Application of BIM (Building Information Modeling) for transparent management through project’s lifecycle is popular around the word but is limited in Viet Nam.

BIM based Project management from surveying, project planning, design, construction, management and exploitation in the entire life cycle of technical infrastructure works, including transportation infrastructure works – is the Workshop’s topic organized jointly by Viet Nam Roads and Bridge Association (VIBRA), Viet Nam Association of Port – Waterway - Offshore Engineering (VAPO) and Portcoast Consultant Corporation (Portcoast) in Ho Chi Minh City on November 2nd 2019.
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.

All these works supported by Laser Scan 3D, UAV in combination with specialized software are widely applied in developed countries around the world. In addition, application of Virtual Reality Technology (VR) and Augmented Reality Technology (AR) will help investors, engineers and users approach and interact with the project visually and lively.

![Stormbee UAV S-20 in the port project in Ba Ria – Vung Tau province](image)

**Hà Nhân**

BIM application is popular around the word but is still limited in Viet Nam. The application of BIM can help save at least 30% on costs, increase transparency from surveying, project planning, design, construction, management and exploitation of the entire life cycle of technical infrastructure works.
Said by Mr. Tran Tan Phuc, Portcoast’s Chairman, from last year, Portcoast has been studying and making investment in procurement of Stormbee UAV S-20 and Faro Focus S350-A and successfully applying the laser scan technology in different projects of Portcoast. Grabbing this tendency, Portcoast in cooperation with Civil Engineering Faculty belonged to Ho Chi Minh City University of Technology has opened the Portcoast BIMLab with the aims of study and wide application development of BIM to Viet Nam construction projects and oversea projects. Currently, Portcoast BIMLab concentrates its study in six main areas namely survey, architecture, construction, technical infrastructure, heritage and infrastructure facilities management.

Digitalization of transport infrastructure quality management by application of BIM
Portcoast

Talking about the benefits of the BIM application, Mr. Nguyen Ngoc Hue, VAPO’s Chairman, said that in the field of technical infrastructure, especially in construction of underground works, a integration of 3D model built at the beginning of construction with the scan results upon completion of construction will help project owners and management bodies easily to manage the technical infrastructure in the region, especially in maintenance works.

Mr. Ngo Thinh Duc, VIBRA’s Chairman, also said that for recent years, both VIBRA and VAPO’s members really desire to apply BIM into their projects but there is yet opportunity due to limited resources. Now, facilitated by the Portcoast’s investment in BIM, more favorable conditions shall be created for the Ministry of Transport as well as agencies and units to apply BIM in construction management works.