Adopting Technology in Reshaping the Industry to Boost Productivity and Competitiveness of the Construction Sector

BY Champion for Construction & Built Environment Productivity Nexus (COBEPN), Datuk Seri Dr Michael Yam

The work process of the construction industry in Malaysia is still archaic in practice relying very much on the labour and effort of cheap migrant workers. There was neither the motivation nor the incentive for the stakeholders ranging from the developer to the funders and contractors to increase efficiency which comes at a cost that may impact the selling prices and render it to be uncompetitive when fighting for market share and sales of the real estate against the other competitors.

But the pandemic triggered a change of mindset of everyone including the Government and the consumers at large. As we move to the endemic stage, not dissimilar to other countries including developed economies, there is the realisation that workers who lost their jobs or repatriated home are not returning anytime soon but its long-term reliance on foreign workers has become a security and social risk. Hence, for the long-term security and sustainability of the construction and built environment sector, every effort must be made to increase productivity with reduce manual labour adopting whatever technology and innovation that is available.

The trend towards greater use of digital transformation and Artificial Intelligence (AI) is already helping improvement in productivity of the other industries and the construction industry has to follow suit.

The switch to greater use of technology, digitalisation, modular construction, Industrialised Building System (IBS) and modern tools will initially come with a higher cost but its benefit of less reliance on foreign labour, better quality product, quicker delivery and ultimately higher productivity far outweighs the higher price one has to pay. To help soften the hike in cost increase, the Government may need to step in to provide tax breaks and incentives to reduce the impact of the heavy capital expenditure upfront to procure new equipment, robotics, plant and machinery. The private and public sector would also need to work together to upskill and reskill existing workers to operate the equipment and software that enhances the digitalisation of the process such as Building Information Modeling (BIM), Artificial intelligence (AI), robotics and sequential workflows. As training intensifies and production per head increases, there must be a strategy to enforce the number of foreign workers allowed into the country to work in the construction sector.

With the digitalisation and use of IoT, over time the outcome achieved for the industry would be one that sees an increase in productivity, better quality, less wastage, enhance health and safety at work and quicker turnaround time. This desired outcome is very much aligned with one of the main thrusts of the National Construction 4.0 Strategic Plan 2021-2025 where smart integrated technologies, Innovation and

Infrastructure will lead to more efficient and advance technology solutions for the construction industry.

According to GlobalData, the Malaysian construction industry has the potential to expand by 16.5% in 2022 as the economy fully opens with the Government focussing on completing major projects that were disrupted during the lockdowns as a consequence of the pandemic.

Hence, this is in line with the aspirations of 12th Malaysia Plan, for the productivity of the construction sector is expected to grow at an average rate of 3.8% per annum to RM46,200 supported by increased adoption of modern construction methods and technology; and to contribute 4.2% to the output growth of the construction sector. Among other efforts are the adoption of technology, innovation and digitalisation while upskilling and retraining the workforce while gradually reducing imported labour for the sustainability of the construction and built environment sector of our nation.

-end-