Engineering problem-solvers of tomorrow: Sir James Dyson officially open doors to the Dyson-SUTD Innovation Studios

- The Dyson-SUTD Innovation Studios, representing a S\$1m commitment, are the James Dyson Foundation's largest donation to a Singapore education institution yet
- They form part of the James Dyson Foundation's S\$3m charitable donation to support Singapore's engineering education
- The Dyson-SUTD Innovation Studios are the Foundation's first ever community spaces in Singapore to inspire interest in design engineering education
- The studios will serve as a space where SUTD students, under the mentorship of Dyson engineers, will develop hardware and software-driven solutions to the world's problems
- The studios will benefit over 13,000 students across tertiary and secondary school levels over the next five years



25 November 2022, SINGAPORE – Sir James Dyson today officially opened the doors to the Dyson-SUTD Innovation Studios. The spaces were jointly opened with Professor Chong Tow Chong, President of the Singapore University of Technology and Design (SUTD). The opening was witnessed by Dr Beh Swan Gin, Chairman of the Singapore Economic Development Board (EDB).

The Dyson-SUTD Innovation Studios, representing a S\$1m commitment, are the largest ever donation to a Singapore education institution by the James Dyson Foundation – Dyson's global charitable foundation. It forms part of the James Dyson Foundation's S\$3m charitable donation to support Singapore's engineering education, and are the Foundation's first ever spaces in Singapore engineered to inspire community interest in design engineering education.

Led by Dyson engineers, the studios will play host to activities such as the James Dyson Foundation Prototyping Workshop that provides secondary school students exposure to Design Thinking. In addition, the modular spaces will facilitate STEM educational activities for students in general education – such as the 3D printing challenge and the STEM workshop for scholars in the MOE Engineering and Tech Programme. Guest lectures, innovation forums and workshops related to Engineering Design Innovation, Intelligent Robotics, Smart Manufacturing and 3D Printing, and Machine Learning may also be held there.

Meanwhile, students from SUTD's Engineering Product Development (EPD) and Information Systems Technology & Design (ISTD) pillars will have the opportunity to consult with Dyson engineer mentors in the studios, as they work in teams to develop and contribute solutions to the world's most pressing problems in a multidisciplinary engineering environment.

The Dyson-SUTD Innovation Studios are expected to benefit over 13,000 students across tertiary and secondary school levels over the next five years.

Mr Chan Chun Sing, Minister for Education, Singapore, said: "I congratulate the James Dyson Foundation and SUTD in your collaboration. The Ministry of Education looks forward to partnering industry to bolster our national efforts in

STEM education. Partnerships like this continue to be crucial in nurturing future engineering and technology talents to take Singapore forward, as we tackle the challenges of today and tomorrow."

Sir James Dyson, Founder and Chairman, Dyson and the James Dyson Foundation, said: "I hope the Dyson-SUTD Innovation Studios, will inspire more of Singapore's brightest young minds to take up the challenge to solve problems, and discover the rewards of a career in engineering. Young engineers are the world's greatest problem-solvers, and the world needs more of them to bring hardware and software together, developing intelligent solutions to sustainability and the other complex problems the world faces."

Professor Chong Tow Chong, President of SUTD, said: "We are very pleased to work alongside such bold and pioneering minds at Dyson to better the world by design. We believe this partnership will continue to inspire future generations of design innovators and provide many opportunities to both the SUTD family and the wider community, to bring ideas out of the academic environment into the real world."

Earlier this year, the James Dyson Foundation announced an investment of S\$3m into supporting engineering and STEM (Science, Technology, Engineering and Mathematics) education in Singapore over the next five years. The investment is expected to benefit over 100,000 students aged 6 to 25 – from primary through to tertiary levels, and aims to nurture interest in engineering, and bolster national efforts in STEM learning among students in Singapore.

The investment supports a range of educational activities by the James Dyson Foundation, and collaborations with the Ministry of Education (MOE), Science Centre Singapore (SCS), and institutions such as the Singapore University of Technology & Design (SUTD) and Nanyang Technological University (NTU).

In May, the James Dyson Foundation officiated its collaboration with SUTD through the signing of a Memorandum of Understanding (MoU), which was also witnessed by Mr Chan Chun Sing, Minister for Education, Singapore. The MoU is a demonstration of the Foundation's and SUTD's commitment to furthering mutual causes, and recognises the Singapore government's strong support for the partnership in promoting STEM education and nurturing future generations of engineers in Singapore.

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NOTES TO EDITORS

About the James Dyson Foundation

Founded in 2002, the James Dyson Foundation supports design, technology and engineering educational work in the UK and internationally in America, Japan, Singapore, Philippines and Malaysia. To date, the James Dyson Foundation has donated over \$\$235m to charitable causes globally.

Each year, it also gives S\$240,000 in prize money through the James Dyson Award, an international design competition for university students and recent graduates.

At school level, the James Dyson Foundation offers robotics workshops, led by Dyson engineers, and provides free educational resources. These include its most recent launch, <u>Engineering Solutions: Air Pollution</u>: introducing young people to air pollution and engineering's role in finding solutions.

The Foundation also supports medical research and the local community in Singapore where Dyson's headquarters is based. In Singapore, the James Dyson Foundation supports the National Healthcare Group Fund's "Save Limbs, Save Lives" campaign to support research in prevention of diabetes complications.

The Foundation has a <u>website</u>, <u>Instagram</u>, <u>Twitter</u> and <u>YouTube</u>.

About the Singapore University of Technology and Design

The Singapore University of Technology and Design (SUTD) is one of the first universities in the world to incorporate the art and science of design and technology into a truly holistic interdisciplinary education and research experience that culminates in real-world design innovations. SUTD seeks to advance knowledge and nurture technically-grounded leaders and innovators to serve societal needs. SUTD also topped a list of emerging engineering schools in the world in a study commissioned by MIT.

A research-intensive university, SUTD is distinguished by its unique East and West academic programmes that incorporate design thinking, human-centred innovation and entrepreneurship, coupled with local and international industry collaborations. SUTD's key focus areas are Healthcare, Cities, Aviation and Sustainability, with Artificial Intelligence/Data Science and Digital Manufacturing capabilities across all of them. Multiple post-graduate opportunities are available. Skill-based professional education and training courses are also available at SUTD Academy. www.sutd.edu.sg

Backgrounder: James Dyson Foundation partnerships in Singapore

Singapore Universities

1. Partnership with the Singapore University of Technology and Design (SUTD)

In a five-year partnership with Singapore's only STEM-focused university – SUTD – the James Dyson Foundation will launch a new engineering innovation studios at SUTD's campus at Somapah Road, and support the university's nation-wide STEM educational activities including outreach programmes for pre-university students on STEAMxD (Science, Technology, Engineering, Arts, Mathematics and Design) learning, and other educational STEM activities such as the

STEM workshop for the MOE Engineering and Tech Programme Scholarship, and a nationwide James Dyson Foundation-SUTD 3D Printing Challenge.

The Dyson-SUTD Innovation Studios will be a 6,200 sq ft space that offers students from the university's Engineering Product Development, and Information Systems Technology and Design Pillars the opportunity to work in a multidisciplinary engineering environment.

There, Dyson engineers will provide engineering mentorship to students in fields spanning Engineering Design Innovation, Intelligent Robotics, Smart Manufacturing and 3D Printing, and Machine Learning. The Studios will also function as a community space to inspire public interest and participation in STEM activities, hosting workshops that aim to expose the wider community to STEM-related fields.

2. Partnership with the Nanyang Technological University (NTU)

In supporting continued efforts to nurture future design engineers and inventors, the James Dyson Foundation will extend its collaboration with NTU over the next five years via the Dyson-NTU Studios.

First established in 2017, the Dyson-NTU Studios provides students with the opportunity to work with industry experts and advanced prototyping equipment, and develop technological answers to real-world problems. The Dysonengineered Product Development Challenge module, which is taught at the Dyson-NTU Studios, exposes students to a multi-disciplinary engineering environment. Working in groups, students are tasked to identify a problem, invent a solution, and present commercialisation plans.

Singapore schools

In line with its mission of introducing young people to the exciting world of engineering, encouraging them to think differently, and realise their engineering potential, the James Dyson Foundation will collaborate with the Singapore Ministry of Education (MOE) to provide over 300 Singapore schools with materials that allow students to get hands-on with problems, think differently, and find solutions.

1. The James Dyson Foundation Challenge Cards

The James Dyson Foundation will support the country's efforts to provide students with the opportunity to get handson with science and engineering activities through a series of challenges designed by Dyson Engineers – known as the <u>James Dyson Foundation Challenge Cards</u>. Through this collaboration with MOE, Singapore schools will have these cards at their disposal to encourage inquisitive young minds to get excited about science and engineering.

2. The "Engineering Solutions: Air Pollution" Learning Resource

The James Dyson Foundation will support Singapore secondary schools in their efforts to help students appreciate the value of engineering, and to inspire them be bold problem-solvers through the "Engineering Solutions: Air Pollution" learning resource. This resource takes students on a journey to explore a key global problem we face today – air pollution, and understand how engineering and science can be used as solutions. The resource includes a comprehensive student workbook, videos and a supporting pack for parents or teachers. The "Engineering solutions: Air pollution" programme has been piloted in four local schools, and will be expanded to a further 30 schools over the next 5 years.

Science Centre Singapore

In collaboration with the Science Centre Singapore (SCS), the James Dyson Foundation is developing a series of exhibitions that aim to inspire interest in STEM among young minds in Singapore. The exhibitions at SCS are set to launch in March 2022.

1. Future Makers Exhibition

Open since 2019, the Future Makers exhibition celebrates the valuable contribution engineers have made to shape our lives and aims to encourage guests to think and act like engineers. It explores day-to-day innovations as well as complex engineering marvels that have shaped and changed lives. For the first time ever, a new exhibition panel will be added on Sir James Dyson's journey in invention, alongside his philosophies on engineering and embracing failure.

2. Exhibition Showcase

The Science Centre's Exhibition Showcase profiles engineering products and engineering concepts behind everyday items. In collaboration with the Science Centre Singapore, a section will be dedicated to showcasing the engineering behind Dyson technologies. Notably, a key piece of made-in-Singapore technology, the Dyson Hyperdymium[™] motor that sits in many Dyson machines, will be part of this Exhibition Showcase. The Dyson Hyperdymium[™] motor was co-developed in Singapore and is today manufactured at a highly-advanced automated manufacturing facility at Pioneer Crescent.

3. James Dyson Award Wall

The James Dyson Award is an annual international design competition that aims to inspire a new generation of design engineers and inventors. The competition has been active in Singapore since 2005. In 2021, 87 winning teams from across 29 markets were recognised for their solutions to real-world problems. In supporting the centre's goals of challenging young people to 'design something that solves a problem', the wall will profile five past James Dyson Award winners.