

## **Pillar 4** Digital Procurement

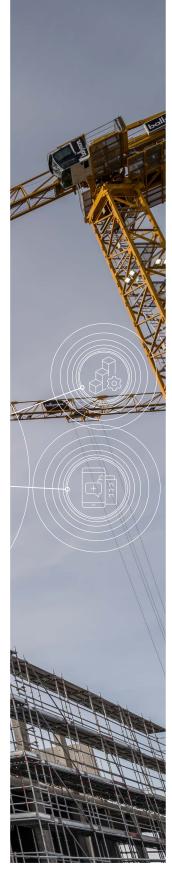
Supporting the delivery of Information Management and BIM in Ireland: Learnings from Selected International Regions











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**Rialtas** na hÉireann Government of Ireland Tionscadal Éireann Project Ireland 2040

## Executive Summary

The Digital Procurement pillar of Build Digital has prepared this report, Supporting the delivery of Information Management and BIM in Ireland: Learnings from Selected International Regions.

The objective of the Digital Procurement pillar is to bring national and international expertise on best practice in sustainable digital procurement and digital product supply chain practices to the forefront of the Irish sector. This pillar will drive greater efficiency, sustainability, and productivity in delivering successful construction project outcomes by enabling an integrated green, lean and digital thread of information across the project life cycle. To achieve this, pillar 4 will develop tools that will make it easier for SMEs across the entire construction supply chain to learn how to adapt to more agile, digitally enabled procurement practices. (Figure 1). The report presents recommendations for Build Digital with respect to information management and the use of BIM as a critical vehicle of innovation to unlock improved project outcomes in construction.

The focus on addressing the information challenge is evident in the UK government's publication of international information management standards in 2018 and the recent introduction of an information management mandate.

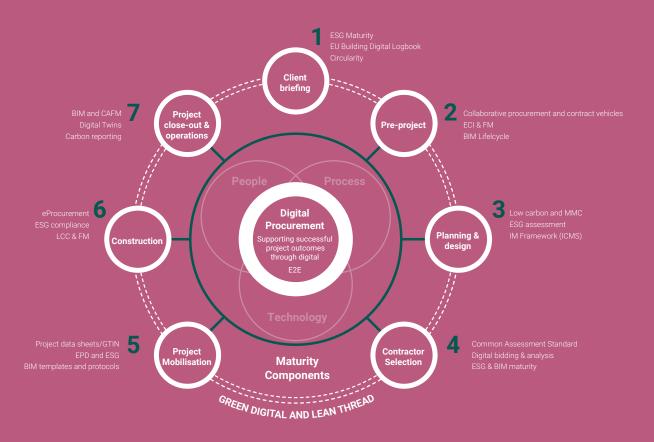


Figure 1 – End-to-End Digital Procurement

It is evident in the report that BIM processes and supporting tools only form part of an array of digital technologies that continue to collectively transform the construction industry.

The Build Digital team have identified the need to develop an information management framework to assist clients and other procuring authorities in bringing a structured approach to ensure that design, construction, and operations information is co-ordinated and purposeful for decision-makers during construction and for end users/ facility managers when the asset is handed over.

The approach taken within this report is, to begin with, a review of current approaches to BIM and Information Management, with a particular focus on ISO 19650. This is then supplemented with a review of how the industry has evolved in a number of key international regions; the United Kingdom, Scandinavia and Australasia were selected as areas that are of particular relevance to Ireland (Table 1). These countries were assessed with respect to (i) the way in which information management/BIM usage has developed over time, including the contribution of organisations that play a leadership role; (ii) the national approaches to guidance and regulation, and (iii) any current initiatives in the area.

| Country        | Reasoning for Selection   |
|----------------|---|
| United Kingdom | Recognition for the strategic<br>contribution made in the<br>promotion of BIM and the<br>development of ISO BIM<br>standards. The guidance, toolkits<br>and templates currently available<br>in the UK are particularly<br>influential in the development of<br>an Irish BIM Framework. |
| Scandinavia    | Global leadership and maturity<br>in the adoption of BIM in the<br>public sector, which includes the<br>presence of national mandates<br>and helpful guidance material  |
| Australasia    | Unique collaboration between<br>Australia and New Zealand in<br>the development of national<br>BIM guidelines. Similar national<br>characteristics between New<br>Zealand and Ireland with respect<br>to national BIM adoption.   |

## Table 1 - Overview of areas selected

It is clear that there are a number of characteristics that are common to each region. These include the importance of leadership; the need for standardised approaches to information management; the presence of key agencies that require BIM on their projects; ongoing Government initiatives to continuously evolve BIM and information management processes; the implementation of ISO BIM standards, and the need to support openBIM. The desktop study was augmented by a series of semistructured interviews, which provided an enhanced insight into information management and BIM in particular jurisdictions.

Recommendations for the construction sector in Ireland and actions for Build Digital, arising from the findings in the report, are itemised in Table 2 and summarised below:

Build Digital should continue to articulate the benefits of information management/BIM in Irish construction and promote information management/BIM adoption in Ireland through the development and publishing of relevant and necessary tools (e.g. templates, guidelines, inventories, worked examples, automation files, and case studies) to support clients and the industry. Information management/BIM standards are critical for this adoption. Special emphasis should be on tools to enable the use of these standards, in particular in the delivery of ISO19650. We would suggest that the National Standards Authority of Ireland (NSAI) consider making standards available to projects, especially public projects. Furthermore, it is important to review existing international resources to evaluate if they can be deployed/adapted in Ireland.

OpenBIM is of significant importance to the sector, and the benefits of openBIM need to be articulated. The construction sector in Ireland is encouraged to formally participate with the buildingSMART United Kingdom & Ireland (bSUKI) Chapter and request a chapter board seat. Ireland should also explore formally engaging with buildingSMART international chapters in the Nordic region as they are leading in OpenBIM adoption.

Build Digital should collaborate with international representative groups like buildingSMART and the EU BIM Task Group. By becoming an affiliated member of nima (formerly the UK BIM Alliance), Build Digital will get access to buildingSMART United Kingdom & Ireland (bSUKI), as well as the UK BIM Framework. Collaboration agreements with the UK BIM Framework and Scottish Futures Trust (SFT) BIM portal allow a critical review of their content for its applicability to the Irish construction industry. These agreements should be extended to other jurisdictions. Joining the EU BIM Task Group will facilitate formal engagement with Danish Building & Property Agency (Denmark) and Senate Properties (Finland) for knowledge sharing and other collaborative initiatives.

It is also vital to look outside the EU for good practice and lessons learned. Accordingly, Build Digital should seek to develop formal links with the Australasian BIM Advisory Board (ABAB) and BIM in New Zealand (BIMNZ) to facilitate knowledge sharing and other collaborative initiatives. Build Digital should consider a thorough review of the Australasian BIM and Information Management Guidance and its applicability to the Irish construction industry and explore developing National BIM guidelines similar to those developed in Australia and New Zealand.

## Recommendations and actions

- 1 Articulate the benefits of BIM/Information management in Irish construction.
- 2 Liaise with the National Standards Authority of Ireland (NSAI) in the promotion of BIM standards adoption in Ireland through publishing case studies and facilitate enhanced access to the standards.
- 3 Articulate the benefits of openBIM and encourage and fund formal participation with the buildingSMART United Kingdom & Ireland (bSUKI) Chapter.
- 4 Develop templates and guidelines for clients and industry to support the delivery of ISO 19650 information requirements including reviewing existing international resources that can be deployed/adapted in Ireland.
- 5 Carry out a thorough review of the UK BIM Framework and report on the applicability of the guidance for the Irish construction industry.
- 6 Introduce Build Digital MOUs with Scottish Futures Trust (SFT), Nima and buildingSMART United Kingdom & Ireland (bSUKI) to inform and support the further development of Ireland's BIM and Information Management Framework.
- 7 Seek representation on the buildingSMART United Kingdom & Ireland (bSUKI) chapter board.
- 8 Carry out a critical review of the UK Government's construction procurement reform initiatives and their applicability in the Irish construction industry.
- 9 Formally engage with buildingSMART international chapters in the Nordic region and articulate the importance of openBIM.
- 10 Seek formal engagement through the EU BIM Task Group with Danish Building & Property Agency (Denmark) and Senate Properties (Finland) through knowledge sharing and other collaborative initiatives.
- 11 Develop National BIM Guidelines similar to those developed in Australia and New Zealand.
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- 14 Develop formal links with the Australasian BIM Advisory Board (ABAB) and BIM in New Zealand (BIMNZ) network through knowledge shared and other collaborative initiatives
- Table 2 Recommendations for the construction sector in Ireland and actions for Build Digital





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