Press Release
For Immediate Release

HKSTP Reinforces Vision to Achieve Net-Zero Emissions by 2045 and Help Hong Kong Lead the Region in Green Tech and Green Finance

HKSTP is the first statutory body in Hong Kong to commit to net-zero by 2045 based on the SBTi standard

- HKSTP's Net-Zero 2045 Vision aligns with Hong Kong's Climate Action Plan 2050 and its goal of propelling the city into the international green tech and green finance centre.
- A comprehensive roadmap is being formulated to reduce carbon emissions within HKSTP's properties and across its value chain.
- HKSTP and Green Tech park companies strive to create a virtuous cycle of green innovation and investment to drive sustainability and even more innovation.

(Hong Kong, 5 June 2023) – Hong Kong Science and Technology Parks Corporation ("HKSTP") marked World Environment Day by presenting its Net-Zero 2045 Vision at the HKSTP "Green is Action" event to ensure its operations meet the Corporate Net-Zero Standard established by the Science Based Targets initiative (SBTi) by 2045. This makes HKSTP the first statutory body in Hong Kong to commit to net-zero by 2045, five years ahead of Hong Kong's Climate Action Plan 2050 Carbon Neutrality target.

The commitment is also an investment by HKSTP to build an ecosystem to support the Hong Kong Government's goal of establishing the city as an international green technology and financial centre, as announced by the Financial Secretary in his 2023-24 budget.

The SBTi's Corporate Net-Zero Standard is one of the world's most recognised frameworks for corporate Net-Zero target setting in line with climate science. It includes the guidance, criteria, and recommendations that companies need to set science-based Net-Zero targets consistent with limiting overall global temperature rise to 1.5°C.

HKSTP has set near- and long-term targets covering SBTi's Scope 1, 2 & 3 carbon emissions. These cover carbon emissions across its own operations and across its extended value chain. The near-term targets by 2030 include:

(i) Reductions of 42% carbon emissions in operations (i.e., Scope 1 & 2);
(ii) Value chain carbon emissions (i.e., Scope 3):
   a. Reduction of 25% carbon emissions in downstream leased assets such as carbon emissions from tenants and waste.
   b. Reduction of 52% carbon emissions intensity (per square meter) from capital goods such as embodied carbon emissions.

To start this journey to Net-Zero, HKSTP is formulating a decarbonisation roadmap with a key focus on areas such as building energy efficiency, retro-commissioning and retrofitting.

Mr. Albert Wong, CEO of HKSTP, said: “Hong Kong is fast emerging as a leader and a first-mover in green tech and green finance innovation. We hope our Net-Zero 2045 vision can help lead the way by setting new operating benchmarks and show Hong Kong businesses and industries that Net-Zero is a viable business goal. HKSTP is building a green tech and green finance ecosystem to spark a cluster effect to launch climate and sustainability innovations from Hong Kong to the world and vice versa. With more than 100 green tech ventures already, HKSTP believes that creating a virtuous cycle of green innovation and investment will drive sustainability, which further drives even more innovation.”

HKSTP and several green tech park companies showcased how the Science Park ecosystem is driving world-class innovations for a greener, more sustainable future. Featured green tech park companies include (company profiles are attached in Appendix):

- Archireef Limited
- i2Cool Limited
- ‘M’ Concepts Studio Ltd
- Neuron Digital Group

Ms. Hayley Wong, Sustainability Strategist of Archireef Limited, said: “Archireef aims to enhance marine biodiversity for a nature-positive future, which also aligns with Hong Kong’s commitment to become carbon neutral by 2050 and the United Nations’ rally call for the decade of restoration 2021-2030. Headquartered in Hong Kong and expanded to Abu Dhabi in the United Arab Emirates last year, Archireef is well-positioned to further expand its footprint and restore coral reefs in other parts of the world.”

Dr. Martin Zhu, Co-Founder of i2Cool Limited, said: “i2Cool is committed to integrating energy-saving innovative technologies into people's daily lives, alleviating energy shortages, promoting sustainable development and economic growth, and moving towards carbon neutrality. Our passive radiative cooling technology is inspired by Saharan silver ant’s skin structure with self-cooling function that allows it to survive in an extremely hot environment. Let’s go green and stay cool!”

Mr. John Wong, Assistant Manager of ‘M’ Concepts Studio Ltd, said: “With growing concerns around global warming, developing an efficient indoor environmental control system becomes essential in every part of the world to safeguard human health. With our continual R&D development at HKSTP, our aspiration is to expand our Flatcool Technology to other building sectors including high performance data centres, hospitals, and transportation hubs. We strongly believe that our innovative Flatcool Technology will provide a promising direction towards achieving an efficient and climate-friendly cooling technology to help reduce carbon footprints.”

Mr. Mark Chen, Executive Lead of Neuron Operations Limited, said: “In the Hong Kong construction sector, buildings account for 90% of total electricity usage and generate 60% of carbon emissions each year. Neuron is committed to being an ESG-driven and oriented organisation, exerting our talent to helping various industries with viable solutions - enhance energy efficiency and decrease carbon emissions. Making both commercial activities and environmental protection achievable.”

For more information on HKSTP’s sustainability initiatives please refer to:
https://www.hkstp.org/who-we-are/sustainability/

Photo 1: Mr. Albert Wong, CEO, HKSTP (third from right), and Mr. Barry Kwong, Director, Sustainability, HKSTP (third from left), showcased how the Science Park ecosystem is driving world-class innovations for a greener future. Attending representatives from park companies include Ms. Hayley Wong, Sustainability Strategist, Archireef Limited (first from left), Mr. Mark Chen, Executive Lead, Neuron Operations Limited (second from left), Mr. John Wong, Assistant Manager, 'M' Concepts Studio Ltd (first from right), and Dr. Martin Zhu, Co-Founder of i2Cool Limited (second from right).

Photo 2: Mr. Albert Wong, CEO, HKSTP, shared that creating a virtuous cycle of green innovation and investment will drive sustainability, which further drives even more innovation.

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Appendix: Green Tech Park Company Profiles

Company Name (in alphabetical order)	**Business Overview**
Archireef Limited	Archireef offers climate solutions by restoring degraded marine ecosystems by combining expertise in marine biology and the latest technologies in 3D printing techniques and material science to create artificial habitats that are best suited for threatened marine life. By utilizing nature-based solutions aided with 3D-printing technology, Archireef aims to enhance marine biodiversity for a nature positive future, which also aligns with Hong Kong's recent commitment to become carbon neutral by 2050 and the United Nations' rally call for a decade of restoration in 2021-2030. Archireef's main headquarters is in Hong Kong, and quickly expanding to other regions of the world, with upcoming projects planned in Hong Kong and Abu Dhabi, the United Arab Emirates.
i2Cool Limited	i2Cool is a technology start-up that has been incubated by the HK Tech 300 Program at the City University of Hong Kong and the Incubation Program at Hong Kong Science and Technology Park. The team has made a breakthrough in developing the world's leading passive radiative cooling paint that requires no energy consumption. The Electricity-free Cooling Paint (iPaint) was officially launched in November 2021 and is the first commercial offering from the company. The iPaint technology is remarkable as it can reduce the temperature of surfaces without using electricity. Unlike traditional paint, which absorbs sunlight and heat, iPaint deflects and dissipates solar heat to the surrounding space through the mid-infrared wavelength range. It can be applied to various types of surfaces, including buildings, automobiles, and outdoor electronic equipment. iPaint has an impressive solar reflectivity of 95.02% and high thermal emission of 95.2%, which makes it highly effective in cooling surfaces. By using iPaint on outdoor and indoor surfaces, such as rooftops and building structures, users can significantly limit the need for air conditioning and reduce energy consumption. This patented cooling technology has been designed for use in buildings, construction scenarios, outdoor facilities, and outdoor storage systems. Its market has expanded to Southeast Asia, the Middle East, Europe, and the United States, making it possible to accelerate the pace of energy-saving technology worldwide. i2Cool is committed to integrating innovative energy-saving technologies into people's daily lives, promoting sustainable development and economic growth, and moving towards carbon neutrality. Their mission is to alleviate energy shortages, and they are paving the way for a greener future by making energy-efficient technology available to all.

'M' Concepts Studio Ltd	Formed in August 2020, 'M' Concepts Studio Ltd. is a team of local seasoned and young passionate engineers with expertise in innovative concept designs in green technologies. Under the present global trend of resource depletion and more frequent occurrence of extreme climatic conditions, 'M' Concepts has a vision to enhance human comfort and convenience in lifestyles the application of innovative green and smart designs. 'M' Concepts has recently invented a highly energy efficient and wellness "Environmental Control System" (ECS)" for building – the 'Flatcool Technology' that adopts a mixed mode operation of natural ventilation and specially designed chilled panels in combination of a fresh air supply unit replacing the less energy effective conventional air conditioning system. This 'Flatcool Technology' had been applied to several pilot building projects in Hong Kong such as Hang Seng Bank Headquarters, elderly centres and the most recent one is at 'Showcase' - Building 5E of the Hong Kong Science Park. This is a highly energy efficient and quiet indoor ECS system to replace conventional air-conditioning system. Based on data collected in the pilot projects, energy saving is typically 40-65% (depending on seasons) compared to conventional air-conditioning systems. In addition, this system can operate with 100% fresh air mode with no recirculation air and hence during high infectious disease period like COVID-19 or SARS, risk of infection amongst people inside buildings can be much reduced. Large air-change rates can be maintained that enable quick dilution of virus and bacteria of the indoor environment that further reduces risk of cross contamination of diseases. This technology can also save significant building and interior materials volumes compared to conventional system that helps reduce large amount of passive embedded carbon adding further marks towards carbon neutrality.
Neuron Digital Group	In the Hong Kong construction field, buildings account for 90% of electricity usage and generate 60% of total carbon emissions each year. Neuron is committed to being ESG-oriented business, exerting our talent and skills in helping various industries with viable solutions - enhance energy efficiency and decrease carbon emissions. Making both commercial activities and environmental protection achievable. Neuron Energy module is commonly applied to help various fields in energy optimization. Our data engineers can make the best use of existing building data, empowering the platform to analyse performance intelligently. Backed by domain knowledge of our experts, our recommendations are grounded to assist in optimizing the configurations. Accordingly, we could decrease power consumption, achieve ESG target successfully and spare unnecessary cost.

	Targeting sustainability, we introduced another module - Neuron Sustainability. It helps capture a complete record of carbon emissions from the whole ecosystem of a building from its electricity generators to waste disposal. Our system will keep track of all records of carbon emission data around building's operation. With the support of Neuron's module, the property operator has the necessary data to take further actionable strategies. Neuron has been granted several awards, such as Bim Automation Arena 2023 – Software Applications (Standalone/SaaS) Corporation – Honourable Mention: Neuron Digital Twins Platform, Decision Analytics Outstanding Award – Outstanding Data in Action.

About Hong Kong Science and Technology Parks Corporation

Hong Kong Science and Technology Parks Corporation (HKSTP) has for over 20 years committed to building up Hong Kong as an international innovation and technology hub to propel success for local and global pioneers today and tomorrow. HKSTP has established a thriving I&T ecosystem that supported 14 unicorns and Hong Kong's leading R&D hub with over 13,000 research professionals and over 1,400 technology companies focused on healthtech, AI and robotics, fintech and smart city technologies.

Established in 2001, we attract and nurture talent, accelerate and commercialise innovation and technology for entrepreneurs on their journey of growth in Hong Kong, to the Greater Bay Area, Asia and beyond. Our growing innovation ecosystem is built around our key locations of Hong Kong Science Park in Shatin, InnoCentre in Kowloon Tong and three modern INNOPARKs in Tai Po, Tseung Kwan O and Yuen Long. The three INNOPARKs are realising a vision of new industrialisation for Hong Kong. The goal is sectors like advanced manufacturing, electronics and biotechnology are being reimagined for a new generation of industry.

Through our infrastructure, services, expertise and network of partnerships, HKSTP will help establish innovation and technology as a pillar of growth for Hong Kong, while reinforcing Hong Kong's international I&T hub status as a launchpad for global growth at the heart of the GBA innovation powerhouse.

More information about HKSTP is available at www.hkstp.org.

Media Contact:

Hong Kong Science and Technology Parks Corporation
Betsy Leung
Tel: +852 2629 2300 / 9639 8216
Email: betsy.leung@hkstp.org

Edelman Public Relations
Sonia Leung
Tel: +852 2837 4775
Email: Sonia.Leung@edelman.com/
Edelmanhkstppr@edelman.com