

MEDIA RELEASE

BCA LAUNCHES WORLD'S FIRST DEDICATED GREEN CERTIFICATION SCHEME FOR LABORATORIES DESIGN AND OPERATION

- *Two inaugural award winners bag the **highest award rating, Platinum award, including National University of Singapore***

31 May 2017, Singapore – The Building and Construction Authority (BCA) will be launching the **world's first green certification scheme** dedicated for laboratories design and operation during the annual BCA Awards ceremony on 13 June.

2. Laboratories are characterised by having high receptacle load due to the specialised need, the need for fresh air dilution to meet safety requirements, and long operating hours. These result in laboratories to be highly energy-intensive, typically consuming about 3 to 5 times more energy than a typical office space.

3. The new scheme, called the “BCA Green Mark for Laboratories”, recognises the sustainable efforts and commitment of laboratory owners and operators to reduce the environmental impact of laboratory operations. It also complements the BCA Green Mark for Buildings scheme by encouraging laboratory operators to adopt best practices, optimise the operations of laboratory equipment and systems, while addressing the safety requirements for laboratories.

Inaugural award winners of the new scheme

4. The two inaugural Platinum winners of the new scheme are **NUS Chemistry Lab** in **Tahir Foundation Building** and the **Cambridge Centre for Advanced Research and Education in Singapore (CARES)** laboratory. The third winner who clinched the Gold award is A*STAR's Institute of Bioengineering and Nanotechnology - **IBN Chemistry Lab**.

5. The chemistry laboratory in the Tahir Foundation Building at the National University of Singapore (NUS) was developed to incorporate green designs, features and practices that make them environmentally sustainable. For example, localised exhaust was installed for critical heat sources to reduce ventilation energy. On-site energy recovery was also implemented to reduce energy required for specific humidity control. Situated in a BCA Green Mark Platinum awarded building, these sustainable laboratories require much lower demand for utilities as compared to similar laboratories, while at the same time ensuring high standards for health and safety.

6. Professor Yong Kwet Yew, NUS Vice President (Campus Infrastructure) said, “We are honoured to be the first Institute of Higher Learning in Singapore to be conferred the inaugural Platinum Award under the BCA Green Mark for Laboratories scheme. NUS adopts a green and sustainable philosophy in the design, operation and maintenance of our campus facilities. Over the years, through scientific and innovative approaches, NUS has implemented various green initiatives and practices to achieve environmental sustainability. This latest BCA Green Mark award for laboratories is a recognition of NUS’ long-standing efforts and commitment to environmental sustainability. NUS remains committed to explore new sustainable approaches to be more resource efficient.”

7. The other award winner is the Cambridge Centre for Advanced Research and Education in Singapore (CARES) laboratory. Housed within National Research Foundation (NRF)’s Campus for Research Excellence and Technological Enterprise (CREATE), the 846 square metres facility has been fitted out with collaboration labs for chemical and biological research in greener chemical engineering processes. The facility has been designed to take advantage of the CREATE building’s energy efficient features. CREATE is also a BCA Green Mark Platinum building. Beyond that, the team also integrated a number of engineering and risk control strategies to deliver a functional, safe and energy-efficient facility as a common collaborative space for its extended family of researchers. These include the use of Local Extract Ventilation (LEV) such as canopy hoods and fume extraction to reduce ventilation energy and use of energy-efficient LED luminaries for lightings.

8. “We have adopted a holistic approach towards designing the facility, from detailed discussion on the scientific needs of our different research programmes, strategies to address our specific lab risks and measures to reduce our facility energy costs. Our teams of consultants and contractors have delivered this project way beyond our expectation and we are proud that this team effort is now recognised by BCA for its inaugural BCA Green Mark for Laboratories Platinum award,” said Professor Markus Kraft, Director, CARES.

9. Commenting on the new scheme, Dr John Keung, CEO for BCA, said: “As part of BCA’s continuous push to break frontiers on the sustainability front, we are proud to launch the **world’s first dedicated green certification scheme for laboratories design and operation**. This achievement has not been easy. Different laboratories have different specifications and safety requirements; hence it was a challenge to come up with a holistic system to rate them. To better understand the performance of laboratories in Singapore, we conducted a Laboratory Energy Performance Benchmarking Study, funded by the National Research Foundation under the Green Buildings Innovation Cluster (GBIC) programme.”

10. “This insightful study conducted by the Energy Research Institute @NTU, with advisory support from the Singapore Sustainable Laboratories Group at Sustainable Energy Association of Singapore (SEAS), enabled us to formulate this ground-breaking

scheme. We are glad to see two Platinum award winners, NUS and CARES, in the augural list of winners. We hope to see more of such exemplary winners join us in the sustainability movement," he added.

Occupant-centric schemes: record number of awarded projects

11. Since the launch of occupant-centric Green Mark schemes by BCA in 2009, there has been a steady rise in the take-up rate. This year, BCA saw a record high in the total number of occupant-centric scheme winners, at around 120 winners, more than double the number in 2015. The new BCA Green Mark for Laboratories scheme is one of the suite of occupant-centric schemes to encourage building users to adopt energy-efficient measures. Other schemes include the BCA Green Mark for Office Interior, BCA Green Mark for Restaurants, and BCA Green Mark for Supermarkets, among others. Ascendas Singbridge won the Platinum award for the BCA Green Mark for Office Interior this year. It is the 40th Office Interior Platinum project and the 250th BCA Green Mark for Office Interior project to achieve this certification.

12. The winners will be receiving their awards during the BCA Awards Ceremony at Resorts World Sentosa, Singapore on 13 June 2017. This event is attended annually by more than 2,000 practitioners from the construction industry and dubbed as the gala event of the built environment.

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About BCA

The Building and Construction Authority (BCA) of Singapore champions the development of an excellent built environment for Singapore. BCA's mission is to shape a safe, high quality, sustainable and friendly built environment, as these are four key elements where BCA has a significant influence. In doing so, it aims to differentiate Singapore's built environment from those of other cities and contribute to a better quality of life for everyone in Singapore. Hence, its vision is to have "a future-ready built environment for Singapore". Together with its education arm, the BCA Academy, BCA works closely with its industry partners to develop skills and expertise that help shape a future-ready built environment for Singapore. For more information, visit www.bca.gov.sg.