

MEDIA RELEASE

LAUNCH OF THE BUILT ENVIRONMENT INNOVATION HUB @ BCA BRADDELL CAMPUS

Singapore, 26 October 2023 – Ms Indranee Rajah, Minister, Prime Minister’s Office, Second Minister for Finance and Second Minister for National Development unveiled the Built Environment Innovation Hub (BEIH) at the Building and Construction Authority’s Braddell Campus today. The opening of the BEIH was attended by more than 200 built environment professionals, research partners and innovators, celebrating a significant milestone in Singapore’s Built Environment transformation journey.

Connect: Hub for Collaboration

2 The BEIH is envisioned to be a collaborative space to connect like-minded individuals, showcase innovative technologies and ideas, and transfer knowledge to accelerate the transformation of the Built Environment (BE). One use of the space is for it to be a “living laboratory”, allowing collaborators to be co-located on the same campus, so as to be able to conduct research, test-bed and refine in-demand BE solutions in a real world environment.

3 For example, BCA, in partnership with key collaborators from the National University of Singapore (NUS), Singapore Institute of Technology (SIT), Kajima Corporation and Surbana Jurong, are experimenting with a novel approach in cooling office spaces that achieved 55% reduction in cooling energy based on a two-week proof-of-concept experiment. By leveraging and maximising the use of natural ventilation, together with traditional cooling methods such as fans and air-conditioning, a network of sensors provide real-time monitoring of parameters. These include outdoor weather conditions, indoor air quality, temperature, noise and occupancy

levels, aiding the cooling system to recognise the ideal conditions to maximise the use of natural ventilation. This helps to reduce reliance on energy-intensive air-conditioning, saving energy while maintaining thermal comfort.

4 Besides being a living laboratory for research, the BEIH can bring stakeholders together to uncover more about the latest in technology through exchange and networking sessions. Started in October 2022, these curated sessions with technology themes aligned with the Built Environment Industry Transformation Map (BE ITM) have brought together more than 300 local and international stakeholders, industry partners and solution providers across the BE value chain to connect, showcase and deliberate how innovative BE solutions can be readily deployed in our region.

5 In addition, initiatives such as the Built Environment Accelerate-to-Market Programme (BEAMP)¹ continue to bring together innovators and BE firms in developing technology solutions to address real-world challenges in the built environment. This bridges the gap between solution development and market adoption. To date, BEAMP has supported partnerships with more than 60 corporates, startups and SMEs, resulting in the development of 44 innovative Built Environment solutions.

6 Building on the success of previous editions of BEAMP, the fifth cycle of BEAMP will be launched in the first quarter of 2024 with the continued support of Enterprise Singapore and JTC. The programme will provide additional support for companies to conduct small-scale commercial trials to gain early market traction and build track records to bolster their chances of commercialisation in the wider industry. The support for projects that require accelerated development will also be increased from \$30,000 to \$50,000.

Catalyst for Knowledge and Skills Transfer

7 Successful technology deployment requires knowledge and learning to be transferred seamlessly to BE professionals. Earlier this year, BCA announced the

¹ More information on Built Environment Accelerate-to-Market Programme (BEAMP) is at: <https://www.beamp.sg/>

appointment of BCA Academy as the dedicated Continuing Education and Training (CET) Centre for the Built Environment sector².

8 The CET Centre will prioritise deepening in-demand skills and broadening knowledge in emerging areas. To complement existing bespoke leadership training, BCA will build competencies towards enterprise development to better drive value-chain transformation. Additionally, BCA Academy will also be launching five new SkillsFuture Career Transition Programmes (SCTPs) aligned to the BE ITM. These programmes which include Digital Delivery, Sustainable Design, Computational Design, Smart and Sustainable Facility Management and Integrated Project Management Delivery, aim to help mid-careerists, transit and pivot into the BE sector and help firms build up their talent pipeline.

9 With the new facilities, the BCA Braddell Campus has initiated a campus-wide digitalisation plan to make learning more engaging, interactive and immersive. It has gone beyond traditional classroom experience and leveraged technology-enabled learning tools and platforms. For example, BCA along with Serl.io are developing an AI Driven Mixed Reality Experiential Learning Platform (AMRAS) that leverages technology such as HoloLens. The tool simulates real-world scenarios utilising 3D animated objects to engage adult learners to react or interact in situations that stimulate real life experiences. This immersive tool enhances knowledge retention and confidence, benefitting training in areas such as lift maintenance, pipefitting and plumbing.

Showcase: Exemplifying Innovation and Technology through BEIH

10 Finally, the BEIH underscores the industry's commitment to transformation and progress, in line with our ambitions outlined in the refreshed BE ITM. Guests at the BEIH launch were treated to tours of two new Green Mark certified³ buildings at the BCA Braddell Campus, (1) a 7-storey mid-rise Zero Energy Building (ZEB); and (2) a 16-storey high-rise Super Low Energy Building (SLEB). These two buildings are a

² More information on BCA Academy as the dedicated Continuous Education and Training (CET) for the Built Environment sector is at: <https://go.gov.sg/bca-mr-leadsummit23>

³ The 7-storey mid-rise Zero Energy Building (ZEB) and 16-storey high-rise Super Low Energy Building (SLEB) are certified Green Mark Platinum Zero Energy and Green Mark Platinum Super Low Energy Building, respectively.

showcase of innovative construction methods, sustainable materials, integrated digital planning and smart building systems. These buildings achieved remarkable construction productivity improvements of 15% through the use of integrated planning and design and productive building methods. The cutting-edge green features will help to realise energy savings exceeding 46%.

For more information on BEIH @ Braddell Campus, please refer to Annex A.

Issued by Building and Construction Authority on 26 October 2023

Annex A: Factsheet on Built Environment Innovation Hub @ BCA Braddell Campus (BEIH)

About BCA

The Building and Construction Authority (BCA) champions the development and transformation of the Built Environment sector, in order to improve Singapore's living environment. BCA oversees areas such as safety, quality, inclusiveness, sustainability, and productivity, all of which, together with our stakeholders and partners, help to achieve our mission to transform the Built Environment sector and shape a liveable and smart built environment for Singapore. For more information, visit www1.bca.gov.sg.