

**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. : D16 001 009
Project title : Technology Advancement of Hong Kong Plastics Industry
to Tap into the Opportunities under the Strategies of
“Made in China 2025” and “Industry 4.0”
香港塑膠業科技發展 - 「中國製造 2025」及「工業 4.0」
新機遇
Period covered : From 06/10/2016 to 05/04/2019
(dd/mm/yy) (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)

Most of Hong Kong plastics manufacturers have been moved to the Mainland and taking the leading role in transforming the Mainland into a giant in the plastics industry since 1970. Hong Kong plastics industry players focused in traditional daily commodities, such as cups, household products. With the advancement of plastic technologies, plastic has extended its applications to many new sectors such as medical devices, automobile, electronics, aerospace and new energy. New and innovative plastic technologies enable high performance and low cost plastics, this enhance and wider the plastic applications. Most Hong Kong plastics industry players rely on OEM (Original equipment manufacturer) business model to sustain its businesses. Nevertheless, facing keen competition worldwide, Hong Kong plastic industry is not as competitive as before since the operating and manufacturing cost keep increasing in the Mainland. Low profit margin for making traditional low end products. Hong Kong plastic industry is therefore facing immense pressure to make use of new technologies to reshape their traditional business model to keep abreast with the competitive environment. Even though few well developed plastic manufacturers (around 20%) have stepped up to upgrade their businesses and move into OBM/ ODM businesses, most SMEs are hard to get this kind of information and guide them to move forward to new plastic sectors with new technologies and innovative products.

Nowadays, most SMEs are mainly serving industries/markets such as toys, household products, electronics & telecommunication. If they upgrade their technology level, they can get involved in the production of high value-added products with high requirements and standard, e.g. medical devices, automotive, personal designed products, intelligence wearable devices. Like other manufacturing industries in Hong Kong, the plastics industry is facing transformation to meet the new era of intelligent production. By upgrading their technology level, manufacturers will have shorter production lead time, higher production efficiency and lower labour costs in these markets. The world's leading manufacturing countries have launched national strategic plans to meet the challenges in the new era and to strengthen their industrial competitiveness. For example, "Industry 4.0" of Germany and "Made in China 2025" of China has formed their strategic plans recently to boost their industrial growth. With the aim to comprehensively upgrade the Hong Kong plastic manufacturing industry, intelligent manufacturing plays a vital part in all of these national plans in adapting to new market environment. For example, 3D printing technology refers to methods of applying a 2D image onto a 3D object where successive layers of materials are formed. The technology can quickly create custom injection moulds that produce low volumes of parts in the final production plastic. This is especially useful for plastic prototypes, which can now be created onsite in just hours, from mould design to final test product, using the normal plastic injection moulding process and production materials for accurate functional testing. Furthermore, the use of computer-aided design and computer-aided manufacturing (CAD/ CAM) is also part of intelligent manufacturing. It refers to computer software that is used to both design and manufacture products. CAD is the use of computer technology for design and design documentation. CAM software uses the models and assemblies created in CAD software to generate tool paths that drive the machines that turn the 2D designs into physical parts. CAD/CAM software is most often used for machining of plastic prototypes and finished parts. The software allows designers to check for draft, thickness, and undercuts to ensure the correct geometry for moulding. It enables companies to speed up product development, reduce manufacturing costs, and improve product quality and reliability across a wide range of industries and applications. Therefore, it is essential for Hong Kong plastic manufacturers to keep updated about new technology applications and foster research and development of higher quality plastics products in order to stay competitive in the national market.

A series of activities will be arranged to facilitate the technology transformation and upgrade process, such as plastics conferences to inspire Hong Kong plastic makers to develop new business strategies and enhance global competitiveness; workshops that provide practical and in-depth skill on adopting new technologies in plastic manufacturing; sharing session to share new insights collected from the study mission to Germany that keep Hong Kong plastic makers to keep updated on the latest plastic manufacturing trends; Factory visits in China that enables better understanding on how technology and innovation can be combined with plastic manufacturing; distributing e-newsletters to keep industry players updated on latest development of technologies.

The new technologies and advanced production processes introduced in this project are generic to manufacturing of all plastic end-products, e.g. new materials (e.g. built-in germ-repellent plastics without biocides, stretchable biodegradable plastics), injection moulding, design software (e.g. CAD/CAM), process management systems. In applying this knowledge introduced in this project, Hong Kong plastics industry players, mainly SMEs can bring their vision of "Industry 4.0" or "Made in China 2025" to reality by stepping their first try partially with reasonable investment subject to their business plans. This project is not focusing on

the role model or full range of smart manufacturing. SMEs can afford the new technologies in upgrading. For example, the CAD software from “Autodesk” is around US\$1,680 per year. The cost of application of “built-in germ-repellent plastics without biocides” is less than 4% of base material cost. This new plastic material is cost effective and affordable by SME.

Project Objective(s) (in about 80 words)

- Focus on latest technology trends, this project aims to encourage plastics makers to invest more in R&D and explore technological advancement in order to upgrade their manufacturing processes
- To provide a platform for Hong Kong plastics industry players to exchange the latest technologies and products development
- To help Hong Kong plastics manufacturers to explore new plastic technologies and adopt the technologies on their products, so as to strengthen the competitiveness of Hong Kong plastics industry

Grantee/Collaborating Organisation/Implementation Agent

Grantee : The Hong Kong Plastics Manufacturers Association Limited (HKPMA)

Collaborating Organisation(s) : Hong Kong Plastics Industry Council (HKPIC)
Hong Kong Science and Technology Parks Corporation (HKSTP)
Hong Kong Trade Development Council (HKTDC)
Hong Kong Productivity Council (HKPC)
Industrial Designers Society of Hong Kong Limited
Nano and Advanced Materials Institute Limited
Hong Kong Plastic Machinery Association Limited
Hong Kong & Kowloon Plastic Products Merchants United Association Limited

Implementation Agent(s) : Federation of Hong Kong Industries (FHKI)

Key Personnel

	<u>Name</u>	<u>Company/Organisation</u>	<u>Tel No. & Fax No.</u>
Project Co-ordinator :	Mr Eric Sun	The Hong Kong Plastics Manufacturers Association Limited	Tel: 2574 2230 Fax: 2574 2843
Deputy Project Co-ordinator :	Ms Summer Cheung (Changed to Ms Agnes Cheng in Sep 2018)	Federation of Hong Kong Industries	Tel: 2732 3171 Fax: 2721 3494

Project Period

	<u>Commencement Date</u> (day/month/year)	<u>Completion Date</u> (day/month/year)	<u>Project Duration</u> (No. of months)
As stated in project agreement	06/10/2016	05/10/2018	24 months
Revised (if applicable)	06/10/2016	05/04/2019	30 months

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.
a)	1 st Plastics Conference (4 Nov 2016)	250 participants	216 participants	The conference was held less than 1 month after the project commenced. Therefore, promotion period was shortened due to the availability of venue.
b)	2 nd Plastics Conference (11 Jan 2019)	250 participants	181 participants	There are 252 registration received. Due to unexpected high rate of no show, there are finally 181 participants attended the Conference.
c)	1 st Workshop - New dimensions in 3D printing strike the plastics world (11 Jul 2017)	40 participants	45 participants	
d)	2 nd Workshop – Recycled plastics and green plastics technologies (16 Nov 2017)	40 participants	61 participants	
e)	3 rd Workshop – Channelling into the new sphere of innovative material applications (23 Jan 2018)	40 participants	70 participants	
f)	4 th Workshop – Intelligent software and management systems for smart manufacturing: digitise plastics manufacturing processes (17 Aug 2018)	40 participants	66 participants	
g)	Sharing Session of Study Mission to Germany and Austria (6 Dec 2016)	60 participants	62 participants	
h)	1 st Factory Visit (26 Apr 2017)	30 participants	42 participants	
i)	2 nd Factory Visit (4 to 7 June 2018)	30 participants	30 participants	

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

(Please list out in table format if necessary.)

a) First Plastics Conference: “Injecting Innovation: The Future of Plastics Technologies”

Date: 4 Nov 2016

Time & Duration: 9:30am – 5:30pm (total 8 hours)

Venue: Chamber 1A & 1B, InnoCentre

In total 5 experts in the related plastics product field coming from Hong Kong and Asia were invited to be the esteemed speakers in this plastics conference where they shared insights and latest research findings on nowadays plastics manufacturing, materials and green solutions. The inspiring presentations probed into the exploration of the latest innovative plastics technologies and provided a channel for experts and

industry players to exchange ideas and knowledge. The speaker list is provided as follows.

	Company	Name of Speaker	Industry of Speaker	Presentation Topic
1.	Covestro (Shanghai) Management Co Ltd.	Ms Marina Lee	Medical products	Polycarbonate Solution for Medical Device Innovation
2.	Nano and Advanced Materials Institute	Dr Richard Lau	Plastics materials	Plastics at Play for Healthy Living – Green, Safe and Inherently Germ-repellent
3.	Momentive Performance Materials Inc.	Mr Hwang Hee Seok	Plastics materials	Optical Clear Liquid Silicone Rubber Application
4.	Momentive Performance Materials Inc.	Mr Bill Deng	Plastics & rubber	New Self-Bonding Liquid Silicone Rubber Technology
5.	The Hong Kong University of Science and Technology	Dr Stephen Lee	Mechanical & aerospace engineering industry	An Overview of Advanced Composite Materials and Their Industrial Applications

Registration was opened to all SMEs and enterprises of the industry with HK\$100/participant as participation fee which was refundable once showing up in the conference. There were in total 216 participants attending the conference. Publicity campaign was launched via various channels to boost the promotion of the conference, including the website of HKPMA, recruitment flyers and eDM blasted out to HKPMA, FHKI and all collaborating organisations' members as well to broaden the exposure.

Showcases were arranged to display the latest plastics materials, products and technologies for the local plastics industry makers to broaden their horizon. 10 companies partook in the showcase, which are shown as below:

Showcase Companies			
1.	Top Line Sources International Co., Ltd.	6.	Milton Plastics Ltd.
2.	DragonChem Ltd.	7.	TK Group (Holdings) Ltd.
3.	Spin Master Toys Far East Ltd.	8.	Ace Mold Co. Ltd.
4.	Esta Tech Ltd.	9.	Intelligent CAD/ CAH Technology Ltd.
5.	Hongrita Mold Ltd.	10.	HKDI Centre of Innovative Material and Technology

Highlights of the Conference and useful materials were uploaded to FHKI website (https://www.industryhk.org/tc/event_detail.php?id=36143453) and project webpage (<http://hkplastics-ma-sdf.com/1st-conference>) for public access. The plastics conference was recorded and full version of videos were released in the 1st e-newsletter and uploaded onto the project website as well as the YouTube channel (<https://goo.gl/lfoJgT>) for public access.

b) **Second Plastics Conference: “Go Smart! Go Green! Go Innovation!”**

Date: 11 Jan 2019

Time: 9:30am – 5:30pm (total 8 hours)

Venue: Charles K Kao Auditorium, Hong Kong Science Park

In total 5 experts in the related plastics product field coming from Hong Kong, Taiwan, Australia and Switzerland were invited to share their insight on smart, green and innovation solutions related to plastic industry. The speaker list is provided as follows.

	Company	Name of Speaker	Presentation Theme	Presentation Topic
1.	BASF Australia Ltd	Mr Rowan Williams	Green	認證可堆肥化塑膠及其在循環經濟中的角色 Certified compostable biopolymers and their role in creating a Circular Economy
2.	Chung Yuan Christian University	Prof Chen Shia-Chung	Smart	精密塑膠模具和射出成型智慧製造服務雲端平台 Smart manufacturing service cloud platform for precision plastics mold and injection molding
3.	Milton Plastics Ltd	Dr Tony Lau	Innovation	創新材料引領汽車產業發展趨勢 The future of automotive rides on innovative

				plastics
4.	BASF Colors & Effects Switzerland AG	Marc Dumont	Smart	塑膠行業的智能與純淨著色方案 Smarter and purer coloring solutions for a more sustainable plastics industry
5.	CIMFORCE International Ltd	Jerry Hsieh	Innovation	工業 4.0 - 智慧製造應用實務分享 Industry 4.0 - A discussion on intelligent manufacturing solution

A panel discussion – Doing good with green plastics were also carried out during the Conference. Representatives from Advisory Committee of Recycling Fund, raw materials supplier, plastic products manufacturer, and social enterprises shared their insight on the relationship between plastics and environmental protection. The list of panellists is provided as follows.

		Company	Name
Moderator		RPC Group – Ace Division	Dr Jack Yeung
Panellists	1	Federation of Hong Kong Industries / Advisory Committee of Recycling Fund	Jimmy Kwok
	2	Sun Cheong Creative Development Holdings Ltd	Tong Bak Nam Billy
	3	Social Ventures Hong Kong	Francis Ngai
	4	Eco-Greenergy	Peann Tam
	5	Eco-Greenergy	Jay Ho
	6	Sunta Chemical Limited	Terry Fang

Registration was opened to all SMEs and enterprises of the industry with HK\$100/participant as participation fee which was refundable once showing up in the conference. There were in total 181 participants attending the conference. Publicity campaign was launched via various channels to boost the promotion of the conference, including the website of HKPMA, recruitment flyers and eDM blasted out to HKPMA, FHKI and all collaborating organisations' members as well as posting on Facebook to broaden the exposure.

Showcases were arranged to display the latest plastics materials, products and technologies for the local plastics industry makers to broaden their horizon. 10 companies partook in the showcase, which are shown as below:

Showcase Companies			
1.	CHINAPLAS	6.	Plastic Girl Mushu
2.	Dragonchem Ltd.	7.	RPC Group – Ace Division
3.	Isen (China) Industrial Co Ltd	8.	Springfield CMF Technology Co Ltd
4.	Ka Shui Plastic Technology Co Ltd	9.	Stratasys AP Ltd.
5.	Milton Plastics Ltd.	10.	Sun Cheong Creative Development Holdings Ltd

Highlights of the Conference and useful materials were uploaded to FHKI website (www.industryhk.org/tc/event_detail.php?id=31275953) and project webpage (hkplastics-ma-sdf.com/2nd-conference/) for public access. The plastics conference was recorded and full version of videos were released in the 1st e-newsletter and uploaded onto the project website as well as the Youtube channel (www.youtube.com/playlist?list=PLE3jChueMRgSqHqkdGqPupaJ-3gDWDeAg) for public access.

c) 1st workshop - New dimensions in 3D printing strike the plastics world

Date: 11 Jul 2017

Time: 2:00pm – 5:00pm (3 hours)

Venue: Conference Room, Federation of Hong Kong Industries

Total 2 speakers were invited to share the new materials and advanced technologies of 3D printing.

	Company	Speaker	Presentation topic
1	Yuen Kee Ho Machinery Ltd	Sam Tang	Innovations of Conformal Water Line and Optimal Cooling in 3D Printing and Injection Moulding Process
2	TM System Co Ltd	Alan Yu	3D Printing Materials and Applications

Registration was opened to industry players free of charge. Total 45 participants attended the workshop. Publicity campaign was carried out for this workshop via various channels, including recruitment flyers, eDM and FHKI website. Highlights of the training workshop and useful materials were uploaded to FHKI website (https://www.industryhk.org/tc/event_detail.php?id=78186851) and project webpage (http://hkplastics-ma-sdf.com/1st-workshop_2017-7/) for public access. Video was uploaded to: <https://www.youtube.com/watch?v=nYefKN-947Y>

d) 2nd workshop – Recycled plastics and green plastics technologies

Date: 16 Nov 2017

Time: 2:00pm – 5:00pm (3 hours)

Venue: Conference Room, Federation of Hong Kong Industries

Total 3 speakers were invited to introduce the advanced green technologies for plastics sector to optimise their production process.

	Company	Speaker	Presentation topic
1	Krones AG	Peter Hartel	Bottle-to-Bottle Technology in Recycling Industry
2	Ka Shui International Holdings Ltd	Peter Wong	New Green Plastics Technology
3	Witii Technology	Hsii Wei Hsing	Technology for Thermoset Plastics Recycling and Sustainable Plastic Products Development

Registration was opened to industry players free of charge. Total 61 participants attended the workshop. Publicity campaign was carried out for this workshop via various channels, including recruitment flyers, eDM and FHKI website. Highlights of the training workshop and useful materials were uploaded to FHKI website (https://www.industryhk.org/tc/event_detail.php?id=82211294) and project webpage (<http://hkplastics-ma-sdf.com/2nd-workshop/>) for public access. Video was uploaded to: <https://www.youtube.com/watch?v=i3tSuW2c0Lc>

e) 3rd Workshop – Channelling into the new sphere of innovative material applications

Date: 23 Jan 2018

Time: 2:00pm – 5:00pm (3 hours)

Venue: Conference Room, Federation of Hong Kong Industries

Total 3 speakers were selected to share the global trend of innovative plastics and the application development of upgraded plastics materials on food, medical and electronics industries.

	Company	Speaker	Presentation topic
1	Dragonchen Ltd	Kenneth Tam	Innovation of “BACTOSTAT” Development of Mold-repellent and Mold-proof Plastics Application
2	PolyOne Corporation	Pal Shi	Solutions for Thermoplastics Elastomers in Vibration & Solutions for Gravi-Tech Engineering Plastics in High Density and Radiation Shielding
3	SGS Group	Heather Meng	Development and Update of Food Grade Regulations in China and US Markets & Analysis of Common Issue

Registration was opened to industry players free of charge. Total 70 participants attended the workshop. Publicity campaign was carried out for this workshop via various channels, including recruitment flyers, eDM and FHKI website. Highlights of the training workshop and useful materials were uploaded to FHKI website (https://www.industryhk.org/tc/event_detail.php?id=12220398) and project webpage (<http://hkplastics-ma-sdf.com/3rd-workshop/>) for public access. Video was uploaded to: <https://www.youtube.com/watch?v=KZKFMFVwCpg>

f) 4th Workshop – Intelligent software and management systems for smart manufacturing: digitise plastics manufacturing processes

Date: 17 Aug 2018

Time: 2:00pm – 5:00pm (3 hours)

Venue: Conference Room, Federation of Hong Kong Industries

Total 2 speakers were selected to share their experience on the use of smart manufacturing in plastic industry. The workshop encouraged local industry players to digitise their manufacturing processes through the use of intelligent software and management systems so as to analyse the data to anticipate the production

demean and prepare for emergency situation

	Company	Speaker	Presentation topic
1	Amazon Web Services	Clovis Ng	Competing for the future at the speed of innovation – Amazon Web Services
2	Shing Hing Manufacturing Ltd	Calvin Wu	Cost Effective Implementation of Industries 4.0 in Traditional Toys Factory

Registration was opened to industry players free of charge. Total 66 participants attended the workshop. Publicity campaign was carried out for this workshop via various channels, including recruitment flyers, eDM and FHKI website. Highlights of the training workshop and useful materials were uploaded to FHKI website (https://www.industryhk.org/tc/event_detail.php?id=15253015) and project webpage (<http://hkplastics-ma-sdf.com/4th-workshop/>) for public access.

Video was uploaded to: <https://www.youtube.com/watch?v=OcErafSCta8>

g) Sharing Session of Study Mission to Germany and Austria

Date: 6 Dec 2016

Time & Duration: 2pm – 5pm (total 3 hours)

Venue: The Federation of Hong Kong Industries

In total 2 experts who had joined the study mission to Germany and Austria (K fair 2016 and Factory visit) were invited to be the presenters of this sharing session. Delegates shared their experience, new insights and technologies with participants so that they could take good use of this platform to broaden their horizons over the global plastics industry even if they missed the opportunity to join the study mission. The speaker list is shown below:

	Company	Name of Speaker	Industry of Speaker	Presentation Topic
1.	Hong Kong Productivity Council	Mr Samson Suen	Plastics materials	Sharing Session I: Innovative plastics manufacturing technology and applications of advanced materials
2.	Hongrita Mold Ltd.	Mr Felix Choi	Mould & die	Sharing Session II: Integrated metal and plastics injection moulding

Registration was opened to all SMEs and enterprises of the industry free of charge. In total 62 participants attended the sharing session. Publicity campaign was carried out for this sharing session via various channels which included HKPMA website, FHKI website and Facebook.

The sharing session was recorded and full version of videos were uploaded to the project webpage (http://hkplastics-ma-sdf.com/k_fair_2016/) and YouTube channel (<https://goo.gl/4WQtPc>) for public access.

h) First Factory Visit: “Explore Industry 4.0: Factory Visit to JMI & Fujikon”

Date: 26 April 2017

Time: 7:30am – 6:30pm (Total 11 hours, including 1.5 hours for lunch)

City: China Dongguan, Guangzhou

	Factory Name
1.	Jing Mei Industrial Ltd (JMI)
2.	Fujikon Industrial Holdings Ltd (Fujikon)

2 factories were selected for the 1st factory visit. During the visit to JMI, the delegation visited the waste reduction system as well as the Automatic Optical Inspection (AOI) System which has been newly developed and acted as one of the advanced production keys driving the success of JMI. At Fujikon, the delegation visited the R&D centre of acoustic manufacturing and discovered the operation of Manufacturing Execution System (MES) to learn more how enterprises can steer towards Industry 4.0. Registration was opened to all SMEs and enterprises of the industry.

Overwhelming response was received with a total of 42 participants attended the visit to learn the latest

production model and manufacturing execution system in the plastics industry towards Industry 4.0 strategy. The discoveries throughout the visit were publicised on FHKI website (https://www.industryhk.org/tc/event_detail.php?id=91170084) and project webpage (http://hkplastics-ma-sdf.com/factory_visit_2017-4).

i) **Second Factory Visit: Mission to Ningbo**

Date: 4 – 7 June 2018

Location: Ningbo

Eric Sun, Chairman of HKPMA, lead the delegation of industrial players to visit Beilun District, Hangzhou Bay New Zone, and Ninghai Economic Development Zone of Ningbo, China. In total, 5 factories and 1 university were selected for the 2nd factory visit.

	Factory Name
1.	貝發集團有限公司
2.	海天塑機集團有限公司
3.	寧波方太集團
4.	寧波大學
5.	方正汽車模具股份有限公司
6.	十里紅妝文化園

Registration was opened to all SMEs and enterprises of the industry. In total 30 participants were attending the mission. The discoveries throughout the visit were publicized on FHKI Website (https://www.industryhk.org/en/event_detail.php?id=17242678) and project webpage (http://hkplastics-ma-sdf.com/factory_visit_2018-6-4-7/).

j) **Publicity campaign, “Plastics Insights” and Project webpage**

(1) An array of advertisements were rolled out to arouse the attention of plastics industry players to the innovation and technological evolution under the trend of Industry 4.0; and to promote the whole projects with its events. Please refer to the following advertisement details as below:

(i) **Industrial publications**

In total 5 full paged event sharing report was made at FHKI's monthly magazine – The Hong Kong Industrialist (HKI)

Event	Date of advertisement	No of page(s)
1 st plastic conference	November 2016 issue (https://www.industryhk.org/HKI/201611/#44) P.44-45	2
Sharing Session of Study Mission to Germany and Austria	January 2017 issue (https://www.industryhk.org/HKI/201701/#38) P.38	1
2 nd plastic conference	March 2019 issue (https://www.industryhk.org/HKI/201903/62/) P.62-63	2

(ii) **Online advertisements were made in different channels:**

Banner advertisements on FHKI's website homepage were arranged for 23 months (December 2016 – October 2018) (<https://www.industryhk.org/en/>).

(2) **E-newsletter**

5 e-newsletters were published and disseminated to industry players. The e-newsletters were also uploaded to project webpage (<http://hkplastics-ma-sdf.com/e-newsletters/>). The contents of the e-newsletter included current deliverables carried out and industry news that were worthy of the notice by local plastics makers. Presentations summary and videos of the deliverables could be viewed by the industry players as well by linking the e-newsletter to the related webpage and YouTube channel.

	Date	Content	Link
1	Mar 2017	- 1 st Plastic Conference - Sharing session on K Fair 2016 and mission to Germany and Austria - Project website launched - Industry News	http://hkplastics-ma-sdf.com/issue-1-march-2017/
2	Sep 2017	- 1 st Workshop	http://hkplastics-ma-sdf.com/issue-2

		- 1 st Factory Visit - Industry News	-sept-2017/
3	Apr 2018	- 2 nd Workshop - 3 rd Workshop - Industry News	http://hkplastics-ma-sdf.com/issue-3-april-2018/
4	Oct 2018	- 2 nd Factory Visit - 3 rd Workshop - 4 th Workshop - Industry News	http://hkplastics-ma-sdf.com/issue-4-october-2018/
5	Mar 2019	- 2 nd Conference - Industry News	http://hkplastics-ma-sdf.com/issue-5-march-2019/

(3) Project webpage was developed and officially launched in March 2017. The domain name of the project webpage: <http://hkplastics-ma-sdf.com/>. This website was promoted via HKPMA and FHKI websites with direct linkage.

(4) Online media: Facebook to promote sharing session on study mission to Germany and Austria

(5) Placing advertisement on related industrial publications:

(i) The Chinese Manufacturers' Association of Hong Kong – Hong Kong Entrepreneurs (1 issue)

(ii) HKPC Smart ONE (3 issues)

No.	Issue Content
1	1 st Workshop Workshop on New Dimensions in 3D Printing Strike the Plastics World
2	2 nd Workshop Plastics Technology Workshop on Recycled Plastics and Green Plastics Technology
3	3 rd Workshop Plastics Materials Workshop on Channeling Into the New Sphere of Innovative Material Applications

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) Preparation on conferences and workshops	05/01/2017		C
(b) Roll out publicity campaign	05/01/2017		C
(c) Plan and develop project webpage	05/11/2016		C
(d) Project webpage launches	05/12/2016	06/03/2017	D
(e) 1 st Plastics Conference	05/12/2016	04/11/2016	C
(f) Sharing session of visit to Germany (K Fair)	05/01/2017	06/12/2016	C
(g) 1 st e-newsletter: sharing of visit to Germany and 1 st plastics conference	05/02/2017	06/03/2017	D
(h) 1 st Workshop	05/04/2017	11/07/2017	D
(i) 1 st Factory Visit	05/06/2017	26/04/2017	C
(j) 2 nd e-newsletter: information collected from 1 st workshop and 1 st factory visit	05/07/2017	29/9/2017	D
(k) 2 nd Workshop	05/09/2017	16/11/2017	D

(l)	3 rd e-newsletter: information collected from 2 nd workshop	05/01/2018	30/04/2018	D
(m)	3 rd Workshop	05/04/2018	23/01/2018	C
(n)	2 nd Factory Visit	05/06/2018	07/06/2018	D
(o)	4 th Workshop	05/08/2018	17/08/2018	D
(p)	4 th e-newsletter: information collected from 3 rd workshop, 4 th workshop and 2 nd factory visit	05/05/2018	30/10/2018	D
(q)	2 nd Plastics Conference	05/12/2018	11/01/2019	D
(r)	5 th e-newsletter: information collected from 2 nd Plastics Conference and latest technology news for plastics industry	05/09/2018	21/03/2019	D

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

Nil
