

**SME Development Fund
Final Report of Approved Project**

Project Title : The best practices for environmental friendly
(Reference No.) plastic products in compliance with the
international recognized green label schemes
(D08 002 004)

Period covered : From 1 July 2009 to 31 December 2010
(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

The best practices for environmental friendly plastic products in compliance with the international recognized green label schemes (D08 002 004)

Project Summary (in not more than 150 words)

In this project, we have supported the local industry with the following deliverables:

- A study of the international standards related to plastic product green label schemes for 10 major markets was conducted.
- A technical guidebook on the best practices for producing environmental friendly plastic products in compliance with relevant international recognized green label schemes was published.
- Four case studies were conducted. The application procedures, assessment methods and results were recorded in details and shared with the industry.
- A database on the major international recognized green label schemes was developed and posted on the website.
- Four seminars were arranged to disseminate the project deliverables and share the successful experience in the assessment and adoption of green label schemes.

Through this programme, local plastic product manufacturers have grasped the key point of green label schemes. They could establish their own best practices with lesser time and cost.

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

1. To upgrade the capabilities of local plastic product manufactures by developing the best practices in producing environmental friendly plastic products in compliance with the international recognized green label schemes.

2. To promote the importance in adopting green label schemes for enhancing the competitiveness of local made plastic products in the world markets.

Recipient/Collaborating/Implementation Organisation

Recipient Organisation : The Hong Kong Plastics Manufacturers Association Limited (HKPMA)

Collaborating Organisation(s) : Society of Plastics Engineers Hong Kong 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>Chan Wai Man, Raymond</u>	<u>The Hong Kong Plastics Manufacturers Association Limited (HKPMA)</u>	<u>2574 2230 2574 2843</u>
Deputy Project Co-ordinator	: <u>Lee Kwok-Keung</u>	<u>Hong Kong Productivity Council</u>	<u>2788 5551 2788 5543</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>1/7/2009</u>	<u>31/12/2010</u>	<u>18</u>
Revised (if applicable)	<u></u>	<u></u>	<u></u>

Methodology Employed

The project work was divided into several stages in order to have it completed in a more systematic way:

1. Programme Development

A thorough literature search was carried out through desktop data search, published articles and reports to collect the most updated information and international standards related to green label schemes for plastic products.

2. Programme Preparation

The collected information including relevant international recognized green label schemes, the requirements, assessment methods, procedures and relevant testing standards were studied and reviewed. Available testing laboratories, estimated costs and time for standard testing were also identified.

The project (including project objectives and planned project work) was introduced to the industry.

3. Programme Implementation

Technical seminars were conducted by local and overseas experts to share the experience in adopting the green label schemes in various countries.

The best practices in compliance with the green label schemes for plastic products manufacturing in consideration of the materials selection, products design, manufacturing processes, environment management to the end of the life cycle were identified and consolidated.

The information of international recognized green label schemes, requirements, relevant assessment methods, procedures, testing standards as well as available laboratories, estimated costs and time, etc., were compiled into a computer database.

Standard laboratory tests on plastic resins were performed.

Four plastic products were identified and four case studies were carried out in adopting green label schemes.

A technical guidebook on the best practices for producing environmental friendly plastic products in compliance with relevant international recognized green label schemes was compiled.

4. Dissemination seminar

Four dissemination seminars were organized to introduce the project deliverables including the database and the best practices to comply with green label schemes.

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. Under this project, a list of common green label schemes for 10 major markets such as Eco Mark, Green Seal, Blue Angel, Green Labels, etc., will be searched with detailed information on the requirements, assessment methods, procedures, and relevant testing standards, etc. The collected green label schemes together with the list of available testing laboratories, estimated cost and time for the standard testing, etc., will be compiled into a computer database in form of CD Rom as well as mounted on the website for ease of reference.

Actual result achieved:

Detailed information of 10 major markets including Australia, Canada, China, Europe, Germany, Hong Kong, Japan, New Zealand, Tai Wan, U.S.A. was studied and compiled into a computer database. The computer database allowed the user to identify very quickly the details of the respective scheme such as requirements, assessment methods, procedures, and relevant testing standards within the 10 major markets. The database was mounted onto our website. The database was also converted into the form of CD Rom for users to access without the internet. 2000 copies of CD Rom were compiled and distributed to the industry and our members.

2. A technical guidebook containing the best practices on materials selection, use of eco-design tools, green manufacturing processes, environmental management systems, product disposal and recycling, etc., as well as some successful cases, will be compiled for SMEs to follow so as to comply with relevant international recognized green label schemes.

Actual result achieved:

A technical guidebook was compiled with best practices on the following areas:

- 1) Eco-design tools and methodology
- 2) Life cycle analysis
- 3) Selection of environmental friendly materials
- 4) Product disposal and recycling
- 5) Green manufacturing process
- 6) Environmental management systems
- 7) Green label schemes
- 8) Successful cases sharing

2000 copies of the guidebook were compiled and distributed to the industry, SMEs and our members.

3. Four case studies will be conducted in adopting a green label scheme. Different typical products from the major industrial sectors in Hong Kong, such as electronic products, toys, household electrical appliances, household products and automotive components, will be selected carefully and the application procedure of eco-labeling schemes of several major Hong Kong export markets, such as the US, EU, Japan, China and Hong Kong will be recorded in great details. The procedures, assessment methods and results will be shared with the local plastic product manufacturers.

Actual result achieved:

Four case studies were conducted with details as follows:

An electric kettle was selected as the case study in the sector of energy saving household electrical appliance. The application was successful and a Green Label was granted by Hong Kong Green Council.

A shower was selected as the case study in the sector of water saving product. The application was successful and a Water Efficiency Label was granted by the Australian Government.

A multi-functional pail was selected as the case study in the sector of recycled plastic household product. The application was successful and an Ecologo Label was granted by the Canada TerraChoice Environmental Marketing Inc.

An iPhone case was selected as the case study in the sector of recycled plastic products. The application was successful and a Green Label was granted by Hong Kong Green Council.

The procedures, assessment methods and results of these 4 successful cases were shared inside the technical guidebook as well as in the seminars.

4. Four seminars for different purposes including technology, awareness and dissemination will be conducted by local or overseas experts to promote the importance of green labels as well as to acquire experience in the assessment and adoption of green label schemes.
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Actual result achieved:
Four seminars were conducted.

Seminar 1:

The first seminar was conducted on 23.10.2009. A speaker was invited from Mainland China to share with the participants the eco-labeling scheme in China. There were in total 50 participants.

Seminar 2:

The second seminar was conducted on 16.4.2010. Speakers were invited from Canada and Germany to share with the participants the eco-labeling scheme in Canada and Germany respectively. There were in total 25 participants.

Seminar 3:

The third seminar was conducted on 25.6.2010. A speaker was invited from Europe to share with the participants the eco-labeling scheme in Europe. There were in total 45 participants.

Seminar 4:

The fourth seminar was conducted on 17.12.2010. Speakers were invited from Australia and Hong Kong to share with the participants the eco-labeling scheme in Australia and Hong Kong. There were in total 51 participants.

These seminars have successfully raised the interest and awareness of local SMEs in eco-labeling systems.

Actual Benefits to SMEs

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 in general or SMEs in specific sectors, in not more than 400 words.

This project has successfully developed the best practice for environmental friendly plastics products in compliance with the international recognized green label schemes.

Through the pilot case studies of 4 local SMEs, the major challenges in the application, assessment and evaluation process were identified. Technical and managerial suggestions to tackle these challenges were made to assist other local SMEs to grasp the key points in adopting these green label schemes.

Professionals from major markets such as Canada, Germany, Australia, Europe, China and Hong Kong were also invited to share the requirements of different green label schemes. 4 seminars were conducted with over 170 participants from local SMEs benefited.

The industry and our members were benefited from this project. The successful case studies were reported by 3 local Newspapers (Apple Daily, Hong Kong Economic Times, and Ming Pao). The industry had also benefited from acquiring the know-how from us to establish their own best practice for producing environmental friendly plastic products with minimum investment of time, money and other resources.

Moreover, a computer database was also compiled to assist local SMEs to identify very quickly the details of the scheme such as requirements, assessment methods, procedures, and relevant testing standards within the 10 major markets. This database is available both on our website and in the form of CD-ROM for our members as well as to all local SMEs in H.K.

In addition, best practice of different green labels and experience of the pilot companies were shared to local SMEs via seminars and technical publications (such as The Plastic Bulletin, The Electronics Bulletin, The Plastics and Metals Bulletin, The Electronics and Automotives Bulletin). 2000 copies of promotional pamphlets and technical

guidebook containing the best practice of green label schemes were also compiled and distributed to local SMEs and our members.

Through all these means of project dissemination, interested parties can acquire the knowledge to upgrade their capabilities in producing environmental friendly plastic products in compliance with the international recognized green label schemes.

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 that are deferred or not achieved, please also provide the reasons under item 2.4.

	<u>Milestone</u> (as set out in the 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)	Programme Development	31/8/2009		C
(b)	Programme Preparation	30/11/2009		C
(c)	Technical seminars	31/3/2010		C
(d)	Best practices identification and consolidation	30/6/2010		C
(e)	Database compilation	31/8/2010		C
(f)	Case studies	31/10/2010		C
(g)	Technical guidebook compilation	30/11/2010		C
(h)	Dissemination seminar	31/12/2010		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</u> (Please specify whether they are SMEs or not)
23 Oct 09	Seminar on Eco-Labeling Program - China	50
16 April 10	Seminar on Eco-Labeling Program - Canada / Germany	25
25 June 10	Seminar on Eco-Labeling Program - Europe	45
17 Dec 10	Seminar on Eco-Labeling Program - Australia / Hong Kong	51
26 Nov 10	Promotion event on Eco-Labeling Certification	95
4 Apr 10	News article on "Apple Daily"	N/A
22 Oct 10	News article on "Hong Kong Economic Times"	N/A
22 Oct 10	News article on "Ming Pao"	N/A
Feb 2010	Technical article on "The Plastic Bulletin"	N/A
Mar 2010	Technical article on "The Electronics Bulletin"	N/A
Aug 2010	Technical article on "The Electronics and Automotives Bulletin"	N/A
Nov 2010	Technical article on "The Plastics and Metals Bulletin"	N/A
Dec 2010	Publish of promotional pamphlets	2000 copies
Dec 2010	Publish of technical guidebooks	2000 copies
Dec 2010	Publish of database in the form of CD-ROM	2000 copies
Total no. of beneficiaries - no. of SMEs		: 266
no. of companies which are <u>not</u> SMEs		: 0

Future Plan for Promoting the Project Deliverables

Further promotions of the project deliverables will be arranged through circulars / e-mails to the members of HKPMA. Promotional speeches will also be arranged in general meetings of the Association.