

Life Cycle Management



Sarah McLaren left, and Anthony Hume right with John Bowmar from ACMA Industries

LANDCARE RESEARCH IS LEADING AN INNOVATIVE PROJECT FOR NEW ZEALAND MANUFACTURERS TO EMBRACE CONTINUOUS ENVIRONMENTAL IMPROVEMENT THROUGH LIFE CYCLE MANAGEMENT (LCM), AS THE ENVIRONMENTAL IMPACTS OF DOING BUSINESS ARE INCREASINGLY UNDER THE SPOTLIGHT.

LCM is a point of focus for many New Zealand manufacturers including those facing pressure from customers, their supply chain or regulatory authorities to improve their environmental credentials.

It is a relatively new environmental concept that takes a 'cradle to grave' approach to products by recognising that all product life-cycle stages

– raw materials, manufacturing, transportation, use and waste – have environmental impacts that can be minimised. LCM is good for the environment through more efficient use of raw materials and energy, and reduced waste. The efficiencies also result in cost savings for manufacturers and improved decision making to meet customer needs on environmental needs.

LCM principles are increasingly being undertaken by businesses overseas and many markets are now demanding the same of their New Zealand counterparts. For others, it is simply a 'ticket to operate' as regulatory authorities in Europe, the USA and Japan now expect manufacturers in many sectors to take greater responsibility for the life cycle of their products

Project leader Anthony Hume says a commitment to LCM can therefore provide New Zealand

manufacturers with a market edge. New Zealand exporters are regularly being asked what they're doing to improve their environmental performance, and many countries are now only wanting to work with businesses that can prove their environmental credentials.

'LCM is more than simply recycling, it's about changing business processes and ensuring sustainable access to valuable overseas markets.'

Dr Hume says the project will help local businesses to develop in-house expertise to deal with ongoing and future environmental issues, realise potential to increase productivity through continuous environmental improvement, position themselves to confidently compete in home and overseas markets with credibility under internationally recognised environmental and sustainability standards, and develop indicators that can guide company strategy and integrate initiatives for value enhancement along the supply chain.

Six manufacturing companies have been chosen as case studies to illustrate the potential for implementing LCM over a 2-year period.

The companies will have the opportunity to tackle their economic, environmental and social impacts and provide solutions.

'There are three major elements within the programme to build a comprehensive framework for LCM in the manufacturing sector,' Mr Hume says.

'These include each company selecting an LCM "champion" to attend a training programme run by Landcare Research, undertaking life cycle studies of selected products in the case study companies, and research by the Ministry for the Environment, Ministry of Economic Development, Business New Zealand and Landcare Research to investigate the financial, organisational and environmental advantages of LCM.

'It's a big undertaking asking for 45 days' involvement in each of the first two years.

However, some of these businesses will have two or three “champions” to assist in the project.’

In the final three years of the project the findings from the work with the six case study organisations will be used to promote LCM best practice in New Zealand. Throughout the 5-year project there will be research and evaluation to learn how companies can most efficiently integrate life-cycle thinking into their practices and how these outcomes can be disseminated throughout the economy.

The research focus of the LCM project will help address three issues critical to the successful adoption of LCM practices in New Zealand: barriers and enablers for LCM in organisations, benefits of adopting LCM, and policy implications of product-oriented environmental management.

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CASE STUDIES: ACMA Industries

John Bowmar, from Wellington-based ACMA Industries, is excited at the chance to be involved in the LCM project and says the opportunity came at a perfect time.

‘We have just developed an exciting new impact-absorbent flooring product called “Kradal” for the elderly, which is highly impact absorbing yet firm enough for them to stand and walk on without increasing the risk of a fall, and because we’re increasingly aware of the “green” side of commerce we decided we wanted to learn more about the entire life cycle of the product.

ACMA is a specialty polyurethane manufacturer and the flooring is their first building product.

John says the involvement in LCM is a form of risk management for ACMA and the company sees it as a positive point of difference in a competitive industry.

‘We have to listen carefully to our customers and be ready to supply what they want and need and products with sound environmental credentials are included. Furthermore, we didn’t want to get to the stage of launching a really good new product and have a competitor suddenly raise issues within the industry of its environmental performance.’

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Kradal Impact absorbent flooring:
www.kradal.co.nz

David Trubridge Design

Design Team Leader Peter Tang says the small Hastings-based company has always had a strong environmental philosophy and their involvement in LCM is an extension of this long-held view.

‘We need hard facts and figures on our environmental footprint to provide to our increasingly environmentally aware customers – these would include carbon emissions, waste generated, energy consumed, and the total distance travelled by our products,’ Peter says.

‘However, until now we haven’t been able to quantify what we do.’

Their involvement in the LCM project is also part of a wider programme to increase market share and to measure the impact of business activity on the environment.

Peter says David Trubridge Design has experienced rapid growth, going from four staff to as many as 18 in just 3 years, and inroads to new markets around the world. These changes have made it more difficult to monitor ‘baseline’ environmental indicators within the company, including waste and energy use. However, the real difficulty in measuring environmental performance seems to be the lack of readily available data relating to New Zealand, he says.

‘At this stage LCM is a point of difference from a marketing sense but in a few years I’m adamant this environmental information backed with solid credentials will be a requirement.’

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