

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

Final Report of Approved Project

Project ref. no. : D12 001 009
Project title : A Comprehensive Study, Pilot Program and Strategic
Roadmap for Metal Components Manufacturing
SMEs to Diversify into High Value-Added
End-Products Business
Period covered : From 1 October 2012 to 31 August 2014
(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 Reference and Title

A Comprehensive Study, Pilot Program and Strategic Roadmap for Metal Components Manufacturing SMEs to Diversify into High Value-Added End-Products Business

Project Summary (in not more than 150 words)

The project aims to study in details on the existing gaps of local OEM metal parts manufacturers for diversification into ODM and OBM business of some selected types of value-added end-products with good market potential. A number of pilot companies of the metal parts industry will be supported to take the first step to actualize the business diversification. Through this project, latest market, product and technology information as well as guidelines, role models and strategic roadmap for diversification into high value-added end-products business can be provided to local metal parts manufacturing SMEs.

Project Objective(s) (in not more than 80 words)

1. To conduct a comprehensive study on the existing gaps of local OEM metal parts manufacturers for diversification into ODM and OBM business of some selected types of value-added end products with good market potential.
2. To support pilot companies of the metal parts industry to take the first step to actualize the business diversification.
3. To provide latest market, product and technology information as well as guidelines, role models of pilot companies and strategic roadmap for metal parts manufacturing SMEs for diversification into high value-added end-products business.

Grantee /Collaborating/Implementation Organisation Agent

Grantee : The Hong Kong Metals Manufacturers Association Limited

1. Hong Kong Diecasting and Foundry Association
2. Hong Kong Auto Parts Industry Association
3. Hong Kong Metal Merchants Association
4. The Hong Kong General Chamber of Small and Medium Business

Collaborating Organisation(s) : Limited

Implementation Agent(s) : Hong Kong Productivity Council

Key Personnel

	<u>Name</u>	<u>Company/Organisation</u>	<u>Tel No. & Fax No.</u>
Project Co-ordinator :	<u>Mr Kam-Shing SZE</u>	<u>The Hong Kong Metals Manufacturers Association Ltd.</u>	<u>2191 3381/ 2429 8453</u>
Deputy Project Co-ordinator :	<u>Mr Lo-Kin WONG</u>	<u>The Hong Kong Metals Manufacturers Association Ltd.</u>	<u>2191 3381/ 2429 8453</u>

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	<u>1 Oct 2012</u>	<u>31 Mar 2014</u>	<u>18</u>
Revised (if applicable)	<u>1 Oct 2012</u>	<u>31 Aug 2014</u>	<u>23</u>

Methodology Employed

A comprehensive study on the gaps of local OEM metal parts manufacturers for business diversification into ODM and OBM business of some selected value-added end products with good market potential such as auto parts, medical devices, healthcare products, electronic & telecommunication devices, aviation products, etc. has been conducted.

The gap analysis study covered aspects on incurred advanced technologies, manufacturing systems & facilities requirement, product design & development, market exploration, distribution channel & logistics management, modes of operation, etc. The project applicant, HKMMA had formed a steering committee with the implementing agent, HKPC and lecturers from universities, made directional decisions for this project, monitored the progress and activities as well as selected pilot companies for in-depth study of some selected product sectors.

The study consisted of 2 parts. The first part was to conduct :

- a preliminary questionnaire survey for over 300 manufacturers; and
- half-day on-site studies for around 25 manufacturers with interest in diversification into higher value-added end-product ODM/OBM business.

The purpose was to have better understanding of the existing capabilities of OEM metal components manufacturers and then analyze the overall gaps of the metals industry for business diversification. The half-day preliminary on-site studies were opened to all local manufacturers engaged in metals industry to participate in. Upon completion of the first part of study, the project committee identified four higher value-added end-product sectors based on the interest of local manufacturers, market opportunities, added-value of products and existing capabilities of the metals industry.

Under the second part :

- An in-depth study on the latest market opportunities, product trends and technology requirement for the selected end-product sectors with focus on metal parts and components manufacturing was carried out via desktop research, purchase of market study and trade reports and attending relevant exhibitions and conferences.
- 12 pilot companies (i.e. around 50% of companies joining the 1st part of the on-site study) were selected to participate in a detailed on-site study for evaluating the feasibility and potential of diversifying into one of the 4 selected end-product sectors. And 12 pilot companies selected the value-added end products sector according to their interest.
- The selection criteria was subjected to the existing technology & capabilities, facilities, quality & risk management systems and human resources that matched as close as possible with the particular requirement of a certain end-product sector.
- The purpose was to select pilot companies with better chance for successful diversification into a new end-product sector, so that they can be a good role model for other manufacturers. An individual report on the detailed study was provided to each of the pilot companies.

4 half-day public seminars (i.e. one for each selected end-product sector) to disseminate the study findings on market opportunities, product trend and latest technology and manufacturing systems requirements as well as the common gap and solutions of local OEM metal components manufacturers in business diversification

Some specific strategic development advice on product design, manufacturing set up and operation practices was provided to each pilot company participated in the detailed study in order to help them taking the first step to actualize the business diversification.

4 half-day sharing sessions for pilot companies to share among themselves and other companies on the strategies, operations, management systems and technologies adopted or to be adopted for business diversification was organized.

A strategic roadmap guidebook for the four selected higher value-added end-product sectors was compiled for providing guidelines and insights for other metal parts manufacturers concerning the resources and investments requirements in business diversification. The guidebook comprises:

- An analysis on existing situations and operation environment of the local metal parts industry and the requirements on advanced technologies, manufacturing systems, innovation management, marketing and distribution channels;
 - and possible solutions to be adopted by local metal parts SMEs for bridging the gap.
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2. Summary of Project Results

Project Deliverables

(Please list out the targeted project deliverables as stated in the project proposal appended to the project agreement and provide details of actual result achieved, including beneficiaries, for each of them.)

- (i) A questionnaire survey with 300 metal parts manufacturers and a half-day on site study for 25 manufacturers.
- (ii) An in-depth study on the market opportunities, product trends and technology requirements for 4 selected industries to evaluate the feasibility of diversification into high value-added products.
- (iii) 4 half-day seminars (target: 200 participants) to disseminate the study findings, common gap and solutions in business diversification.
- (iv) Strategic development advice for the 12 pilot companies on product design, manufacturing set up and operation practices.
- (v) 4 half-day sharing sessions (target: 200 participants) on strategy, operations management systems and technologies adopted or to be adopted by pilot companies for business diversification.
- (vi) A strategic roadmap guidebook (1,500 copies) on business diversification strategies and roadmap towards high value-added end-product sectors for metal parts manufacturing SMEs.

Actual Benefits to SMEs/Enterprises

(Please indicate *in clear, specific, tangible and quantifiable terms* the benefits of the project and its contribution to enhancing the competitiveness of Hong Kong's SMEs / enterprises in general or SMEs / enterprises in specific sectors / assist Hong Kong enterprises in general or in specific sectors in developing brands, upgrading and restructuring business operations, and promoting domestic sales in the Mainland, in not more than 400 words.)

- (i) A questionnaire survey with 309 metal parts manufacturers and a half-day on site study for 25 manufacturers was conducted.
- (ii) An in-depth study on the market opportunities, product trends and technology requirements for 4 selected industries (i.e. Medical and Healthcare Devices Industry; Aviation Parts Industry; Automotive Components and Parts industry; and High-End Consumer Electronics & Telecommunications Devices industry) to evaluate the feasibility of diversification into high value-added products was completed.
- (iii) 4 half-day seminars to disseminate the study findings, common gap and solutions in business diversification were held in July and October 2013. There are totally 210 participants. According to the questionnaires received after each seminar, SMEs recognized the gap for them to diversify to high value-added industry sectors and the opportunities for high value-added industry product and components sectors, which are valuable information useful for SMEs to extend business scope to high value-added products and gain insights and intelligence on the technology, management system and business channels requirement.
- (iv) Strategic development advice for the 12 pilot companies on product design, manufacturing set up and operation practices had been given. These 12 pilot companies have already taken the first step to actualize the business diversification. Some pilot companies are even more ambitious. For example, 1 pilot company becomes an approved supplier for a well-known aerospace manufacturing company; 1 pilot company started to develop medical devices and plan to display in exhibition within this year; 1 pilot company upgraded its laboratory system in order to gain client's confidence from high valued-added industry sector; 1 pilot company upgraded the quality management system for diversify to medical devices industry sector and already gained certification on ISO13485 international quality management system. Other pilot companies have taken different degree of measures /actions to equip themselves for diversify to high value-added industry sector.
- (v) 4 half-day sharing sessions on strategy, operations management systems and technologies adopted or to be adopted by pilot companies for business diversification were organized in August 2014. There are totally 208 participants. According to the questionnaires received after each seminar, SMEs gained knowhow on strategies and feasible actions taken by pilot companies taken first step for diversification. Through the case studies sharing, they understand the effective ways for preparation work to be carried out for diversification.

(vi) A strategic roadmap guidebook on business diversification strategies and roadmap towards high value-added end-product sectors for metal parts manufacturing SMEs was published. 1,500 copies had been printed and distributed to metal parts manufacturing SMEs. They can take reference and conduct appropriate actions which are suitable to their company in order to upgrade and restructure their business operation. In addition, allow metal parts manufacturing SMEs to get a clear picture towards high value-added industry sectors

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.)

<u>Milestone</u> (as set out in the approved project proposal appended to the project agreement)	<u>Original target completion date</u>	<u>Revised target completion date</u> (if applicable)	<u>Status</u> (C/D/N) #
(a) Implement questionnaire and brief on-site study	30/11/2012		C
(b) Conduct in-depth study and gap analysis with pilot companies. Carry out market, product and technology research of 4 selected high value-added end-product sectors	31/05/2013	31/08/2013	C
(c) Organize and hold 4 half-day seminars	31/07/2013	30/10/2013	C
(d) Provide strategic development advice to help 12 pilot companies taking the first step to actualize the business diversification.	31/01/2014	30/06/2014	C
(e) Organize and hold 4 half-day sharing session	28/02/2014	31/08/2014	C
(f) Editing and distribution of strategic roadmap guidebook	31/03/2014	31/08/2014	C

Marketing/Dissemination Activities (in chronological order)

(Please provide details of all completed and on-going promotional and/or dissemination activities for each of the project deliverables. Such activities may include advertisements, seminars, workshops, etc.)

<u>Date/ Period</u>	<u>Description</u>	<u>No. of beneficiaries (SMEs/Enterprises*)</u> *please delete as appropriate
30/10/12 to 30/11/12	Questionnaire survey to Hong Kong metals parts manufacturers.	309
02/07/13	Email promotion of seminars which held on 29-Jul-2014 through HKMMA, HKPC and collaborating organizations database	Around 3,000
05/07/13	Mailing of seminars pamphlet	Around 1,500
29/07/13	Seminar on Opportunities, Strategy, Gap Analysis and Solution for Business Diversification in Medical and Healthcare Devices Industry	55
29/07/13	Seminar on Opportunities, Strategy, Gap Analysis and Solution for Business Diversification in Aviation Parts Industry	53
02/08/13	Email promotion of seminars which held on 23-Aug-2014 through HKMMA, HKPC and collaborating organizations database	Around 3,000
02/09/13	Article on seminars on opportunities, strategy, gap analysis and solution for business diversification in medical and healthcare devices industry and aviation parts industry in HKMMA bi-monthly bulletin with around 1,500 circulations	Around 1,500
21/10/13	Seminars on Opportunities, Strategy, Gap Analysis and Solution for Business Diversification in Automotive Components and Parts industry	52
21/10/13	Seminar on Opportunities, Strategy, Gap Analysis and Solution for Business Diversification in High-End Consumer Electronics & Telecommunications Devices industry	50
04/11/13	Article on seminars on opportunities, strategy, gap analysis and solution for business diversification in automotive components and parts industry and high-end consumer electronics and electrical products industry in HKMMA bi-monthly bulletin	Around 1,500
01/08/14	Email promotion of seminars which held on 22 & 29-Aug-2014 through HKMMA, HKPC and collaborating organizations database	Around 3,000
22/08/14	Strategic Roadmap and Experience Sharing Session for Hong Kong Metals Manufacturers Diversifying Business into Medical and Healthcare devices Industry	54

22/08/14	Strategic Roadmap and Experience Sharing Session for Hong Kong Metals Manufacturers Diversifying Business into Automotive Component / Parts Industry	52
22/08/14	Interviewed one of pilot company-Golden Sun to share about the successful case for diversify to medical devices industry. Article was published in FOCUS bi-monthly bulletin (Oct 2014) with 100,000 circulations (hardcopy + electronic)	Around 100,000
29/08/14	Strategic Roadmap and Experience Sharing Session for Hong Kong Metals Manufacturers Diversifying Business into High-End Consumer Electronics & Telecommunications Devices industry	51
29/08/14	Strategic Roadmap and Experience Sharing Session for Hong Kong Metals Manufacturers Diversifying Business into Aviation Parts Industry	51
29/08/14	Distribution of strategic roadmap guidebook	Around 1,500
Total no. of beneficiaries :		Around 100,000 (some beneficiaries overlap)

Future Plan for Promoting the Project Deliverables

After successfully supporting some pilot metals components manufacturing SMEs under the project to take first step in actualizing diversification into medical devices, aviation parts, auto parts and high end electronic and electrical products manufacturing, the project applicant (HKMMA) and HKPC will continue to provide consultancy service on advanced technologies, manufacturing systems and new product development for SMEs targeted for value-added products business diversification on self-finance basis. HKPC will also support local SMEs engaged in metals components manufacturing to tap various local and Pearl River Delta cities government funding for individual companies in marketing, operations upgrading as well as product and technology innovation for diversification (e.g. ITF collaboration, R&D Rebate Scheme, BUD for individual company, TURN in various cities of PRD, SME Export Marketing Fund, etc.)

Seminars and other events for business diversification under metals industry will be co-organised by HKMMA and HKPC on self-finance basis. Besides, articles on cases for successful diversification will continue to post on publications of HKMMA, HKPC and collaborating organizations.

HKMMA and HKPC will also consider to submit SDF/BUD projects with themes as below for further supporting SMEs in value-added products market development that require a greater amount of financial years that may not be affordable by SMEs at the starting stage:

- 1) BUD project on "Metal-Based High Precision and Value-Added Products and Parts Mainland Market Exploration"
- 2) SDF project on "High Precision and Value Added Sheet Metal Products and Parts Overseas and New Market Exploration"
- 3) BUD project on "High Speed and Underground Train Parts and Components Manufacturing Systems Compliance and Mainland Market Exploration"

HKMMA will also collaborate with other trade associations in medical devices, aviation parts and auto components market exploration through some on-going BUD and SDF projects.