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Sustainable Business: The New Zealand Plastics Sector

A thesis presented in partial fulfilment of the requirements for the degree of Master of Resource and Environmental Planning at Massey University, Albany, New Zealand

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Abstract:

The usual approach to problem-solving is to identify and remove the cause of the problem. Sometimes this is not possible because the cause cannot be found; because there are too many causes; or because the cause is human and cannot be removed. In such cases we are usually paralysed. Most of the major problems in the world will not be solved by more analysis. There is a need for design. There is a need to design a way forward – leaving the cause in place (De Bono, 1999, p.140).

To make progress towards sustainable development sustainability must be translated into action. For the New Zealand plastics sector this will require significant change to existing business strategies, practices, procedures and products. These changes will need to be supported by government policies and consumers.

Society makes decisions in a complex and integrated way. This complexity is very apparent within the New Zealand plastics sector with its vast range of polymers, products, and markets, and its often conflicting consumer demands and expectations. The central issues the industry must address in working towards sustainable development are the use of non-renewable petrochemical resources, the use of toxic or hazardous chemicals and additives and the creation of solid waste and litter.

Existing sustainable business models tend to focus on problem solving at specific levels of business operation. There is a need to provide a more cohesive message to the business community. Integrating sustainable development with all three levels of business strategy at corporate, business unit and operational levels, with the full commitment of business owners and shareholders is required. To engage a higher proportion of the industry in such changes strong leadership and market support is required, alongside the provision of simple and effective ideas, tools and resources to improve the capability of industry to operate in a sustainable manner.

To reach a state of sustainable business a tipping point must be established – where environmentally sustainable business practices become standard business practice and environmental excellence is rewarded with market success. To move away from an image of unsustainable practices the New Zealand plastics sector will need to exceed expectations, to create products that are not just sustainable, but that improve the quality of our environment. The New Zealand Plastics Sustainability Initiative and Best Practice Programme have been developed by the New Zealand plastics industry, as a result of this research, to create an environment where the ideas, tools and capabilities required to achieve this state are able to be inspired, developed and reinforced.
Index of Terms & Abbreviations Used:

ACOR
Australian Council of Recyclers.

APME
Association of Plastics Manufacturer in Europe.

ARA
Australian Retailers Association.

Best Practice
Decisions and actions that are selected as the best available for sustainable development given current knowledge, skills, technology and resources.

Council
New Zealand’s Local Government or local authorities.

Domestic Post Consumer Waste
Plastic products that has been used in the home, such as juice, soft drink bottles and shopping bags.

ECCA
Energy Efficiency & Conservation Authority.

EMS
Environmental Management Systems.

EPR
Extended Producer Responsibility.

EPS
Expanded Polystyrene.

ERMA New Zealand
Environmental Risk Management Association of New Zealand.

Extrusion
The process of melting and pumping plasitcs through a die to continuously produce products such as pipe, tubes, spouting, film and sheet.

Film
A thin sheet of flexible plastic commonly used for wrap or bags.

HDPE
High Density Polyethylene.

HSNO

Landfill
Any waste disposal site used for the controlled deposit of solid waste onto or into the land (Landfill Guidelines, MfE, 1992).

LDPE
Low Density Polyethylene.

LCA
Life Cycle Analysis - method to identify and quantify the environmental performance of a process or product from ‘cradle to grave’ (Azapagic, 1999).

MSDS
Material Safety Data Sheets.

MfE
Ministry for the Environment.

Mobius Loop
Commonly known as the chasing arrows symbol, or the recycling symbol graphically represents the 3 steps of the recycling process: the first arrow symbolises the collection and processing of secondary materials, the next arrow symbolises the manufacturing of recycled content products and the third arrow represents the purchasing of those products.

NARGON
National Association of Retail Grocers of New Zealand.

NES

NGO
Non-Government Organisation.

NZAET
The New Zealand Agrichemical Education Trust.

NZBCSD
New Zealand Business Council for Sustainable Development.

PACIA
Plastics & Chemicals Industries Association Inc (Australia).

Packaged Goods Accord
The New Zealand Packaged Goods Accord is an agreement between the New Zealand Government and the Packaging Council of New Zealand to develop a sustainable packaged goods sector; the Accord is currently being renegotiated and was previously referred to as the Packaging Accord.

PaNZ
New Zealand Packaging Council.

PaMPITO
Plastics and Materials Processing Industry Training Organisation (previously PITO).

PCE
Parliamentary Commissioner for the Environment.

PET
Polyethylene Terephthalate.

PINZ
Plastics Institute of New Zealand (now Plastics New Zealand).

PITO
Plastics Industry Training Organisation (NZ) - (now PaMPITO).

PNZ
Plastics New Zealand Incorporated (previously PINZ).

PP
Polypropylene.

PS
Polystyrene.

PVC
Polyvinyl Chloride.

RONZ
Recycling Operators of New Zealand Incorporated.

SBN
Sustainable Business Network.

SMF
Sustainable Management Fund administered by the Ministry for the Environment.

Sustainable Development
...is development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs (The Brundtland Report, United Nations, 2003).

TBL
Triple Bottom Line Reporting.

UNEP
United National Environment Programme.

WasteMINZ
Waste Management Institute of New Zealand.

WBCSD
World Business Council for Sustainable Development.
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