

Key Initiative / Programme:

Hubble Construction Digital Platform

Description:

To support the adoption of Integrated Digital Delivery (IDD), key thrust of Singapore's Construction Industry Transformation Map (ITM), Hubble is developing the country's first Construction Digital Platform - the Hubble Platform.

The Hubble Platform is an IDD platform that offers a suite of digital services to allow even the contractors of all sizes to manage the entire end-to-end lifecycle of the project - from the time he receives 2D drawings or 3D models until the end of the construction phase. Contractors will be able to collaborate and send specifications to fabricators, mechanical, structural, and electrical engineers, sub-contractors, suppliers, and supply chain players on a single unified platform. It will be built on open standards - new and existing third-party technology service providers such as IoT devices, quantity surveyors and M&E consultants can offer their own digital products and services on the platform.

During the COVID-19 situation in 2020, Hubble has developed the BuildSG-COVIDSafe Platform (CSP) for the BCA to ensure a safe restart and continuation of the Industry. The BCA's CSP is the Singapore construction industry's central database for all COVID-19 related matters. It is integrated to MOM, MOH and GovTech databases (via SG Workpass, FWMOMCare, SafeEntry), and provides contractors with a single source of truth for an efficient implementation of the Safe Management Measurements (SMM), and helps ensure compliance with BCA's COVID-Safe Restart Criteria.

To support the BCA's initiatives, Hubble has accelerated the launch of its Construction Digital Platform to support contractors at the firm level. Thanks to its integration to the CSP, the Hubble Platform provides seamless onboarding of contractors, projects, and workers, facilitates the 2-way exchange of data between firms and the CSP. As an open platform, contractors can integrate their COVID-Safe IoT hardware devices (thermal scanners, Artificial Intelligence cameras, Bluetooth wearables) to the Hubble Platform, to automate their compliance processes to the COVID-Safe Restart criteria.

Another objective of the Hubble platform is the development of data products that can be used by different types of built environment related companies. Similar to how financial institutions package and sell insights to the investor community, the Hubble platform will be able to generate and sell insights to the construction community to help them better prepare to meet market demands.

The Hubble Platform will be driven by machine learning and artificial intelligence technology, and has potential positive impacts on construction projects' time, safety, quality, cost, profit, and manpower usage and management.

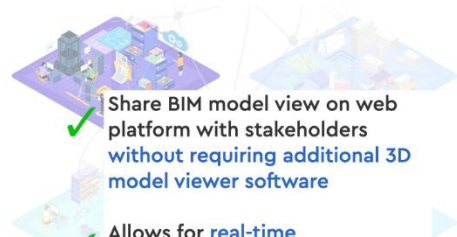
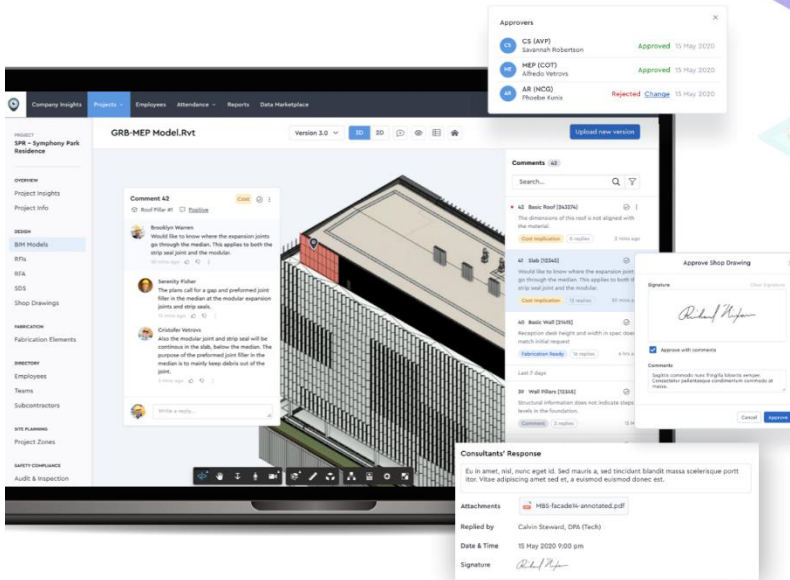
Data and Statistics:

Hubble is working closely with IMDA and BCA to ensure that the platform is open and that it meets the needs of the construction sector. Woh Hup Pte Ltd, one of Singapore's largest privately-owned construction and civil engineering specialists, has committed to be one of the early adopters of the Hubble Digital Platform, to pilot three projects - Kim Chuan Depot, Parksuites, Nyon@Amber – during the initial development and testing phases.

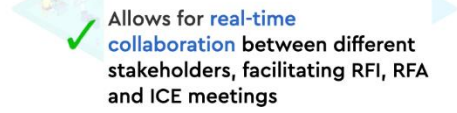
In addition to the contractors and sub-contractors already on board the platform, Hubble and Woh Hup will work to scale the partners and ecosystem to include the developers, architects, prefabricators and construction material suppliers by March 2021.



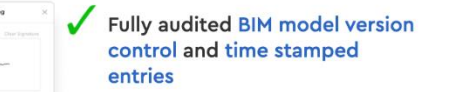
DIGITAL DESIGN: BIM COLLABORATION, RFI, RFA-SD, RFA-MS



Share BIM model view on web platform with stakeholders without requiring additional 3D model viewer software



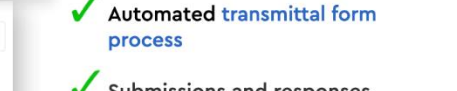
Allows for real-time collaboration between different stakeholders, facilitating RFI, RFA and ICE meetings



Fully audited BIM model version control and time stamped entries



Fully audited conversations and time stamped entries



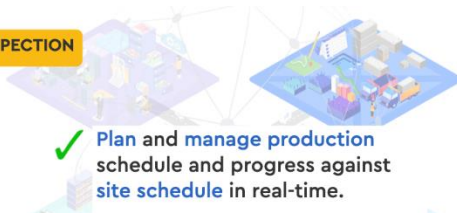
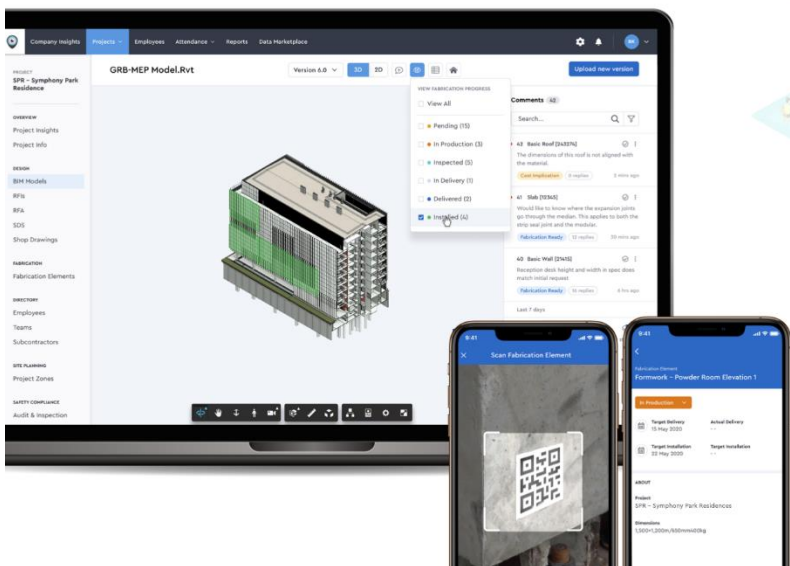
Automated transmittal form process



Submissions and responses progress tracking



DIGITAL FABRICATION: PRODUCTION, MATERIAL, DELIVERY, INSTALLATION, INSPECTION



Plan and manage production schedule and progress against site schedule in real-time.



Gain real-time progress of all PPVC Modules and identify bottlenecks immediately.



Track deliveries in real time and achieve Just-in-Time inventory, matched with on-site installation schedule



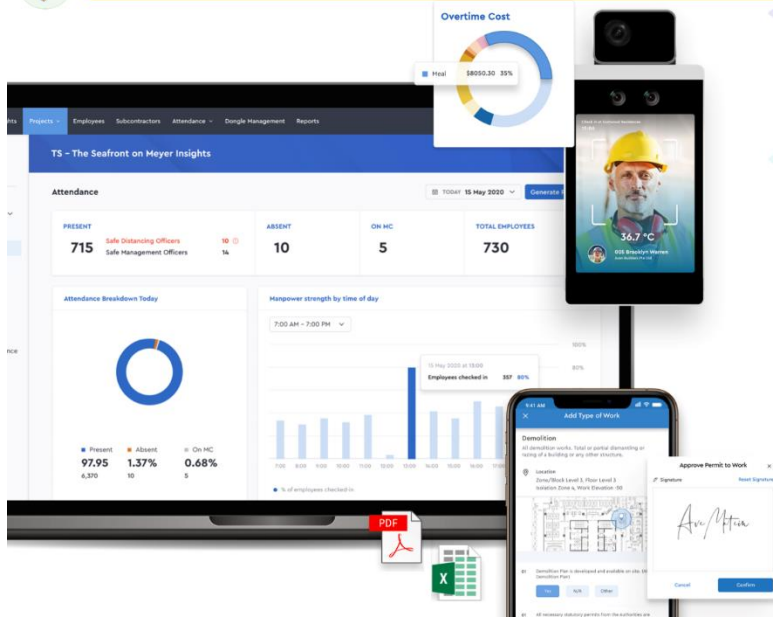
Track installation progress of precast and non-precast elements



Manage inspection of the on-site installation



DIGITAL CONSTRUCTION: WORKFORCE, PRODUCTIVITY, SAFETY, QUALITY AND COMPLIANCE MANAGEMENT



✓ Manage your manpower scheduling, automate OT computation & payroll, and track progress and productivity

✓ Manage and monitor your worksites' Permit-to-Work, safety inspections and incidents digitally

✓ Manage and track all defects, non-conformities and rectification works to avoid project delays

✓ Integrate with IoT devices and BCA's BuildSG-CovidSafe Platform to automate compliance processes & reporting

ALL ON YOUR HUBBLE PLATFORM