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FIDIC and digital technologies in
construction project management

Building information
modelling

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FIDIC

stands for

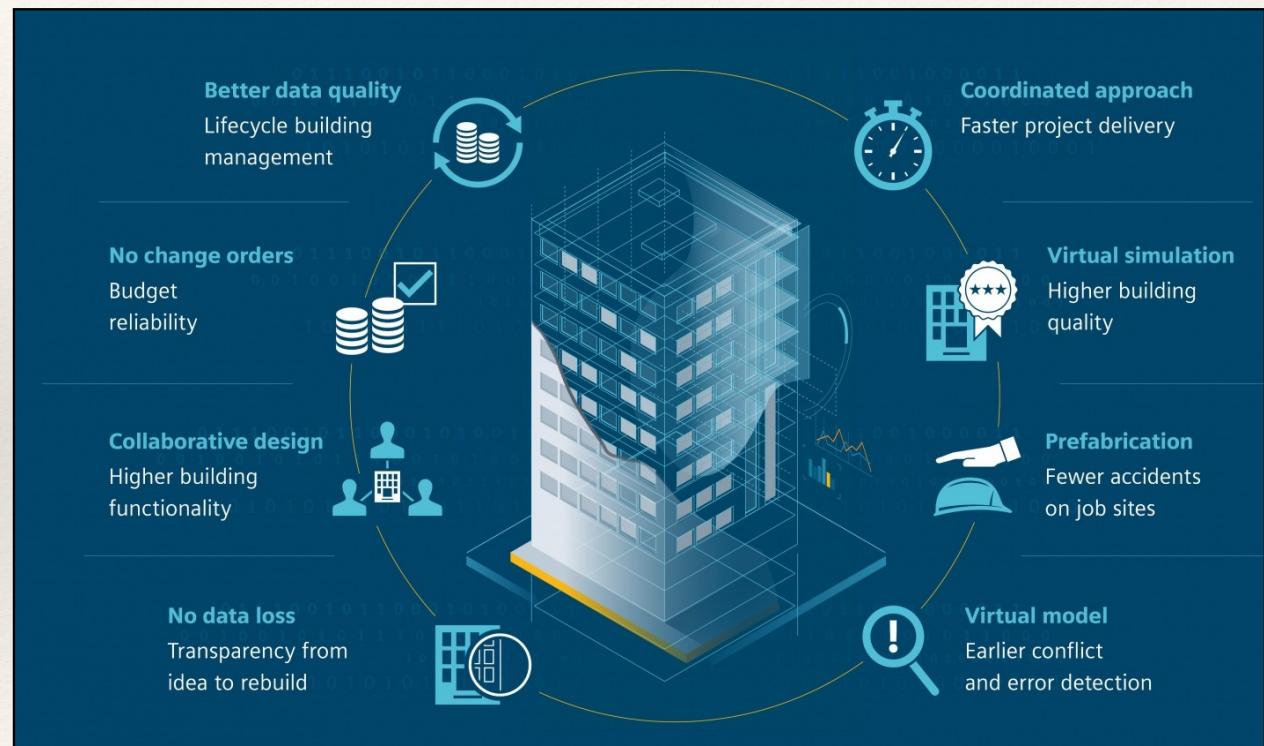
**Federation Internationale
Des Ingenieurs Conseils**

- ❖ The International Federation of Consulting Engineers (FIDIC) contracts have been developed over 50 years as the international standard for the Consulting Industry. They are recognised and used globally in many jurisdictions, on all types of projects.

- ❖ The standard forms of FIDIC are applied more often and directly in contract practices in Bulgaria as numerous financing organisations explicitly stipulate that contracts in the investment process must be aligned with the “books” of FIDIC

Building Information Modelling (BIM)

BIM is a digital information management technique that the building and infrastructure industries are utilising to increase productivity and quality in building and infrastructure projects, decrease financial losses during construction, and serve as a foundation for developing future services. 3-D modelling with embedded data, which can be shared by and among all project participants at all stages of a project from design to maintenance, is at the core of it.

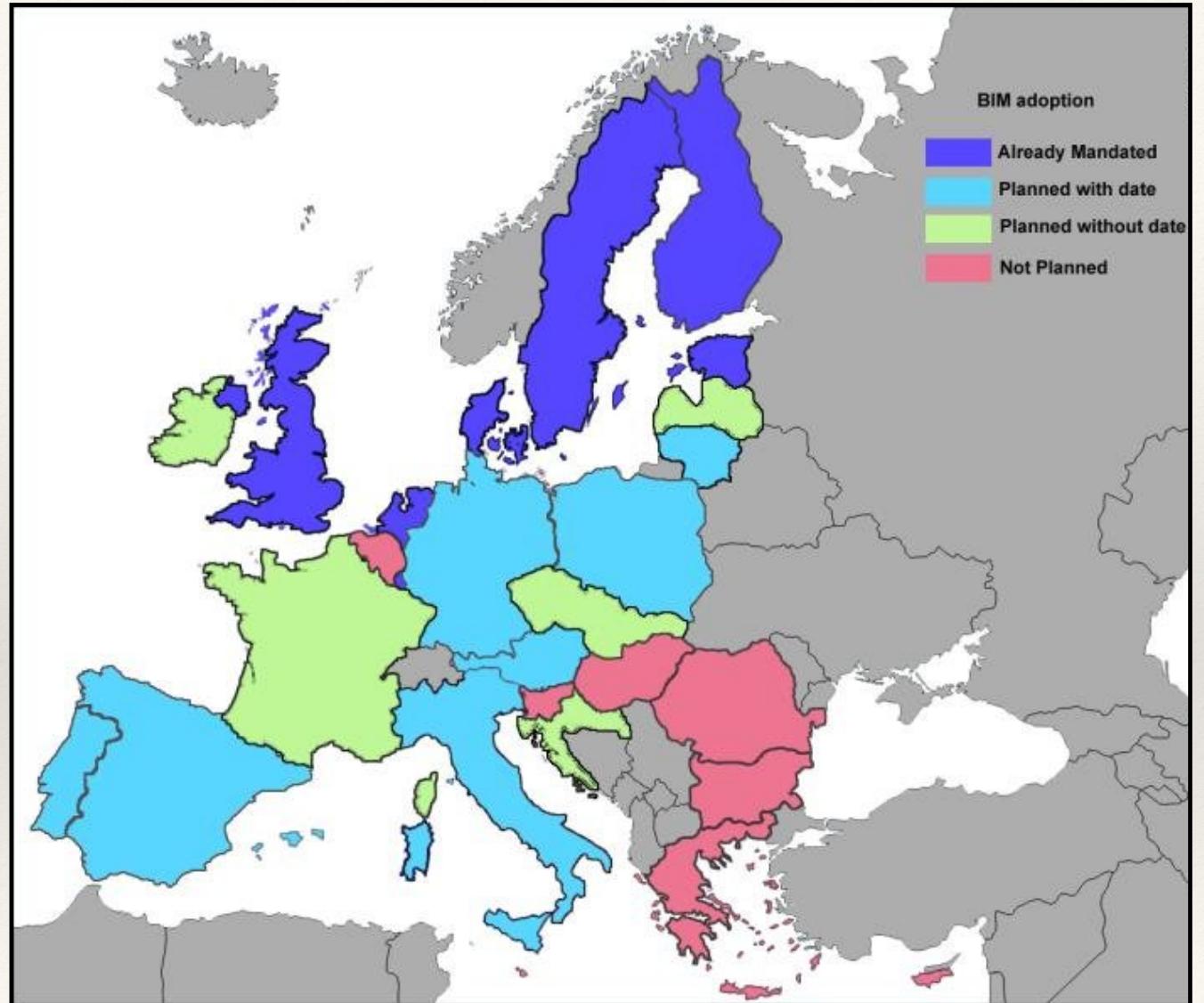


Source: new.siemens.com/global/en/products/buildings/digital-building-lifecycle/bim

BIM adoption

State of BIM adoption
across European Union
(May 2017)

Nearly one-fourth of
Europe has no plans
for enforcing BIM
implementation in the
near future.



Source: www.researchgate.net

The problem

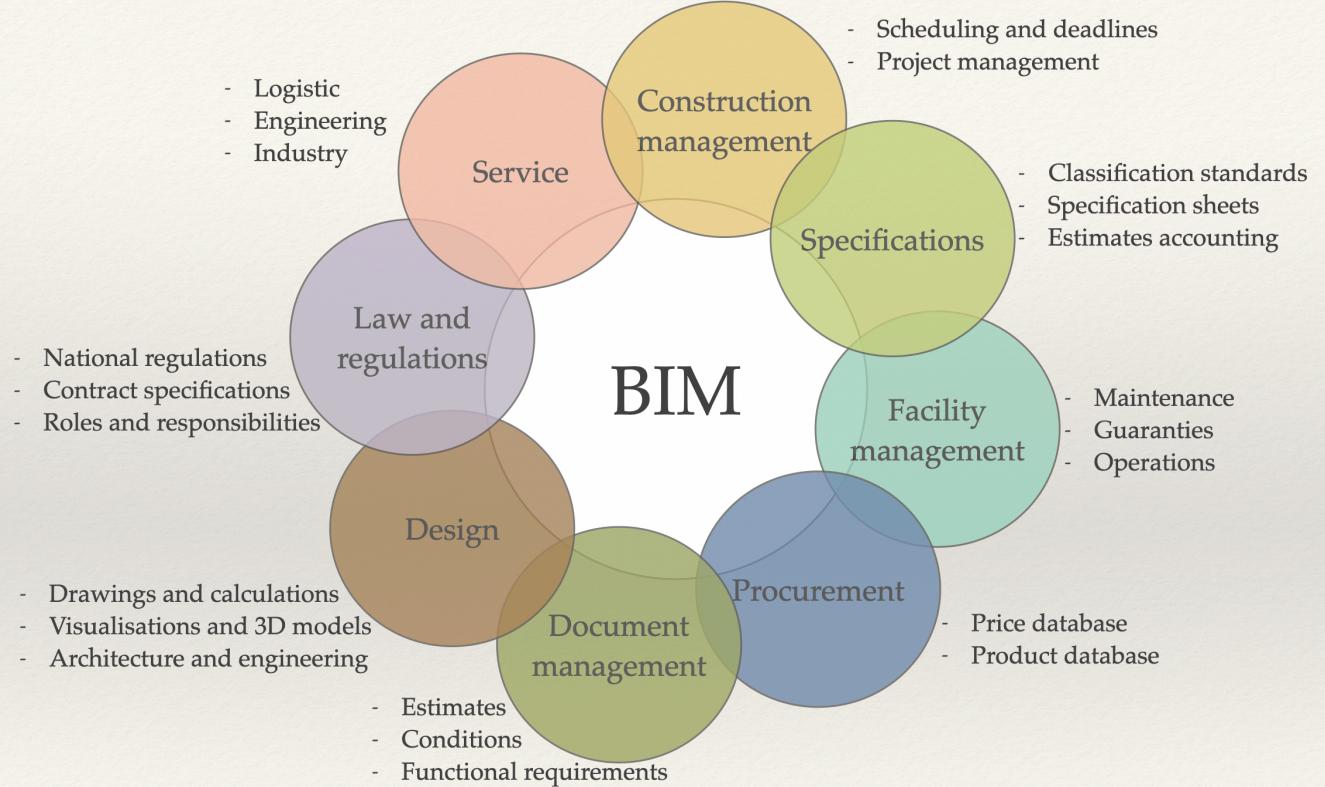
When applying BIM in a project under the contractual conditions of FIDIC, the following issues should be considered more thoroughly:

- ❖ misunderstanding the scope of activities
- ❖ using data for an inappropriate purpose and relying on inappropriate data
- ❖ ineffective management of information, documents or data
- ❖ defining deadlines and deliverables.

Although the construction industry is positively shifting from the traditional design construction model to building information modelling (BIM), the legal corridors to transfer are very slow to keep up with the development of the economy and the change of technology.

Project management and BIM

To facilitate the use of BIM and the exchange or sharing of digital information across the project all aspects should be considered to clarify the relating terms



Effective BIM implementation from a project manager perspective

The main factors used to measure the effectiveness of BIM adoption are the four core project criteria: cost, time, quality, and risk. Effective BIM implementation, from the perspective of an engineering consultant and project manager, entails putting the utmost emphasis on using BIM as a tool for staying within the planned budget and timeframe, without design conflicts and issues, unplanned works, reworks, claims, unrealistic deadlines, etc.

Researchers and practitioners in the construction and legal sectors alike have questioned the possibility of creating a “common law of construction contracts” across countries and regions owing to the vast and often insurmountable differences between national jurisdictions (Knutson, 2005).

FIDIC and BIM

- ❖ Rather than setting out a specific approach, FIDIC chooses to highlight issues that BIM practitioners should consider when applying the FIDIC books
- ❖ Although FIDIC notes that many projects use a BIM protocol, it has not produced its own protocol or recommended the use of any particular one
- ❖ Instead, FIDIC states that two documents are currently being prepared - "Technology Guidelines" and "BIM-Specific Scoping Guidelines Definition". They are intended to provide additional detailed guidance for the use of BIM for projects that use FIDIC (Jeremy Glover, 2019)

Final remarks

- ❖ It is crucial to comprehend your obligations, liabilities, and limitations in each document, regardless of the contracts, protocols, guidance notes, or other requirements that may be included for a certain project
- ❖ Ambiguity and confusion may result if the contract documents are not consistent with one another and / or are not carefully taken into account.
- ❖ Depending on the terms of your contract, these may be legally binding contracts with obligations contained within that you need to comprehend and be aware of, so be sure you understand what you are being asked to do.



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Thank you!

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