For Immediate Release

LSCM Logistics Summit 2024 "From Smart City to Digital Economy"

MoU Signing with renowned Mainland institutes for collaborations in key technology research Showcasing the latest technology to accelerate the Smart City development and digital economy growth

10 October 2024, Hong Kong — The Logistics and Supply Chain MultiTech R&D Centre (LSCM) successfully held its flagship annual event, LSCM Logistics Summit 2024, today at Hong Kong Science Park. Under the theme "From Smart City to Digital Economy", the event highlighted the importance of innovative technologies in fostering the development of the Smart City and Digital Economy and facilitating the industry to capitalise on the new opportunities brought about by technology development in the Greater Bay Area (GBA). At the Summit, LSCM signed Memorandums of Understanding (MoUs) with leading institutes in Mainland China to further advance collaborations in the research and development of various key technologies for smart city development and cross-border logistics. In addition, LSCM showcased a series of its cutting-edge technologies developed for the logistics and other sectors at the event, including the Cross-boundary Blockchain for Pharmaceutical Logistics Information Management, Digital Supply Chain Logistics Management Platform for Cell & Gene Therapy Product Manufacturing, e-Smart Port Platform and Smart Robotics Coordination System for Hospital Logistics.

With an aim to facilitate technology adoption by the industry, enhance Hong Kong's digitalisation and competitiveness, and promote the collaboration in technology development among Hong Kong and other cities in the GBA, the Summit gathered government officials, industry experts, business leaders and academic representatives to share their experience, views and inspiring insights on how to leverage innovative technologies to accelerate the digital transformation in different sectors and facilitate Hong Kong's development into a smart city, as well as the growth of digital economy, thereby utilising the strength of different cities to accelerate the logistics and economic development in the region.

"The LSCM is an active partner in our endeavours on smart city development. It participates in a number of pilots and proofs-of-concept involving government bureaux and departments. A notable example is the development of the Cross-boundary Public Services self-service kiosks. I am excited to learn that the LSCM will expand its collaboration networks by signing three MOUs with three leading research institutes from Mainland China respectively covering different fields of information technology such as software and container logistics. I am confident that these collaborations will inject new impetus into the LSCM's work to generate more breakthroughs in the areas of smart city-related solutions.," said **Prof Dong SUN**, JP, Secretary for Innovation, Technology and Industry, The Government of the Hong Kong SAR, in his opening remarks.





Closer collaboration with Mainland institutes in technology R&D to foster cross-border logistics

One of the highlights of the Summit was the MoU signing ceremony among LSCM, Guangzhou Institute of Software and CAS Smart City (Guangzhou) Information Industry Co., Ltd. Witnessed by Ir Prof Alan LAM, JP, Chairman of the Board of Directors, LSCM, and Mr XIE Wei, Deputy Party Secretary of the Nansha Development Zone Party Working Committee, Mr Simon WONG, MH, FCILT, Chief Executive Officer, LSCM, signed the MoU with Dr LI Yin, Vice President, Guangzhou Institute of Software, and Dr YUAN Feng, Executive Vice President of Guangzhou Institute of Software and Chairman of CAS Smart City (Guangzhou) Information Industry Co., Ltd. to jointly enhance the collaboration of the three organisations in the research and development of Smart City technology and infrastructure. They will explore collaborative models applicable in the Greater Bay Area, jointly build research capabilities, and enhance support and services for digital infrastructure development.

In addition, LSCM signed MoUs with **CEC Joint Innovation Research Institute** to collaborate on the evaluation and testing of the security and sustainability of technology and systems; and with **Sinotrans South China Container Logistics Co., Ltd.** with an aim to collaborate on the technology development for cross-border logistics.

"LSCM is pleased to collaborate with these top-tier institutes in Mainland China in fostering the research and development of innovative technologies. This marks a significant milestone for the Centre and is a proof of our effort in the development of the technology for smart city and digital economy, further demonstrating LSCM's commitments in I&T advancement in supporting Hong Kong's development as a world-class smart city, as well as fostering technology development in the region," said Ir Prof Alan LAM, JP, Chairman of the Board of Directors, LSCM, at the event.

Showcasing key technologies to drive the industries forward

LSCM also showcased a series of its latest innovative technologies to promote technology adoption in the industries which can enhance the operational efficiency and productivity of different industries, as well as the quality of life of the public. For instance, the Smart Robotics Coordination System for Hospital Logistics which consists of an Autonomous Mobile Robot (AMR) and a Robot Fleet Management System (RFMS) was showcased at the event. The RFMS automatically coordinates the robots and elevators to carry out material transporting tasks and it can also handle special traffic situations, such as avoiding collisions with mortuary carts and hospital beds. The robots are capable of navigating in indoor and outdoor areas, on slopes, and tactile paving surfaces; and they can autonomously transform themselves to suit limited spaces. It can help workers transport heavy items in the hospital to enhance efficiency.

"LSCM utilises the innovative technologies developed by the Centre, such as artificial intelligence, Internet-of-Things, robotic automation, satellite navigation and remote sensing, network security and reliability technologies, etc., to promote digitalisation in Hong Kong, encouraging digital transformation of the logistics industry, enhancing the efficiency and productivity of different industries, including logistics, hospitals, elderly services industry, and more, while fostering Hong Kong's smart city development. We look forward to the closer collaboration with different sectors and Mainland institutes to develop more innovative

technologies so as to strengthen Hong Kong's position as an international financial, trade, shipping and logistics centre. We strive to collaborate with Mainland enterprises closely to serve the country," said **Mr Simon WONG**, MH, FCILT, Chief Executive Officer, LSCM, in his sharing at the Summit.

(Please see Appendix I for more information on the LSCM technologies showcased at the Summit.)

Heavyweights from government and industry shared insights into the advancement of innovation and technology

The LSCM Logistics Summit 2024 served as a key platform for government officials, industry experts, business leaders and representatives from academia to share insights into the recent technology advancements in accelerating Smart City development and driving the growth of the digital economy in Hong Kong, and to explore the opportunities and challenges that digitalisation will bring about. Keynote speakers included Prof Dong SUN, JP, Secretary for Innovation, Technology and Industry, The Government of the Hong Kong SAR, Mr XIE Wei, Deputy Party Secretary of the Nansha Development Zone Party Working Committee, Dr WU Jingzheng, Deputy Director, Institute of Software, Chinese Academy of Sciences, Dr LIU Guangyi, Chief Scientist of 6G, China Mobile Communication Corporation, Mr Mark WATTS, Chief Operating Officer, Cathay Cargo Terminal, Mr ZHANG Hongming, Assistant President of China National Software & Service Company Limited, Mr YUAN Hangzhi, Assistant General Manager, Guangdong Electronic Port Management Co., Ltd., Ir Tony WONG, JP, Commissioner for Digital Policy, The Government of the HKSAR, Mr HUI Chark Shum, Sam, JP, Deputy Secretary for Health, Health Bureau, The Government of the HKSAR, Dr YUAN Feng, Executive Vice President of Guangzhou Institute of Software and Chairman of CAS Smart City (Guangzhou) Information Industry Co., Ltd., Mr Jing DONG, Head of Emerging, Lenovo PCCW Solutions, Mr JIANG Hu Lin, Global Marketing Director, Huawei Government Public Services Digitalisation, Mr Jonathan PENG, Senior Solution Architect, Alibaba Cloud Intelligence International Hong Kong, Alibaba Group, Ir Prof Alan LAM, JP, Chairman of the Board of Directors, Logistics and Supply Chain MultiTech R&D Centre, Mr Simon WONG, MH, FCILT, Chief Executive Officer, Logistics and Supply Chain MultiTech R&D Centre, and Mr LEE Hon Man, CDSM, Special Project Director, Logistics and Supply Chain MultiTech **R&D** Centre

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About LSCM

The Logistics and Supply Chain MultiTech R&D Centre (LSCM) was founded in 2006, with funding from the Innovation and Technology Fund of The Government of the Hong Kong SAR, and is co-hosted by the University of Hong Kong, the Chinese University of Hong Kong and the Hong Kong University of Science and Technology. It aims to strengthen the local logistics sector and related industries by providing a one-stop resource for applied research and technology transfer, and to reinforce cooperation between the industry and research institutes, to bring about meaningful and significant benefits to the industry and the community. For more information, please visit www.lscm.hk.

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Photo Captions:

Photo 1:



The Logistics and Supply Chain MultiTech R&D Centre (LSCM) successfully concluded its annual flagship event, the **LSCM Logistics Summit 2024**, themed "**From Smart City to Digital Economy**", at Hong Kong Science Park. Government officials, industry experts, business leaders, and academic representatives shared valuable insights on leveraging innovative technologies to facilitate Hong Kong's development into a smart city and the growth of digital economy.

Photo 2:



In his opening remarks, **Prof Dong SUN**, JP, Secretary for Innovation, Technology and Industry, The Government of the Hong Kong SAR, highlighted LSCM's active role in smart city development and collaborations with government departments and different sectors.



Photo 3:



LSCM signed a Memorandum of Understanding (MoU) with CEC Joint Innovation Research Institute to collaborate on the evaluation and testing of the security and sustainability of technology and systems.

Photo 4:



LSCM signed a MoU with the Guangzhou Institute of Software, and CAS Smart City (Guangzhou) Information Industry Co., Ltd., marking the collaboration of the three organisations in the research and development of Smart City technology and infrastructure.



Photo 5:



LSCM signed a MoU with Sinotrans South China Container Logistics Co., Ltd. with an aim to collaborate on the technology development for cross-border logistics.

Photo 6:



LSCM Logistics Summit 2024 gathers the industry practitioners to promote technology adoption in the industries for enhancing operational efficiency and productivity of different industries, as well as the quality of life of the public.

Appendix I: Latest innovative technologies from LSCM

1. Smart Robotics Coordination System for Hospital Logistics

In the hospital environment, the staff frequently need to transport heavy items. Therefore, LSCM has developed an Autonomous Mobile Robot (AMR) and a Robot Fleet Management System (RFMS). The AMR can adapt to various hospital-specific carts of different sizes, with a maximum load capacity of 200 kg. The RFMS automatically coordinates the robots and elevators to carry out material transporting tasks and it can also handle special traffic situations, such as avoiding collisions with mortuary carts and hospital beds. The robots are capable of navigating in indoor and outdoor areas, on slopes, and tactile paving surfaces; and they can autonomously transform themselves to suit limited spaces. Additionally, there is an open API that allows the integration of various types of robots for unified control and management.

Follow-me Robot

With the aging population, the elderly service industry requires innovative technologies to alleviate the workload of the workers. Different from other robots, LSCM developed the Follow-me Robot with platooning technology which can not only help workers deliver heavy items, but also follow the workers in both indoor and outdoor environments. The robot is also equipped with automatic collision avoidance technology, which can prevent collisions with others when it is in use.

Electronic Power Assist Trolley System

The Electronic Power Assist Trolley System is equipped with an intuitive control function. Electronic sensors are strategically embedded in the trolley handlebar to measure the micro deformation of the materials when force is applied by the user. Based on the sensors' value, the onboard AI controller calculates the torque vector at a frequency of 100 times per second. The torque is then amplified by two motors connected to the wheels of the trolley to control the steering, forward movement and backward movement of the trolley easily.

The use of the Electronic Power Assist Trolley System is the same as the traditional trolley, but it makes transporting heavy items easier and more efficient. The operator can control this trolley system to transport heavy items with ease, which helps to minimise the risk of workplace injuries. Additionally, the trolley's built-in regenerative braking system allows it to be safely used on ramps.

2. e-Smart Port Platform

LSCM has been working with the Transport and Logistics Bureau to develop the e-Smart Port Platform (eSPP). It is a data-smart infrastructure and an interorganisational software platform to facilitate the sharing of port and logistics information in the port community. eSPP deploys blockchain technology, smart contracts, advanced IoT and global positioning technology, etc. with a view to tracking and visualising the global supply chain and port logistics efficiently.

eSPP also includes a News Portal App which gathers industry news, reports, blogs, and other useful information for the port community's reference and discussion.



3. Cross-boundary Blockchain for Pharmaceutical Logistics Information Management

To facilitate the policy of allowing Hong Kong registered drugs and medical devices to be used in designated Hong Kong public hospitals in the Guangdong-Hong Kong-Macao Greater Bay Area, LSCM developed the technology to address the issues related to cross-border circulation of pharmaceuticals, including standard compatibility, privacy protection, cross-boundary data sharing, and data coordination.

This project aims to establish a secure and efficient channel for data exchange, and to provide a one-stop cross-boundary pharmaceutical circulation and regulation platform to facilitate the work of pharma distributors, and healthcare institutions in Hong Kong and in the GBA, as well as the regulatory authorities in both Mainland China and in Hong Kong.

Digital Supply Chain Logistics Management Platform for Cell & Gene Therapy Product Manufacturing

The Hong Kong Institute of Biotechnology (HKIB) Advanced Therapy Products Good Manufacturing Practice Centre (ATP GMP Centre) is at the forefront of producing Chimeric Antigen Receptor T-cells (CAR-T) treatments locally, offering CAR-T products manufactured in Hong Kong to reduce the time for overseas waiting, production, transportation, and the high costs.

To accelerate translational medicine research in Hong Kong and in the Greater Bay Area, and to expand its global reach, it is crucial to enhance the ability to export locally produced Advanced Therapy Products (ATPs) for cutting-edge clinical trials. Therefore, the operational workflows of CAR-T cell manufacturing require a comprehensive, efficient and accurate digital manufacturing and supply chain system. This system supports Al Machine Translation technology, providing specialised language translation services tailored to the domain of cell gene therapy. To ensure the security and integrity of the system, blockchain technology and continuous reauthentication technology are utilised.

