Soon application of BIM in project management

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Project management by BIM (Building Information Modeling) model has been popular in the world but is limited in Vietnam. The application of BIM in construction and operation management activities of infrastructure works has been approved in the Decision No 2500/QD-TTg dated December 22nd 2016 by Prime Minister.

Accordingly, the Prime Minister instructs that preparation works for necessary conditions and skilled manpower training for the application of BIM must be taken placed from 2017 – 2019. A pilot program to apply BIM to at least 20 new state owned construction projects shall be executed from 2018 to 2020. From 2021, on the basis of summary and assessment gained during the BIM application progress, the Ministry of Construction will issue a circular and specific guidance to widely apply BIM model in construction activities and management works.

BIM is a closed process from model building with multiple dimensional models (3D, 4D, 5D etc.) through specialized software (Civil 3D, Revit, Naviswork etc.) until the application of these models for the design works (drawings), construction execution (Bill of Quantity management, construction measures, HSE plan etc.) and construction management (maintenance of reinforcement concrete works, M&E works etc. throughout the lifecycle of the project.

Along with the application of Virtual Reality Technology (VR) and Augmented Reality Technology (AR), BIM also helps investors and engineers’ approach and interact with the project visually and lively. In fact, in Vietnam, companies being apply BIM in their works have been building up their good reputation.

According to Mr. Tran Tan Phuc, Portcoast's Chairman, the application of BIM in combination with Stormbee UAV S-20 makes it possible to scan on complex terrains or large areas efficiently and quickly where the ground scanning is not feasible or low efficient. And thanks to high determination and strong investment in science and technology, Portcoast has been being awarded not only many domestic projects but many oversea projects as well. Despite time for preparation work and widely application instructed by the Prime Minister is running out, number of enterprises who is applying BIM are a few.

Said from other aspect, Dr. Do Tien Si, Head of Construction and Management Division of Civil Engineering Faculty of Ho Chi Minh University of Technology, BIM has become one of studying subjects in the University since 2017. Many BIM trained students have graduated and been working. However, understanding and know how about BIM among investors, consultants, contractors etc. has not been at same level. And this is one of the reasons causing the difficulties in applying BIM in practice.

It is not easy to apply new science and technology into the construction and investment works because of many hindrances such as investment cost and understanding and delivering capability of enterprises etc. However, the actual application of BIM in the world shows that this system enables to cut down 10% - 20% in cost and in construction time, helping the management works more effectively than the traditional management system, so the application of BIM in Vietnam must be implemented strictly in accordance with the Prime Minister’s instruction. Especially in the context that many construction investment projects are slow, loss and poor quality.