

Trade and Industrial Organisation Support Fund (TSF)

Final Report on Approved Project

Grantee	:	SAE International (Hong Kong) Limited	
Implementation Agent(s) (if any)	:	Hong Kong Productivity Council (HKPC) Productivity (Shenzhen) Consulting Co., Ltd (SZWFOE)	
Project reference no.	:	T21 002 006	
Project title	:	To enhance Hong Kong automotive SMEs' technological capability and explore business opportunities in the Mainland	
Period covered in this report (whole project duration)	:	From 01/05/2022 (dd/mm/yyyy)	to 29/02/2024 (dd/mm/yyyy)

1. Project Details

Project summary (in about 150 words)

Hong Kong small and medium-sized enterprises (SMEs) in automotive industry lack the technological capability and business opportunities in several emerging technologies of smart mobility and new energy vehicles. New technologies in smart mobility include 5G, vehicle-to-everything (V2X), sensor technologies, Artificial Intelligence and Internet of Things (AIOT), autonomous driving, intelligent connected vehicles, etc.; new technologies in new energy vehicles include pure electric vehicles, extended range electric vehicles, and hydrogen fuel cell vehicles. These emerging technologies are rapidly being developed and deployed in the Mainland. To enhance these technology capabilities and explore business opportunities for Hong Kong SMEs in automotive industry, it is now the right moment and an excellent opportunity to establish industry-level cooperation with automobile original equipment manufacturers (OEMs), which usually refers to automobile manufacturers, and Tier 1 suppliers, which usually refers to suppliers of core systems of vehicles, to expand their business into the high value-added Mainland market via participating in two technical exhibitions. Besides, Hong Kong automotive SMEs are eager to explore new business opportunities to fulfill industry needs, so they need to learn from industry experts for these emerging technologies and to adopt these emerging technologies in their business for transformative innovations.

Project objectives (in about 50 words)

To enhance Hong Kong automotive SMEs' technological capability and explore business opportunities in the Mainland

Collaborating Organisations (if any)

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

China Society of Automotive Engineers (China-SAE)

Hong Kong Auto Parts Industry Association Limited

Hong Kong Wireless Technology Industry Association Limited

Federation of Automobile Services Industry Hong Kong Limited

Hong Kong E-Vehicles Business General Association Limited

Asia Pacific Connected Vehicles Industry Association Limited

Key personnel

	<u>Name</u>	<u>Post title and name of organisation</u>
Project Coordinator	: <u>To Ching Nok, Catter</u>	<u>Honorary Chairman, SAE International (Hong Kong) Limited</u>
Deputy Project Coordinator	: <u>Larry LI</u>	<u>Associate Principal Consultant, Hong Kong Productivity Council</u>

Project duration

	<u>Commencement date</u> (dd/mm/yyyy)	<u>Completion date</u> (dd/mm/yyyy)	<u>Project duration</u> (no. of months)
As stated in the project agreement	<u>01/05/2022</u>	<u>31/12/2023</u>	<u>20</u>
Revised (if applicable)	<u>01/05/2022</u>	<u>29/02/2024</u>	<u>22</u>

2. Summary of Project Results

Governance

Please state the composition of the steering committee (or other committees) formed under the project.

Dr Catter To, Honorary Chairman of SAE International (Hong Kong) Limited (SAE HK)

Ms Anita Lam, Assistant Manager of Automotive Platforms and Application Systems (APAS) R&D Centre

Dr Rick Mo, Head of Green and Smart Mobility, Smart City Division, HKPC

Ms Keli Li, Head of Smart Systems, Smart City Division, HKPC

Mr Roy Law, Chairman of Hong Kong Wireless Technology Industry Association Limited

Mr Stanley Ng, Chairman of Asia Pacific Connected Vehicles Industry Association Limited

Project deliverables

Please list out the project deliverables carried out during the project duration in accordance with the approved project proposal and provide details on the actual result achieved for each deliverable.

Details of the deliverable conducted	Quantifiable target (as stated in the approved project proposal)	Actual result achieved	Reasons for not achieving the target (if applicable)
1. Hong Kong pavilion			
Name of exhibition: China SAE Congress and Exhibition 2023 (SAECCE 2023) Place of exhibition: Beijing, China Date: 25 - 27 October 2023 Size of pavilion: 180 sqm Selection criteria adopted: (i) The products have to be designed or produced by Hong Kong SMEs in automotive industry (ii) The products have to be automotive related and reached the related international standards (iii) The products can showcase Hong Kong enterprises' strengths and capabilities of design and production (iv) The SMEs should assign an engineer / representative for the onsite support; or educate the helpers for introduction of products (v) The products should be free for exhibition, those with IP will be given higher priority in selection Other details: Hong Kong pavilion has been promoted through the website of SAEHK and the collaborating organisation.	Target no. of products displayed: 30 products from 20 enterprises	Actual no. of products displayed: 119 products from 22 enterprises	

Details of the deliverable conducted	Quantifiable target (as stated in the approved project proposal)	Actual result achieved	Reasons for not achieving the target (if applicable)
<p>Promotion links : SAEHK's website: http://www.sae hk.org/2023/11/14/%e4%b8%ad%e5%9c%8b%e6%b1%bd%e8%bb%8a%e5%b7%a5%e7%a8%8b%e5%ad%b8%e6%9c%83%e5%b9%b4%e6%9c%83%e6%9a%a8%e5%b1%95%e8%a6%bd%e6%9c%83/</p> <p>Asia Pacific Connected Vehicles Industry Association website: https://vehiclesconnected.org/2023/11/02/%e7%ac%ac30%e5%b1%8a%e4%b8%ad%e5%9b%bd%e6%b1%bd%e8%bd%a6%e5%b7%a5%e7%a8%8b%e5%ad%a6%e4%bc%9a%e5%b9%b4%e4%bc%9a%e6%9a%a8%e5%b1%95%e8%a7%88%e4%bc%9a%ef%bc%88saecce-2023%ef%bc%89/</p>			
<p>Name of exhibition: World New Energy Vehicle Congress 2023 (WNEVC 2023) Place of exhibition: Haikou, China Date: 7 - 9 December 2024 Size of pavilion: 120 sqm Selection criteria adopted:</p> <ul style="list-style-type: none"> (vi) The products have to be designed or produced by Hong Kong SMEs in automotive industry (vii) The products have to be automotive related and reached the related international standards (viii) The products can showcase Hong Kong enterprises' strengths and capabilities of design and production (ix) The SMEs should assign an engineer / representative for the onsite support; or educate the helpers for introduction of products (x) The products should be free for exhibition, those with IP will be given higher priority in selection <p>Other details: Hong Kong pavilion has been promoted through the website of SAEHK and the collaborating organisation.</p> <p>Promotion links : SAEHK's website:</p>	<p>Target no. of products displayed: 30 products from 20 enterprises</p>	<p>Actual no. of products displayed: 89 products from 22 enterprises</p>	

Details of the deliverable conducted	Quantifiable target (as stated in the approved project proposal)	Actual result achieved	Reasons for not achieving the target (if applicable)
http://www.saehk.org/2023/11/30/%e4%b8%96%e7%95%8c%e6%96%b0%e8%83%bd%e6%ba%90%e6%b1%bd%e8%bb%8a%e5%a4%a7%e6%9c%83-2023/ Asia Pacific Connected Vehicles Industry Association website: https://vehiclesconnected.wordpress.com/2023/12/17/2023-%e4%b8%96%e7%95%8c%e6%96%b0%e8%83%bd%e6%ba%90%e6%b1%bd%e8%bb%8a%e5%a4%a7%e6%9c%83/			
2. Seminar			
1 st seminar: Kick-off seminar Date: 26 July 2022 Time: 14:30-17:30 (3 hours) Venue: 1) Theatre 1, 1/F, HKPC Building, 78 Tat Chee Avenue, Kowloon 2) Online (Zoom) Topics covered & speakers: (i) Current Status and Technological Development Trend of Vehicle Fuel Battery System – Prof Chen Feng Xiang, Associate Professor of School of Automotive Studies, Tongji University (Mainland speaker) (ii) Development and Challenges of Traditional Dynamics in the Trend of Electrification – Mr Di Ya Ge, Associate Professor of Shanghai University of Engineering Science (Mainland speaker) (iii) R&D and Application of Key Technologies for Autonomous Driving – Dr Xiao Shun Li, Deputy Head of Automotive Platforms and Application Systems (APAS) R&D Centre (Local speaker) (iv) Slide Chassis Promoting Autonomous Driving Applied in Global Ecology – Mr Cao Yu Teng, Chief Operating Officer of PIX Moving Limited (Mainland speaker) (v) New Challenges for	Target no. of participants: 100 Target no. of speakers: 2 from Hong Kong and 2 from the Mainland	Actual no. of participants: 118 (no. of onsite participants: 6; no. of online participants: 112) Actual no. of speakers: 3 from Hong Kong and 3 from the Mainland	

Details of the deliverable conducted	Quantifiable target (as stated in the approved project proposal)	Actual result achieved	Reasons for not achieving the target (if applicable)
<p>Engineering Plastics in Electric Vehicles – Mr Wu Xin Wei, Application Development Engineer of High Performance Materials Division, LANXESS Hong Kong Limited (Local speaker)</p> <p>(vi) Project Introduction & Event Forecast: To enhance Hong Kong automotive SMEs' technological capability and explore business opportunities in the Mainland – Dr Rick Mo, Head of Green and Smart Mobility, Smart City Division, HKPC (Local speaker)</p> <p>Other details: Seminar's highlights (event summary and photos) have been uploaded to SAEHK's website (http://www.sae hk.org/2024/02/06/%e3%80%8c%e5%b9%ab%e5%8a%a9%e9%a6%99%e6%b8%af%e6%b1%bd%e8%bb%8a%e9%a0%98%e5%9f%9f%e7%9a%84%e4%b8%ad%e5%b0%8f%e4%bc%81%e6%a5%ad%e6%8f%90%e5%8d%87%e6%8a%80%e8%a1%93%e8%83%bd%e5%8a%9b%e5%92%8c%e6%8d%95/).</p>			
<p>2nd seminar: Dissemination seminar Date: 18 Jan 2024 Time: 14:30-17:30 (3 hours) Venue: 1) Theatre 1, 1/F, HKPC Building, 78 Tat Chee Avenue, Kowloon 2) Online (Zoom)</p> <p>Topics covered & speakers:</p> <p>(i) Development of New Energy Vehicle Industry in China - Mr. Zhao Li Jin, Deputy Secretary-General of Chinese Society of Automotive Engineers (Mainland speaker)</p> <p>(ii) Current Status and Development Trend of Fuel Cell Vehicles' Technology and Industrialization - Prof. Chen Feng Xiang, Associate Professor of School of</p>	<p>Target no. of participants: 100</p> <p>Target no. of speakers: 2 from Hong Kong and 2 from the Mainland</p>	<p>Actual no. of participants: 144 (no. of onsite participants: 30; no. of online participants: 114)</p> <p>Actual no. of speakers: 3 from Hong Kong and 5 from the Mainland</p>	

Details of the deliverable conducted	Quantifiable target (as stated in the approved project proposal)	Actual result achieved	Reasons for not achieving the target (if applicable)
<p>Automotive Studies, Tongji University (Mainland speaker)</p> <p>(iii) Application Ecosystem of the Third Generation of Smart Cars Based on Skateboard Chassis and Autonomous Driving, Mr. Yang Shun Kai, Marketing Director of PIX Moving Limited (Mainland speaker)</p> <p>(iv) Introduction to AI Technology in Automotive Spare Parts Manufacturing, Mr. Chan San, Director of Hybrid Development (Hong Kong) Limited (Local speaker)</p> <p>(v) Application of Laser Technology in Unmanned Driving, Mr. Ke Kai Bin, Senior Manager of E. Tech Dynamic Technology Co. Ltd (Local speaker)</p> <p>(vi) Industry Analysis of Passenger Vehicle Steering Control System & Current Status and Development of Steer-by-wire Technology, Mr. He De Guan, Deputy General Manager of Hiro Automotive Technology Shanghai Co., Ltd (Mainland speaker)</p> <p>(vii) Skateboard Chassis and Domain Control, Mr. Jin Yong Kui, Chief Technical Officer of AiHoo Automotive Shanghai Co., Ltd (Mainland speaker)</p> <p>(viii) Development Trend of the Automotive Market in Mainland and Project Review: To enhance Hong Kong automotive SMEs' technological capability and explore business opportunities in the Mainland, Mr. Li Yu, Associate Principal Consultant of Smart City Division, Hong Kong Productivity Council (Local</p>			

Details of the deliverable conducted	Quantifiable target (as stated in the approved project proposal)	Actual result achieved	Reasons for not achieving the target (if applicable)
<p>speaker)</p> <p>Other details: Seminar's highlights (event summary and photos) have been uploaded to SAEHK's website (http://www.sae hk.org/2024/02/06/%e3%80%8c%e5%b9%ab%e5%8a%a9%e9%a6%99%e6%b8%af%e6%b1%bd%e8%bb%8a%e9%a0%98%e5%9f%9f%e7%9a%84%e4%b8%ad%e5%b0%8f%e4%bc%81%e6%a5%ad%e6%8f%90%e5%8d%87%e6%8a%80%e8%a1%93%e8%83%bd%e5%8a%9b%e5%92%8c%e6%8d%95/).</p>			
3. Promotional pamphlet			
<p>Publishing date: 25 Oct 2023 Languages: Simplified Chinese and English Distribution channel: SAECCCE 2023</p> <p>Other details: E-version has been uploaded to SAEHK's website (http://www.sae hk.org/2023/11/14/%e4%b8%ad%e5%9c%8b%e6%b1%bd%e8%bb%8a%e5%b7%a5%e7%a8%8b%e5%ad%b8%e6%9c%83%e5%b9%b4%e6%9c%83%e6%9a%a8%e5%b1%95%e8%a6%bd%e6%9c%83/). QR code created for promotional pamphlet placed on the related advertisements of SAECCCE.</p>	<p>Target no. of Hong Kong enterprises included in the pamphlet: 20</p> <p>Target no. of pages: about 25</p> <p>Target no. of copies: 200</p>	<p>Actual no. of Hong Kong enterprises included in the pamphlet: 22</p> <p>Actual no. of pages: 26 (including content page)</p> <p>Actual no. of copies: 200</p>	
<p>Publishing date: 7 Dec 2023 Languages: Simplified Chinese and English Distribution channel: WNEVC 2023</p> <p>Other details: E-version has been uploaded to SAEHK's website (http://www.sae hk.org/2023/11/30/%e4%b8%96%e7%95%8c%e6%96%b0%e8%83%bd%e6%ba%90%e6%b1%bd%e8%bb%8a%e5%a4%a7%e6%9c%83-2023/). QR code created for promotional pamphlet placed on the related advertisements of WNEVC.</p>	<p>Target no. of Hong Kong enterprises included in the pamphlet: 20</p> <p>Target no. of pages: about 25</p> <p>Target no. of copies: 200</p>	<p>Actual no. of Hong Kong enterprises included in the pamphlet: 22</p> <p>Actual no. of pages: 26 (including content page)</p> <p>Actual no. of copies: 200</p>	
4. Video			
<p>Launching date: 25 Oct 2023 Languages in voice-over: English and Mandarin</p>	<p>Target length of video: 3 minutes</p>	<p>Actual length of video: English version: 4 minutes 3 seconds</p>	<p>Content of both versions is the same, the two</p>

Details of the deliverable conducted	Quantifiable target (as stated in the approved project proposal)	Actual result achieved	Reasons for not achieving the target (if applicable)
<p>Languages in subtitle: English and Simplified Chinese</p> <p>Broadcasting channels:</p> <p>1) SAECCE 2023</p> <p>2) Website of SAEHK (http://www.sae hk.org/2023/11/14/%e4%b8%ad%e5%9c%8b%e6%b1%bd%e8%bb%8a%e5%b7%a5%e7%a8%8b%e5%ad%b8%e6%9c%83%e5%b9%b4%e6%9c%83%e6%9a%a8%e5%b1%95%e8%a6%bd%e6%9c%83/)</p> <p>3) YouTube through SAEHK's account (English version: https://www.youtube.com/watch?v=-W18uyYjEbw Mandarin version: https://www.youtube.com/watch?v=2s60U2y1xBE)</p>		Mandarin version: 3 minutes 50 seconds	videos only differ in languages. No additional cost was incurred for the videos that exceeded the target length.
5. Leaflet			
<p>Publishing date: 25 Oct 2023</p> <p>Languages: Simplified Chinese and English</p> <p>Distribution channel: SAECCE 2023</p> <p>Other details: E-version has been uploaded to SAEHK's website (http://www.sae hk.org/2023/11/14/%e4%b8%ad%e5%9c%8b%e6%b1%bd%e8%bb%8a%e5%b7%a5%e7%a8%8b%e5%ad%b8%e6%9c%83%e5%b9%b4%e6%9c%83%e6%9a%a8%e5%b1%95%e8%a6%bd%e6%9c%83/)</p>	Target no. of printed copies: 200	Actual no. of printed copies: 200	
<p>Publishing date: 7 Dec 2023</p> <p>Languages: Simplified Chinese and English</p> <p>Distribution channel: WNEVC 2023</p> <p>Other details: E-version has been uploaded to SAEHK's website (http://www.sae hk.org/2023/11/30/%e4%b8%96%e7%95%8c%e6%96%b0%e8%83%bd%e6%ba%90%e6%b1%bd%e8%bb%8a%e5%a4%a7%e6%9c%83-2023/)</p>	Target no. of printed copies: 200	Actual no. of printed copies: 200	
6. Promotional activities			
<p>Online advertisement on exhibition's website (SAECCE) and WeChat account</p> <p>Period of online advertisement: 1 Sep 2023 to 27 Oct 2023 (8 weeks)</p>	Target duration of online advertisement: 8 weeks	Actual duration of online advertisement: 8 weeks	

Details of the deliverable conducted	Quantifiable target (as stated in the approved project proposal)	Actual result achieved	Reasons for not achieving the target (if applicable)
<p>Promotional channels: SAECCE website: http://www.saecce.org.cn/CN/onlineExhibition3/Index.aspx?OId=8800279</p> <p>One post was published on SAECCE's WeChat account.</p>			
<p>Online advertisement on exhibition's website (WNEVC) and WeChat account Period of online advertisement: 6 Nov 2023 to 31 Dec 2023 (8 weeks)</p> <p>Links: WNEVC website: https://www.wnevc.org.cn/CN/Exhibition/4-3-2.html</p> <p>WNEVC's WeChat account: https://mp.weixin.qq.com/s/MoB3n4hAjjlTTOOWIBZNnw https://mp.weixin.qq.com/s/mujLUyCgIbaXfc_ZMYjkpg https://mp.weixin.qq.com/s/UJPxpRU5m1Phq20nIoa3tQ</p>	<p>Target duration of online advertisement: 8 weeks</p>	<p>Actual duration of online advertisement: 8 weeks</p>	

Key implementation stages

Please indicate in the status below if the deliverable is completed according to schedule (C), completed but delayed (D) or not achieved (N). If it is delayed or not achieved, please indicate the actual completion date (if applicable) and provide the reasons.

	<u>Project deliverable</u> (all deliverables as set out in the approved project proposal)	Original target completion date ¹	Revised target completion date (if applicable)	<u>Status</u> (C/P/D/NA)	Reasons for not meeting the original target completion date
(a)	Formation of Steering Committee	31/05/2022	NA	C	
(b)	To organise the kick-off seminar	31/07/2022	NA	C	
	To produce video taking for Hong Kong products and technologies for the following exhibitions	31/07/2022	31/10/2023	C	See Note (i), (ii) and (iii)
(c)					
	To design and produce pamphlet and leaflet for promotion of SAECCCE	31/10/2022	31/10/2023	C	See Note (i), (ii) and (iii)
(d)					
	To design and conduct the promotion via digital marketing, including online advertisements on the official exhibition website and WeChat account	31/10/2022	31/10/2023	C	See Note (i), (ii) and (iii)
(e)					
	To participate in SAECCCE	31/10/2022	31/10/2023	C	See Note (i), (ii) and (iii)
(f)					
	To design and produce pamphlet and leaflet for promotion of WNEVC	30/09/2023	31/12/2023	C	See Note (iv)
(g)					
	To design and conduct the promotion via digital marketing, including online advertisements on the official exhibition website and WeChat account	30/09/2023	31/12/2023	C	See Note (iv)
(h)					
	To participate in WNEVC	30/09/2023	31/12/2023	C	See Note (iv)
(i)					
	To organise the dissemination seminar	30/11/2023	31/01/2024	C	See Note (iii) and (iv)
(j)					
	To prepare the final report and close the project	31/12/2023	29/02/2024	C	See Note (iii) and (iv)
(k)					

Note:

- (i) 1st change request for rescheduling the participation in SAECCCE in Shanghai from October 2022 to November 2022 and updating the implementation timeline of the video was approved on 27 October 2022.
- (ii) 2nd change request for rescheduling the participation in SAECCCE from November 2022 to December 2022 with the location changed from Shanghai to Jiangsu and updating the implementation timeline and cash schedule was approved on 21 November 2022.
- (iii) 3rd change request for rescheduling the participation in SAECCCE from December 2022 to October 2023 with the location changed from Jiangsu to Beijing, rescheduling the dissemination seminar from November 2023 to December 2023, and extending the project duration for one month until 31 January 2024 was approved on 22 December 2022.
- (iv) 4th change request for rescheduling the participation in WNEVC from September 2023 to December 2023, rescheduling the dissemination seminar from December 2023 to January 2024, and extending the project duration for one month until 29 February 2024 was approved on 10 August 2023.

¹ As stated in the approved project proposal.