SME Development Fund (SDF)/
Dedicated Fund on Branding, Upgrading and Domestic Sales (BUD Fund)
(Organisation Support Programme) (OSP)

Final Report on Approved Project

This report is for (please put "√" in either one box only):

☐ SDF Final Report

☑ BUD Fund (OSP) Final Report

Project ref. no.	:	BUD 16 4 004
Project title	:	Demonstrate the collective image of high value-added and superb technique of Hong Kong Printed Circuit Board (PCB) manufacturing in emerging products category to extend the South China market
Period covered	:	From 15/07/17 (dd/mm/yy) to 14/04/19 (dd/mm/yy)

1. Project Details

(Please mark with "*" if any of the following project details is different from that in the project proposal appended to the project agreement.)

Project Summary (in about 150 words)

In the past couple decades, the manufacturing industry in the Mainland has been growing rapidly. Hong Kong PCB manufacturers have been playing a significant role in supplying the PCBs to support the market demand. Though the market demand is huge, the business environment is very difficult. On the one hand that Hong Kong PCB manufacturers have to enhance their production capabilities all the time so as to compete with their overseas counterparts such as Taiwan, on the other hand they have to continuously upgrade themselves so as to provide high value added and high technique in PCB production so as to differentiate from their counterparts in the Mainland.

South China is a major PCB manufacturing market to serve the global PCB demands. The market demand for PCB relates closely with the demand and production of electronic products in the market. Among different electronic products, Communication products (e.g. mobile device, smart phone), Computer products (e.g. tablet, computer, peripherals), Consumer Electronics (e.g. audio visual products, home appliances, wearable electronics) and Automobile products (e.g. in-vehicle electronics, navigation panel) account to two third of the total production of all electronic products worldwide in 2015.

The four emerging product categories demand for high technology-content in PCB manufacturing. Hong Kong PCB manufacturers do possess competitive edges to fulfil the requirements and to sustain in the market. However, PCB is rather an embedding part than a final product with its own brand. There are not many ways for PCB manufacturers to demonstrate their capabilities to potential clients. Though the Hong Kong PCB manufacturers participate in international trade fair or exhibition, the promotion effectiveness of an individual is limited.

To highlight and promote the competitive edge of Hong Kong PCB manufacturing, it is of paramount important to showcase the collective image of high value-added and superb technique of Hong Kong PCB manufacturing. Setting up Hong Kong Pavilion in recognized PCB exhibition is an effective way to achieve the goal.

This project aims to promote the collective image of high value-added and superb technique in PCB production of Hong Kong PCB manufacturers as well as to provide Hong Kong PCB manufacturers with the update of business environment in South China. In order to achieve the objectives, a Hong Kong Pavilion will be setup in an international PCB trade Fair in South China together with networking and forums.

Project Objective(s) (in about 80 words)

To setup Hong Kong Pavilion in International Printed Circuit & APEX South China Fair to demonstrate the high value add and superb technique of Hong Kong PCB manufacturing in emerging product segments including smart phone and ICT products, wearable products, TV and display products, as well as automotive products.

To analyse the business environment of PCB manufacturing in South China market in terms of government policy, local or overseas investments, ecosystem of the supply chain etc. to provide Hong Kong PCB manufacturers with useful market information for their strategy planning.

Grantee/Collaborating Organisation/Implementation Agent

Grantee : Hong Kong Printed Circuit Association Limited
Collaborating Organisation(s) : The Hong Kong Electronic Industries Association Limited
Hong Kong Electrical Appliance Industries Association Limited
Implementation Agent(s) : Hong Kong Productivity Council

Key Personnel

		Name	Company/Organisation	Tel No. & Fax No.
Project Co-ordinator	:	Dr Kinny L. K. Yeung	Hong Kong Printed Circuit Association Limited	Tel : 2155 5099 Fax : 2155 9009
Deputy Project Co-ordinator	:	Ming Ge	Hong Kong Productivity Council	Tel : 2788 6007 Fax : 2788 5522

Project Period

	Commencement Date (day/month/year)	Completion Date (day/month/year)	Project Duration (No. of months)
As stated in project agreement	15/07/2017	14/04/2019	21
Revised (if applicable)	N/A	N/A	N/A

2. Summary of Project Results

Project Deliverables
(Please list out the project deliverables as stated in the project proposal appended to the project agreement and provide details related to the actual result achieved for each of them.)

	Project deliverable	**Quantifiable target number** (e.g. 100 participants)	**Actual result achieved** (e.g. 90 participants)	**Reasons for not achieving the target, if applicable** (e.g. The total number of registered participants was over 120. However, some of them did not show up eventually. Will strengthen promotion and try to make up for the shortfall in the following two seminars.)
a)	Hong Kong Pavilion in International Printed Circuit & APEX South China Fair 2017 in Shenzhen	500 sqm (100 sqm will be the common area and 400 sqm will be taken up by about 10 Hong Kong PCB manufacturers at their own costs.)	500 sqm (100 sqm was the common area and 400 sqm was taken up by 10 Hong Kong PCB manufacturers at their own costs.)	N/A
		There will be around 60 exhibits from 12 – 15 companies to be displayed in each fair.	There were 60 exhibits from 12 companies displayed in the fair.	N/A
	Hong Kong Pavilion in International Printed Circuit & APEX South China Fair 2018 in Shenzhen	500 sqm (100 sqm will be the common area and 400 sqm will be taken up by about 10 Hong Kong PCB manufacturers at their own costs.)	500 sqm (100 sqm was the common area and 400 sqm was taken up by 10 Hong Kong PCB manufacturers at their own costs.)	N/A
		There will be around 60 exhibits from 12 – 15 companies to be displayed in each fair.	There were 69 exhibits from 12 companies displayed in the fair.	N/A
b)	Forum in the International Printed Circuit & APEX South China Fair 2017	3 hours, 100 participants each	3 hours, 110 participants achieved.	N/A
		3 experts from local or overseas will be invited as the speakers	7 experts (3 local, 3 overseas and 1 Mainland speakers) were invited as speakers.	There was several suitable topics and speakers, and thus, more than 3 speakers were invited to the forum. No additional cost.

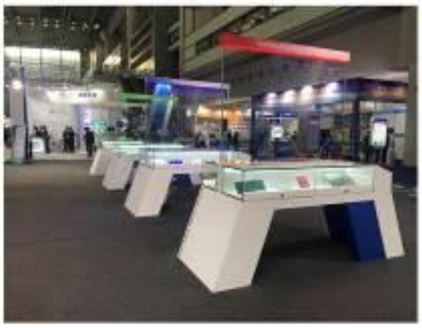
	Forum in the International Printed Circuit & APEX South China Fair 2018	3 hours, 100 participants each	3 hours, 120 participants achieved.	
		3 experts from local or overseas will be invited as the speakers	6 experts (3 local, 2 overseas and 1 Mainland speakers) were invited as speakers.	There was several suitable topics and speakers, and thus, more than 3 speakers were invited to the forum. No additional cost.
c)	Networking Event during the exhibition in 2017	100 participants are expected with two third of procurement and R&D people and one third of Hong Kong manufacturers	100 participants achieved. Procurement and R&D people from Mainland China: 65 Hong Kong Manufacturers: 35	N/A
	Networking Event during the exhibition in 2018	100 participants are expected with two third of procurement and R&D people and one third of Hong Kong manufacturers	102 participants achieved. Procurement and R&D people from Mainland China: 67 Hong Kong Manufacturers: 35	N/A
d)	Video	1 Video of 3 – 4 minutes	1 Video of 5 minutes achieved.	The duration of video is 5:08. Since the interviews with Hong Kong PCB manufacturers were a bit longer, thus, the final versions of video was about 1 min longer than the proposed one.
		The video will be displayed at Hong Kong Pavilion. It will also be broadcasted on free online video channels in China.	The video was displayed at Hong Kong Pavilion as well as broadcasted on free online video channels in China.	
e)	Editorial on B2B Magazine	2 articles about the Hong Kong PCB manufacturing on business magazine	1 article on Issue November 2017 of 世界電子元器件 1 article on Issue Nov/Dec 2018 of 印制電路世界 Printed Circuit World	N/A
		The articles will also be uploaded on HKPCA's website.	The articles were uploaded on HKPCA website: http://www.hkpca.org/s/content/cat_page.asp?cat_id=535	

Details of the deliverables (e.g. date, duration, venue, speaker, topic discussed, etc.)

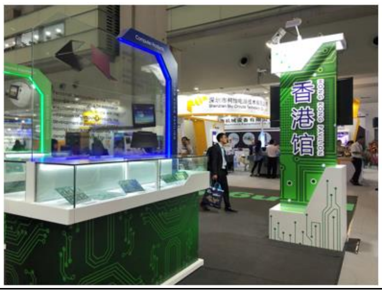
(Please list out in table format if necessary.)

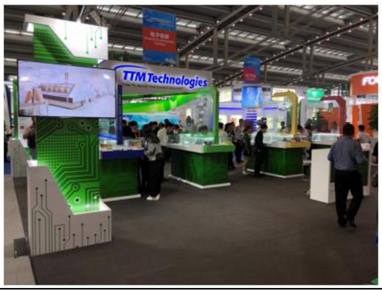
(a) Hong Kong Pavilion

- A Hong Kong Pavilion was setup in International Printed Circuit & APEX South China Fair 2017 from Dec 6 – 8, 2017.
- The size of the Pavilion 500sqm in which 100 sqm was the common area sponsored by HKPCA and the remaining 400 sqm were taken up by 10 Hong Kong PCB manufacturers.
- 60 PCB products from 12 Hong Kong PCB manufacturers
- Kiosks of 4 emerging product categories, including (1) Computer Products; (2) Communication Products; (3) Consumer Electronics; and (4) Automobile Products, were setup in the common area to demonstrate the advance technology and competitiveness of Hong Kong PCB manufacturers




- A Hong Kong Pavilion was setup in International Printed Circuit & APEX South China Fair 2018 from Dec 5-7, 2018.
- The size of the Pavilion 500sqm in which 100 sqm was the common area sponsored by HKPCA and the remaining 400 sqm were taken up by 10 Hong Kong PCB manufacturers.
- 69 PCB products from 12 Hong Kong PCB manufacturers
- Kiosks of 4 emerging product categories, including (1) Computer Products; (2) Communication Products; (3) Consumer Electronics; and (4) Automobile Products, were setup in the common area to demonstrate the advance technology and competitiveness of Hong Kong PCB manufacturers





(b) Forum

- An industrial forum was held on 6 Dec 2017 during the first day of the International Printed Circuit & APEX South China Fair 2017.
- Speakers from Hong Kong, Mainland and overseas were invited to deliver a topic in the forum

Speaker	Topics
Dr. HayaoNakahara (Overseas) President, N.T. Information Ltd.	The Status of PCB Industry
Dr. Yaofeng Sun (Hong Kong) Principal Engineer of Electronics Components Technology Division, ASTRI	Advancing 3D Interconnect Technology
Mr. Erkko Helminen (Overseas) Senior Manager, Advanced Development - Corporate, TTM Technologies, Inc.	PCB for Emerging Products : Smart Phone and ICT
Mr. James Tam (Hong Kong) Project Manager of Robert Bosch Co. Ltd.	PCB Technology Trends and Challenges for Future Automotive Electronics
Mr. David Aldape (Mainland) Chief Technology Officer, Sunshine Global Circuits Co., Ltd	PCB Technology Trends
Dr. Ming Ge (Hong Kong) Principal Consultant, Hong Kong Productivity Council	Driver for Industrial Revolution : Artificial Intelligence and Industrial Big Data
Mr. Andrew G Kelley (Overseas) CTO, XACT PCB Ltd.	Advances in Smart Manufacturing for PCB Production

- The forum was participated by 110 audiences with 90% were PCB buyers from Mainland China

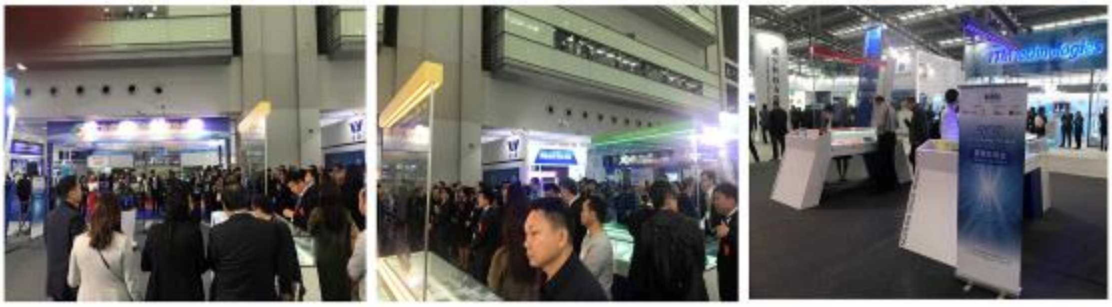

- An industrial forum was held on 5 Dec 2018 during the first day of the International Printed Circuit & APEX South China Fair 2018.
- Speakers from Hong Kong, Mainland and overseas were invited to deliver a topic in the forum

Speaker	Topics
Dr. HayaoNakahara (Overseas) President, N.T. Information Ltd.	The Current and Future Status of PCB (with Special Emphasis on Automotive PCB)
Dr. Shiuk-Kao Chiang (Mainland) Managing Partner, Prismark	The Drivers and Outlook of the PCB Industry
Ms. Angel Wong (Hong Kong) Senior Engineering Manager, Automotive & Electronics Division, Hong Kong Productivity Council	PCB Reliability Test for Automotive and IoT Products Application
Mr. Wilson Chu (Hong Kong) Chairman of Defond Electrical Industries Ltd..	Build for Automotive
Mr. Erkko Helminen (Overseas) Senior Manager, Advanced Development - Corporate, TTM Technologies, Inc.	A view of 2018 China's Environmental Protection Policy
Mr. Luther Wong (Hong Kong) Vice Chairman & Secretary General, HKPCA	A view of 2018 China's Environmental Protection Policy

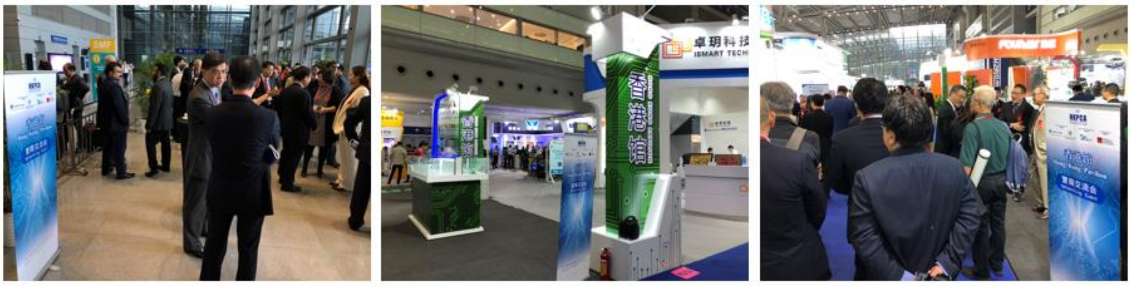
- The forum was participated by 120 audiences with 90% were PCB buyers from Mainland China


(c) Networking Event

- A networking event was held on 6 Dec 2017 during the first day of the International Printed Circuit & APEX South China Fair 2017.
- Procurement and R&D people from the factories in Mainland China and representatives of Hong Kong PCB manufacturers were invited to the networking event.
- The event was held at Hong Kong Pavilion and joined by 100 participants with 65 Procurement and R&D people from the factories in Mainland China and 35 representatives of Hong Kong PCB manufacturers.



- A networking event was held on 5 Dec 2018 during the first day of the International Printed Circuit & APEX South China Fair 2018.
- Procurement and R&D people from the factories in Mainland China and representatives of Hong Kong PCB manufacturers were invited to the networking event.
- The event was held at Hong Kong Pavilion and joined by 102 participants with 67 Procurement and R&D people from the factories in Mainland China and 35 representatives of Hong Kong PCB manufacturers.



(d) Video

- A 5 minutes video demonstrating the niches of Hong Kong PCB manufacturers was built.
- There were shots of interviews with some Hong Kong PCB manufacturers, the advance PCB production processes, the high technology PCB products and advance factory facilities etc. in the video.
- The video was showed in Hong Kong Pavilion during the exhibition as well as broadcasted on free online video channels in China

  優酷 (Youku)
  http://v.youku.com/v_show/id_XMzIwNjUwOTU2OA==.html?sharefrom=iphone&sharekey=c2c2bbcdbfbffc8dd3319588440cc62c6

  搜狐 (Soho)
  https://my.tv.sohu.com/us/323522427/95441643.shtml

  愛奇藝 (iQiYi)
  http://m.iqiyi.com/w_19ruoe5cp1.html?social_platform=link&p1=202_22_221

(e) Editorial on B2B Magazine

- An editorial about the niches of Hong Kong PCB manufacturers was published on Issue November 2017 of 世界電子元器件
- Two full pages were published.
- The editorial talked about the competitiveness of Hong Kong PCB manufacturers such as the geographical advantages, advance technology and facilities, and compliances etc.
- It also promoted the Hong Kong Pavilion held on 6 – 8 Dec 2017.

The article was uploaded on HKPCA's website:
http://www.hkpca.org/s/content/cat_page.asp?cat_id=535
Direct link: http://gec.eccn.com/gecpdf/web/viewer.html?file=/201711.pdf

- An editorial about the niches of Hong Kong PCB manufacturers was published on Nov/Dec Issue 2018 of 印制電路世界 Printed Circuit World
- Two full pages were published.
- The editorial talked about the competitiveness of Hong Kong PCB manufacturers such as the geographical advantages, advance technology and facilities, and compliances etc..
- It also promoted the Hong Kong Pavilion held on 5-7 Dec 2018.
- The article together with the event report was uploaded on HKPCA's website:

http://www.hkpca.org/s/content/cat_page.asp?cat_id=535
Direct link: http://www.hkpca.org/uploadFileMgnt/01_201971102419.pdf

Milestones (in chronological order)

(**#** Please indicate if the milestone is completed (C), deferred (D) or not achieved (N). If it is deferred, please indicate the revised completion date. For those milestones which are deferred or not achieved, please also provide the reasons under item 2.4.)

	Milestone (as set out in the approved project proposal appended to the project agreement)	Original target completion date	Revised completion date (if applicable)	Status (C/D/N) #
(a)	• Forming of project committee (Expected Launch Date 14/08/2017, Preparation Period 07-08/2017) • Planning the project detail and schedule (Expected Launch Date 14/08/2017, Preparation Period 07-08/2017)	14/08/2017	N/A	C
(b)	• Production of the video (Expected Launch Date 30/11/2017, Preparation Period 08-11/2017)	30/11/2017	N/A	C
(c)	• Identify and invite speakers for the forum in International Printed Circuit & APEX South China Fair 2017 (Expected Launch Date 31/10/2017, Preparation Period 08-10/2017) • Compose and publish the 1st magazine editorial (Expected Launch Date 07/12/2017, Preparation Period 09-12/2017) • Organize the setup of the Hong Kong Pavilion in International Printed Circuit & APEX South China Fair 2017 (Expected Launch Date 07/12/2017, Preparation Period 08-12/2017) • Organize the forum in International Printed Circuit & APEX South China Fair 2017 (Expected Launch Date 07/12/2017, Preparation Period 08-12/2017) • Organize the networking event in International Printed Circuit & APEX South China Fair 2017 (Expected Launch Date 07/12/2017, Preparation Period 08-12/2017)	31/12/2017	N/A	C

(d)	• Identify and invite speakers for the forum in International Printed Circuit & APEX South China Fair 2018 (Expected Launch Date 31/10/2018, Preparation Period 06-10/2018) • Compose and publish the 2nd magazine editorial (Expected Launch Date 07/12/2018, Preparation Period 09-12/2018) • Organize the setup of the Hong Kong Pavilion in International Printed Circuit & APEX South China Fair 2018 (Expected Launch Date 07/12/2018, Preparation Period 06-12/2018) • Organize the forum in International Printed Circuit & APEX South China Fair 2018 (Expected Launch Date 05/12/2018, Preparation Period 06-12/2018) • Organize the networking event in International Printed Circuit & APEX South China Fair 2018 (Expected Launch Date 05/12/2018, Preparation Period 06-12/2018)	31/12/2018	N/A	C
(e)	• Disseminate project result such as the event reports of the participation and organization of the two fairs, the two forums, the two networking events, the video, magazine articles and survey report. (Expected Launch Date 14/04/2019, Preparation Period 01-04/2019)	14/04/2019	N/A	C

Future Plan for Promoting the Project Deliverables (Nil if not applicable)

Nil