



Oifig um Sholáthar Rialtais  
Office of Government Procurement

# BIM Implementation Public Sector

Gathering' 23 and Digital Acceleration Series

BIM Update 28<sup>th</sup> September 2023



# Delivering BIM Requirements for Public Works Contracts

Gathering '23 and Digital Acceleration Series  
20<sup>th</sup> September 2023

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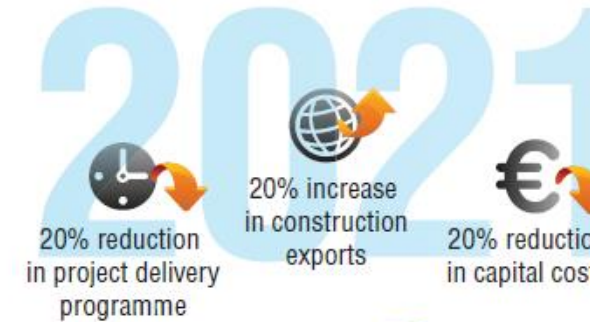
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# Agenda

- Introduction
- Public Sector BIM Implementation Strategy
- Where does BIM Start for Public Works Projects?
- Client's Role
- Opportunities for Irish Construction Sector

# Roadmap

## Digital Roadmap 2021 Construction Sector



## CitA BIM Gathering 2023

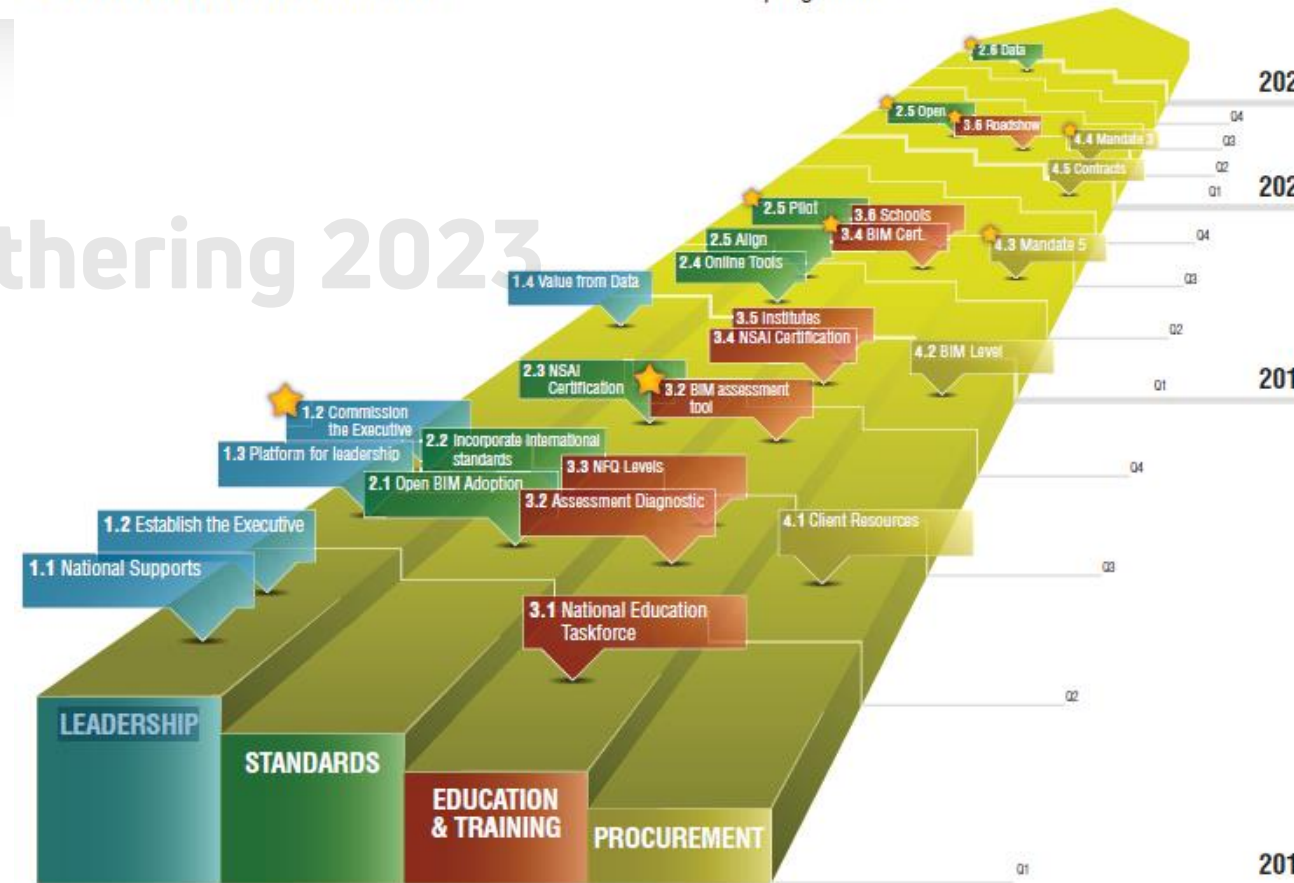


FIGURE 1. NBC ROADMAP TO 2021

# Introduction

- Public infrastructure procurement is governed by the Capital Works Management Framework (CWMF) using Public Works Contracts (PWC)
- Our objective in adopting BIM processes into the CWMF is to promote the production of **High Quality Information** for use throughout a project's lifecycle.
- We are interested in the capacity of BIM to transform the design, procurement, construction and operation of public buildings and infrastructure from the point of view of the **environment**, quality, time and cost.
- We have developed a strategy that encompasses different aspects across 3 phases – design, construction and operation
- We have identified deliverables to assist the transition to BIM for construction that will be used by the Public Sector and may be used by the Private Sector.



# Public Sector BIM Implementation Strategy

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There are two **aspects** to the strategy:

Aspect 1 – Imposing standards for information across all stages of a project's life cycle.

- Imposing Standards through the Capital Works management Framework – OGP – Ministerial (Ministers Donohoe and Smyth) [announcement](#) on the 4<sup>th</sup> July 2023 regarding the timeline for BIM Adoption.
- BIM requirements will be introduced into the CWMF from January 2024. It will begin with large projects where the capacity to respond to BIM requirements is already reasonably well established.
- BIM requirements will initially apply to higher value projects – over €100 million – and cascade down to projects below €1 million over a 4 year period.
- ISO 19650 series will be adopted into the CWMF on a phased basis to impose standards on information for project delivery across the public sector.
- Setting minimum information requirements for all stages of the CWMF



# Public Sector BIM Implementation Strategy

Aspect 2 – Supporting public bodies in the adoption of BIM:

- Series of masterclasses – 66% concluded – OGP Next Masterclass on 10<sup>th</sup> October 2023 – HR and IT – Civil and Public Service only.
- Contract Amendments/Protocol - under consideration – OGP
- Developing minimum standards for pre-qualification\* – OGP/BD/NSAI
- BIM specific templates & guidance – OGP/BD November 23
- Training – BD/Others

\*Certification of BIM Capability through NSAI



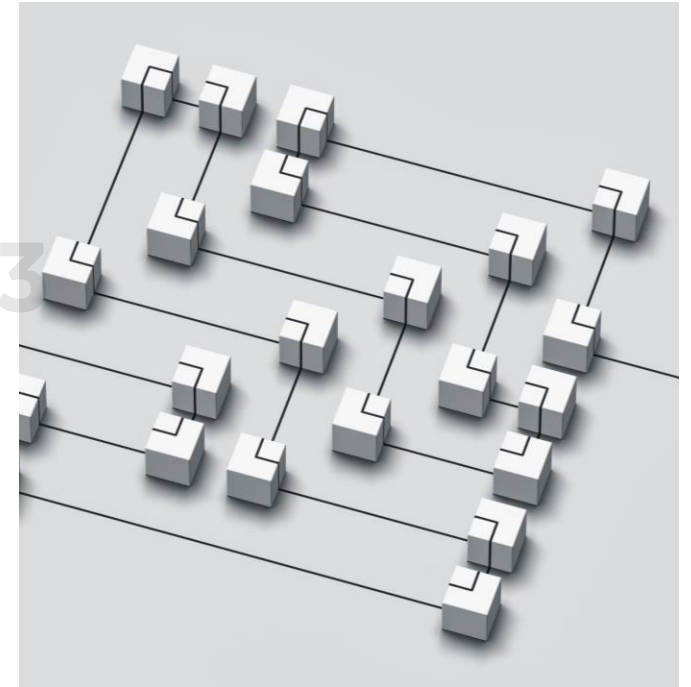
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# Public Sector BIM Implementation Strategy

The two **aspects** to the strategy:

1. Imposing standards for information across all stages of a project's life cycle.
  1. ISO 19650: 1 Part 1: Concepts and principles. Required
  2. ISO 19650: 2 Part 2: Delivery phase of the assets. Required Use of Irish Annex
  3. ISO 19650: 3 Part 3: Operational phase of the assets. Required
  4. ISO 19650: 4 Part 4: Information exchange. Required
  5. ISO 19650: 5 Part 5: Security-minded approach to information management. Optional
  6. ISO 19650: 6 Part 6: Health and Safety. [Under development, Required when published]
2. Supporting public bodies in the adoption of BIM.
  1. The OGP in collaboration with Build Digital are developing BIM templates for use with Public Works Contracts and they will be available November 2023  
Templates include
    1. Exchange Information Requirements (EIR)
    2. Organisational Information Requirements (OIR)
    3. Asset Information Model (AIM)
    4. Project Information Requirements (PIR)



# Public Sector BIM Implementation Strategy

There are three phases to the strategy:

CWMF stages

Phase 1: (i) Inception to (iii) Tender Action (Initial Delivery Stage Jan 24)

Phase 2: (iv) Construction to (v) Handover (Secondary Stage Jan 25)

Phase 3: (vi) Asset Ownership. (Secondary Stage Jan 25)





# Public Sector BIM Implementation Strategy

## Phase A – CWMF Stages (i) – (iii):

- Mapping information requirements in stages (i) – (iii) – OGP
- Establishing the LOIN requirements for stages (ii) – (iii) – OGP
- Determining draft RACI (Responsibility) matrix for information delivery stages (i) – (iii) – OGP/Stakeholders – ICMS structure for CWMF Stages for Consultants
- Inclusion of BIM delivery requirements into scope of service for consultants – OGP/Stakeholders
- Publish template Scope of Service, Fee Breakdown, Amended Conditions of Engagement – OGP
- Publish guidance for CWMF requirements – OGP

Mandatory use of BIM  
starting on large  
projects (>€100m)

1<sup>st</sup> January 2024

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# Public Sector BIM Implementation Strategy

## Phase B – CWMF Stages (iv) – (v):

- Mapping information requirements in the above stages – OGP
- Establishing the LOIN requirements for both stages – OGP
- Determining draft RACI (responsibility) matrix for information delivery for both stages – OGP/Stakeholders
- Inclusion of BIM delivery requirements into Works Requirements for Contractors – OGP
- Publish template amended public works contract – OGP
- Publish guidance for CWMF requirements – OGP

Mandatory use of BIM  
starting on large  
projects (>€100m)

1st January 2025

# Public Sector BIM Implementation Strategy

## Phase C – CWMF New Stage (vi):

- Setting reporting requirements for asset operators – OGP
- Conducting reviews of asset in operation vs design objectives – Contracting Authorities (Appointing Party).
- Making recommendations for improvements in delivery stages (i) – (v) – OGP/Contracting Authorities (Appointing Party)

Mandatory use of BIM starting on large projects (>€100m)

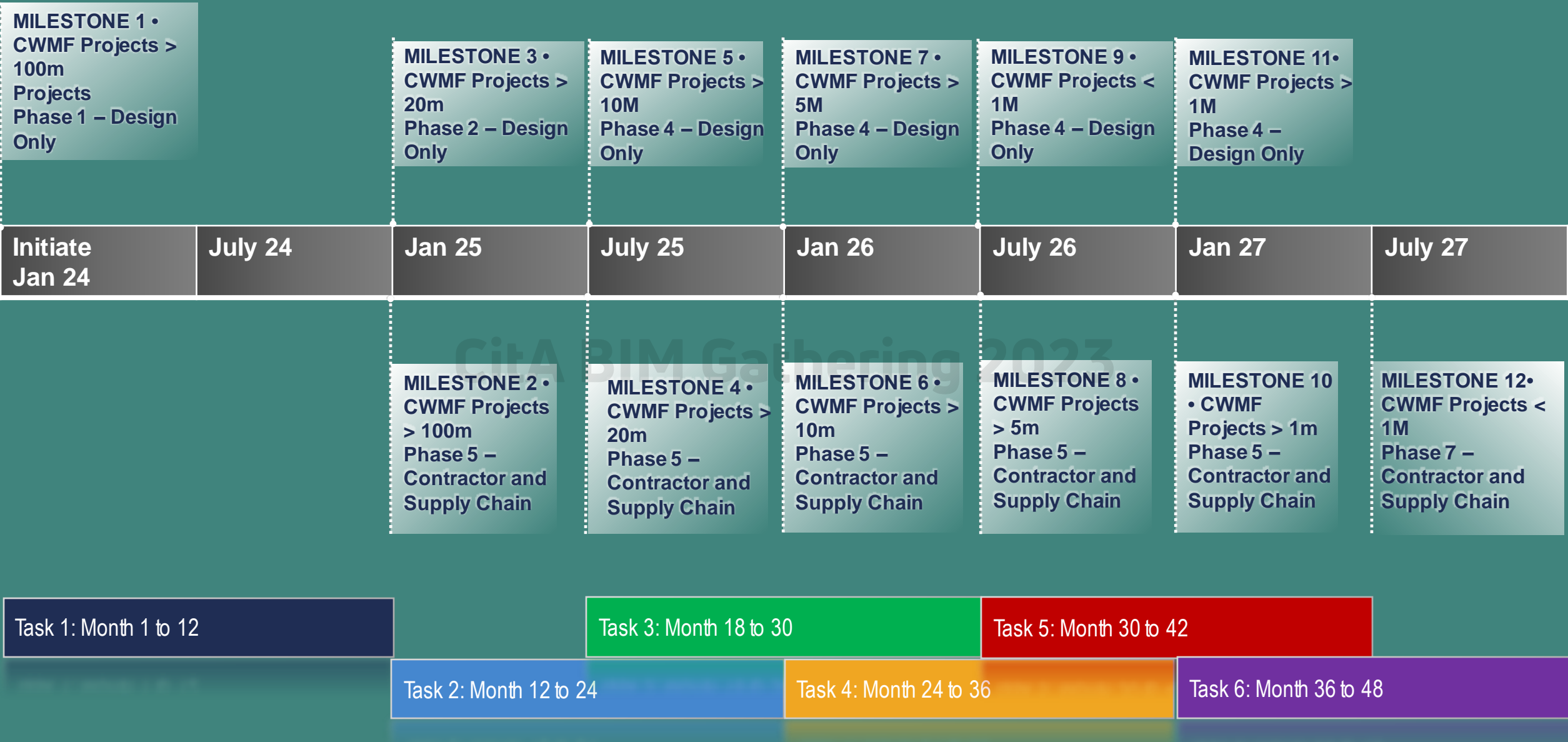
1st January 2025

# Project Requirements initial BIM Implementation

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| Task   | Project Value | Month          |
|--------|---------------|----------------|
| Task 1 | > 100m        | Month 0 to 12  |
| Task 2 | > 20m         | Month 12 to 24 |
| Task 3 | > 10m         | Month 18 to 30 |
| Task 4 | > 5m          | Month 24 to 36 |
| Task 5 | > 1m          | Month 30 to 42 |
| Task 6 | < 1m          | Month 36 to 48 |

# BIM IMPLEMENTATION TIMELINE



# Where does BIM Start for Public Works Projects?

- **BIM Commences with the clients need to Plan, Authorize, Develop and Deliver Assets.**
- **Understanding the information required to evolve an asset is key.**
- **Providing the resources to evolve the asset is critical.**
- **OGP BIM Awareness Series Seminars**
  - Asset Management - Based on a Standard (ISO55000 or Similar) Complete 25/01/2022
  - Information Manager 29/03/2022
  - IT Resources and Technology 10/10/2023 on One Learning Portal



# Where does BIM Start?

## Public Sector BIM Implementation Strategy

- Aspect 1 – Imposing Standards - OGP:
    - ISO 19650 series will be adopted into the CWMF on a phased basis to impose standards on information requirements for project delivery across the public sector.
    - Setting minimum information requirements for all stages of the CWMF
  - Aspect 2 – Supporting Clients:
    - Series of masterclasses – 66% concluded – OGP
    - Template for use with contracts –
    - Developing minimum standards for pre-qualification\*
    - BIM specific templates & guidance
    - Frameworks for IT hardware & software
    - Training
- \*Certification of BIM Capability through NSAI

# Client Role - assign the information Management Role.

- **What skills does the information Manager role need?**
- It is important to ensure that individuals have the necessary skills and behaviours to fulfil the activities and tasks they have been allocated as part of the information management function. Competencies of individuals across a task team should be considered to ensure the most appropriate individual(s) is selected when allocating specific activities and tasks.
- **Technical**
- Project delivery experience of projects of a similar scale and complexity including understanding of typical roles and responsibilities and understanding of contracts
- Understanding and application of appropriate national and international standards related to information management and BIM
- Software skills (appropriate to the information management activities and tasks).
- **Non-technical**
- Resilience (to engage with and encourage behavioural change)
- Planning and organization
- Research and investigating
- Analysis and problem solving
- Initiative/independence
- Results driven/quality orientation. It is vital that individuals possess good communication skills and understand the importance of teamwork to improve collaborative working.

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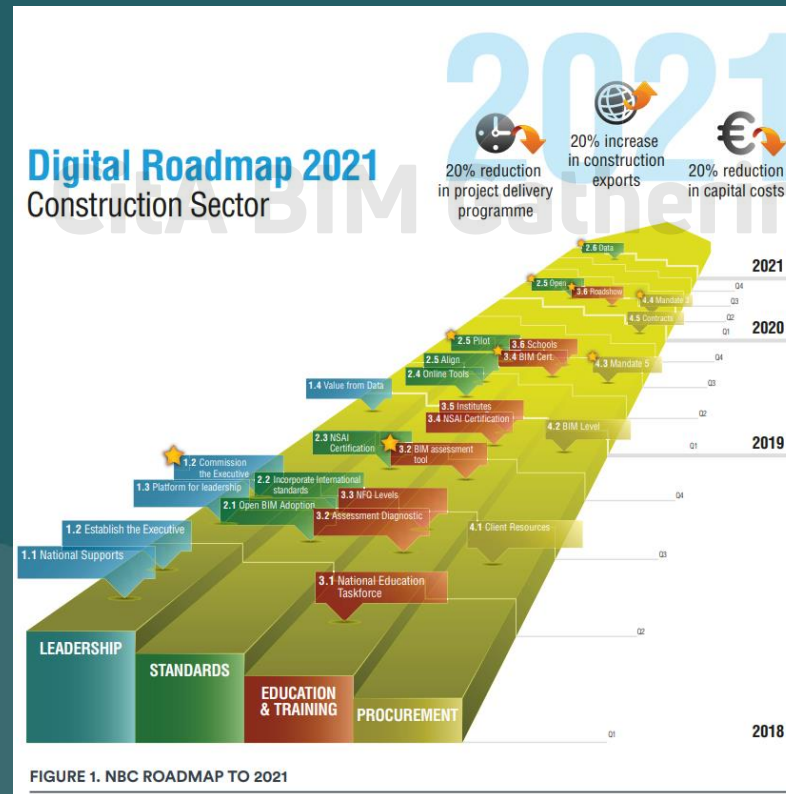
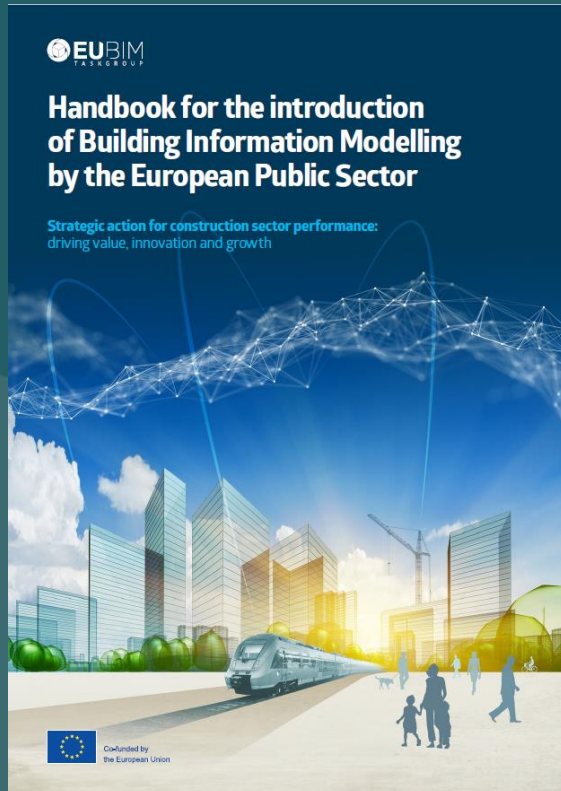
# Opportunities for Irish Construction Sector

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- Develop a new approach to asset acquisition
- Develop new skills for project design
- Develop new skills for project delivery
- Develop new skills for asset management
- New career paths in Information Management
- Unified approach for Public and Private Sector projects
- Bring Construction Sector into a Digital domain.



# Thank You For Your Time



## Roadmap to Digital Transition

For Ireland's Construction Industry 2018-2021



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