

## Welcome Remarks by

**Yang Berbahagia  
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**International Construction Transformation Conference (ICTC)  
“Achieving Peak Productivity Through Technology and  
Innovation”**

**27 March 2018  
Plenary Hall, Kuala Lumpur Convention Centre**

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Members of the media

Distinguished guests

Ladies and gentlemen

Assalammualaikumwarahmatullalhiwabarakatuh, Salam Sejahtera, Salam Negaraku and a very good morning to all of you here today.

1. It is indeed an honour for me to welcome all of you to the **International Construction Transformation Conference 2018** today. A warm welcome is also extended to our counterparts and distinguished speakers who have travelled from abroad to join us.
2. Before I continue, I wish to take this opportunity to commend the industry players, from both the public and private sectors, who have come together to accelerate the advancement of the construction industry in Malaysia. Public-private sector partnerships are encouraged as we seek to optimise the utilisation of available resources for maximum value. In fact, such partnerships are very much in line with the Government of Malaysia's National Blue Ocean Strategy or NBOS.

Ladies and Gentleman,

3. The International Construction Transformation Conference 2018, or ICTC in short, is indeed timely as we seek to understand how the construction industry can enhance its productivity levels through technology and innovation. The theme for ICTC 2018, '*Achieving Peak Productivity Through Technology and Innovation*', is also spot on, particularly in today's day and age as we embrace Industry 4.0 and the trend of big data, artificial intelligence, automation and digitisation that comes with it.
4. As many of you here are aware, technology and innovation are essential elements for the construction industry to improve its productivity levels and competitiveness. With new materials, energy sources, innovative design approaches and advancements in big data analytics, there are plenty of opportunities for the industry to adopt and implement in their respective businesses.
5. Furthermore, with Industry 4.0 taking shape in many other industries, the construction industry cannot afford to be left behind, particularly as construction projects are becoming increasingly complex, putting companies under tremendous pressure in their effort to deliver in time and on budget. Certainly, we need to re-look, re-think and re-strategise the way business is conducted and the way buildings are constructed.

Ladies and Gentleman,

6. Latest advancements in technology and innovation, such as 3-D printing, robotics, artificial intelligence, big data analytics and cloud computing technology, have allowed us to digitise the entire value chain - from suppliers, procurement, design, logistics, construction and even sales. This provides the construction industry with plenty of opportunities and avenues to achieve higher productivity and efficiency through less wastage or storage, better monitoring and maintenance of machinery, and improved security and safety.

7. The Ministry of Works and CIDB recognise the need to modernise the construction industry as a key initiative to increase the productivity levels of the industry. In fact, Productivity is a strategic thrust of its own under the Construction Industry Transformation Programme 2016-2020, or CITP.
8. For those of you who may not be aware, the CITP, currently in its third year of implementation, is a comprehensive plan to transform the construction industry into a modern, highly productive and sustainable sector by 2020. The CITP forms an important part of the Government's National Transformation Agenda and supports the 11<sup>th</sup> Malaysia Plan. It comprises of four strategic thrusts: Quality, Safety and Professionalism; Environmental Sustainability; Productivity; and Internationalisation, whereby 21 initiatives have been identified to address specific challenges within the construction industry.

Ladies and Gentleman,

9. Coming back to the Productivity strategic thrust of the CITP, several initiatives have been identified to more than double the productivity levels of the industry that is matched by higher wages, come 2020. This is because the construction industry in Malaysia has one of the lowest productivity levels per worker as compared to other industries.
10. A part of these initiatives includes accelerating the adoption of Industrialised Building Systems (IBS), mechanisation and modern practices as well as rolling out technology advantage, such as Building Information Modelling (BIM), across the project life-cycle. In addition to this, we also have in place initiatives to enhance competency development for construction personnel in high impact trades.

11. I wish to take this opportunity to share that we are well on track to hit the CITP's Productivity aspirations by 2020. Some recent milestones achieved, particularly on IBS and BIM includes:

- 264 IBS component manufacturers have registered with CIDB;
- 8,087 IBS contractors have registered with CIDB, with majority based at key market centres in Malaysia such as Selangor, Kuala Lumpur, Johor, Penang and Sarawak;
- 8,572 IBS installers have registered with CIDB;
- CIDB MyIBS established to provide technical advice to the industry in adopting IBS;
- MyBIM Centre was launched in 2017 through an initial investment of RM3 million by CIDB and acts as a resource centre to promote and increase usage of BIM in the industry; and
- 1,300 BIM personnel have been trained by CIDB
- MyBIM object library with 829 IBS component and 6000 medical component can be downloaded and used by the industry players.

12. Back in 2008, the Government of Malaysia has mandated the use of IBS for all government projects worth RM10 million and above, with 70 IBS score. Last year, in order to drive IBS adoption even further, the government has announced that it will be mandatory for private projects worth RM50 million or more to achieve a minimum IBS score of 50. The private sector mandates are currently being implemented in stages from 2018 up to 2020. Mandating the use of IBS in private projects is expected to drive economies of scale in the production of IBS components which will reduce the cost of IBS components.

13. However, the IBS and BIM technologies are only the tip of the icebergs when it comes to applying new technology in construction. There are many technological frontiers which are being explored as we speak. The Institute of Advanced Architecture of Catalonia (IAAC )in Madrid,Spain has designed and produced the world's first 3D-printed pedestrian bridge which spans 12 m long and 1.75 m wide Installed in the urban park of Castilla-La Mancha in Alcobendas, Madrid. The bridge is made up of eight separate 3D-printed parts.
14. Another new bridge that was completely 3D printed has just opened in the Netherlands. It was the cyclist bridge designed and built by engineers from the Technical University of Eindhoven and construction company BAM Infra. The structure was printed in pieces from a concrete mixture, reinforced with steel cables, before being assembled and erected on-site.
15. Believe it or not, having a robot to work on site is no longer a distant dream. It seems like every month there's a new robot being debuted in the world, for the construction industry, with the promise of reducing costs and improving productivity and safety. There are robots for laying brick and block, placing concrete, and even self-driving mining trucks. The most recent robot to hit the job site is Built Robotics' Autonomous Track Loader (ATL). Other cutting edge construction technology that we should all look out for include virtual reality, augmented reality, wearable technology, machine learning and predictive analysis.
16. These new developments have shown us that 4th industrial revolution is something that we must all embrace, or risk being left behind by our peers.

Ladies and Gentleman,

17. It is without a doubt that the modernisation and automation of the construction industry is the way for us to move forward. ICTC 2018 marks an important platform, not just for the construction industry in Malaysia, but also abroad, as we come together to share our expertise and drive technology and innovation in construction.

18. With that being said, I am certain that the conversations we start here today will continue even after the end of ICW 2018. Before I conclude, I wish to once again thank the distinguished speakers for their time and commitment in being a part of ICTC 2018.

19. Thank you and I wish all of you, a fruitful conference.

Wabilahitaufikwalhidayahhwassalamulaikumwarahmatullahiwabarakatuh.

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