

EXECUTIVE SUMMARY

# BIM PLAN

for Public Procurement



# 1 Why develop a BIM Plan for Public Procurement?

There are two main goals behind incorporating BIM (Building Information Modelling) in public procurement in Spain:

- 1) **To improve the efficiency of public spending.** *Studies on the use of BIM suggest that digitising engineering, construction, and operation processes could lead to savings of 10–20% on spending for building and infrastructure projects.*
- 2) **To facilitate the Spanish construction sector’s digital transformation.** The construction sector is largely made up of Small and Medium-sized Enterprises (SMEs), which are the least digitised of all Spanish SMEs, and *BIM has been identified as a leading digitisation technology for the construction sector by the European Commission.*

# 2 BIM figures in public procurement

In 2022, BIM was applied in Spain for 1.4% of the public procurement of the National Public Administration and its dependent bodies, which accounted for 190 contracts, with a total value of €761 million. Estimates suggest that BIM’s potential implementation could reach between 20% and 25% of the National Public Administration and dependent bodies public procurement.

# 3 BIM Plan approval

BIM Plan for Public Procurement, as proposed by the Interministerial Commission for the Incorporation of the BIM Methodology in Public Procurement (CIBIM), was **approved by the Council of Ministers** at its meeting on 27 June 2023.

# 4 Scope of the BIM Plan

BIM Plan instructs contracting authorities on how to incorporate BIM in construction-related public contracts, according to a progressive BIM implementation schedule in line with the estimated contract value.

# 5 Binding nature of the BIM Plan

The Plan is an **internal instruction**, mandatory for the contracting authorities of the National Public Administration and its dependent bodies, and a **recommendation** for contracting authorities in the rest of the State public sector entities.

Contracting authorities **may waive** the use of BIM in a contract under exclusion grounds as cases in which its use could limit the number of tenderers, urgency, reasons not attributable to the contracting authority, efficiency or profitability loss, life cycle considerations, or State security reasons.

# 6 SME participation in BIM public procurement

In Spain, micro-sized enterprises account for 95.48% of the construction sector, and SMEs in construction are considered the least digitised company type.

The Plan was designed with the construction sector structure in mind, **to prevent the adoption of BIM from restricting the participation of economic operators in public procurement. In this regard, the Plan foresees a gradual and progressive use of BIM, establishing the use of open standards as a general criterion.**

# 7 Gradual incorporation of BIM in public procurement

Compulsory use of BIM has been designed considering three variables:

- It only applies to public contracts above a certain estimated contract value.
- It is designed as a progressive milestones calendar, from 2024 to 2030.
- It requires 5 increasing levels of BIM implementation, clearly defined by the BIM Plan for Public Procurement, to be reached in the progressive calendar milestones.

## BIM Levels

BIM Plan for Public Procurement defines **5 BIM levels** (pre/non-BIM, early, intermediate, advanced, and integrated level) that serve as a roadmap for the gradual incorporation

of BIM and may be a reference for listing actions that contracting authorities need to take to incorporate BIM.

## BIM information requirements

The Plan details, for each BIM level, the minimum requirements for the use of BIM.

Contracting authorities shall incorporate BIM information requirements **in the technical specifications of the procurement document.**

Additionally, the contracting authority may request BIM considerations as a technical and professional ability, as an award criterion, or as a contract performance condition, among others, if deemed appropriate.

Estimated contract value thresholds	Compulsory application date			
	1 April 2024	1 October 2025	1 October 2027	1 April 2030
Equal to or greater than €5.538.000*	Early level	Intermediate level	Advanced level	Integrated level
Less than €5.538.000* and equal to or greater than €2.000.000	Recommended early level	Early level	Intermediate level	Advanced level

\* Updated amount applicable as of January 1st, 2024.









# 8 BIM Plan Guidance Material

CIBIM will facilitate the use of BIM in public procurement by carrying out actions in the areas of strategy, people, processes, and technological support. In particular, CIBIM will publish the following guidance material:

- **Guide for Public Procurement with BIM Information Requirements.**
- **Guide for the Standardisation of BIM information requirements in public procurement.**

# DEFINITION OF BIM LEVELS

## MINIMUM REQUIREMENTS

	STRATEGY	PROCESSES		TECHNOLOGY		PEOPLE		
	 Strategy	 Work procedures required under the contract	 Party coordination	 Contract information	 Common data environment (CDE)	 File formats	 Contracting authority training	 Tenderer training
<b>1</b> PRE/NON-BIM	No strategy for using BIM in contracts.	No procedures required for contract information management.	Face to face meetings, virtual meetings and emails.	Visual information, such as CAD drawings, not linked automatically to data contained in other files.  No use of BIM models.	No common repositories for contract information management.	No standards.	No staff with knowledge of BIM required.	No staff with experience in contracts with BIM is required.
<b>2</b> EARLY	BIM pilot projects or isolated tenders.	Based on quality management systems (UNE-EN ISO 9000 or equivalent).	No need to be carried out through CDE.	CAD drawings and BIM models for obtaining drawing documentation and for 3D coordination uses.	Access controlled common repository. + Rules for standardised file and folder naming.	Formats based on open standards. IFC according to UNE-EN ISO 16739 or equivalent for BIM models.  Proprietary formats may also be required.	At least one person is trained on BIM and acts as BIM contract manager.	Human resources with experience in BIM requirements for contracts are required.
<b>3</b> INTERMEDIATE	Plan for using BIM within design and construction phases.	Based on quality management systems (UNE-EN ISO 9000 or equivalent). + Specific BIM guides or manuals from CIBIM and recognised organisations.	This is carried out through CDE.	BIM models for use in obtaining plans, 3D coordination and measurements.  CAD information or drawings not obtained from the model can be allowed.	Access controlled common repository. + Rules for standardised file and folder naming. + Information Workflows and Information States defined, aligned with UNE-EN-ISO 19650.	Formats based on open standards. IFC according to UNE-EN ISO 16739 or equivalent for BIM models.  Proprietary formats may also be required.	All staff involved in the contract are trained in BIM. A BIM contract manager is defined.	Human resources with experience in BIM requirements for contracts are required.
<b>4</b> ADVANCED	Plan for using BIM within the entire life cycle and across departments.	Based on information organisation and digitisation systems (UNE-EN ISO 19650 or equivalent). + Specific BIM guides or manuals from CIBIM and recognised organisations.	This is carried out through CDE, with simulations and validations.	BIM models for use in obtaining plans, 3D coordination, measurements, maintenance or conservation and operation and asset management.  BIM object libraries are managed and used.  Residual CAD information or drawings not obtained from the model can be used.	Technological solution specifically designed as a CDE according to UNE-EN ISO 19650 with various features. + Rules for standardised file and folder naming.	Formats based on open standards. IFC according to UNE-EN ISO 16739 or equivalent for BIM models.  For IFC model related communications, use BCF format or equivalent.  Proprietary formats may also be required.	All staff involved in the contract are trained in BIM in compliance with UNE-EN ISO 19650. + Previous experience in BIM managed contracts. A BIM contract manager is defined.	Human resources with experience in BIM modelling and project or site management are required.
<b>5</b> INTEGRATED	Systematic procedure for integrating innovative contract management processes.	Procedures certified under UNE-EN ISO 19650 or equivalent. + Specific BIM guides or manuals from CIBIM and recognised organisations. + Information delivery manual based on UNE-EN ISO 29481 or equivalent.	This must be carried out through CDE only, with simulations and validations.	BIM models for any use.  BIM object libraries are managed and used.  CAD information or drawings not obtained from the model can be used residually.	Technological solution specifically designed as a CDE according to UNE-EN ISO 19650 with various features. + Rules for standardised file and folder naming. + Data access through web services.	Open standards-based formats are always used. IFC according to UNE-EN ISO 16739 or equivalent for BIM models.  For IFC model related communications, use BCF format or equivalent.	+ All staff involved in the contract are trained in BIM in compliance with UNE-EN ISO 19650. + Previous experience in BIM managed contracts. BIM contract manager with 3 years of experience managing contracts with BIM is identified.	Human resources with experience in BIM modelling and project or works management of at least 3 years are required and implementing UNE-EN ISO 19650 and its use in contracts will be valued.

BIM LEVELS

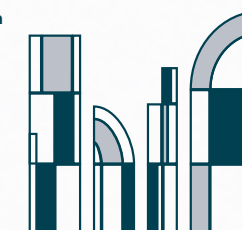


The Spanish Ministry of Transport and Sustainable Mobility, through the Viceminister's Office, has led the implementation of BIM within public procurement at national level:

- Leading the creation of an **informal public-private forum** in July 2015 for BIM deployment and technical documentation development.
- Creating a **BIM Observatory for public tenders** to monitor the use of BIM in public contracts in 2017.
- Chairing **CIBIM**, the Interministerial Commission for the Incorporation of the BIM Methodology in Public Procurement set up by the Council of Ministers in 2018, supported by a BIM specialists Technical Committee from the public and private sectors.

CIBIM, supported by the Technical Committee together with the sector, and with technical assistance from the Technical Support Instrument of the European Commission, drew up the **BIM Plan** for Public Procurement, which was approved by the Council of Ministers on 27 June 2023.

More information can be downloaded at:



BIM. We build together