ACEI ASSOCIATION OF CONSULTING ENGINEERS OF IRELAND

Position Paper on the CWMF BIM Requirements

MAY 2025

Introduction

In January 2024, the Office of Government Procurement (OGP) introduced building information modelling (BIM) requirements to the Capital Works Management Framework[1]. The requirements are intended for implementation on public sector projects in a staged manner over a four-year period, starting with the largest projects. The ACEI has supported this industry development and continues to collaborate with OGP and other industry stakeholders in achieving optimal outcomes over the coming years. With 18 months having passed since the publication of the requirements, this position paper sets the context for ACEI's support and provides recommendations to Government and ACEI members.

Context

Use of BIM on projects in Ireland increased quickly from 2013 onwards, largely adopting the UK BIM standards that were published around that time. Various clients (public and private), consultants, contractors and manufacturers sought to benefit from the perceived efficiencies of BIM adoption. For example, the client team for the National Children's Hospital included high-level BIM requirements in their procurement of design consultants in 2014. Significant cross-border trade with the UK and the 2016 UK BIM mandate provided justification for following the practices of our close neighbour rather than those of mainland European countries or the USA. This proved advantageous in Ireland when the UK BIM standards formed the basis for the development of the international standards for information management using BIM, i.e., the ISO 19650 suite, which was published from 2018 onwards. The 2017 GCCC Position Paper, A Public Sector BIM Adoption Strategy[2], provided further reassurance to industry in respect of UK practice adoption.

The UK implementation of BIM included standards for the process of information management using BIM, corresponding standards for classification (Uniclass 2015) and information handover (COBie), guidelines, templates, and significant publicly funded industry support. Adoption of the UK BIM Framework – subsequently rebranded the 'Information Management Framework' due to perceived weariness with the term 'BIM' – across a range of project and asset types has resulted in improved information management capabilities within public clients and the supply chain. Whether the investment has provided a return to the UK Exchequer is difficult to measure and prove. (The UK Government sought to generate savings from various parallel initiatives, including BIM, improved procurement and better forms of contract, as set out in the 2011 UK Government Construction Strategy.) Following introduction of the 2016 mandate, various UK clients reported that their broad-ranging BIM requirements resulted in receipt of excessive amounts of low-quality data at handover.

This led to clients refining their information requirements and implementing better verification processes during and at the end of projects. The latest UK requirements are set out in the 2021 Information Management Mandate[3], and a revision of same was progressing during 2024.

In 2020, Scottish Futures Trust published the Standard Information Management Plan[4], which they report was developed through extensive

[1] https://constructionprocurement.gov.ie/bim/core-bim-requirements/

[2] https://constructionprocurement.gov.ie/wp-content/uploads/BIM-Adoption-Strategy-Statement-of-Intent.pdf

[3] Transforming Infrastructure Performance: Roadmap to 2030 - GOV.UK (www.gov.uk)

[4] Task: Standard Information Management Plan (Version 1) - BIM Level 2 Guidance (scottishfuturestrust.org.uk)

industry consultation, including iterative refinement based on lessons from projects.

As of 2025, the construction supply chain in Ireland has extensive BIM capabilities, particularlyamongst larger companies. This is driven by top-down strategic decision making and bottom-up development, not least with the introduction of various third-level modules and qualifications in BIM. Model-based collaboration using standardised processes between designers is common practice. At construction stage, benefits are derived across a range of use cases with models, structured information and automated workflows. This supply chain maturity is reflected in the results of the 2023 Build Digital survey[5].

A 2023 survey of ACEI members utilising BIM showed that almost 95% of respondents were using the ISO 19650 suite of standards on their projects, over 50% of companies had ISO 19650 certification, and the remaining 50% intended to get certified. However, while most respondents identified that BIM is usually specified by clients to some degree, very few identified those requirements as clearly communicated. The results of the 2023 Build Digital Survey show that both industry and government respondents identified the biggest contract-specific challenge for delivering BIM on projects as "insufficient instructions to follow".

It is apparent from the referenced surveys and anecdotal evidence that Irish public clients are not generally deriving benefits from receipt of structured asset information. Further, the lack of consistency and detail in BIM requirements from public clients is resulting in supply chain inefficiencies, and in some cases poorly specified requirements are exposing clients to unnecessary risk of commercial claims (partly related to the use of fixed price lump sum contracts). While these problems are not exclusive to Ireland, they are exacerbated by the combination of a supply chain that is willing and able to meet consistent, well-defined BIM requirements and a cohort of public clients that is struggling to specify such requirements in the absence of clear direction and defined responsibilities from relevant Government departments.

At international level, over the last 10 years there has been significant progress in software capabilities, web-based data sharing and exchange, standardisation (e.g., Industry Foundation Classes v4.3), integration with parallel domains (e.g., geospatial), and data dictionaries (common rules). BIM is now business-as-usual in many aspects of our industry, even if it often involves the exchange of proprietary model formats rather than vendor-neutral formats. While the UK is well advanced from a planning and process management perspective, other countries are more advanced in standardised data exchange. For example, the maturity of IFC-based exchange in Finland has led to the Government introducing a legal requirement from 2025 for any building permit submissions to include an IFC (openBIM) model, thereby enabling automated code checking.

CWMF BIM Requirements

The CWMF sets out high-level BIM requirements which should be supplemented by a public client's specific requirements when implemented on a project. An OGP presentation at a November 2024 industry event[6] identified the opportunities arising from application of the CWMF BIM requirements as:

- Develop a new approach to asset acquisition
- Develop new skills for project design and delivery
- Develop new skills for asset management
- New career paths in information management
- Unified approach for public and private sector projects
- Bridge construction section into a digital domain.

[5] 2023 Build Digital Survey Report (survey period Dec 2023 to Feb 2024)

[6] Digital Adoption in Construction Industry - YouTube

In relation to contracts and procurement associated with BIM on public projects, the ACEI understands that:

- Information requirements templates (developed by Build Digital in collaboration with OGP and industry and published for adoption by public clients) will be subject to continuous improvement over the remaining part of the four-year implementation process;
- proposals for contract amendments (if needed) and a BIM protocol are being worked on by OGP; and
- having BIM certification may not be a pass/fail pre-qualification requirement where supply chain members can show specified BIM capabilities by other means, e.g., internal policies, procedures, training etc.

An important feature of the UK BIM mandate implementation was early messaging at a national level (2013 to 2016) to give clients and industry the time to prepare and consult. This was accompanied by some major public clients publishing their asset information requirements early, e.g., National Highways, the equivalent of Transport Infrastructure Ireland, published their requirements for container and asset naming in 2014. While industry maturity in Ireland along with Government messaging since 2017 meant that such a long duration was not needed here, major public clients have not published their detailed requirements as of May 2025.

As evident from the experience of government BIM journeys in other jurisdictions, the development of client-specific asset information requirements and corresponding exchange information requirements takes considerable effort. For example, drafting of the Deutsche Bahn (German Rail) requirements took six months of work by a specialist consultancy team. The CWMF 'Core BIM Requirements' include Uniclass 2015 and Industry Foundation Classes. However, notwithstanding the input and support of the OGP and Build Digital resources, associated technical information requirements have not yet been published by Government departments in order that public clients can invest in capability development with confidence. The preparation of detailed Information Requirements by the Department of Education and the adoption of the Build Digital templates for documentation of those requirements is a positive development but these should be available to the market outside the tender process.

The International Cost Management Standard is stated as a CWMF BIM requirement. Selection of a standard for cost management was a positive step, but ACEI is not aware of BIM software vendors having integrated ICMS into their applications or of mapping between ICMS and established classification systems having been widely adopted in practice. This may lead to increased consultancy costs in the short term until software capabilities are established in the market. Also, ACEI is aware that ICMS experience is being stipulated as a pass/fail requirement in some public tenders, which is inappropriate given that it is not established within the Irish market.

ACEI is concerned that the defined national information requirements are too high level, as information requirements should communicate clear objectives and detail the use cases that government and/or public bodies stipulate. Evidence since the 2024 commencement indicates wide divergence in practical application of information requirements by public clients on major projects, with associated negative implications for cost and value.

ACEI Recommendations

ACEI supports the gradual introduction of BIM requirements on public capital works projects as set out by OGP and recommends that its members engage positively with implementation of those requirements. Indeed, ACEI has be active in recent years in consulting with OGP and Build Digital in relation to their efforts to drive this significant industry change.

Based on the concerns expressed above, ACEI recommends the following for public decision makers:

1. Government departments with responsibility for major capital project delivery collaborate to develop and publish common asset information requirements, including for classification and data exchange as necessary, and identify the use cases that should be met on publicly-funded projects.

2. In return for Government funding for BIM implementation on capital works projects, public clients and their supply chains should be required to provide input to the iterative development of common, specific information requirements, which will inform both the project on which they are working and be fed back to DPENDR and the Build Digital Project for achieving a consistent national approach. This will benefit from the knowledge and experience of larger suppliers who will be paid to input. (ACEI is aware of the funding and resource difficulties experienced by Build Digital Project, which relieslargely on paid third level institutions and voluntary supply chain inputs.)

3. OGP/ Build Digital Project periodically publishes updates to the common requirements and any associated guidance, which will gradually get more specific, albeit always subject to a public client's own project-specific requirements, working towards a point where each public client will be in a position to manage and publish their own specific information requirements.

The ACEI would welcome the opportunity to engage further with OGP and other stakeholders, including professional bodies, to reach common understanding on the current context and a common view on the optimal approach to a phased Irish BIM Mandate, thereby helping to achieve the inherent value the Mandate can bring to public clients.

WITH THANKS TO THE DIGITIALISATION AND BIM SUB-COMMITTEE:

Aonghus O'Keeffe

Marc Jones

Brian Lahiff

Siobhán Moneley

Mark Evans

Bart Barowiak

Paul McCartan

Stephen Whelan

Shane Dempsey

ACEI ASSOCIATION OF CONSULTING ENGINEERS OF IRELAND

ADDRESS:
ACEI
22 Fitzwilliam Place
Dublin 2
D02 R820
Ireland

EMAIL:
info@acei.ie