eco design
The greening of Irish design

Eco Smart Design has grown out of the need for manufacturing SMEs to improve their environmental performance

There is far more to the greening of Ireland than its magnificently verdant landscapes.

As part of the worldwide trend toward eco-design as an environmentally responsible business tool, a new product oriented initiative was recently launched in Northern Ireland. Known as the Eco Smart Design program, the focus is on supporting industry in both the North and border counties in the Republic of Ireland.

The cross border initiative is being run by Environmental Systems and Solutions, the environmental wing of Craigavon Industrial Development Organisation, CIDO, which has a long and successful history working with small to medium enterprises or SMEs.

The program is targeting businesses based in Counties Armagh, Down and Monaghan, active in manufacturing sectors such as electrical/electronics, furniture, packaging, recycling, engineering and textiles. It is a business-oriented initiative that understands the needs and pressures SMEs have to deal with on a daily basis. The program aims to provide high quality advice and support through a team of specialist consultants who are experts in their fields.

Similar programs have been successfully implemented in Australia, the Netherlands and Hong Kong. In the Irish Republic, Enterprise Ireland has been running their Environmentally Superior Products, ESP, program for several years and continue to refine and expand the focus on eco-design, life cycle thinking, product research and development. These initiatives have all reinforced the importance of being flexible when it comes to cooperation and collaboration with SMEs. While larger companies and multinationals have dedicated environmental managers and related personnel, SMEs don't have such luxuries.

At the September 2004 launch of the Eco Smart Design Program in County Armagh, a new 'zero-waste' computer concept was presented by Paul Maher, managing director of Dublin-based IT company MicroPro, and José Ospina, project manager of the Heatsun Project. This project directly confronts key waste avoidance, disassembly and recycling issues. Most importantly, it demonstrates how eco-design and life cycle management can effectively deal with new EU directives related to waste electrical and electronic equipment. MicroPro is developing Europe's first 100% recyclable computer. MicroPro has joined the Eco Smart Design Program as a way of enhancing its knowledge in design for disassembly, reuse and recycling.

Through their research, design and development activities under the Environmentally Superior Products initiative (Enterprise Ireland, Republic of Ireland), MicroPro managed several worthwhile environmental outcomes such as:

- Extending the operational life of the hardware via an upgradeable chassis with modular interface port design.
- Using materials and assembly techniques to increase the recycling and reuse options at end of life.
- Increasing energy efficiency.

Eco Smart Design begins with the product as a key point of environmental opportunity, whether through design, strategy, research, marketing or compliance. Above all, the program maintains a flexible and dynamic approach as a way of meeting the needs of SMEs.

CIDO works with smaller companies and understands the challenges that confront them. As a result the Eco Smart Design program has been tailored to such needs. Typical projects eligible under the program include marketing and communications strategies for products and related services, product development support to prepare design concepts for a new product or its packaging and research advice on materials as well as strategy development.

The program also considers areas of legislation, regulations, standards and eco-labels to assist with regulatory compliance requirements as well as preparation of product take-back, reuse or recycling strategies for end-of-life products.

Eco Smart Design will also provide SMEs with consulting expertise related to marketing, communications and overall environmental strategy. Through a series of workshops and mentoring days with experienced consultants, participating companies will gain an understanding of innovative design directions that are environmentally responsible and commercially oriented.

By the end of 2005, between fifteen and twenty Irish companies will have worked through the Eco Smart Design program, hopefully with some tangible business and environment outcomes to showcase.

An important area of activity within the program relates to helping companies comply with relevant regulations and legislation, especially given the suite of EU Directives focused on electronic waste, restriction of hazardous substances, packaging and end-of-life vehicles.

Ulrike Ebli from Environmental Systems and Solutions, who is managing the Eco Smart Design program, is committed to making sure the initiative has relevance and value to SMEs.

"Eco Smart Design has grown out of the need for manufacturing SMEs to improve their environmental performance," says Ebli, "It comes at a time of increased environmental legislation and dramatic market change.

"SMEs will benefit greatly from this program as we equip participants with a practical understanding of how to minimise the environmental impact of their products while also maximising financial returns," he adds.

Some of the companies that have just joined the program's first phase include:

- Seagoe Technologies (heating appliances)
- CSS Almac (pharmaceutical packaging)
- J.H Turkington (conservatories and roofing products)
- NHT Engineering (hydroelectric turbine technologies)
- Huhtamaki (food packaging)

Work with each of these businesses will range from eco-design brief development, concept design and redesign, through to materials research, environmental marketing, regulatory tracking and product stewardship strategy.

Ultimately it is about enhancing Ireland's existing manufacturing and design strengths while also being environmentally responsible and ambitious.

More information can also be found on the program website www.ecosmartdesign.co.uk.

Work on eco-design has a slightly longer history in the Republic of Ireland through the ESP initiative operated by Enterprise Ireland, a government agency.

Having commenced with a successful ESP pilot demonstration project from 1999 to 2001, Enterprise Ireland has continued to evolve and refine its industry support activities. Managed by Dorothy Maxwell the environment policy group in Dublin, ESP established a solid profile of industry collaborations with various manufacturing sectors from plastics and electronics through to packaging, furniture, and construction.

As an extension of the ESP initiative, Enterprise Ireland continues to offer product related environmental support in the form of financial, information and advisory assistance.

Like the Eco Smart Design program, the ESP initiative is eager to deliver relevant support that adds value to the participating companies and their products. By using an ESP feasibility assessment approach, companies can pursue several key elements including simplified life cycle assessments to more clearly document and understand the impacts of their products, market research to identify competitors and competing products, investigate consumer requirements and exploit third party recognition schemes such as eco-labels.

The approach also considers technical feasibility studies to assess materials and processes as well as manufacturing methods and technologies as well as research and analysis of legislative and regulatory requirements relevant to the particular product and/or market.

The prospect for growth and excellence in produc oriented environmental strategies appears positive and well resourced in Ireland – North and South. K government agencies as well as industrial develop ment organisations are engaging with the challen posed by more stringent legislation, greening mar and changing consumer behaviour. ■

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