



Oifig um Sholáthar Rialtais
Office of Government Procurement

CitA Digital Transformation Series January 30th at The Alex, Fenian St, Dublin 2.

Presented by
Stephen Lynam MSc. B. Eng. MIEI
Technical Advisor Construction Contracts
The Office of Government Procurement

OGP.GOV.IE

Delivering Sustainable Procurement Solutions



Agenda

- GCCC Position Paper
- Public BIM
- Developing Standards
- Procurement
- Implementation Strategy

Roadmap



FIGURE 1. NBC ROADMAP TO 2021

Government Construction Contracts Committee

2014 Review of the public works contracts by GCCC

- Some Key Findings:
 - Poor definition of the works requirements
 - Insufficient identification of risk
 - Inappropriate risk allocation

- BIM was recognised by the GCCC as a powerful risk management tool.

Report on the Review of the Performance of the Public Works Contract

Interim recommendations for amendments to the Public Works Contracts and Medium Term Strategy for the development, procurement and administration of projects under the Exchequer Capital Programme

Government Contracts Committee for Construction

December 2014



Government Construction Contracts Committee

- The Government Contracts Committee for Construction (GCCC)
- The role of the GCCC
 - The GCCC is a forum to discuss public sector construction related issues and to provide expert advice and technical input into the development of public sector national construction procurement policy.
- Structure and membership
 - The core membership of the GCCC comprises representatives from Departments with a significant involvement in construction related activities.
- Primary outputs
 - Review of Public Works Contracts for Government approval
 - Approval body for use of alternative contracts

GCCC Position Paper

- GCCC position paper was published in on March 15th, 2017
- **Statement of Intent**

“Properly implemented, a public sector Building Information Modelling (BIM) adoption strategy will support the implementation of Government policy objectives in the procurement of public works projects, in their construction and in their maintenance upon completion.”

- **Government policy objectives:**
 - Cost certainty at tender award stage
 - Better value for money (VFM), and
 - More efficient delivery of public works projects



GCCC Position Paper

- Construction 2020 refers to;
 - Action 68
 - *Continue promotion of the Enterprise Ireland Lean Start Programme and advance construction companies onto the following stages, Plus and Transform. Implement a BIM staged development programme to support companies advancing to Level 2 BIM capability.*
 - Action 69
 - *Work with industry organisations to promote the use of BIM and develop the appropriate technical skills amongst Irish construction firms so that they can successfully compete in markets where BIM is widely adopted or a requirement.*
- Action Plan for Jobs 2017
 - Action 162
 - Prepare a strategy for the adoption of Building Information Modelling across the public capital programme and to mandate the manner in which it is to be adopted across the public sector.

GCCC Position Paper

- Public sector BIM adoption strategy
 - Government mandate
 - The Government has decided to Mandate BIM on a phased basis
 - 1) to ensure that public bodies invest the necessary resources to adopt BIM in line with the strategy and
 - 2) to impose standards for delivery across the public sector.
- New European Standards are in development and publication
 - e.g. EN ISO 19650- Series

Public BIM

- Public BIM was set up in 2016 as a representative Group of Public/Civil/Semi State and State Bodies that have an interest in Construction Procurement Utilising BIM.
- Public BIM operates under the auspices of a dedicated GCCC sub-committee both of which are chaired by OGP
- It represents the views of public sector project practitioners on the implementation of BIM
- It is a sounding board and networking group
- It provides a platform for Guest Speakers on industry related topics

Public BIM

- Public BIM meets approximately 7/8 times a year (or when necessary)
- The production of a BIM Protocol or contract clauses tailored for use with the public works contract has been prioritised as an output by the Public BIM Group
- The Group have conducted a preliminary overview of the new CIC Protocol Second Edition to examine its' potential for it to be used in Ireland
- The review has identified some issues with the protocol for use in Ireland related to Intellectual Property Rights (IPR).

Public BIM

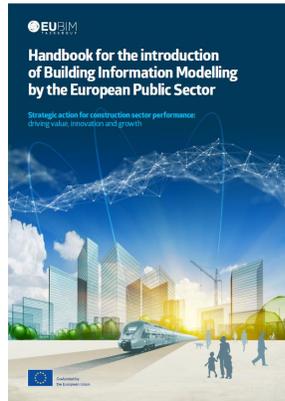
- Public BIM ethos is to help standardise the approach of BIM implementation across the Public Sector for works contracts
- To develop procedures for the implementation of BIM
- To develop a documentation suite for implementation of BIM based on best international practice
- It can prepare proposals for the GCCC for Government approval
- It can collaborate with industry stakeholders to develop best practice

Developing Standards

As a Member of the European Union there are International Standards such as EN ISO 19650 series, (currently been published), that will have an impact on a Digital Transition of the Construction Sector in Ireland

The EU BIM Taskgroup have produced the “Handbook for the Introduction of Building Information Modelling by the European Public Sector - Strategic action for construction sector performance: driving value, innovation and growth ”

The Handbook is aimed at



Public Policy User



National Or Local Public Client/ Procurer User



Operator User

- Public policy user Involved in the development of policy for infrastructure or construction sectors
- National or local public client/procurer user Primarily concerned with procurement of services
- Operator user Responsible for the on-going management and operation of the built asset or environment

Developing Standards

The NSAI (National Standards Authority of Ireland) is Ireland's official standards body. They operate under the National Standards Authority of Ireland Act (1996) and are accountable to the Minister for Business, Enterprise and Innovation.

This includes the transposition of European Standards to the Irish market and the drafting of any National Annexes applicable in Ireland.

- The NSAI acknowledges the recent publication of the National BIM Council's:
 - Roadmap to Digital Transition for Ireland's Construction Industry 2018-2021
 - as well as the Irish Government's Announcement to Increase use of Digital Technology in Key Public Works Projects.

Current Standards: extensive and growing suite of BIM standards

BIM Certification

- NSAI intend to offer third party certification to ISO 19650 when it becomes available. Any work an organisation does in adhering to the existing PAS 1192-2 will not go unrecognised as much of PAS 1192-2 will be reflected in the new ISO 19650 when published by ISO.

For more information see www.nsai.ie

Procurement

There are 2 distinct Policies when combined form the procurement principals for Public Construction Procurement.

1. Public Spending Code

- [A – General Provisions](#), [B – Appraisal And Planning](#), [C – Implementing And Post Implementation](#)
- [D – Standard Analytical Techniques](#), [E – Technical References](#)

2. Capital Works Management Framework

Stage 0 – Administration Appraisal

Stage 1 – Feasibility Study

Stage 2a – Scheme Design

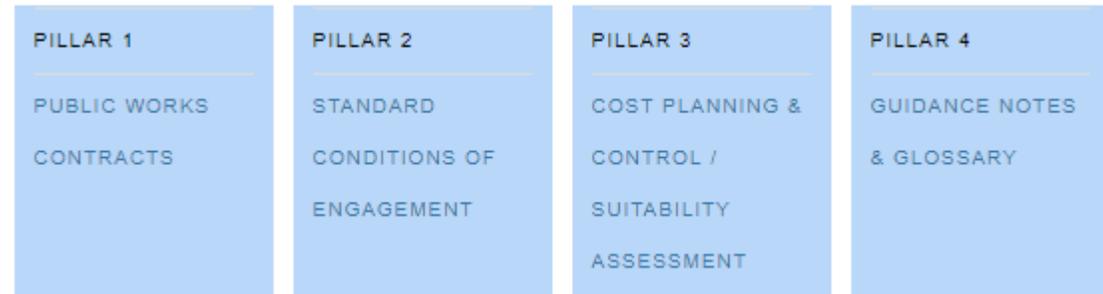
Stage 2b – Detail Design

Stage 3 – Tender

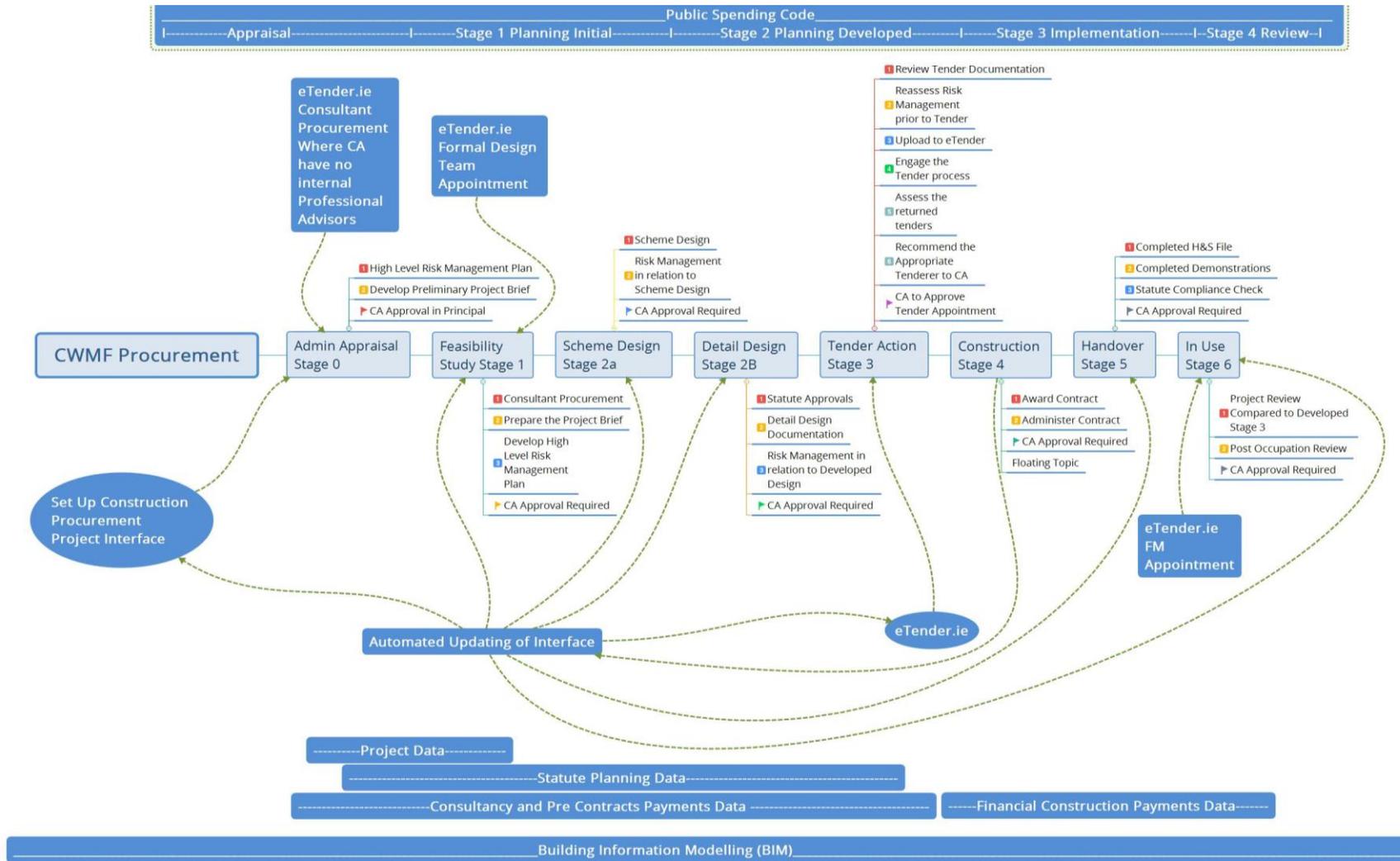
Stage 4 – Construction

Stage 5 – Handover

Stage 6 – In Use/Maintenance



Implementation Strategy

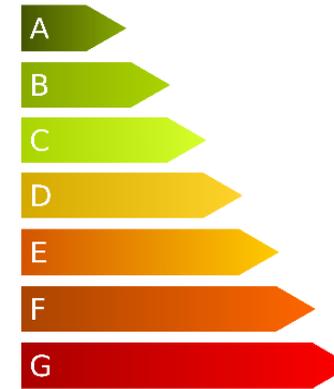


BIM and the Public Procurement Process



Implementation Strategy

- How does it work?
 - The CWMF set out to achieve the following:
 - Cost certainty at tender award stage
 - Better value for money, and
 - More efficient delivery of public works projects



Implementation Strategy

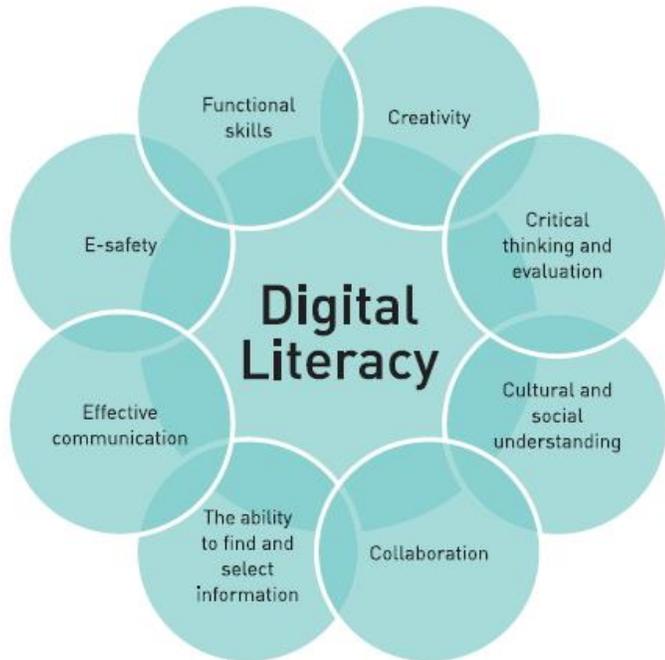


Table 1 – Indicative BIM implementation timeline – Period (months) from Government mandate to the introduction of BIM requirements in contract notices

Department/ Public Body	Sub-sector	Band 5	Band 4	Band 3	Band 2	Band 1
D. Ag & Marine		-	-	-	+ 36	+ 18
D. Defence		-	+ 18	+ 24	+ 36	+ 48
D. Education	Primary	-	+ 18	+ 24	+ 36	+ 48
	Secondary	-	+ 18	+ 24	+ 36	+ 48
	Third Level	+ 12	+ 18	+ 24	+ 36	+ 48
D. Health	HSE	+ 12	+ 18	+ 24	+ 36	+ 48
	Vol. Hospitals	+ 12	+ 18	+ 24	+ 36	+ 48
D. Housing	Housing	-	+ 18	+ 24	+ 36	+ 48
	Non-housing	+ 12	+ 18	+ 24	+ 36	+ 48
Office of Public Works	Heritage	+ 24	+ 30	+ 36	+ 48	-
	Flood Risk Management	-	-	-	+ 36	+ 18
	New Build	+ 12	+ 18	+ 24	+ 36	+ 48
Transport Infrastructure Ireland	Rail	+ 12	+ 18	+ 24	+ 36	+ 18
	Road	+ 12	+ 18	+ 24	+ 36	+ 18

Indicative phasing concept from GCCC Position paper. BIM implementation is to be phased to accommodate the training and knowledge base in the Irish Construction Sector.

Implementation Strategy

How will it work for Public Sector Projects?

Band 1 – low complexity projects with straightforward operation and maintenance requirements

- Small schools, low density housing projects and simple civil engineering projects. They should have simple operation and maintenance requirements.

Band 2 – medium complexity projects with straightforward operation and maintenance requirements

- School buildings, low rise apartment schemes, civil engineering projects involving simple structures. They should have simple operation and maintenance requirements.

Band 3 – medium complexity projects with particular operation and maintenance requirements

- Third level educational facilities, high density apartment schemes, primary care centres. They should have particular operation and maintenance requirements, e.g. regular service requirements for mechanical or electrical equipment.

Band 4 – complex projects with particular operation and maintenance requirements

- Specialist third level facilities, hospitals, complex civil engineering structures e.g. large span bridges. They should have particular operation and maintenance requirements, e.g. regular service requirements for mechanical or electrical equipment.

Band 5 – complex projects with a specialist operation and maintenance regime.

- Acute hospitals, laboratories, specialist civil engineering structures e.g. light rail. They would typically have specialised operational requirements and/or planned maintenance.

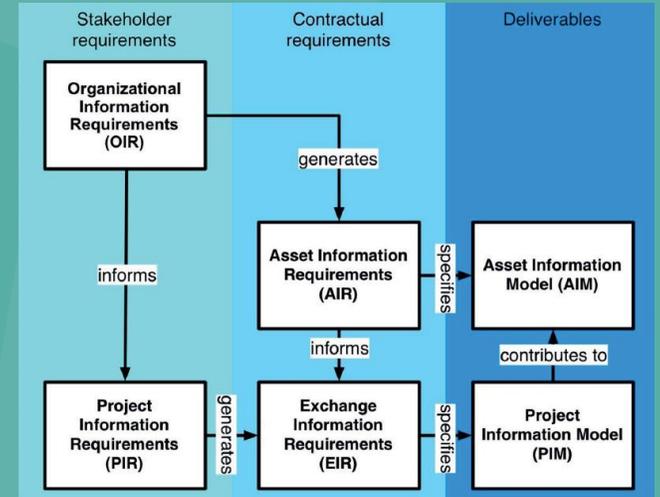
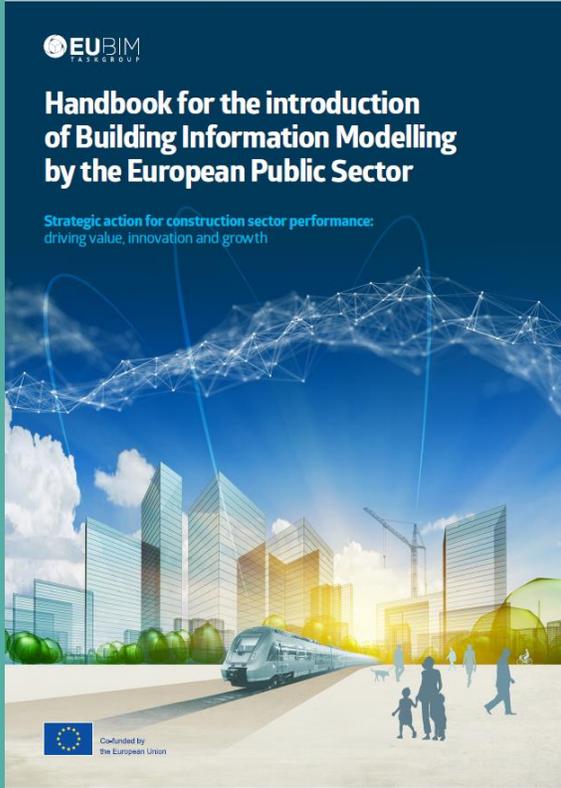
Implementation Strategy

What the Irish Construction Sector needs to do!

- Prepare a Procurement Strategy
- Appropriately define the BIM requirements.
- Manage Risk
- Define a Digital Plan of Works – Produce the right information in the right format at the right time throughout the entire project.
- Define a Classification System
- Systemise efficiencies
- Develop new professional skills – Training and Resources
- Centralise open resources

Participation of the Professional bodies and from Government to develop user friendly BIM toolkits will benchmark BIM in the Irish Construction Sector

Thank You For Your Time



Questions or RFI's!!!!



Roadmap to Digital Transition

For Ireland's Construction Industry 2018-2021

References

- Hore, A., McAuley, B. and West, R. (2017) BIM in Ireland 2017, BIM Innovation Capability Programme, CITA Ltd.
- Government, Construction 2020(2014), A Strategy for a Renewed Construction Sector.
- National Bim Council (2017), Roadmap to Digital Transition For Ireland's Construction Industry 2018-2021
- GCCC Position Paper (2017), BIM-Adoption-Strategy-Statement-of-Intent, CPP 01/17
- EU BIM Taskgroup (2017), Handbook for the Introduction of Building Information Modelling by the European Public Sector, Strategic action for construction sector performance: driving value, innovation and growth
<http://www.eubim.eu>
- DRAFT INTERNATIONAL STANDARD ISO/DIS 19650-1:2017(E). Organization of information about construction works — Information management using building information modelling —Part 1:Concepts and principles
- DPER (2014) *CWMMF –Construction Procurement Reform* [Online]. Available:
<http://constructionprocurement.gov.ie/capital-works-management-framework/> [Accessed 09/10/2018]
- NSAI Briefing Note on BIM, Available: <https://www.nsai.ie/about/news/nsai-briefing-note-on-bim-building-information-modelling-standards/> [Accessed 08/10/2018]



Oifig um Sholáthar Rialtais
Office of Government Procurement



 An Roinn Caiteachais Phoiblí
agus Athchóirithe
Department of Public
Expenditure and Reform



Rialtas na hÉireann
Government of Ireland

Delivering Sustainable Procurement Solutions



ogp.gov.ie



support@ogp.gov.ie



+353 76 100 8000



[@procurement_ie](https://twitter.com/procurement_ie)