

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

Final Report of Approved Project

Project ref. no. : D 12 003 004
Project title : To Comply with the International Eco-design
Standard of ISO 14006:2011 – The Trump Card of
HKSMES in Maintaining Approved OEM & ODM
Status in the Global Industrial Market
Period covered : From 1 March 2013 to 31 January 2015
(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

To Comply with the International Eco-design Standard of ISO 14006:2011 – The Trump Card of HKSMES in Maintaining Approved OEM & ODM Status in the Global Industrial Market

Project Summary (in not more than 150 words)

Immediate supply chain pressure, consumer market expectations, environmental groups' concern and legislations lead to address Eco-design by industry. Personal care devices, electrical appliances, indoor leisure equipment, pumps, kitchen appliances, automotive components, lighting, toys, medical devices and healthcare equipment, etc. are products that EU have imposed special measurements now. A new standard of ISO 14006:2011 has therefore been launched in July, 2011 for manufacturing industry to cope with the special measurements. Since there are various environmental and ecological impacts during the entire product life cycle from product and process design, raw material selection, mass production, delivery, usage, disposal and recycle, the standard is specially designed to provide a structural and systematic way to assist SMEs to fulfill their immediate customers' requirements. Implementing this standard will lead to reduction of raw material and processing cost, less consumption of energy, less release of wastes, higher usage of environmental-friendly and toxic-free materials. It obviously helps HKSMES to increase profit, reduce cost of materials, labour, manufacturing overhead and preserve the environment apart from fulfilling the contractual requirements as OEMs and ODMs. Since this is the manufacturers' "Identity Card" to demonstrate their fulfillment of contractual Eco-design requirements, they will soon be informed to comply with the eco-design requirement in 2 years. HKSMES who are the immediate lower-tier suppliers involving in these products and components manufacturing will be seriously impacted shortly and losing their approved vendor status if they don't take action today!

HKSMES have to act first to upgrade their knowledge, skills and application techniques by benchmarking ISO 14006 in order to maintain their competitive position in the global market. However, the compliance of ISO 14006 requires a high level of technical, engineering and managerial knowledge. Even they want to implement, the overall consultancy fee is very high typically from HK\$0.2M to 0.5M depending on no. of factors such as products types, manufacturing processes, existing operation systems, individual customers' requirements, etc. They are therefore encountering great difficulties to implement on their own.

To assist them to overcome the difficulties and grasp the advantage of being the first mover, FITMI, a Hong Kong federation of 10 industry associations and supported by other five major industry associations, proposes to launch an industry-wide programme in which a series of knowledge transfer and upgrading activities will be disseminated. 20 product cases covering majority scope of Hong Kong manufacturing industry will be developed as role model for HKSMES' reference and follow. It is planned that most of the content of implementation manual will be developed generically and can be cross-sectorial referenced to wider the beneficiaries. By using the project deliverables, HKSMES can implement on their own with referring the implementation manual and case books directly. The initial consultancy fee (i.e. HK\$0.2M to 0.5M) and implementation time will be substantially reduced by up to 70-80%. The signature project will not only uplift the quality and professional reputation of Hong Kong industry but also promote HKSMES as the pioneer of greener manufacturers in the global market.

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

1. To advance the capability of product development, production environment management and product life cycle management of HKSMES by benchmarking the international standard – ISO 14006
2. To pioneer the innovative Eco-design system in Hong Kong for strengthening the professional image of Hong Kong manufacturing industry

Grantee /Collaborating/Implementation Organisation Agent

Grantee : Hong Kong Federation of Innovative Technologies and Manufacturing Industries

Collaborating Organisation(s) : Hong Kong Mould and Product Technology Association
Hong Kong Electrical Appliance Industries Association
SAE International (Hong Kong)
Hong Kong Medical Device & Healthcare Industrial Association
Hong Kong Auto Parts Industry Association

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>LEE Yuen Fat</u> | <u>Hong Kong Federation of Innovative Technologies and Manufacturing Industries</u> | <u>Tel: 3759 8983</u> <u>Fax: 3586 2765</u> |
| Deputy Project Co-ordinator : | <u>SHAN Ming Yin Raymond</u> | <u>Hong Kong Productivity Council</u> | <u>Tel: 2788-5330</u> <u>Fax: 2788-5522</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 March 2013</u> | <u>31 October 2014</u> | <u>20 months</u> |
| Revised (if applicable) | <u>1 March 2013</u> | <u>31 January 2015</u> | <u>23 months</u> |

Methodology Employed

- Desktop Research, Promotion and Invitation Pilot Companies
- Organization of Dissemination Events and Industry Evaluation
- Development of an Operation Model, Trial Implementation, System Fine Tuning and Compilation of Implementation Manual
- Dissemination and Promotion of Project Deliverables

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.)

1. A survey and a benchmarking scheme (target: 100 companies) to assess the readiness of Hong Kong manufacturers to comply with the eco-design standards and requirements under ISO 14006.
2. A half-day environmental and ecological conference (target: 80 participants) in Guangzhou to introduce ISO 14006 and promote the project to the manufacturing industries.
3. Four 1-day technical workshops (target: total 160 participants) to teach SMEs the necessary tools and skills on eco-design.
4. A green innovation clinic (last for 20 days; target: total 100 participants) to evaluate and provide in-depth explanations on 20 selected products in accordance with the requirements of eco-design under ISO 14006.
5. An operation model that complies with ISO 14006 requirements for testing the applicability of the working procedures and instructions by the pilot companies to try out the model.
6. 2,000 copies of implementation manual which explains the requirement of ISO 14006 and teaches SMEs on how to use the eco-design tools.
7. 2,000 copies of a case book and 2,000 pieces of CD-ROMs about the product development, process development, production and activities related to eco-design.
8. Two 1-day practical workshops (target: total 80 participants) on how to conduct internal audit based on ISO 14006 and its documentation requirements.
9. A half-day dissemination seminar (target: 50 participants) to promote the project deliverables.
10. Two advertisements, two promotional pamphlets and one technical paper for disseminating the technical knowledge and practices to Hong Kong SMEs, and arousing their interests in eco-design.
11. An electronic version of the Eco-design implementation manual and the case book uploaded to the website of the applicant for public access.

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.)

1. A survey and a benchmarking scheme (actual: 102 companies) to assess the readiness of Hong Kong manufacturers to comply with the eco-design standards and requirements under ISO 14006 were completed in November 2013.
2. A half-day environmental and ecological conference (actual: 81 participants) in Guangzhou to introduce ISO 14006 and promote the project to the manufacturing industries was conducted on 24 September 2013.
3. Four 1-day technical workshops (actual: total 145 participants) to teach SMEs the necessary tools and skills on eco-design were organised on 23, 25, 26, 27 September 2013.
(Remark: since the target total participants of 160 participants had not been achieved, we have conducted five extra workshops done in December 2013 and in January 2014, with 23 participants. This extra cost was borne by HKPC and had not been charged to the Project. As a result, there were totally 168 participants.)
4. A green innovation clinic (last for 20 days; actual: total 122 participants) to evaluate and provide in-depth explanations on 20 selected products in accordance with the requirements of eco-design under ISO 14006 was organized from Nov 2013 to Feb 2014.
5. An operation model that complies with ISO 14006 requirements for testing the applicability of the working procedures and instructions was completed and was tried by the pilot companies.
6. 2,000 copies of implementation manual on how to use the eco-design tools were produced and distributed to SMEs.
7. 2,000 copies of a case book and 2,000 pieces of CD-ROMs about the product development, process development, production and activities related to eco-design were produced and distributed to SMEs.
8. Two 1-day practical workshops (actual: 84 participants) on how to conduct internal audit based on ISO 14006 and its documentation requirements were conducted on 17 July 2014 and 18 July 2014.
9. A half-day dissemination seminar (actual: 52 participants) to promote the project deliverables was organized on 20 January 2015.
10. Two advertisements (at "Hong Kong Entrepreneurs" of the Chinese Manufacturers Association of Hong Kong and at "Hong Kong Auto Parts Industry Association Directory"), two promotional pamphlets and one technical paper (<http://www.hk5sa.com/icit/01-5-HKPC-Tiffany.pdf>) for disseminating the technical knowledge and practices to Hong Kong SMEs were completed in accordance with project schedule.
11. An electronic version of the Eco-design implementation manual and the case book were uploaded to the website of the applicant for public access (<http://www.fitmi.org.hk>).

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) Desktop Research, Promotion and Invitation of Pilot Companies | 31/05/2013 | N.A. | C |
| (b) Organization of Dissemination Events, Industry Evaluation and Benchmarking Scheme | 30/11/2013 | N.A. | C |
| (c) Development of an Operation Model, Trial Implementation, System Fine Tuning and Compilation of Implementation Manual | 31/08/2014 | 31/10/2014 | C |
| (d) Dissemination and Promotion of Project Deliverables | 31/10/2014 | 31/01/2015 | 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 |
|-------------------------|--|---|
| 09/2013 | Promotional pamphlet to HK foundation industries including plastics, metal and mold & die industries practitioner through association committee meeting, industries seminars | 1,000 |
| 09/2013 | Promotional pamphlet to visitors of Guangzhou exhibition with Conference – Introduction of ISO 14006 and the concept of Eco-design held at Guangzhou | 1,000 |
| 09/2013 | One half-day conference in Guangzhou | 81 |
| 09/2013 | Four 1-day technical workshops | 168 |
| 11/2013 – 02/2014 | Twenty Green Innovation Clinics | 122 |
| 03/2014 | Advertisement in Hong Kong Entrepreneurs by the Chinese Manufacturers Association of Hong Kong | 5,000 |
| 17/07/2014 | Practical Workshop on ISO 14006 Internal Auditing Skills and Documentation Preparation | 43 |
| 18/07/2014 | Practical Workshop on ISO 14006 Internal Auditing Skills and Documentation Preparation | 41 |
| 10/2014 | Advertisement in Hong Kong Auto Parts Industry Association Directory | 3,000 |
| 01/2015 | Promotional pamphlet to HK foundation industries including plastics, metal and mold & die industries practitioner through association committee meeting, industries seminars | 1,000 |
| 01/2015 | Project Dissemination Seminar on Implementation of ISO 14006 | 52 |
| | Total no. of beneficiaries | : <u>11,507</u> |

Future Plan for Promoting the Project Deliverables

Upon project completion, the project deliverables including the “Eco-design Implementation Manual” and “Eco-design Case Book” will be continuously promoted and marketed through free seminars, pamphlets distribution and associations’ website.