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# Introduction

This document has been produced as a guide to assist with the creation of a regional or national building information modelling (BIM) guide, should it be required. It identifies the recommended minimum contents and purpose of each section.

This guide will assist with the creation of the initial collaboration framework, aligned with ISO 19650 series and recommendations of best practices in other jurisdictions. It has been divided into three sections, which are aligned with ISO 19650–1:2018 and ISO 19650–2:2018 standards, which cover the minimum content. These are as follows:

1. **Building information modelling (BIM) overview**

This section provides information about what the relevant government expects from all organisations and how their projects need to align with the minimum requirements of the ISO 19650 series and a BIM project.

1. **Procurement**

This section provides a description of all procurement process and activities related to projects.

1. **Delivery**

This section provides a guide to the different requirements in terms of the process, people, skills and technical aspects required to comply with the adoption of the ISO 19650 series.

The recommend subject areas to be covered in each section have been identified as possible subsection headings.

# Overview

## Introduction

2.1.1 What is building information modelling (BIM)?

2.1.2 Why is a building information modelling (BIM) guide for publicly procured projects necessary?

Explain what building information modelling (BIM) is and why a guide is required for implementation on publicly procured projects.

## Guide objective

Define the purpose of the guide and the target audience.

2.2.1 Objective of a common building information modelling (BIM) guide

2.2.2 Alignment with international standards

2.2.3 Scope

## Building information modelling (BIM) implementation

2.3.1 Building information modelling (BIM) benefits

2.3.2 Adoption considerations

As building information modelling (BIM) adoption could potentially incur some cost (training, software, etc.), it is important to highlight the benefits of investing.

Then outline areas of consideration when adopting building information modelling (BIM).

## BIM toolkit framework

2.4.1 Technical framework hierarchy

2.4.2 Current state of the framework

Describe/illustrate where this guide belongs in the hierarchical framework (pyramid) of the BIM toolkit. Explain how the documents fit together and their current state.

## Typical information delivery life cycle

2.5.1 Information delivery cycle

2.5.2 Information delivery milestones

Describe how the ISO 19650 series relates to an asset’s life cycle. Express the regional/national project stages and the principle of establishing information delivery milestones.

## Information purpose

2.6.1 Information purpose:

* Design coordination
* Scheduling and programming
* Quantity surveying
* Performance and sustainability
* Operations and maintenance

This section should help to identify and describe potential uses of information, which is to assist the user(s) to understand how to develop and respond to information requirements.

## Information management functions

Provide an understanding of the parties and teams involved in information management and production of information.

Illustrate and provide a plain language explanation of the expected workflow of information exchanges between teams.

2.7.1 Information management functions

2.7.2 Delivery team information workflow

## Terms and definitions

2.8.1 ISO 19650 terminology

2.8.2 Building information modelling (BIM) terminology

Provide a glossary of all the terms and definitions of the ISO 19650 series terminology. This could include corresponding regional/national terminology.

# Procurement

## ISO 19650 series invitation to tender process

3.2.1 Information requirements hierarchy

3.2.2 Organisational information requirements (OIR)

3.2.3 Assessment and need

3.2.3.1 Asset information requirements (AIR)

3.2.3.2 Project information requirements (PIR)

3.2.3.3 Information standards

3.2.3.4 Information production methods and procedures

3.2.4 Invitation to tender

3.2.4.1 Information security requirements

3.2.4.2 Exchange information requirements (EIR)

3.2.4.3 Responsibility matrix

3.2.4.4 Information management functions

3.2.4.5 Level of information need (LOIN)

Define the principles of information requirements, describing the generation of the organisational information requirements (OIR) and the subsequent ‘assessment and need’ process of generating the information requirements for the delivery phase of a project.

This should include the workflow to prepare the asset information requirements (AIR), project information requirements (PIR) and exchange information requirements (EIR) using the BIM toolkit templates.

Consider information security requirements in each of the above documents, aligned with ISO 19650–5:2020.

This section includes standards, methods and procedures, including the reasons and benefits of a standardised modelling approach.

### Pre-qualification questionnaire

This section incorporates a series of optional bidding questions and an example of a technical criteria evaluation using weighted scoring method and pass/fail method.

3.3.1 Capability and capacity assessment

3.4.1 Acceptance criteria

3.4.1.1 Project mobilisation

## Tender response and appointment

Explain the function of a BIM execution plan (BEP), including responsibilities and the process between tender and appointment.

Discuss the information delivery plans and associated documents, referencing the BIM toolkit templates.

3.5.1 Pre-appointment BIM execution plan (pre-BEP)

3.5.1.1 Task information delivery plan (TIDP)

3.5.1.2 Delivery team detailed responsibility matrix (DTDRM)

3.5.1.3 Information delivery risk assessment

3.5.2 Appointment

3.5.2.1 Delivery team’s BIM execution plan (BEP)

3.5.2.2 Master information delivery plan (MIDP)

# Production of information

## Collaborative process

4.1.1 Benefits and principles of collaborative working

4.1.2 Reference information and shared resources

4.1.3 Information production

4.1.4 Collaborative working and coordination process

4.1.5 Information model delivery

Explain why improved collaboration and coordination are needed in the construction industry.

Define the project information management functions that must be undertaken to meet the information requirements.

## Common data environment (CDE)

4.2.1 Common data environment (CDE) principles

4.2.1.1 Benefits

4.2.1.2 Key components of CDE

4.2.2 Workflows and verification

4.2.3 Considerations

Provide an explanation of a common data environment (CDE), including its benefits and recommend minimum functionality (metadata, etc.).

Describe the typical responsibilities and workflows associated.

Outline any areas that will need to be addressed, for example, access, security, automation.