



BIM International (BIM Int.)

IT technology is increasingly applied to the design, planning, carrying out and operation of built facilities. The opportunities for innovation and development of the relevant technologies are far from fully exploited at the current stage.

From an early stage, the Danish Government and central market actors in the construction industry has aimed to promote and enhance the use of digital technology in Denmark. As a consequence, the Danish construction sector may today be considered to operate at a relatively high stage of digitalization. The revision in 2018 of the existing Danish standard form contracts (the AB-system) led to an inclusion of general provisions on the parties' digital obligations. However, these provisions only mark a point of departure for the regulation of digital rights and obligations. Further, the development and use of BIM is not (solely) a national matter.

The technical resources, which constitute the basis for concrete BIM-models used, are invented and developed in international business environments. Further, modern construction projects are increasingly internationalized, due to e.g. an enhanced relative mobility of construction components, a general opening of markets and globalization of construction businesses.

However, considerable challenges still stand in the way for a full utilization of the potential of digitalization in the construction industry. Among these, a clarification of the legal impact of the use of BIM and collaborative models for design development and project performance seem to be of highly importance. An increased digitalization can also be expected to entail considerable structural changes in the market and for instance to widen the gap between leading market players and SMBs, which again might affect contractual practices and contract law. These possible legal challenges for the

The project will be carried out from 2019-2021.

It will lead to the publication of at least four articles in leading legal journals and further publications in trade journals.

Knowledge gained will be brought about at a number of legal scientific workshops and industry conferences.

For more on the project, please see:

<https://jura.ku.dk/virksomhedsansvar/english/digitalconstructionlaw/>

exploitation of digital resources in the construction industry can only be addressed in a qualified way by adapting an international perspective, representing the cross border nature of today's digital business models and by analyzing the problems in an international regulative and contractual context.

The research project BIM Int. is funded by the Danish Transport-, Construction- and Housing Authority, the Confederation of Danish Industry and a group of highly specialized legal advisors and construction market actors and has a total budget of DKK 1.6 mio. It is a part of a research project on Digitalization of Construction law led by Professor Ole Hansen at the Center for Enterprise Liability (CEVIA) at the Faculty of Law, University of Copenhagen. BIM Int. consists of a four pillars:

1 BIM in offshore construction settings

The use of BIM have on the outset been more widely accepted and successfully used in the offshore industry, especially within the oil- and gas industry. This industry is now - in certain areas - moving closer to a "industry 4.0" level of integration of physical structures and digital information. This sub-pro-

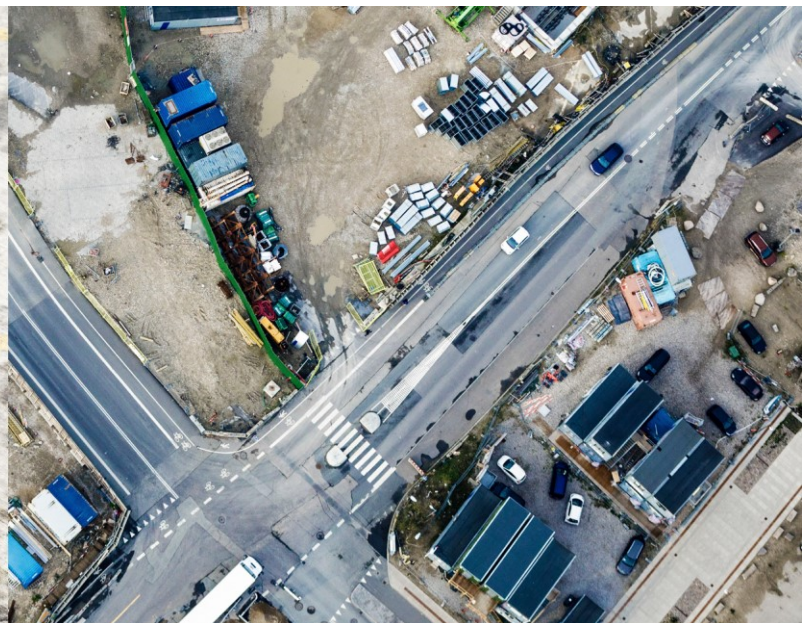
ject will explore the main reasons for the success of BIM in offshore construction and analyze main legal challenges that has to be solved in order for this success to be realized. The project is headed by partner, attorney Klint Klingberg-Jensen from Poul Schmith and an international partner.



2 BIM and FIDIC

Transnational contracts within the construction industry are often based on FIDIC's standard agreements. These agreements do not specifically address the use of BIM, though FIDIC does provide some advisory notes as to projects applying BIM. It is acknowledged that BIM by positive means is changing many aspects of the industry but also emphasized

that practical and legal challenges/risks are associated with the use of BIM. While waiting for further guidance, this project will examine the applicability of BIM in a FIDIC context. The project will be carried out by attorney-at-law, partner, MBA, Niklas Korsgaard Christensen, Plesner Law Firm and an international partner.



3 BIM in major infrastructure contracts

Presumably, major infrastructure construction projects to a large extent involve the use of Building Information Modeling. These elements of major investment, complexity and established contractual networks, may shape the foundation for more collaborative models for contracting and the shared use of BIM at a high level. The aim of project is to identify when and under what circumstances collaborative elements

are adopted in major infrastructure contracts. Further, the aim is to clarify the role of BIM as a tool for collaboration, especially to what extent and how a BIM strategy may vary dependent on the use of collaborative elements in the construction contracts. The project is lead by Bjarne Bæk, Senior Legal Counsel, Copenhagen Airports A/S.

4 BIM and SMBs

Small and medium sized businesses represent a large share of the economy in the construction sector as well as within the EU market in general. However, the ongoing digitalization of the construction industry may expose SMBs to substantial commercial and legal risks, because of the expan-

ding gap between main contractors as leading market actors and low-tech sub-contractors and suppliers. The subproject investigates into EU contract laws ability to establish an appropriate support for SMBs in highly competitive digitalized market settings.