
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Innovation Councils have been established by Government

to:

- Provide a strategic directions to strengthen Australia's innovation culture
- Provide a leadership role in transforming industry
- Increase industry's ability to articulate innovation priorities
- Build stakeholder linkages and collaboration
- Develop policy and program advice to government



Senator Carr: Comments to 1st meeting

- "...to deal effectively with the innovation challenges and opportunities that lie ahead of us, we will have to mobilise everyone who makes decisions about our built environment – policy-makers, professionals, entrepreneurs and consumers."
- "Neither the industry nor the Government have the resources to pursue a thousand hares. Our best chance of producing results is by concentrating our efforts and playing to our strengths."
- "What we need is a small number of clear, practical priorities."



Our approach to the future: Build a sustainable innovation culture in the Built Environment Industry

- Where do we want to be in 2014?
- What will an innovation culture look like?
- What do we need to do over the next 5 years?
- How can we collaborate with industry players to involve them and partner with them?

Strategic Plan 2009-2014

2010 Action Areas

1. Innovative Procurement Policy and Processes Developed
2. Green Skilling Initiated for the Retrofitting Industry
3. Government Urban Policy and Programs Influenced by BEIIC's Strategic Plan and Vision
4. Innovative Built Environment Demonstration Projects Supported
- 5. Innovative Tools and Technologies Developed and Applied**
6. Improved Coordination Across Government for the Built Environment Industry
7. Principles Developed for an Innovative Regulatory Framework
8. Community Engagement Strategy Developed to Promote Sustainable Practices

2014 Outcomes

	Integrated Seamless & Collaborative Delivery
	Attract and Retain Skills Capacity & Talent
	Profitable & Rewarding Industry Investing in Research & Innovation
	Diverse & Responsive Built Form
	World Class Exporters
	Agreed and Effective Environmental Accounting
	Enabling Regulatory Framework
	Broad Community Engagement in Sustainable Future

Pathways

Efficient & Diverse Supply Chain	Align Progressive Regulatory Framework With Sustainable Planning	Lift Capacity Of Workforce To Deliver	Streamlined Procurement Practices & Tools	Whole of Life Based Investment Sharing Risk & Reward	Community & Key Stakeholder Communication & Engagement	Projects That De-Risk & Demonstrate Step Change
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UK CIB 2010 Conference

- Same issues: collaboration/ leadership/ regulation/ skills
- Innovation is an outcome of getting the other drivers right
- Government leadership and support
- Paul Morrell, Chief Construction Advisor to the UK Government:
“I am convinced that BIM is the way to unlock new ways of working that will reduce cost and add long-term value to the development and management of built assets in the public sector”



Productivity in the Building Network : Assessing the impacts of BIM Report

- DIISR commissioned this Report in partnership with BuildingSMART, Australian Institute of Architects, ARUP, Atlas Industries, NATSPEC, Built Environment Design Professions, Bluescope Steel and Polyflor.
- Authored by Allens Consulting Group



Productivity in the Building Network : Assessing the impacts of BIM Report

Key findings:

- *BIM has macroeconomic significance; its accelerated widespread adoption would make a significant difference to national economic performance; and there is a compelling economic case for encouraging greater use of BIM in Australia.*
- *There are very few alternative options available for enhancing productivity that can be achieved on such favourable terms and without difficulty to achieve structural reform.*



Productivity in the Building Network : Assessing the impacts of BIM Report

BIM requires new ways of collaborating and interacting in what is historically a very fragmented sector – Integrated Project Delivery.

The IPD model is intended to empower committed stakeholders to work collaboratively to take advantage of design and delivery innovations simultaneously.



Productivity in the Building Network : Assessing the impacts of BIM Report

BIM and IPD will deliver specific benefits for industry including:

- Improved construction cost estimation of accuracy within 3%;
- Up to 40% elimination of unbudgeted construction change;
- Up to 80% reduction in cost-estimating time;
- Savings of up to 10% of the construction contract value through clash detections;
- Up to 7% reduction in construction project time;
- Opportunities to develop 'whole of life' facility management;



Productivity in the Building Network : Assessing the impacts of BIM Report

Market failures affecting the uptake of BIM and IDP including:

- Externalities surrounding interoperability and standards involving significant benefits for third parties beyond the actual producers of goods and buyers; and the
- Split incentives and the commercial constraints of IP ownership, security of data and multi-user access are barriers to uptake to the industry; and the
- Information asymmetries due to highly fragmented nature of this industry.



Productivity in the Building Network : Assessing the impacts of BIM Report

Accelerating BIM Uptake ...Report Recommendations to Government

- Developing and implementing new contractual frameworks that encourage efficient collaboration while addressing the issues of risk, responsibilities and liabilities when using BIM.
- Developing a national strategy for BIM implementation including plans, targets and guidelines.
- Encouraging the development of national standards for BIM.
- Encouraging the creation and maintenance of intelligent object libraries that comply with national BIM standards.
- Reducing BIM related skills gaps in the current and future Buildings Network workforce



***Built Environment Industry Innovation Council 2010
Recommendations Report***

Council BIM Recommendations to Government

- Encourage industry-wide use of BIM and support pilot projects that demonstrate the benefits of applying new technologies.
- Consider BIM as a key part of the Government procurement process.



Built Environment Industry Innovation Council 2010 Recommendations Report

The 2010 Recommendation Report highlights other issues which would help drive innovation and support the development of a cohesive built environment sector.

Some key recommendations include:

- Consider the establishment of an organisation similar to the United Kingdom's Constructing Excellence.
- Develop a Research Roadmap for the industry;
- Develop a National Industry Education and Training Action Plan.
- Consider the establishment of an organisation similar to the United Kingdom's Commission on Architecture and Built Environment (CABE).



Conclusion:

- BEIC commends BuildingSMART for their initiative in holding this Seminar Series and encourage them to continue to develop a common understanding of BIM across all levels of building services supplychain.
- Importance of the National Broadband Network to enable the potential of BIM.
- Encourage industry stakeholders to access the following Reports from www.innovation.gov.au/beic
 - Productivity in the Buildings Network : Assessing the Impacts of Building Information Models Report;
 - Built Environment Industry Innovation Council 2010 Recommendations Report;



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