SPEECH BY MR DESMOND LEE, MINISTER FOR SOCIAL AND FAMILY DEVELOPMENT AND SECOND MINISTER FOR NATIONAL DEVELOPMENT, AT THE BCA AWARDS CEREMONY AND DINNER ON 22 MAY 2018, RESORTS WORLD SENTOSA

Mr Lee Fook Sun Chairman, BCA

Distinguished guests,

Colleagues,

Friends,

Ladies and Gentlemen,

- Good evening. Tonight, we recognise the achievements of our Built Environment (BE) sector. All of you here tonight have helped to shape our urban landscape into the metropolis that we see today.
- While there is no doubt that the sector has done well, we also need to ensure that it is future-proofed and can keep on succeeding. This is where our transformation vision fits in. We want to transform the sector through the use of productive technologies and digitalisation. This is not about transforming for the sake of transformation. This is about keeping our industry competitive both locally and regionally. It is about your continued success. It is about creating good jobs for Singaporeans.
- 3 Since we started this productivity journey 8 years ago, we have made good progress together. Overall site productivity has improved by 12% since 2010. This is because all of you have been working together! But it is also because you have increasingly adopted productive technologies like Design for Manufacturing and Assembly (DfMA) and digitization.
- Today, close to 20% of our building projects adopt DfMA, and benefit from the more efficient construction processes. In tandem, 86% of our larger consultancy firms and 65% of our larger construction firms have adopted Building Information Modelling (BIM). BIM allows us to build more efficiently by reducing abortive work downstream.
- 5 The next level is Integrated Digital Delivery (IDD). This is basically the more extensive use of BIM and smart technologies throughout the building process and lifecycle not just for

design and construction but downstream during the lifecycle of a building, the BIM model can help in the management of the facility.

- We launched the Construction Industry Transformation Map (ITM) in October of last year to help us push this transformation. It is a multi-party effort the Government, unions, companies and academia coming together and working together, unlike in other places in the world, to try to drive positive change for our entire industry. We have ambitious targets to raise DfMA adoption to 40%, and to increase the number of IDD projects from 5 today to 40-60 by 2020. If we succeed, we will have at least 20% site productivity improvement by then.
- We are here to walk this journey with you. We have heard your feedback about how we need to continue to enhance the capability of our workforce. You have told us that while fresh graduates and even existing employees have the skills relevant for today, they may not have the skills such as in DfMA and IDD that are needed for tomorrow, as we transform our industry. I also heard this feedback when I met our Built Environment Young Leaders and when I met some BCA-Industry scholars before they received their scholarships.
- We responded by forming a Built Environment SkillsFuture Tripartite Taskforce, or BEST Taskforce, in August last year. The objective of the BEST Taskforce was to bring industry, academia, government and unions much closer together, so that we can better train and prepare our workers for future jobs in the Built Environment sector. In short, by bringing them together, our Institutes of Higher Learning (IHLs) can be much more responsive to the needs of industry whilst our academic institutions can provide inputs and ideas to the industry to consider for adoption. This is a good symbiotic relationship we want to build. The Taskforce has made three recommendations, which we have taken onboard.
- First, we will be working with the Institutes of Higher Learning (IHLs) to update the curricula of their BE-related courses, as our industry transforms and changes. This should better prepare our students for when they enter the sector and begin working for firms. Some IHLs have already taken the lead to include DfMA and IDD content into their curricula. For instance, the Singapore Institute of Technology has added case studies on PPVC in its module on construction technology. Singapore Polytechnic also invites industry professionals to share their experiences on BIM with their students. BCA is also working with our Trade Associations and Chambers and individual firms on case studies and site visits, to provide students with much more interactive learning.

- Second, we are working with IHLs and firms to provide more structured internships for our students in the BE sector. Internships are a useful way for students to gain practical experience and get a sense of what a career in this sector entails. It also allows them to work with other industry professionals in project teams. A meaningful internship will certainly encourage students to join the sector. On the flip side, internships allow firms to judge the ability and potential fit of the interns. And the more substantive work you give to the interns, the easier it is for you to gauge if they have the potential to be good employees in your firms.
- One example is Miss Chea Pui Yee. Pui Yee was a Project and Facilities Management student at NUS. Two years ago, she interned at Arcadis Singapore as an assistant quantity surveyor. Instead of asking her to perform mundane tasks, Arcadis gave her the opportunity to work on tasks like cost planning and quantity take-off for projects like the new Outram Community Hospital. She was also assigned a mentor from the firm. This positive experience convinced Pui Yee that becoming a quantity surveyor was the right career choice for her. Arcadis saw her potential based on her work and offered to sponsor her university education under the BCA-Industry Built Environment Undergraduate Scholarship, which BCA cosponsors. I'm glad to hear that Pui Yee has joined Arcadis in March this year after graduating from NUS. A win-win outcome for firm and employee!
- My point is that I hope these good internship programmes can benefit both intern and firm. To this end, we are coming up with guidelines that will help firms structure internships, including how to set clear learning outcomes and provide good and meaningful mentorship. We will share more details when we are ready.
- Third, we will encourage firms to continue to support lifelong learning and skills upgrading. Our sector is constantly evolving so our professionals need to acquire new skills and familiarise themselves with the latest industry trends to remain relevant. Firms can facilitate this by adopting good and supportive HR practices.
- One good example is Kimly Construction. Kimly believes that professional development helps them retain their best people. For this reason, Kimly has been sponsoring part-time diploma and degree courses for promising employees. Mr Alvin Fong is one such beneficiary. He joined Kimly as an assistant BIM manager in 2016. Recognising his abilities and commitment, Kimly sponsored him for a part-time diploma in Construction Engineering and other BIM courses. With the acquired competency, he was able to take on more complex BIM projects that the firm was undertaking. This was another win-win outcome for firm and employee.

- We are under no illusion that transformation will be easy. As I said earlier, we want to walk this journey with all of you. BCA has therefore set up a one-stop office, BuildSG, to support the industry. BuildSG is working closely with our Trade Associations and Chambers so that we jointly implement the ITM. For instance, it is partnering with SCAL to enhance the productivity clinics to help more firms build capability in DfMA and IDD. BuildSG is also working with the Singapore Institute of Architects to develop a knowledge platform and design guides for architects, covering best practices in focus areas under our ITM such as DfMA and IDD.
- BuildSG will centrally manage our key incentive and manpower schemes so that firms do not need to approach different departments for funding. We will bring them all together. Individuals who are keen to join the sector can also approach BuildSG for career information. In short, if you have any query on the construction ITM or the BE sector, just go to BuildSG. The department will address your concerns and needs.
- We also heard your feedback that the Public Sector Panel of Consultant (PSPC) framework could be enhanced to facilitate more collaboration. Currently, smaller consultancy firms find it difficult to bid for larger projects. So BCA will now allow firms to pool their resources and bid for larger projects, which might not have been possible if they were bidding as a single firm. This fosters collaboration among firms and helps them to build track records. BCA intends to implement this change in the 4th quarter of this year. BCA will share more details about this development soon.
- Internationalisation is another area of focus in the ITM. Some of you, based on your feedback, are keen to venture overseas and have asked if the government can provide some support. BuildSG will support you. For example, it will help bring firms together to "hunt as a pack" so that we can better compete overseas. It will provide firms with timely market intelligence so that you would know which products or services are being sought after overseas. In addition, BuildSG will work with Enterprise Singapore and other agencies to find overseas opportunities that might benefit our local firms.
- One case in point is the Amaravati project. This is the development of the new capital city in Andhra Pradesh, India. A Singapore consortium, consisting of Ascendas-Singbridge and Sembcorp, has been awarded a 6.84km² start-up area to develop. This presents a great opportunity. Firms from different parts of the building value chain can explore

forming strategic partnerships to take on projects together. This way, we provide integrated solutions and offer more value.

- BuildSG has organised several industry briefings and business matching sessions for our firms. Some of you have already expressed interest and are being engaged actively by BCA. I hope more of you would come on board so that we venture out together.
- 21 DfMA and IDD, and the way we work together using these technologies, can be very good selling points overseas. For example, Tiong Seng started a venture in Myanmar to supply precast and PPVC components for residential projects. Tiong Seng was quick to identify that its expertise in these areas could be a solution to Myanmar's housing shortage.
- Another good selling point is our expertise in green buildings for the tropics. Our consultants have built up significant capabilities so that they can now export green building services overseas. To date, there are almost 300 Green Mark projects in 14 countries. One pioneer is Building System and Diagnostics. They started out in 2003 by providing advisory services locally in sustainable building designs and energy optimisation solutions. They have now expanded to Malaysia, China, and Myanmar.
- We are at the start of the ITM, but we can succeed. We may encounter obstacles along the way, but if we push forward together, we can overcome them. I have every confidence in the ability of local firms to do so. In fact, the award winners today represent the best-in-class for safety, quality, sustainability, inclusivity and productivity. As industry leaders, your "can do" spirit will be an integral part of driving our transformation. I congratulate each and every one of you and look forward to presenting the awards to you later.
- 24 Thank you.