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Connaught Electronics Ltd.

Company Activities

CEL (Connaught Electronics Ltd.), is an indigenous Irish electronics company established in Galway in 1982 and currently employ 200 people. CEL is a worldwide leader in the design, manufacture and marketing of high quality electronic products for the automotive industry. CEL specialise in remote keyless entry systems and general body electronic control units. Customers include BMW, Rover, Volvo and General Motors. CEL is a dynamic company with expert knowledge in the total development process for automotive electronics. The focus is on providing global automotive customers with innovative solutions in access and security technologies. CEL work closely with customers from concept through to manufacturing to provide optimal solutions and develop long-term customer relationships.

The company's long history in automotive manufacturing and accreditation to ISO9001 QS 9000 and ISO14001, coupled with the use of leading edge technology provides a world class-manufacturing environment. Strong R&D and manufacturing competencies have contributed to the company's sustained growth over the last 10 years and forecasts for continued growth in all areas of operation.



Environmentally Superior Products Project

CEL manufacture the electronic component in cars that receive and manage the remote vehicle security keyless entry (RKE) signal from the key fob transmitter. The UHF receiver unit, fixed within the car, consist of a printed circuit board packed with a number of electronic

sub components. The ESP project was to improve the environmental performance (including manufacture, use and ultimate disposal) of these RKE units. The ESP project resulted in the substitution of the unit's principal sub component (previously a Japanese import) with CEL's own

component while also achieving significant environmental benefits, namely a 40% reduction in materials content (particularly hazardous materials) and a three fold reduction in the unit's energy demand. The new unit is also easier and cheaper to produce.



Project Consultants

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Environmental and commercial benefits:

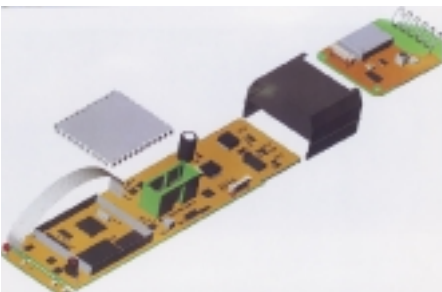
- The investigation and reduction of the environmental impacts associated with the life cycle of the product to include the following:-
 - The size of the unit's UHF receiver was reduced and integrated into the motherboard. The composition and number of components in the finished unit was reduced. The study enabled these environmental improvements to be achieved while reducing manufacturing cycle time and also reducing process and product costs.
 - The amount of energy used by the unit in operation was reduced three fold.

- The wastes generated during the life cycle of the product were reduced due to a 40% reduction in materials content, particularly hazardous materials.
- CEL evaluated the use of lead free solder and tested it in the production of this product. This enabled CEL to compare the solderability and solder strengths of a lead and lead free alternative.
- Ensuring compliance with existing and forthcoming EU legislation for the electronics and automotive sectors was a key element of this project. This legislation includes the draft directive on Waste from Electrical and Electronic

Equipment (WEEE) and End of Life Vehicles (EOLV) directive.

- A key outcome of the project was the competitive advantage achieved by the cost savings associated with the reduction of the environmental impacts of the product.
- Completion of this ESP project increased the skills and knowledge of our designers, and has enabled them to include environmental considerations into current and future designs.

Original circuit board design.



Environmentally superior circuit board design.

