



**APAS Reveals the City's First
"Hong Kong Hydrogen Economy Report and Survey Result"
Recommends Establishing Policies and Regulatory Frameworks to Foster Growth in Hong Kong's
Hydrogen Economy**

(Hong Kong, 13 October 2023) The Automotive Platforms and Application Systems R&D Centre (APAS), today announced the city's first "Hong Kong Hydrogen Economy Report and Survey Result", conducted by APAS with the assistance of the City University of Hong Kong (CityU). It incorporates industry perspectives on the development and opportunities of Hong Kong's hydrogen economy. The survey result indicates a positive response from the industry regarding the development of hydrogen in Hong Kong.

The trial implementation of hydrogen fuel cell double-decker buses and heavy vehicles in 2023, as well as the formulation of a strategy for land transport to utilise hydrogen by 2025, were proposed in the "2022 Policy Address". The "Hong Kong Hydrogen Economy Report and Survey Result" provides data research on global hydrogen technology and its potential applications in Hong Kong. This will assist the HKSAR Government (the Government) in formulating long-term strategies for hydrogen use in land transport and promoting initiatives for hydrogen development to achieve Hong Kong's goal in achieving carbon neutrality by 2050.

Hong Kong Hydrogen Economy Report

The Government's "Clean Air Plan for Hong Kong 2035" (the Plan) outlines a range of policies to tackle the challenges in improving the air quality of Hong Kong. Encompassing six major actions such as green transportation, comprehensive emission reduction, and clean energy, etc., the Plan aims to align with national development objectives and facilitate the holistic advancement of Hong Kong's hydrogen industry.

The "Hong Kong Hydrogen Economy Report" (the Report) focuses on several key aspects and recommendations to accelerate the hydrogen economy. Firstly, it explores the potential of utilising hydrogen in Hong Kong, such as its use in commercial vehicles. Secondly, it examines recent trends in the hydrogen field in Hong Kong, including innovative technological research projects related to hydrogen production, storage, and application. Lastly, the Report discusses the limitations of hydrogen development in Hong Kong and proposes corresponding strategies to drive the development of the local hydrogen industry, embracing the new era of the hydrogen economy.

The Report also points out that Hong Kong has a significant advantage in hydrogen application compared to other places because its utility gas mixture supply network covers most areas, with half of the gas mixture being hydrogen. This allows for the extraction of pure hydrogen from the utility gas mixture supply network at target locations through appropriate equipment. Additionally, the existing infrastructure can handle hydrogen-blended mixture, making the development and application of pure hydrogen in the transportation sector more cost-effective. Furthermore, promoting hydrogen-fuelled vehicles will contribute to achieving carbon neutrality goals in the transportation industry. Hydrogen and battery-powered vehicles complement each other as green transportation options, meeting the diverse energy needs of vehicles. It is also emphasised that the formulation of policies and regulations for hydrogen utilisation will be a significant driving force for promoting hydrogen application in Hong Kong.

PRESS RELEASE

新聞稿



Survey Result

This survey examines hydrogen production in Hong Kong and other regions, in particular, the insights from the industry into fields related to hydrogen production, distribution, safety, usage, and economics, etc. In terms of hydrogen production and supply, the survey result indicates that over 40% of respondents believe it is challenging for Hong Kong to produce enough hydrogen locally, possibly due to concerns about limited land supply. Among them, more than half (51.1%) expressed the view that Hong Kong lacks land for green hydrogen production. Therefore, the mainstream opinion suggests that Hong Kong would need to import hydrogen from the Mainland (62.5%) or other countries such as Australia, Chile, and South Africa to meet local demand.

In terms of hydrogen safety, 68.2% of respondents believe that hydrogen-powered vehicles are no less safe than traditional cars or pure electric vehicles. Additionally, 80.7% of respondents think that hydrogen-powered vehicles can be safely used as long as they comply with the appropriate international standards/requirements. When considering whether to enter the hydrogen market, the industry takes into account three main factors, including the development potential of renewable energy and hydrogen technology in Hong Kong (44%), concerns about climate change and sustainable development (38%), and new perspectives and market opportunities (36%).

Regarding transportation costs, more than half of the respondents (56.8%) believe that the price of hydrogen fuel would hinder its wide adoption. If the operating costs of hydrogen-fuelled vehicles are not 20% higher than those of traditional vehicles or electric vehicles, 55% of the respondents are willing to transit to hydrogen-fuelled vehicles. 64.8% of the respondents prefer hydrogen-fuelled vehicles over commercial electric vehicles when considering factors such as range and charging/hydrogen refuelling time. However, approximately 22% of the respondents expressed a lack of strong interest in transitioning to hydrogen-fuelled vehicles, regardless of the operating costs.

With regards to promoting carbon reduction, as the promotion of the utilisation of hydrogen in Hong Kong is part of the city's overall plan to achieve carbon neutrality, 87.5% of respondents agree that hydrogen will become one of the crucial energy sources in reducing the air pollution and attaining carbon neutrality in the future.

Dr Lawrence CHEUNG, Chief Executive Officer, APAS, highlighted, "To support the development of hydrogen economy in Hong Kong, the industry looks forward to the future hydrogen policies to be announced by the Government, including a roadmap and long-term goals, establishing a clear and consistent regulatory framework, and providing economic incentives for hydrogen gas producers, hydrogen refuelling station operators, and certification organisations, in addition to policy support for infrastructure development. Moreover, there is a need to enhance hydrogen and new energy-related courses in local universities and colleges to cultivate talent in the hydrogen industry or those already involved in the field."

Prof Yun Hau NG, School of Energy and Environment, City University of Hong Kong, said, "The survey report reflects positive sentiments within the industry regarding the development of hydrogen in Hong Kong, particularly in terms of confidence in hydrogen safety. The report and survey also show a general preference for commercial hydrogen vehicles, as they are believed to reduce air pollution and help decrease carbon emissions. Even if the cost of hydrogen vehicles is up to 20% higher than traditional or electric vehicles, respondents are still willing to switch to hydrogen-powered cars."

PRESS RELEASE

新聞稿



The survey of the "Hong Kong Hydrogen Economy Report" was conducted in August and September 2023, and successfully interviewed 88 industry stakeholders. The Report can be downloaded from the APAS website in due course: u.hkpc.org/APAS_en

- Ends -

Photo Caption

1. Dr Lawrence CHEUNG, Chief Executive Officer, APAS (left), and Prof Yun Hau NG, School of Energy and Environment, CityU (right), announced the "Hong Kong Hydrogen Economy Report and Survey Result" at the press conference and stated that the industry's responses on the hydrogen development in Hong Kong were predominantly positive.



About Automotive Platforms and Application Systems R&D Centre (APAS)

The Automotive Platforms and Application Systems R&D Centre (APAS) is set up under the R&D Centre Programme of the Innovation and Technology Commission and was hosted by the Hong Kong Productivity Council (HKPC) until 31 October 2012. The Centre was merged with HKPC with effect from 1 November 2012. The Centre continues to undertake market-led R&D programmes as well as commercialises R&D results in collaboration with industry, universities and technology institutes in the area of automotive parts and accessory systems. The aim is to enhance the capabilities and competitiveness of Hong Kong's automotive parts and accessory systems industry, which is made up of different industry sectors including the foundation industries.

About Hong Kong Productivity Council

The Hong Kong Productivity Council (HKPC) is a multi-disciplinary organisation established by statute in 1967, to promote productivity excellence through relentless drive of world-class advanced technologies and innovative service offerings to support Hong Kong enterprises. Being a key enabler of Industry 4.0 and Enterprise 4.0, HKPC strives to facilitate new industrialisation in Hong Kong, as well as bolstering Hong Kong to be an international innovation and technology centre and a smart city. The Council offers comprehensive

PRESS RELEASE

新聞稿



innovative solutions for Hong Kong industries and enterprises, enabling them to achieve resources and productivity utilisation, effectiveness and cost reduction, and enhance competitiveness in both local and overseas marketplace. The Council partners and collaborates with local industries and enterprises and world-class R&D institutes to develop applied technology solutions for value creation. It also benefits a variety of sectors through product innovation, technology transfer, and commercialisation, bringing enormous business opportunities ahead. HKPC's world-class R&D achievements have been widely recognised over the years, winning an array of local and overseas accolades.

In addition, HKPC offers SMEs and startups immediate and timely assistance in coping with the ever-changing business environment, and strengthens talent nurturing and Hong Kong's competitiveness with FutureSkills training for enterprises and academia to enhance digital capabilities and TechEd competencies. For more information, please visit HKPC's website: www.hkpc.org/en.

Media Enquiry

Corporate Communications Unit
Corporate Development Division
Hong Kong Productivity Council
Tel: (+852) 2788 5833
Email: mediacentre@hkpc.org

