

Development of Building Information Modeling in Property Industry: Beginning with Building Information Modeling Construction

Authors : B. Godefroy, D. Beladjine, K. Beddiar

Abstract : In France, construction BIM actors commonly evoke the BIM gains for exploitation by integrating of the life cycle of a building. The standardization of level 7 of development would achieve this stage of the digital model. The householders include local public authorities, social landlords, public institutions (health and education), enterprises, facilities management companies. They have a dual role: owner and manager of their housing complex. In a context of financial constraint, the BIM of exploitation aims to control costs, make long-term investment choices, renew the portfolio and enable environmental standards to be met. It assumes a knowledge of the existing buildings, marked by its size and complexity. The information sought must be synthetic and structured, it concerns, in general, a real estate complex. We conducted a study with professionals about their concerns and ways to use it to see how householders could benefit from this development. To obtain results, we had in mind the recurring interrogation of the project management, on the needs of the operators, we tested the following stages: 1) Inculcate a minimal culture of BIM with multidisciplinary teams of the operator then by business, 2) Learn by BIM tools, the adaptation of their trade in operations, 3) Understand the place and creation of a graphic and technical database management system, determine the components of its library so their needs, 4) Identify the cross-functional interventions of its managers by business (operations, technical, information system, purchasing and legal aspects), 5) Set an internal protocol and define the BIM impact in their digital strategy. In addition, continuity of management by the integration of construction models in the operation phase raises the question of interoperability in the control of the production of IFC files in the operator's proprietary format and the export and import processes, a solution rivaled by the traditional method of vectorization of paper plans. Companies that digitize housing complex and those in FM produce a file IFC, directly, according to their needs without recourse to the model of construction, they produce models business for the exploitation. They standardize components, equipment that are useful for coding. We observed the consequences resulting from the use of the BIM in the property industry and, made the following observations: a) The value of data prevail over the graphics, 3D is little used b) The owner must, through his organization, promote the feedback of technical management information during the design phase c) The operator's reflection on outsourcing concerns the acquisition of its information system and these services, observing the risks and costs related to their internal or external developments. This study allows us to highlight: i) The need for an internal organization of operators prior to a response to the construction management ii) The evolution towards automated methods for creating models dedicated to the exploitation, a specialization would be required iii) A review of the communication of the project management, management continuity not articulating around his building model, it must take into account the environment of the operator and reflect on its scope of action.

Keywords : information system, interoperability, models for exploitation, property industry

Conference Title : ICBINMSM 2018 : International Conference on Building Information Models and Space Management

Conference Location : London, United Kingdom

Conference Dates : January 18-19, 2018