

Environmental, Health & Safety Awareness and Management within Small to  
Medium Enterprises in the Retail Sector

by

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## ABSTRACT

The purpose of this study is to determine a link between environmental, health and safety awareness and management within small to medium sized retail outlets.

The retail sector was chosen specifically due to the potential influence it has over manufacturers and consumers alike.

The study assesses the approaches taken by national and international bodies to encourage the uptake of environmental, health and safety management.

The survey focused on the levels of environmental, health and safety management within the retail sector in Mullingar.

The results of the study showed a low level of awareness with regard to the environmental issues of water consumption and quality, energy consumption and the environmental impacts associated with purchasing. However, high levels of awareness of waste management were present. One possible reason for this is the “Race against Waste” mentoring programme.

The study has identified the need for further collaboration between business, regulatory and advisory groups, in providing sustainable sector specific mentoring programmes.

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## CHAPTER 1 – INTRODUCTION

### 1.1 Background

Concerns regarding humankind's impact on the environment were first highlighted by the publication of "The Silent Spring" by Rachael Carson. The quality of our natural environment is being compromised with unsustainable levels of resource consumption and waste generation. With this unsustainable approach we are likely to consume ourselves out of existence.

A change in the developed world's production and consumption patterns is required, resulting in a reduction in the amount of energy and raw materials society consumes.

Agenda 21, the major document produced at the Earth Summit in Rio in 1992, is a blueprint for meeting the challenges of environment and development into the next century. The global partnership which it established must build on national, regional and local efforts to achieve a more sustainable future. It is this document that forged the concept of sustainable development<sup>1</sup> into the future policy developments of countries worldwide.

"Businesses have a major role to play in helping protect and enhance the environment, in line with the wider goals of sustainable development. In particular, business has a pivotal role in meeting the Johannesburg goals (World Summit on Sustainable Development 2002) - in the setting up and completion of a 10-year programme of sustainable production and consumption." ([www.defra.gov.uk/environment/business](http://www.defra.gov.uk/environment/business))

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<sup>1</sup> Sustainable development "Development which meets the needs of the present without compromising the ability of future generations to meet their own needs" World commission on Environment and development (the Brundtland Report)

The retail sector as the middle man between manufacturer and consumer can play a pivotal role in promoting sustainable production and consumption. The retail sector is in a position to encourage environmental, health and safety stewardship within consumers, wholesalers and manufacturers alike.

Retail turnover in the EU was almost €2,000 billion in 2001 and the sectors better than average growth looks set to continue in the future.

Retail trade in Europe employs 15% of the European workforce (3 million firms and 13 million workers)

*(UNEP, Meeting of the Retail Industry on Sustainable Development, "Global Retail Industry Facts and Figures")*

*"There's no denying that interest and involvement of business in sustainable development have increased tremendously over the past 10 years. But while this concept has embedded itself in the psyche of brand conscious multinationals, the culture and management systems of SMEs have hardly changed at all – especially those at the smaller end of the spectrum."*

*(<http://www.wbcsd.org>)*

The majority of businesses in Ireland and the EU are composed of small to medium sized enterprises. "In the EU, 99 per cent of the more than 20 million (non-primary sector) private enterprises are SMEs; the overwhelming majority of these (19million) employ fewer than 10 people. SMEs account for two thirds of the 122 million jobs in private enterprises" *(European Commission Public Policy Initiatives to Promote the Uptake of Environmental Management Systems In Small and Medium Size Enterprises, final report of the best project expert group, January 2004.)*

## **1.2 Aims**

This study aims to demonstrate that a correlation exists between the environmental, health and safety awareness and management within small to medium sized enterprises in the retail sector.

## **1.3 Objectives**

In order to assess the hypothesis, that a lack of environmental, health and safety (EHS) management is a result of low awareness levels of; EHS impacts, management tools and benefits, a questionnaire was distributed to various retail outlets within Mullingar and the results analysed.

The literature review in Chapter 2 is an assessment of completed studies on levels of EHS awareness and management within small to medium sized enterprises (SMEs) with particular focus on the retail sector.

Case studies of environmental, health and safety management in the retail sector will be discussed with a view to determining how retail outlets can set about identifying and managing their environmental aspects.

The promotion of environmental health and safety awareness within SMEs, through best practice measures, in education, training and support measures will also be discussed, with specific reference to the retail sector.

These discussions will give due consideration to the relevance of best practice measures to SMEs particularly those in the retail sector.

## CHAPTER 2 – LITERATURE REVIEW

### 2.1 The Retail Sector

The CSO include the following businesses under the heading of retail enterprises; Non-Specialised Stores, Textiles and Clothing, Footwear and Leather, Food, Beverages and Tobacco in Specialised Stores, Bar, Pharmaceutical, Medical and Cosmetic Articles, Furniture and Lighting, Electrical Goods, Hardware, Paints and Glass, Books, Newspapers and Stationery, Motor Trade, Repairs Services, Other Retailing in Specialised Stores, Other Retail Sale. The retail sector is therefore a quite diverse sector within in itself. Large department stores offer a lot of services under the one roof while smaller businesses tend to specialise in offering one of the retail trades listed above.

Resource depletion and environmental pollution stem almost in their entirety from the unsustainable levels of consumption and production within developed countries.

The world's population is poised to expand 50% by 2050, as the worlds population increases so to does demand. World economic output more than doubled in the past 25 years, to about \$33 trillion USD by 1999. *UNEP Meeting of the Retail Industry on Sustainable Development – "Global Retail Industry Facts and Figures*

It is **the** wealthiest countries that are consuming the most and having the greatest impact on the environment even though they are in the minority.

“The Irish retail sector is in a phase of significant development driven by the strong growth in the economy in recent years and continuing internationalisation of the sector” Forfas

“The dynamics of the retail sector”



Retail sales are generally driven by people's ability (disposable income) and willingness (consumer confidence) to buy.

- Worldwide retail sales are estimated at \$7 trillion (USD).
- The money spent on household consumption worldwide increased 68% between 1980 and 1998
- The top 200 largest retailers account for 30% of worldwide demand

*(Global Retail Industry Facts and Figures UNEP Meeting of the Retail Industry on Sustainable Development)*

By acting as a go-between for consumers and producers, communicating the demands of customers upstream to their suppliers and delivering new products and services downstream to these customers, retailers play a critical role in shaping production processes and consumption patterns. They are well positioned to exert pressure on producers in favour of more sustainable consumer choices.

### **2.1.1 SMEs in the Retail Sector**

The definition for SMEs incorporates both commercial and industrial activities this includes businesses of all types such as a mechanics garages, retail outlets, manufacturing industries, waste facilities and laboratories.

The majority of studies published to date focus on SMEs as a homogenous group rather than individual sectors with specific business needs.

As Hillary points out "SMEs are not a homogenous group of businesses but rather diverse and heterogenous. Studies which seek to investigate the sector and draw conclusions from it, are to some extent, comparing not just apples and pears but the whole fruit bowl."(Hillary, Ruth, DTIE, 1999, *Evaluation of Study Reports on the Barriers, Opportunities and Drivers for Small to Medium Enterprises in the Adoption of Environmental Management Systems*)



Studies on EHS management solutions for SMEs have identified that a sector specific focus is one of the key elements to successful uptake

With this in mind a sector specific approach was taken for this study with a focus on the retail sector.

An increasing number of sector specific studies for SMEs are being produced, however these tend to relate to organisations in the manufacturing and industrial sectors e.g. guidance on metal plating, finishing & coating and furniture manufacturing <http://www.envirocentre.ie/envirocentre.asp?id=24>. This is largely due to the perceived significance of their environmental impacts. It is worth noting that these were the only two sector specific guidance documents listed on the Envirocentre website.

There is a lack of quality data on the environmental impacts of SMEs. Data becomes even more scarce, or even non-existent for sector specific data on environmental impacts. In particular there is very little if any quantifiable information available on the environmental impacts of the retail sector.

Lack of quantitative data is also cited as a weakness in studies undertaken in a National context.

“There is relatively little information available on the composition of non-household municipal waste (NHMW)” “Commercial waste composition data in the National waste Database (1998) arose from four commercial surveys. Since then a limited number of other surveys have been conducted.”

*“Characterisation of non-household municipal waste in Ireland and the development of an approach to tracking municipal waste composition” prepared for the EPA by CTCC*

According to CSO data, in 1998, retail accounted for 10.8% of total employment, above the EU average for retail employment. It accounted for a third of employment in the private services sector (Forfas Dynamics of the retail sector)

**Table 2.1 Employment Characteristics of Irish Retail Enterprises by Year**

	Total Number of Retail Enterprises	Part-Time Employees in Retail Enterprises	Full-Time Employees in Retail Enterprises	Total Number of Employees in Retail Enterprises	Number of Persons Engaged in Retail Enterprises
1998	36,443	85,354	102,387	187,741	229,588
1999	22,129	67,057	84,735	151,792	187,166
2000	27,019	70,598	89,039	159,636	195,362
2001	..	76,614	101,935	178,548	214,415

(CSO Business & Statistics)

Table 2.1 Illustrates the number of retail outlets in the country and the numbers employed in the sector. While the number of retail outlets dropped in 1999 and 2000, 2001 figures are showing high levels of employment in the sector. These figures serve as further reminder of the numbers that need to be employed to sustain our consumption levels

### 2.1.2 The Retail Organisation

The retail sector is unique with regard to the different levels of involvement managers and owners have over their business. There are three main types of business organizations these are franchise outlets, chain stores and the sole trader.

#### Franchise

A franchise is an agreement that permits the individual accepting the agreement (the franchisee) to use the established name, logo, methods of operation, marketing strategy and product of the existing business by agreement with the owner (the franchiser). The Musgrave SuperValu Centra franchisee pays no franchise fees whatsoever, but agrees to a buying loyalty agreement and contributing to the marketing of the SuperValu and Centra Brands. <http://www.business2000.ie/cases/cases/case416.htm>

### **Chain Store**

Chain stores (also called retail chains) are a range of retail outlets which share a brand and central management, usually with standardised business methods and practices. They are an type of business chain. Such stores may be branches owned by one company or franchises owned by local individuals or firms and operated under contract with the parent corporation. [http://en.wikipedia.org/wiki/Chain\\_store](http://en.wikipedia.org/wiki/Chain_store)

### **Sole-Trader**

A sole trader is a business person who runs and owns there own business. This person benefits from the profits and suffers the losses of the business. An example of a sole trader can be retail outlets, corner shops, garages, restaurants, plumbers, electricians and carpenters. [www.business2000.ie/cases/cases\\_7th/case19.htm](http://www.business2000.ie/cases/cases_7th/case19.htm)

Multi-tasking is the common approach with environmental roles and responsibilities being added to existing 'core' business responsibilities. Key environmental responsibilities rest with health and safety, quality management and other production/technical staff in medium-sized SMEs and with a technical director or MD in the smaller SMEs. 'Core' business responsibilities are largely seen as being the most important, with environmental responsibilities being secondary. Some medium sized SMEs, however, do take a more integrated approach and in some cases employ specialist environmental or HS&E managers.

Archer E., Hilton M and Van Nierop P, ECOTEC 2000 "*Professional Education and Training for Sustainable Development in the UK and the Netherlands*"

While the larger retail organisations recognise the benefits of environmental, health and safety management and the competitive advantage it can bring, small to medium sized

enterprises do not allocate the resources financial and human to these areas of concern this could be from a lack of awareness or resource constraints.

### **2.1.3 The Definition of an SME**

Varied definitions have been used in studies on SMEs, which makes the comparison of study results difficult. This has been formally identified as a problem for research in the revised definition of SMEs issued on the 6<sup>th</sup> of May 2003

In a report presented to the Council in 1992 the Commission had proposed limiting the proliferation of definitions of small and medium-sized enterprises in use at Community level.

Commission Recommendation 96/280/EC of 3 April 1996 concerning the definition of small and medium-sized enterprises was based on the idea that the existence of different definitions at Community level and at national level could create inconsistencies. Following the logic of a single market without internal frontiers, the treatment of enterprises should be based on a set of common rules. The pursuit of such an approach is all the more necessary in view of the extensive interaction between national and Community measures assisting micro, small and medium-sized enterprises (SME), for example in connection with Structural Funds or research.

<http://europa.eu.int/comm/enterprise/environment/index.htm>

On the 6<sup>th</sup> of May 2003 the European Commission revised the definition of an SME. This definition is not only based on staff numbers but also on annual turnover and/or annual balance sheet.

An SME (Small to Medium sized Enterprise) is an enterprise that has:

- fewer than 250 employees and has either:
- an annual turnover not exceeding €50m or



- an annual Balance Sheet total not exceeding €43m
- is not more than 25% owned by one or more enterprises or
- does not itself have a holding of more than 25% in any other enterprise

### **Medium-sized enterprises**

Medium-sized enterprises have between 50 and 249 occupied persons. The turnover threshold will be raised to 50 million and the threshold for the balance-sheet total to 43 million.

### **Small enterprises**

Small enterprises have between 10 and 49 occupied persons. The turnover threshold and the balance-sheet total will be raised to 10 million.

### **Micro-enterprises**

Micro-enterprises have fewer than 10 occupied persons. A threshold of 2 million for the turnover and the balance-sheet total will be introduced.

<http://europa.eu.int/scadplus/leg/en/lvb/n26026.htm>

Excluded from the latter holding company threshold are:

- public investment corporations
- venture capital companies
- institutional investors

provided that they do not exercise control.

However, an enterprise cannot be considered an SME if 25% or more of the capital or voting rights are directly or indirectly controlled, jointly or individually, by one or more public bodies.

Reference: *"Official Journal of the European Commission (L 124/36) 20th May 2003 - Commission Recommendation of 6th May 2003 concerning the definition of micro, small and medium enterprises"*.



Given the detail of this definition it is understandable why studies generally focus on the numbers employed in the company as the determining factor as to whether the organisation is an SME or not.

#### **2.1.4 The Environmental Impact of SMEs**

An Informal Environment Council on SMEs, which took place in April 1997 under the Dutch presidency, concluded that ‘SMEs are an important engine for economic growth and employment throughout the European Union. SMEs are also an important contributor to environmental pollution. Environmental requirements should be related to the nature and magnitude of environmental pollution and not to the size of the enterprise.

However, relatively little is known about the extent to which SMEs contribute to pollution and waste in the EU, although it is clear that they do make a very considerable collective contribution, probably around 50% of the overall amount.

Although, “a frequently quoted (albeit largely unsubstantiated) estimate is that SMEs, taken together, could be responsible for up to 70 per cent of all industrial pollution.”

*“Public Policy Initiatives to Promote the Uptake of Environmental Management Systems in Small and Medium-Sized Enterprises” final report of the best project expert group, January 2004*

In order to manage the problem it must first be measured. This information is an “essential building block” for the development of EU policy regarding SMEs

In 1997, the European Commission developed and sent a questionnaire on small and medium-sized enterprises (SMEs<sup>2</sup>) and the environment, to all EU Member States.

“The response to the Commission’s questionnaire was very disappointing both in terms of the number of Member States that replied (only 6) and in terms of the quality of the replies. The information provided, while useful, gives a very incomplete picture of the SME situation in 1997 and of course tells us even less about the current state<sup>3</sup> of play.”

*Report on SMEs and the Environment Analysis of the replies given by 6 European Union Member States to a European Commission’s questionnaire on Small and Medium-Sized Enterprises (SMEs) and the Environment For the European Commission, the Directorate General Environment*

The EU recognises that SMEs are faced with resource difficulties, which place them at a disadvantage in sourcing and receiving information that could position them at a more competitive advantage in the marketplace and hence have been the focus of an increasing number of studies from the late nineties.

The "General Affairs" Council in Lisbon on 13 June 2000, recognised the importance of small enterprises with the adoption of the European Charter for small enterprises and the approval of this Charter at the European Council in Feira held on 19<sup>th</sup> and 20<sup>th</sup> of June of the same year.

<http://europa.eu.int/scadplus/leg/en/lvb/n26002.htm>

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<sup>2</sup> Definition according to the Commission Recommendation 96/280/EC: less than 250 employees and turnover smaller than 40 M Euros or balance sheet smaller than 27 M Euros. This definition is not always applied.

<sup>3</sup> “Current state” referred to the year 2000 in which the report was published

The European Charter was designed to focus Member States on supporting and responding to the needs of small companies specifically.

[http://www.bolognaberlin2003.de/pdf/PRESIDENCY\\_CONCLUSIONS\\_Lissabon.pdf](http://www.bolognaberlin2003.de/pdf/PRESIDENCY_CONCLUSIONS_Lissabon.pdf)

“The questionnaire responses and subsequent consultations indicate that it is still the case that relatively little is known about the contribution of SMEs to pollution and waste in the EU, although it is clear that they do make a very considerable collective contribution (probably around 50% overall).” *Report on SMEs and the Environment Analysis of the replies given by 6 European Union Member States to a European Commission’s questionnaire on Small and Medium-Sized Enterprises (SMEs) and the Environment For the European Commission, the Directorate General Environment*

Such a weak response by EU member states and the fact that the final report has been published relatively recently i.e. 2000, indicates that we are underestimating our actual impact on the environment. This is extremely worrying as current policies, regulations and more importantly targets have been implemented on the basis of data available to the European Commission at that time.

Certain studies have been conducted and are currently underway to determine the extent of pollution e.g. (Environment Protection Agency’s study on methodologies used in non-household municipal waste characterisation) and others including the European Pollutant Emissions Register (for IPPC companies) and the EPIS project in Eurostat.”

Given the lack of measurement and reporting requirements placed on SMEs, particularly in the retail sector, the accuracy of any future studies needs to be questioned.

To recap on the main points identified in the study so far. There is a lack of quantitative data available for SMEs. SMEs are varied and diverse therefore a sector specific focus is needed with regard to the retail sector. The following chapter will set out to ascertain the environmental impacts associated with the retail sector.

## **2.2 Environmental, Health & Safety Impacts of the Retail Sector**

The first step in environmental health and safety management within the retail sector is to gain an understanding of what it is that needs to be managed. Therefore an assessment of the environmental, health & safety aspects\* of the retail sector will be undertaken to understand the impact of the retail sector on the environment and those employed in the sector

When examining the environmental, health and safety impacts of the retail sector it becomes apparent that not only do retail outlets themselves have an impact on the environment and health and safety but so do the products they sell.

The significant environmental impacts that will be discussed will be planning, waste, water consumption, energy consumption and purchasing.

This will be followed by a discussion of the significant health and safety aspects associated with the retail sector such as musculoskeletal disorders, slips/trips/falls, cuts and burns, violence, transport related hazards as well as psychosocial issues such as bullying and stress.

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\*Environmental Aspect as defined in EN ISO14001



## 2.2.1 Environmental aspects and associated impacts of the retail sector

### Planning & Development

There is no doubt that the social and environmental impacts of the retail sector commence at the planning stage with an impact upon land use. The design stage of shops and shopping centre can also have a significant effect on the environment. For example the use of concepts such as solar panels, the harvesting of rainwater and installation of movement sensitive light switches can all help reduce energy and water consumption at the outset.

For example in the creation of shopping centres located on the outskirts of urban areas are often blamed for the social and environmental decline of the central business district and for the outward sprawl of developments.

RGDATA is the representative body for the Independent Retail Grocery Sector in Ireland. Formed in 1942, the organisation has since rapidly expanded to include over 4,500 members (UGAL) in the State. Its main aim and objective is to provide support for independent family grocers while encouraging and developing a high standard of retailing, equal to best European practice and competitor standards. RGDATA see multinational multiples as their main competitors and “responded well to many challenges from retailers such as Tesco, Lidl & Aldi in an ever-increasingly competitive environment”.

[www.rgdata.ie](http://www.rgdata.ie)

RGDATA, similar to other lobby groups offers support, advice and training to it's members and lobbys government on issues likely to effect them. However, unlike other lobby groups one notably service that RGDATA offers is “planning support, contesting the scale and location of shopping centres and multiple branches”. It should be noted at this point that Musgrave's are a member of RGDATA and represent significant percentage of membership.

These concerns are generally not borne out of concern for environmental or social issues but rather with a view to protecting business interests.

### **Waste Management**

Information published by the EPA in three national waste database reports (1995, 1998 and 2001) demonstrates a general trend towards increased waste generation. Household, commercial as well as construction and demolition waste all show clear upward trends. It is evident that a clear correlation exists between waste data and economic indicators showing increased household waste generation with economic growth. Coupled with decreasing available waste disposal capacity, this presents the driving force to prevent, reuse and recycle all waste.

An estimated 3,001,016 tonnes of municipal waste was generated in Ireland in 2003. This consisted of 1,596,501 tonnes of household waste, 1,332,735 tonnes of commercial waste and 71,779 tonnes of street cleansing waste. By comparison to the 1% annual increase in municipal waste generation observed in 2002, in 2003, an increase of 10% is evident. Household waste generation increased by 4.5% in 2003, while commercial waste generation increased by 18%.

Commercial activities vary significantly in size and type from high street shops to hotels and institutions such as schools, universities, hospitals and public offices.

*(“EPA, National Waste Prevention Programme Outline Work Plan 2004 to 2008, April 2004”)* Therefore it is impossible to determine what portion of this is attributable to the retail sector.

Packaging waste makes up more than four hundred thousand tonnes per annum, or one quarter of all municipal waste. *(Tipperary Institute involved in Giving LIFE to Waste The Irish Scientist, Elisha McGrane & Martin McCormack, 2002)*

**Table 2.2 Municipal waste generation, as reported by local authorities, 2003**

Local Authority	Household waste (tonnes)	Commercial waste (tonnes)	Street cleansing (tonnes)	Total (tonnes)
Laois	23,889	17,340	289	41,518
Longford	14,259	13,090	227	27,576
North Tipperary	24,482	9,666	1,030	35,178
Offaly	20,256	5,444	576	26,276
Westmeath	27,468	15,207	1,352	44,027

*(EPA National Waste Database 2003 published Dec '04)*

County Westmeath is no exception to this trend and faces increased pressure to reduce waste levels with the closure of Marlinstown landfill located on the outskirts of Mullingar town.

Marlinstown landfill is one of the two local authority landfills within Westmeath with Ballydonagh landfill in Athlone being the second, which is also nearing maximum capacity.

“Envirowise estimates that 12 million tones of waste are generated each year by the retail sector and that this waste costs around £300 million to dispose of each year. Envirowise advises that by implementing a relatively straight-forward waste minimisation programme, these avoidable costs can be cut”

[www.envirowise.gov.uk/envirowise3v.nsf/textkey/MBEN4PBHS5](http://www.envirowise.gov.uk/envirowise3v.nsf/textkey/MBEN4PBHS5)

## Water Consumption

While some Irish homeowners do not have to pay a penny, as yet, for their water, businesses, manufacturers, farms, schools, hospitals and clubs have to pay for their supply. The charge placed on supply to non-domestic users was historically a flat fee calculated by the local authorities in a variety of ways, generally taking account of the number of employees and the type of business e.g. clothing store versus a hair salon, it would be assumed that the hair salon would have greater water consumption and therefore be charged more.

However as a result of National and EU policies the government needs to implement the “polluter pays principle”, through the installation of water meters in order to be able to charge by use. All local authorities have to ensure that all non-domestic users have a water meter installed by 2006.

The cost to business will include charges for installation and maintenance of the actual meters as well as operational and capital costs for the upkeep of water services infrastructure.

Operational charge is cost involved in the day-to-day provision of water e.g. insurance, lighting, heating, maintenance, wages. The operational water charges imposed by Westmeath were considered to be expensive running at least €4/thousand gallons. Price comparisons between counties are difficult due to the inconsistent nature of the pricing structures in place in each local authority,

In addition to operational charges businesses will face capital charges required to pay the capital costs of water infrastructure.

Charges will vary depending on the level of treatment required for the local authorities water supplies, the number of non-domestic customers in the local authority catchment area and whether the local authority is dealing with an urban or rural population base.

## **Waste water**

Wastewater in the retail sector is generated from the meat counter, deli, washing food as well as canteen facilities toilets, wash hand basin, showers and the cleaning of work and floors surfaces.

In the majority of local authorities operational charges for wastewater have not as yet been introduced. All businesses can expect a price increase in their water services bill in the coming years as local authorities plan to introduce wastewater charges.



## Energy

In their Third Assessment Report, the Intergovernmental panel on climate change concluded that humankind is now having a discernible impact on the climate. Latest predictions suggest that average temperatures will rise by 2.7 degree centigrade by 2100, perhaps by as much as 5.8 degrees centigrade - a rate of increase higher than any seen since the last ice age. The UK is certainly getting warmer. The six warmest years on record all occurred in the 1990s, with 1998 being the warmest since records began two centuries ago. Sea levels are predicted to rise by between 15-95 cms. [www.racetothetop.org](http://www.racetothetop.org)

As well as increased energy consumption posing environmental risks, increased energy demands may pose a real risk to business. The risk of major power disruption in Ireland is growing. Our electricity infrastructure is struggling and lack of progress on power supply transmission is threatening Irelands competitiveness and our ability to attract inward investment.

During the Celtic tiger years, demand for electricity in Ireland grew at four times the average growth rate in EU countries with demand for electricity increased by 6% a year, but the global economic downturn overall electricity demand is expected to only increase by 3% a year between now and 2009.

Peak demand doubled from 2,000MW in 1983 to more than 4,000MW in 2001 and current peak demand record was for 4,415MW on the evening of the 7<sup>th</sup> of January 2003, this was 5% more than ESB National Grid Predicted for that Winter. (Chamber of Commerce)

The retail sector consumes energy for internal and external lighting, heating and ventilation systems, fridges and freezers, ovens etc. The SEI energy policy unit has figures in relation to energy consumption for the commercial sector however as explained later, there are no sub sector figures available i.e. there are no figures available for the retail sector. There is

also a lack of data with regard to end use i.e what is consuming the most energy, for instance lighting or appliances.

**Figure 2.1 Total Final Energy Consumption by Sector for the period 1990 - 2002**

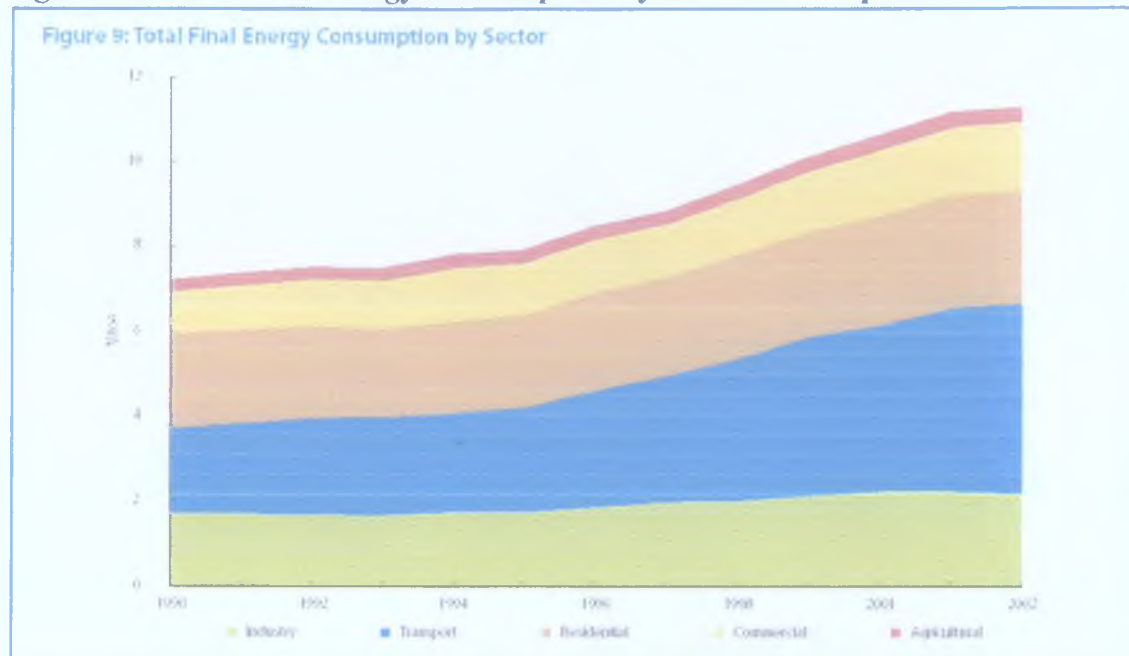
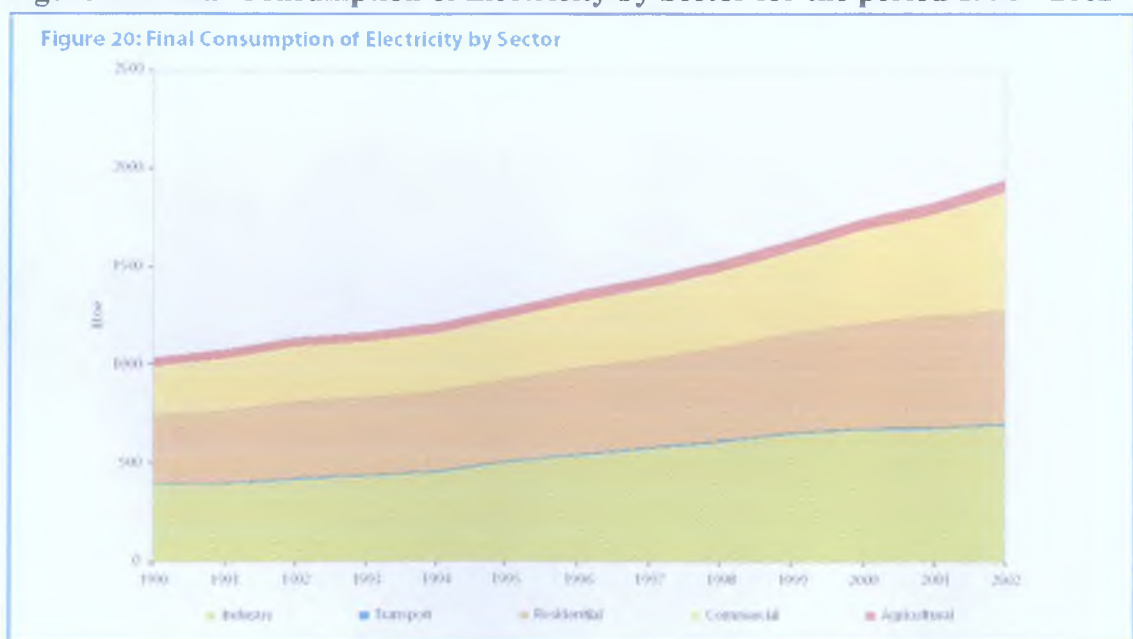


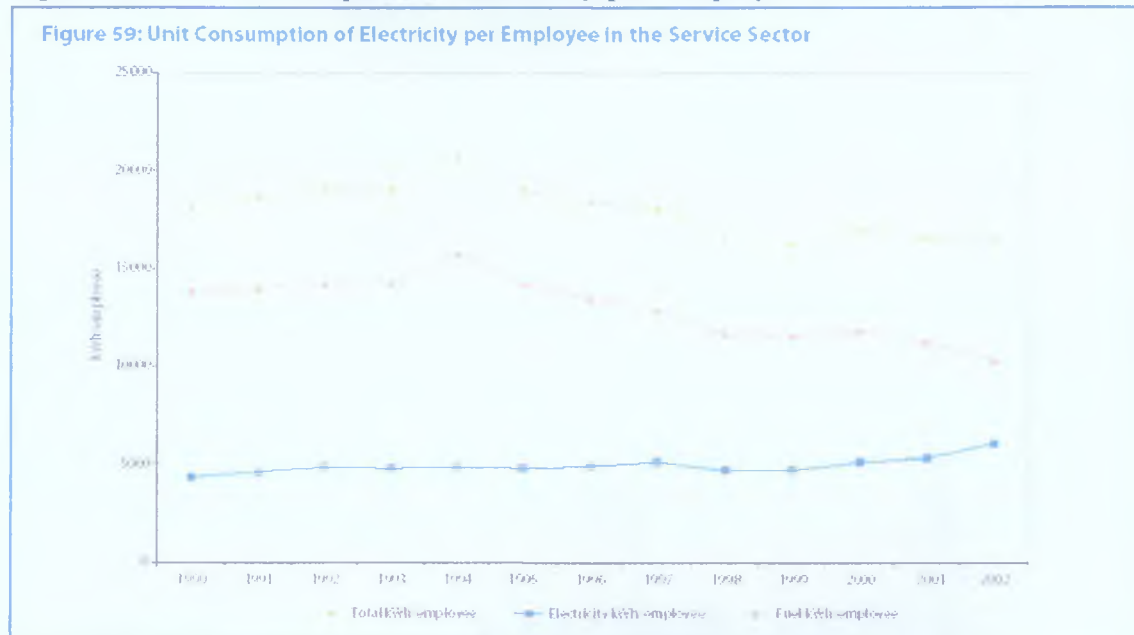
Figure 2.1 Illustrates that the commercial sector has experienced a significant rise in final energy consumption from 1990 to 2002. This appears to be a sector wide phenomenon with the exception of industry, which does not appear to have seen much change.

**Figure 2.2 Final Consumption of Electricity by Sector for the period 1990 - 2002**



Again in figure 2.2 a significant increase can be observed correlating with figure 2.1 with the exception of transport. It is interesting to note the strongest correlation between final energy consumption and final electricity consumption lies with the commercial sector. Identifying electricity consumption as the source of energy most used.

**Figure 2.3 Unit Consumption of Electricity per Employee in the Services Sector**



*Energy in Ireland 1990 – 2002 Trends, issues and indicators Report prepared by Martin Howley and Dr Brian Ó Gallachóir May 2004 (All figures above)*

As can be seen in figure 2.3 the services sector unit consumption of electricity per employee is used as an indicator of energy use e.g. the number of people using IT equipment.

With reference to figure 2.3 it can be seen unit consumption of electricity is rising steadily since 1990. By 2002 it was 40% higher than in 1990 (2.8% growth per annum). This can be linked to the increasing use of office equipment, computers, printers, photocopiers etc. during this time. By contrast, the fuel consumption per employee has declined by 35% since 1994 (5.2% per annum).

“Data at sub-sectoral level and data on end use has not been compiled in detail to date in Ireland. As a result, there is only limited information available to policy-makers with which to formulate and target energy efficiency policies and measures for the sector.

As a result of the heterogeneous nature of the services sector it is difficult to assess the amount of energy that is consumed in this sector. The increasing number of energy suppliers in the liberalised market makes this task all the more difficult.”

“Profiling Energy & CO2 Emissions in the Services Sector” – SEI Energy Policy Statistical Support Unit, report prepared by Fergal O’ Leary, Martin Howley and Dr. Brian Ó Gallachóir April 2005

### **Transportation**

As evident from Figure 2. 1 above the trend between 1990 and 2002 in final energy consumption of transport has seen a dramatic increase..

The retail sector contributes both directly and indirectly to the environmental impacts from transport use due to; the need to freight goods from warehouses, shipping yards or airports to retail outlets, freighting waste for disposal or recovery, employees need to access work (in retail outlets), consumer’s use of transport for shopping trips.

“An assessment of the regional retail patterns of Northeast Ohio” focuses on the traffic generated from shopping trips and ranks traffic volume generated from these as four times greater than that of office use, eight times greater than light industry and twenty four times greater than traffic generated from residential use.

The extended shopping trips to access out of town retail parks are the focus of concern in a European Environment Agency Report where it is stated that “The length of the average shopping journey in the UK increased from 4.2 km in 1985/86 to 6.2 km in 1996–98. This is a result of the growth and success of out-of-town shopping centers and retail parks.”



*European Environment Agency, 2002 “TERM 2001 14 EU — Access to basic services (average journey length)”*

However congestion in town centres generating excess vehicle emissions in the local environment is not desirable either.

Vehicular emissions include hydrocarbons, nitrogen oxides, carbon monoxide and carbon dioxide sulphur dioxide, PM10 and benzene. Particulates and Fog equal Smog. PM10 is particulate matter of 10microns or less. Any particulate matter that is 10microns or less is respirable. The “Pollution Effects on Asthmatic children in Europe”, which was undertaken in ten European countries, concludes that a positive correlation exists between increases in PM10 and respiratory failure in children.

Out of the three greenhouse gases; nitrous oxide, methane and carbon dioxide, carbon dioxide is emitted in significant quantities by road transport. Current trends in the rate of increase of total greenhouse emissions in Ireland indicate that Ireland is well above that allowed under the Kyoto Protocol. The transport sector in Ireland is responsible for nearly 15% of Green house gas Emissions in 1998 and this has increased from just under 10% in 1990. *Scope of Transport Impacts on the Environment, 2000 EPA & NRA.*

There are no data available to date; on what proportion of green house emissions are attributable to the retail sector.

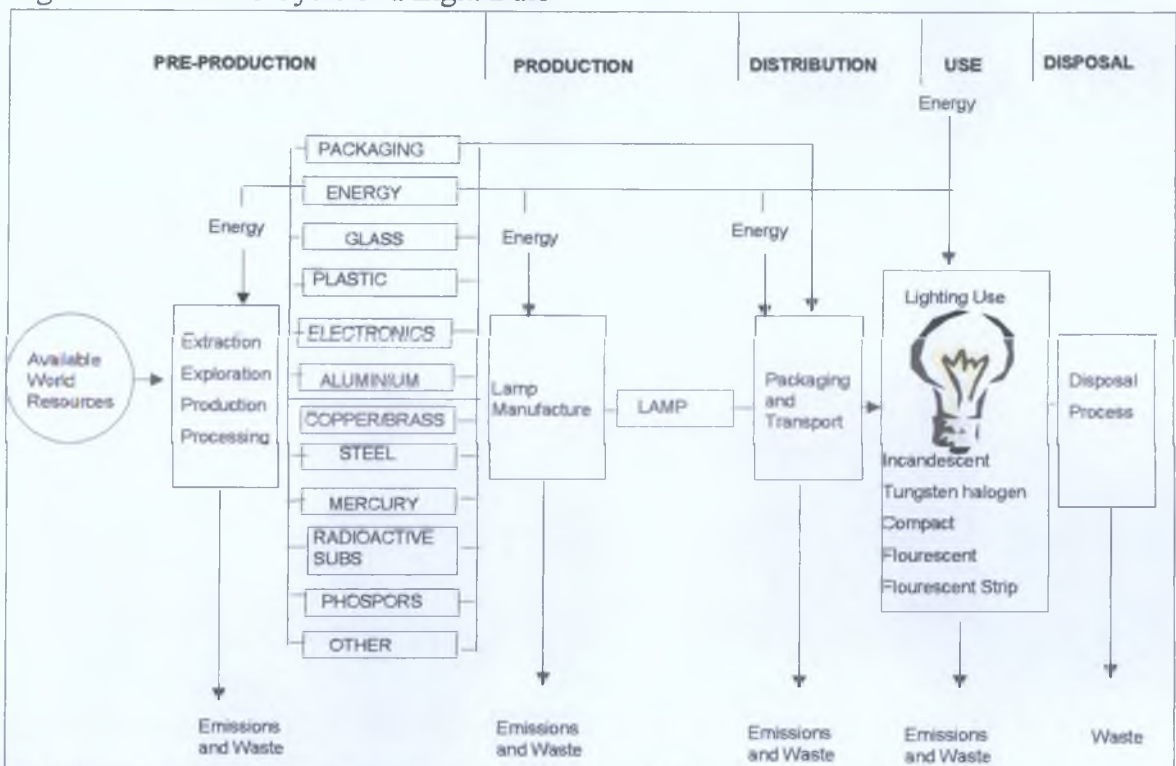


## Purchasing

To understand the importance of the retail sector in an environmental context, think about the possible impacts resulting from the purchase of e.g. a carton of orange juice. The final sales price of a carton of orange juice, for example, does not include the wider costs to society that can be (but are not always) associated with its production, transportation, and storage prior to sale. These costs could include the loss of biodiversity, soil erosion and chemical pollution of watercourses when new orange groves are established and the fruit treated with pesticides. Acidification and health related costs associated with emissions of nitrous oxides, particulate matter (PM) and volatile organic compounds from road transport. External costs attributable to the storage of the juice could include emissions of green house gases from in-store energy use and damage to the ozone layer resulting from the leakage of ozone depleting refrigerant gases.

(<http://www.racetothetop.org>)

Figure 2.4 The Life Cycle of a Light Bulb



Source: "Environmental Management Tools for SMEs: A Handbook"

In the case of light bulbs, life cycle assessments have shown that 90% of its environmental impact occurs during use.

The prices we pay for our goods and services generally do not reflect the full/true costs of their production and consumption. External costs (or externalities) - such as the contamination of ground water, soil erosion, traffic congestion, poor urban air quality, global climate change and so on - are imposed on the rest of society - not the company, individual or organisation responsible for them.

([www.racetothetop.org/indicators/module1](http://www.racetothetop.org/indicators/module1))

The main role of the retail sector is to respond to consumer demands; this role is all the more important as it is widely recognized that positive trends are observable in production, while consumption patterns have continued to move in a way that continues to threaten sustainable development

Western consumers have seen tremendous improvements in the retail experience in the last decade: falling prices, increasing quality, functionality and availability. They will not give up these gains readily. If we attempt to persuade them to do so today in the name of “sustainability” or “responsibility” – if we give them the impression that more sustainable purchasing really means sacrifice – we will leave mainstream consumers behind.

The challenge that exists predominantly concerns embedding sustainability within the production phase of our operations; in effect, consumers will be asked to make few if any sacrifices in their consumption patterns.

*(UNEP, Meeting of the Retail Industry on Sustainable Development, Global Retail Industry Facts and Figures)*

**Noise**

Noise pollution and light pollution are also environmental impacts associated with the retail sector. However there is no significant noise generated from the retail sector other than traffic from delivery and customers.

Light pollution from the retail sector is generally associated with the security lighting for large car parks. This aspect is more prevalent in Winter time as the dark evenings close in.

The reduction of light pollution may be difficult to reduce without compromising safety.

### 2.2.2 Cost of Environmental Aspects

Increasing environmental legislation, rising energy costs and the pending introduction of carbon taxation will all impact on the operating costs of doing business in Ireland. The financial costs of poor environmental performance continue to rise with increasing waste disposal costs and producer responsibility costs for recovery of certain wastes at end of life, e.g. packaging, electronics and vehicles. Firms that can successfully improve their operating costs will enjoy competitive advantage.

”A recent IBEC business cost survey found that the real challenges for businesses today are non-pay related – particularly insurance cost and energy costs the issue presented is that energy costs pose a significant challenge to business that may lack the knowledge and resources to address it systematically.” *(SEI, Pat Delaney SFA)*

As with most resources there is an associated cost. “Both IBEC and Forfás, the Government’s policy advisory groups have identified waste management as a significant cause for concern for the enterprise sector, suggesting that it could even act as a potential brake on the expansion of this sector. At local level, regional waste management plans have been adopted, but as yet there is little evidence on the ground to suggest that implementation has been advanced, while the cost to business continues to rise.” *(IBEC Green Pages July 2002)*

As discussed previously, the first step in environmental, health and safety management is the identification of environmental, health and safety aspects. Having discussed the environmental aspects associated with the retail sector the following section will go on discuss the health and safety impact associated with this sector.



### 2.2.3 Hazards and risks associated with the retail sector

When considering the health and safety record of SMEs a similar trend of ill management is evident as “SMEs also record an over proportional 82% of all occupational injuries, even rising to about 90% for fatal accidents” (<http://sme.osha.eu.int/>)

The risk of fatal accidents in enterprises with less than 50 employees is around double that for larger companies. Yet these businesses account for 99% of all enterprises in the European Union.

Unlike activities such as construction, quarrying and mining, the retail sector does not present the number of fatalities see table 2.3 below.

However as is evident from table 2.4, the retail sector does present significant hazards<sup>4</sup> and risks if hazards are not eliminated, reduced or controlled.

In order to identify the hazards to be managed a hazard identification and risk assessment needs to be under taken, this is not only common sense approach to dealing with business liability but also a legal requirement under the Safety, Health & Welfare at Work Act, 2005.

**Table 2.3 Reported Fatalities in the Wholesale/Repair/Retail 2002-2005**

Year	2002	2003	2004	2005 until April
No. of Fatalities	1	5	4	1

(Source HSA Annual Reports)

**Table 2.4 of Fatal accidents/accident/illness rates in the Wholesale/Retail sector**

<b>Fatal accidents</b>	
Employee	1
Self Employed	3
Total	4
Fatality rate per 100,000	1.5
<b>Over three days</b>	
HSA: Incidents reported	820
<b>One day or more absent</b>	
CSO: number injured	5,400

<sup>4</sup> Definition of Hazard



CSO: number ill	3,700
<i>Rate per 100</i>	
CSO injury rate	2.1
CSO illness rate	1.4

Source: *Health & Safety Review Vol.10 No. 5 June 2005*

### **Hazard identification & risk assessment within the retail sector**

A hazard identification and risk assessment is the method used to identify the dangers that the workplace presents to people who work and enter into it and the risk<sup>5</sup> of these dangers occurring. Risk ratings are essentially calculated by assessing the likelihood of the hazard occurring and the number of people that are likely to be effected. More complex methods exist that take other variables into account and possibly giving resulting in a more accurate risk rating.

A scoring system is developed to categorise the level of risk e.g. 1 – 19 low risk, 20-39 medium, 40 – 69 high risk and anything  $\geq 70$  is very high.

Based on IBEC and UK accident survey data the following accidents were identified as the most common in the retail and distribution sector.

- Manual Handling
- Slips, trips, falls
- Striking objects
- Vehicle movements
- Steps, stairs
- Fire
- Security/challenging behaviour

*“Health & Safety in Retail and Distribution” HSA*

The top two most common incidents, manual handling and slips/trips/falls, identified in the IBEC and UK accident surveys reflect the findings of the incidents recorded in the retail sector in the table below.

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<sup>5</sup> Definition of Risk

**Table 2.5 Accident cause and consequence in the wholesale and retail sector**

<b>Cause/triggers of accidents – top five</b>	<b>%</b>
Manual handling	31.9
Slips/trips/falls	24.8
Movement by injured person	12.1
Fall/collapse/breakage of material	7.8
Loss of control: handtool	3.3

Source: *Health & Safety Review Vol.10 No. 5 June 2005*

While data on sector based accident trends is very welcome it does not identify the size of business these accidents relate to i.e. it is still unknown whether there are more accidents in SMEs than in large retail businesses. The under reporting of accidents must also be considered especially amongst SMEs.

The NACE code used in annual health and safety reports issued by the HSA places the retail and wholesale sector in the same category as vehicle repairs.

SMEs face all the occupational safety and health challenges that confront larger organisations, but many do not have “in-house” expertise in dealing with these issues.

While it must be acknowledged that the possibility of hazards exist within the retail sector resulting from;

incorrectly stacked goods or the overloading of shelves/racks that may lead to collapse

Cleaning unprotected knives, blades and machinery e.g meat band saw

Accidental contact with rotating paddle arms on large industrial cake and bread mixing machines

These hazards are not as significant as the hazards noted in table 2.5 above and therefore will not be expanded upon at present.

## Manual Handling

Manual handling is a major part of a worker's job in the retail industry. It involves activities such as:

- pushing
- pulling
- lifting
- carrying
- holding

The Manual Handling Regulations, Part VI of the General Application Regulations, 1993 places responsibility on the employers to ensure their staff are adequately trained in manual handling practices

Manual handling can result in a musculoskeletal disorder. Musculoskeletal disorders (MSD) cover a broad range of health problems. The main groups are back pain/injuries and Work Related Upper Limb Disorders (WRULDS), commonly known as “repetitive strain injuries”. Lower limbs can also be affected. Lifting, poor posture and repetitive movements are among the causes. Some types of disorders are associated with particular tasks or occupations.

Some workers spend all day performing the same repetitive tasks, which can lead to problems with posture and repetitive strain injuries.

The factors identified by the EU Agency on Occupational Safety and Health (OSHA) that cause an increased risk of musculoskeletal disorders are as follows;

**Table 2.6 Factors attributing to musculoskeletal disorders**

Physical aspects of work	Work environment and work organisation
loads	pace of work
poor posture	repetitive work
highly repetitive movements	time patterns
forceful hand applications	payment systems
direct mechanical pressure on body tissues	monotonous work
body vibrations	fatigue
	cold work environments
	how workers perceive the work organisation
	psychosocial work factors

MSD are commonly reported work related health problem by European workers: 30% complain of backache; 17% complain of muscular pains in their arms and legs; 45% report working in painful or tiring positions; 33% are required to handle heavy loads in their work. *European Agency for Safety & Health, Fact sheet 3 "Work related musculoskeletal disorders in Europe"*

“Retail is the largest employer in Western Australia, and manual handling injuries make up almost 40 per cent of total lost time injuries in the sector.

“These injuries can range from muscle strains to long-term debilitating injuries due to occupational overuse, and can all but ruin a worker’s life.”

Statistics show the employees most in danger of sustaining a lost time injury are sales assistants, who account for almost 30 per cent of injuries. <http://www.safetyline.wa.gov.au>



In the retail sector this can be a result of repetitive movements or awkward postures involved in the movement of stock in and out of storage and the stocking of shelves or racks repetitive lifting stocking shelves or the movement of groceries past the scanner by the cashier at the checkout. In many workplaces, workers' tasks are poorly organised.

Most groceries sold in Irish supermarkets are passed over checkouts with laser scanners. While scanners have improved productivity and efficiency for supermarkets, the design of checkouts has taken a toll on workers' health.

The rapid pace needed to maintain product flow now has cashiers moving their wrists back and forth up to 600 times per hour. Over an eight-hour shift, cashiers may handle more than 6,000 pounds of groceries. The awkward postures and gripping actions needed to keep up with customer orders have resulted in a dramatic rise in the number of repetitive strain injuries to cashiers' hands, wrists, elbows, shoulders and backs.

A report by the UK's Health and Safety Executive (HSE), "Musculoskeletal Disorders in Supermarket cashiers", states that symptoms of musculoskeletal disorder are very common among checkout operators; a study was undertaken involving 2,000 checkout operators at over 50 supermarkets. The epidemiological research carried out for the study found that 81% of the 2,000 respondents reported problems. 12% reported daily lower back pain, 12% reported wrist pain, 10% shoulder pain and 7.5% recorded neck problems. Nearly 28% of those suffering lower back pain had consulted a doctor or a physiotherapist, while 18% of those suffering shoulder pain had done so. Quite a large percentage had to either change their job or reduce their work activities. *Health & Safety Review Vol.3, Issue 7 (August 1998)*



The loading and unloading of products can also result in injury e.g. moving fashion garments from one location to another is an awkward and time-consuming task. Clothes are often delivered to retailers in vehicles with poor access, which results in poor manual handling practices for the delivery driver and for the fashion items.

Garments are made up, pressed, placed on hangers and then put on racks by a large company in the clothing industry. Once full, the racks were emptied onto a mobile trolley (that held up to 60 garments) and the garments were then pushed to the dispatch area. At dispatch, the garments were taken off the mobile trolley and hung on storage racks until time for delivery to retailers.

On delivery day, the garments were loaded onto a mobile trolley that was pushed to the truck, unloaded and hung on a single-height rail in the truck. Manual handling injuries arose from the pushing, reaching, lifting and double handling involved in transporting the garments, and the loading of the truck.

<http://www.safetyline.wa.gov.au:81/>

Bulky cartons, even when not particularly heavy, place more stress on arms and backs because the weight being carried is further from the person. Cartons can also be difficult to grasp due to size or design and are also often shelved in a position which is either too low or too high.

Manual handling injuries due to collecting and pushing a number of shopping trolleys. The collection of shopping trolleys at shopping centres has been the source of several serious manual handling injuries. The shopping trolleys are left by shoppers throughout shopping centres and car parks. The collection of these trolleys is required so that other persons can use them. The trolleys are commonly collected and run together into lines of 20-30 and pushed by a single person. From time to time the trolleys are secured together by means of

a rope attachment. An okey strap has in the past been used but following a fatal accident when the okey strap gave way their use has been prohibited.

<http://www.safetyline.wa.gov.au:81/>

In many situations, multiple handling of loads can be a problem. These are situations where loads or articles are handled more than a reasonable number of times.

According to the Manual Handling Regulations, Part VI of the General Application Regulations 1993, the employer has a duty to avoid manual handling and to assess unavoidable manual handling in order to reduce the risk through the use of mechanical means or organisational measures.

The level of risk assessment being carried out is very low and in some cases where risk assessment is carried out, the controls do not relate to the actual work practices. At one site the control measure stated that all loads should be transferred at waist height or below.

Despite this there was ample evidence of heavy loads having to be handled above shoulder height. In the retail sector, the risk assessments do not address tasks such as handling heavy loads in the bakery, handling fruit and vegetables, design of checkouts, or handling of cash in the secure areas. In Garden centres the loads handled were heavy and included fertilisers, garden accessories and garden furniture. Risk assessment was largely ignored as borne out in the statistics. Another issue of concern in this work environment is the risk posed to younger part time workers who may not be provided with any training or mechanical aids when handling loads.

*Chan, S and O'Sullivan L "Irish Ergonomics Review 2004 - Proceedings of the Irish Ergonomics Society 2004"*

The HSA have recently produced guidance on *“The Management of Manual Handling in the Workplace”* The Authority’s new guidelines offer a five step approach to the management of manual handling policy:

- Develop a policy
- Consultation
- Risk Assessment and implementation of controls
- Training
- The role of ergonomics in the design stage of work activity

The guide places a strong emphasis on risk assessment. A focus on risk assessment at the design stage is consider the ideal.

*“Health & Safety Review Vo.10 No.6 July/August 2005”*

## **Slips, Trips and Falls**

Over a third of all major injuries reported each year are caused as a result of a slip or trip (the single most common cause of injuries at work). These cost employers over £512 million a year in lost production and other costs.

Slips/trips and falls result from poor design and poor housekeeping. Conditions such as uneven, slippery or obstructed floor surfaces and trailing cables may lead to accidents and injury. The entrance and exit points to buildings can also present these hazards.

Careful selection of materials, equipment and work practices can prevent or contain slip and trip hazards from liquids, fine powders and objects. For example fitting splash guards and anti-slip floorings in areas that can't be kept dry and using cordless tools

Check to ensure that working practices and processes are being carried out properly, e.g. smooth floors are not left wet, housekeeping is good, and any leaks from equipment and roof lights are repaired quickly. Keep a record of cleaning and maintenance work etc and encourage good health and safety.

Designate a an employee responsible for ensuring housekeeping is in check and to identify any new slip, trip, fall hazards that may be present.

Preventing slips, trips and falls at work HSE guidance

## **Machinery and Equipment**

Transport used in storage bays e.g. forklift trucks, pallet trucks etc. presents the risk of collision, over-turning, explosion.

Implementing the following controls will reduce the likelihood of an incident occurring.

- Ensure machinery is regularly checked, all safety devices are working and that staff are trained to use it properly.
- Regularly inspect trolleys and take damaged trolleys out of use.
- Where necessary provide user advice on proper trolley selection.
- Authorised use only with trained and certified FLT drivers
- Keys taken out of ignition when not in use
- Reverse alarms and sirens
- Seat belts worn
- Leel ground
- Speed limit
- Separate battery charging area with adequate ventilation

<http://www.hsa.ie/publisher/index.jsp?&1nID=93&2nID=101&nID=122&aID=623>



## Hazardous Substances

Hazardous substances are chemicals and other substances which can harm people's health, causing injury, illness or disease. Health effects may be immediate and short term—such as irritation to the skin or eyes, or corrosive burns—or long term, such as tumours, cancers, or damage to organs.

<http://www.nohsc.gov.au/OHSInformation/NOHSCPublications/fulltext/docs/h5/03297-05.htm>

Some items of stock and chemicals used for cleaning, can be harmful if inhaled. Dermatitis could result from skin contact with hazardous chemicals.

- Store all hazardous chemicals in original containers.
- Ensure the labels on all chemical containers are legible
- Provide staff with training, gloves etc. to enable cleaning chemicals to be used safely
- Reduce substitute for a less harmful substance where possible - this should be first control measure
- Reduce amounts of chemical held in storage

<http://www.hsa.ie/publisher/index.jsp?&1nID=93&2nID=101&nID=122&aID=623>

## Violence

Violence in the workplace is another hazard faced by the retail sector.

“Violence at work” is any incident in which employees or others are abused, threatened or assaulted, and the workers most at risk are those who handle cash or drugs, work alone or work at night.

Irish retail larceny figures are rising at an alarming rate. The latest figures from the Gardai show that reported larcenies against retailers in 2000 rose by 3,543 from the previous year. Of the 8,932 larcenies reported to the Gardai in 2000, 7,091 were detected. In 1999, 5,389 larcenies were reported - 3,526 of which lead to court proceedings. Statistics from the third National Small Business Crime Survey conducted by the Small Firms Association in conjunction with security firm Crime Management Group, shows that rising crime figures are not just restricted to the retail trade. It found that crime against businesses has risen by 10%, and 45% of businesses have been the victims of crime on at least one occasion in the past year.

The Crime Survey also found that the costs associated with crime for businesses has risen by 34% since a 1997 survey. Based on an average cost per incident of £2181 (€2769.30), it is estimated that crime costs businesses £181 million (€229.82 million) annually. This, the survey added, does not account for the capital expenditure incurred – this averages at £2650 (€3364.81) per company, which equates to in excess of £451 million (€572.65 million) spent by small businesses on security measures alone.

<http://www.checkout.ie/Feature.asp?ID=22> “Gone in 60 seconds” March 2002

The issue of violence to shop workers had been highlighted by national retail trade organisations. Also, this chain of department stores ran a series of one-day risk assessment and accident investigation training courses for store managers. One of the increasing concerns raised at these meetings was the increase in concern about workplace violence.

Changes in working practices had also increased the risk, for example the introduction of evening and early morning shifts meant that staff were travelling to and from work during less social hours. In addition there had been a particular incident where a staff member involved in loss prevention (e.g. a shoplifting incident) had been attacked and received threats at her home address.

Two main risks identified by a report published by Debenhams Retail PLC entitled “Preventing work-related in the retail sector” were:

- 1) violent crime relating to handling cash and merchandise; 2) contact with angry customers. Customers may be under the influence of drugs or alcohol.

There are two main issues: 1) minimising the incidence of violence to staff, and, 2) minimising the effect and after effects on staff should incidents occur.

The key recommendations from the report were:

- An environmental and task based risk assessment
- Staff training and communication
- CCTV and alarm systems. Survey is carried out to identify the needs. Can include installation in an employee’s own home, if it is felt there is a risks arising form work
- The provision of personal alarms to staff

[http://europe.osha.eu.int/publications/reports/104/index\\_15.htm/view?searchterm=Retail%20+%20violence](http://europe.osha.eu.int/publications/reports/104/index_15.htm/view?searchterm=Retail%20+%20violence)

## **Emergency Preparedness**

Retail outlets are required by General Application Regulations, 1993 and the Fire Services Act, 1981 to have an emergency plan in the event of a fire or medical emergency. The emergency plan procedure in place should detail the location of the assembly point and emergency contact numbers. Staff should be trained in the emergency procedure and drills should be undertaken to familiarise staff with actions to be taken in the event of such an emergency occurring.

Employees need to be reminded that all exits should be kept clear of obstructions, for example by stock and/or accumulations of packaging that can prevent escape and provide fuel for fires.

## **Psychosocial issues**

### **Stress**

“The experience of stress arises from an imbalance between the perceived demands of the environment and the perceived resources available to the individual to cope with those demands. Although the process of evaluating both demands and resources ("appraisal") is psychological, the effects of stress are not just psychological in nature, but also affect people's physical health, well-being and productivity”

[http://europe.osha.eu.int/good\\_practice/risks/stress/](http://europe.osha.eu.int/good_practice/risks/stress/)

‘Work positive’ information pack was jointly developed by the Health Education Board for Scotland (HEBS) and the Health and Safety Authority (HSA, Ireland). It provides SME managers with a step-by-step guide on how to assess and control work-related stress. It was designed to be applicable to SMEs in a wide range of sectors.

‘Work positive’ information pack was launched by the HEBS and HSA in March 2002, and continues to be distributed to SMEs through relevant professional bodies, and



employers'/trade associations. 'Work positive' information pack was launched by the HEBS and HSA in March 2002, and continues to be distributed to SMEs through relevant professional bodies, and employers'/trade associations.

The Central Industry Board for Retail Trade (HBD) is a collaborative association, regulated by public law, of employers' and employees' organisations in the retail sector, whose main task is to promote the interests of the entire retail trade.

One increasingly widespread hazard in the retail trade is work pressure, and the stress that results from it. Work pressure is a significant factor in time off work, but is also responsible for disappointing results and unsatisfactory quality levels in businesses. To define the extent of the work pressure phenomenon, the Retail Trades Council (HBD) commissioned TNO Arbeid to develop a measurement tool. The 'Work pressure tool for the retail trade' (February 2000) takes the form of a 12-page booklet and is aimed at both employers and employees. The tool identifies problem areas in the business, and formulates easy-to-implement solutions.

[http://europe.osha.eu.int/good\\_practice/risks/stress/case\\_studies/index\\_html/topicdocument\\_country\\_view?country=NL&country\\_name=Netherlands](http://europe.osha.eu.int/good_practice/risks/stress/case_studies/index_html/topicdocument_country_view?country=NL&country_name=Netherlands)

## **Bullying**

A strong association exists between bullying and work related stress.

“Workplace bullying is repeated, unreasonable behaviour directed towards an employee, or group of employees, that creates a risk to health and safety.”

Within this definition:

unreasonable behaviour' means behaviour that a reasonable person, having regard to all the circumstances, would expect to victimise, humiliate, undermine or threaten;

behaviour' includes actions of individuals or a group. A system of work may be used as a means of victimising, humiliating, undermining or threatening;

risk to health and safety' includes risk to the mental or physical health of the employee.

Bullying often involves a misuse or abuse of power, where the targets can experience difficulties in defending themselves.

*European Agency for Safety & Health at Work Factsheet 23 "Bullying at Work"*

**Physiological symptoms can include:**

Headaches/migraines; Sweating/shaking; Palpitations; Feeling/being sick; Stomach & Bowel problems; Raised blood pressure; Disturbed sleep; Loss of energy; Loss of appetite.

**Psychological symptoms include:**

Anger; Anxiety/Worry/Fear; Panic attacks; Depression; Loss of confidence and self esteem; Tearfulness; Loss of concentration; Forgetfulness; Lack of motivation; Thoughts of Suicide; Feeling isolated/helpless.

**Behavioural Changes:**

Becoming aggressive; becoming irritable; becoming vengeful; becoming withdrawn; Greater use of tobacco, alcohol and drugs; Obsessive dwelling on the aggressor; becoming hypersensitive to criticism; becoming emotionally drained.

Bullying or harassment at work, not only affects the bullied but also his/her family. Individuals who are bullied may develop Post-Traumatic Stress Disorder (P.T.S.D) and/or Prolonged Duress Stress Disorder (P.D.S.D). The growing recognition that bullying at work is a cause of both ill-health, absenteeism and even death makes it a Health & Safety issue.

**Effects on the organisation**

The tell tale signs of workplace bullying in any organised setting include:

- Reduced efficiency

- Reduced quality and quality control
- Low morale among staff
- Atmosphere of tension
- High rates of absenteeism
- Drop in productivity and profits
- Depression
- Increase in cases taken to court

The report of the Expert Advisory Group on Bullying is expected to be presented to the Government for consideration within the next few weeks.

#### 2.2.4 Health & Safety Costs

Due to accidents at work, around 5% of people were forced to change their job or place of work or reduce their working hours. 0.2% stopped working permanently. Between 1998 and 1999, it is estimated that work-related accidents cost the EU 150 million working days per year. A further 350 million days were lost through work-related health problems. Together, the total 'bill' was 500 million days per year.

*"Work-related Accidents in the EU - the Statistical Picture (1998-1999)" Fact Sheet 19  
European Agency for Safety and Health at Work printed 2001*

Accidents and ill-health at the work place are a substantial financial burden on every business, over 10,000 compensation claims with regard to work related injuries and ill health were lodged in Ireland in 2000 at a cost of approx. £160million . The Quarterly Household Survey for 2000 found that over 1.1 million working days were lost due to work related injuries and ill-health.

<http://www.nwhb.ie/internet/HealthServices/HealthPromotion/Settings/Workplace/>

"Last year work related accidents cost the Irish economy approximately €1.6bn. Statistics show that accident rates in SMEs are very high. For instance, in 2001 51% of all fatalities in the Irish workplace occurred in companies with less than 50 employees. This figures relates directly to high insurance premiums that many SMEs face. " "Safety at work? - The wisest investment you'll ever make!" 25. 02. 04



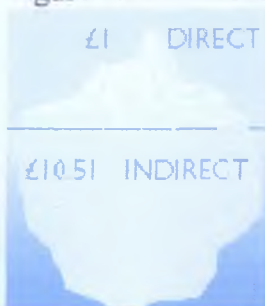
It is easy to underestimate substantially the true cost of accidents to a business. As well as direct insurance costs, there are the many indirect costs which arise following an accident, such as :

- Investigation time
- Loss of production costs
- Sick pay
- Replacement staff costs
- Repair costs
- Administration costs
- Impact on staff morale
- Others

Research in Ireland and the UK has developed the 'Accident Iceberg' which is based on extensive analysis of indirect costs relative to direct costs. (i.e. uninsured costs).

The ratio of direct to indirect costs in a Irish study was £10.51 to £1. The companies involved were in general safety conscious and had procedures in place to reduce accidents.

Figure 2.5 Accident Iceberg



Source: "Health & Safety in Retail and Distribution" HSA

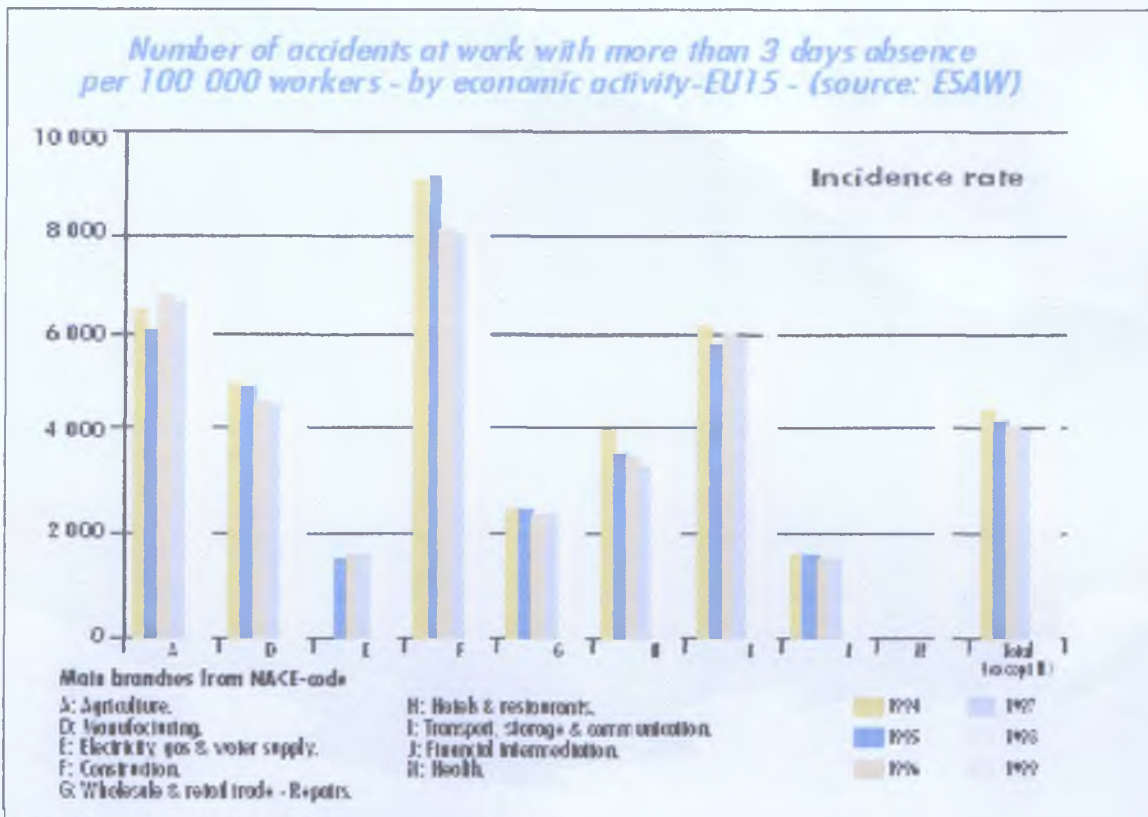
Early studies on the cost of accidents to business delivered the message that firms needed to include the hidden costs in order to arrive at a complete cost of workplace accidents and Heinrich (1959) developed the concept of icebergs to show the proportion of the cost

which was hidden. These icebergs showed the relationship between insured and uninsured or direct and indirect costs. Many researchers then began creating icebergs specific to work sectors. Some researchers and health and safety associations began to seek a more complete estimate of the costs of accidents to the economy as a whole.

Just concentrating on the cost to firms was ignoring the very important issues of costs to the individual and costs to society of accidents in the workplace. However analyzing these issues also presents great challenges to researchers who often do not have extensive data to work with and also have to contend with the difficult issue of how to value health and life.

*(Feasibility Study on Estimation of Costs of Workplace Accidents, work-related ill-health and non-injury incidents in Ireland” Dr. Ziene Mottiar May 2004)*

**Figure 2.6 Number of accidents at work with more than 3 days absence per 100,000 workers**



<http://www.europa.eu.int/comm/eurostat/>

Figure 2.6 illustrates the number of accidents resulting in more than three days absence per 100,000 workers. It is evident from this graph that the retail sector, recording c.2,500 accidents resulting in more than three days absence, has the third lowest level of accidents,

with the electricity, gas and water supply sector and the financial intermediation sector recording the lowest levels.

In the EU every year nearly 5 million employees suffer from work related accidents involving more than three days absence and the insurance costs borne by the industry alone amount of €20 billion

([http://agency.osha.eu.int/publications/newsletter/12/en/index\\_10.htm](http://agency.osha.eu.int/publications/newsletter/12/en/index_10.htm)).

“Liability and motor insurance premiums are high because our roads and workplaces are not as safe as they should be and because our legal system allows higher compensation for personal injuries than other countries. In addition, the legal and other costs of delivering compensation are allowed by the courts at an exorbitant 40% of the damages paid” said Michael Kemp, Irish Insurance Federation (IIF)\* Chief Executive in response to claims made by ISME that a cartel like situation was evolving within the insurance industry. *IIF & ISME press release-files\press050403.html (05.04.03) printed on 25.02.04*

IIF in advice for small business on safety at work reported that in 1998, 9270 employers liability insurance claims were made to the Irish Insurance Federation members. Employers liability insurance claims costs amounted to over £136m in 1998. The Department of Social, Community and Family Affairs allowed 11,688 claims in respect of occupational injury benefit in 1998 *www.iif.ie/pdf/safetywork.pdf*

A Millward Brown IMS survey, commissioned by the Health & Safety Authority found that 89% of respondents considered the high level of insurance and the cost of accidents as an important factor in addressing health and safety in the workplace. 53% of those surveyed considered it a very important factor

*.http://www.hsa.ie/press/press03/march/inscosts.htm printed 02/03/04*

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\* The Irish Insurance Federation IIF is the trade association for insurance companies

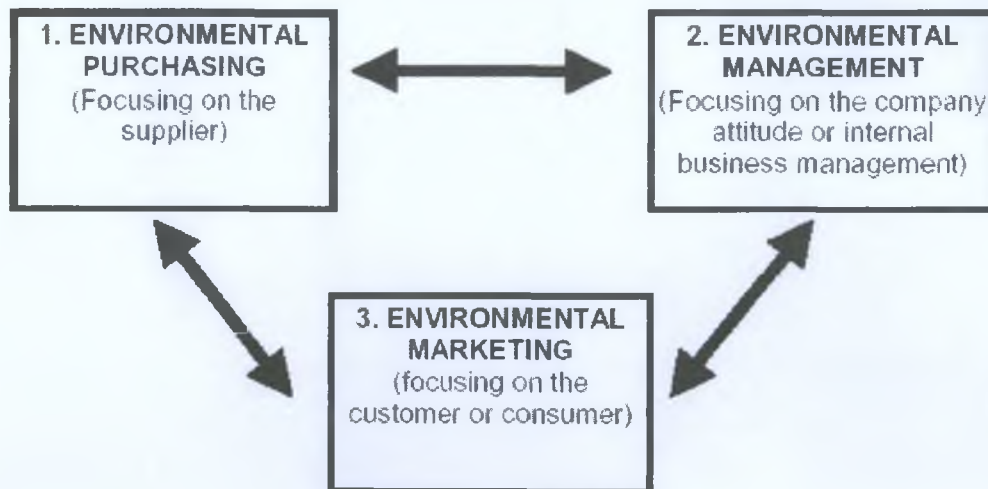
### 2.3 Environmental, Health & Safety Management

Environmental, Health & Safety Management is a form of risk management. EHS management in the retail sector is about managing the risks posed by the supplier, retailer and consumer to the environment and those exposed to health, safety and welfare issues from the time of production through to consumption.

The retailer, as part of a supply chain has the potential to influence the habits of both the producer and consumer. As such there are various measures the retailer can implement to encourage the management of environmental, health and safety aspects not only in their own businesses but also in the businesses of producers and the purchasing of consumers.

Figure 2.7 below illustrates the link between the retailer, manufacturer and consumer as well as the influence the retailer has to gain environmental improvements

**Figure 2.7 The Influence of Environmental Management within the Retail Sector**



*Source: [www.waitakere.govt.nz](http://www.waitakere.govt.nz)*



### 2.3.1 The benefits of environmental management

“Sustainable development is an area of risk that - when managed effectively - can create opportunities to innovate, differentiate and enhance reputation and is becoming fundamental to long-term business success. By addressing sustainable development issues, businesses of all sizes have found that they can have a significant impact, and at the same time meet - and sometimes exceed - their business objectives.

The World Business Council on Sustainable Development believes business can benefit from pursuing sustainable development in two basic ways - by driving cost efficiencies and by generating top-line growth through innovation and new markets.”

*([www.dti.gov.uk/sustainability](http://www.dti.gov.uk/sustainability))*

The business case for good environmental performance is strong and can have direct business benefits to the bottom line these include:-

- Cost savings from reduced material and energy consumption;
- Reduced waste collection, treatment and disposal costs especially in the case of hazardous waste;
- On going compliance with legal obligations and reduced liability associated with poor environmental performance;
- Improved relationships with key stakeholders, e.g. customers, suppliers, shareholders, regulatory authorities and local communities;
- It is worth noting at this point that unlike large scale organizations SMEs in the retail sector generally do not have investors and shareholders in the traditional sense of the term, unless of course they are franchise or chain store operated. The investors and shareholders in small to medium sized retail outlets are the manager, employees and customers.

- Improved process control and product quality;
- Improved opportunities for marketing features leading to increased sales;
- Expanding market opportunities;
- Improved competitiveness;
- Capability building;
- Improved corporate reputation.

These legal, market and financial pressures to improve environmental performance mean environmental supports to industry are essential. This is particularly the case for the SME sector, which often lacks the resources necessary to implement environmental improvements.

*Commercial Report - The Business Case for improving environmental performance  
Enterprise Ireland*

### **2.3.2 The disadvantages of Environmental Management**

It has been stated that a primary obstacle to the implementation of tighter environmental policy measures is the fear of reduced international competitiveness in pollution-intensive sectors.

The main challenge in western Europe is to ensure better protection of the environment while maintaining a competitive industrial base. In central and eastern Europe, major investments are needed to raise the environmental performance of industry to the standards required by the accession process. In EECCA, the main challenge is to build an appropriate regulatory framework and improve enforcement.

*EU Third Environmental Assessment*

“You never hear of the Chinese EPA!”...The costs of environmental management are increasingly becoming a burden on industries in the developed world.

The developing world with its low cost of living coupled with little regulation of health and safety or environment aspects has resulted in products manufactured at extremely low prices.

However, while this appears to pose a threat to the economic stability of the developed world, in the long term it is of far greater detriment to the environment and health of people in the developing countries.

Educating and promoting consumers on the benefits of buying environmentally friendly products in an effort to strengthen the European market will help protect environmental, health and safety standards within European businesses and will also promote the need for environmental and human protection within the developing countries.

There are two approaches taken to reduce environmental impacts of businesses, these are the stick and the carrot approach. The stick represents legislation, taxes, fines and levies while the carrot approach uses voluntary instruments to influence change e.g. environmental management tools that can be used in marketing business.

### **2.3.3 Environmental Legislation**

In the past, legislation has been the basis for achieving the objectives of EU environmental, health and safety policies.

EU directives and regulations are reflected in national legislation however legislation is only effective when enforced.

One of the legislative failings presented in the European Foundation for Working and Living Conditions report, entitled “Sustainable SMEs”, was that legislation adopted by Member States was not amended to take account of varying levels of pollution or the size of business. However, the Waste Management (Packaging) Regulations, 2003 go some way to addressing this issue.

#### **Litter Pollution Act, 1997**

The Litter Pollution Act, 1997 brought in tougher litter laws to combat the problems of litter pollution more effectively. If you are the owner or the person responsible for a place to which the public has access you are obliged to keep the place litter free, regardless of how the litter got there. This applies to any public place which may include the precincts of a shopping centre, a school campus, a public park, a train or bus station.

<http://www.kerrycoco.ie/environment/litter.asp?id=2>

The Irish Businesses Against Litter campaign awarded Mullingar a “Litter Free Status” in Round 1 for 2005. This is largely due to the efforts of the Chamber of Commerce working with local retailers and the Westmeath County Council.

<http://www.antisce.org/projects/ibal.html>



### **Waste management (packaging) regulations, 2003**

The waste management (packaging) regulations 2003 is one of the more significant pieces of legislation affecting the retail sector. Under the waste management (packaging) regulations, any business that generates over 25 tonnes of "specified packaging waste" i.e. waste aluminium, fibreboard, glass, paper, plastic sheeting, steel, and wood, in a calendar year and who has an annual turnover of more than €1 million; is legally obliged to comply with the waste packing regulations.

The waste management (packaging) regulations require the producers of waste packaging e.g. retailers, to either sign up to Repak<sup>6</sup> or become self-compliant.

If the retailer is a Repak member they are not required to accept back waste packaging from customers. However should the retailer decide to be self-compliant they must provide receptacles for customers waste packaging and accept back uncontaminated waste packaging from customers. Those who choose the self compliance route are also required to submit reports on the quantities of waste packaging handled to their local authority.

### **WEEE Directive**

From 13 August 2005 all retailers of electrical goods are required to comply with waste management (Waste Electrical and Electronic Equipment) Regulations 2005 (SI 340/05). In order to comply with this regulation each retailer must; be registered with their local authority; provide for free in-store take back of household WEEE on a one-for-one basis on the sale of a new like product; ensure that any WEEE collected is delivered to an approved collection facility; ensure that the storage and transport of WEEE collected as above meets the requirements of the Regulations; and ensure that private households are

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<sup>6</sup> Repak is Ireland's first voluntary initiative between industry and the Department of the Environment designed to meet industry's producer responsibility obligations under the EU directive on packaging and packaging waste (94/62/EC) and subsequent waste management packaging regulations.



informed of the WEEE take back facilities available to them and that they are encouraged to participate in the separate collection of WEEE.

The two main enforcement bodies for environmental legislation are the Environmental protection Agency and the local authorities.

The US Environmental Protection Agency created the Small Business Ombudsman (SBO) as an important contact point providing one stop assistance to help Americas small businesses. The Small Business Ombudsman provides a toll free hotline for regulatory questions as well as free EPA publications. [www.epa.gov/sbo](http://www.epa.gov/sbo)

The Environment Agency in the UK carried out a study of SMEs and their awareness of environmental legislation. The outcome of this study reflected a low level of awareness of environmental legislation. On foot of this report the Environment Agency established NetRegs a website dedicated to raising the awareness levels of SMEs.

The NetRegs website is free to use and is regularly updated. Its aim is to help small and medium-sized enterprises (SMEs) in the UK to understand the complex environmental regulations that can affect them. The site provides guidance on how to comply with environmental law as well as advice on good environmental practice.

Developed by the Environment and Heritage Service (EHS), in partnership with the Environment Agency and the Scottish Environmental Protection Agency. The site has received 1.8 million 'hits' per year.

[http://www.investni.com/index/develop/knowledgemanagement/environmental-3/environmental\\_activities/netregs.htm](http://www.investni.com/index/develop/knowledgemanagement/environmental-3/environmental_activities/netregs.htm)

Instead of concentrating on adding a plethora of legislation that requires enforcement and which in itself is slow to be implemented due to bureaucratic time constraints. In order to foster a more sustainable approach the use of more strategic approaches are necessary.

"...we will not solve environmental problems by simply adding a few new directives every year to our existing 270 or so pieces of European environmental law, especially if we discover later on that these directives are not implemented by the Member States...we need a broader range of instruments to tackle ever more diffuse sources of environmental pressures..." European Commissioner for the Environment, Margot Wallström

#### **2.3.4 Health and Safety Legislation**

The Safety, Health and Welfare at Work Act, 1989 forms the basis for health and safety management. The Safety, Health and Welfare at Work Act, 1989 requires employers to have a safety statement. The Health and Safety Policy and hazard identification and risk assessment required under this legislation form the basis of a health and safety management system. The Act also requires the employer to take into account any representations regarding health and safety issues made to them by employees or elected safety representatives.

The 1989 Act will be superseded with the Safety, Health and Welfare at Work Act, 2005 which will come into force on September the 1<sup>st</sup> 2005. The most significant changes to this piece of legislation relates to drug and alcohol testing for employees, the introduction of on the spot fines for certain safety breaches and fines of up to €3million and or up to two years in jail for serious breaches of health and safety regulations.

In 2004 the Health and Safety Authority launched a long term programme at raising safety standards in the country's small businesses. The Health and Safety Authority focused on "micro industries" – those employing fewer than 50 people and often fewer than 20 as "these businesses need our help" *Health and Safety Authority Programme of Works 2004*

The words "inspection" and "enforcement authorities" would strike fear into most business owners, however, 90% of people whose business was inspected by the Health & Safety Authority in 2002 said that the inspection was a positive impact. While 78% reported that improvements made after the HSA inspection reduced the chance of someone being hurt. *"Health & Safety Matters" HSA Newsletter, Spring 2003*

Encouraging voluntary compliance and influencing small and micro enterprises were the key themes in the Health & Safety Authority's Programme of Works for 2004

The Health and Safety Authority has established that over 1,800,000 people are now working in Ireland. The Revenue Commissioners told the authority that there are over 150,000 employers, of which 113,000 employ fewer than 10 people \*the definition of micro firm is one employing less than 10 people) and 18,000 of which employ between 10 to 50 people (the definition of small firm) *"Health & Safety Review" March 2004*

The 1989 Act also provided for the establishment of The Health and Safety Authority to enforce and promote good standards in workplace safety across all business sectors.

In Ireland the enforcement of environmental legislation is undertaken by the Environmental Protection Agency or local authority depending on the size of the enterprise and the impact it has on the environment.

Health and safety on the other hand is regulated by the one body, the Health and Safety Authority, regardless of whether the enterprise is a sole trader or multi-national.

**Table 2.7 The number of inspections per sector in 2004**

<b>Sector</b>	<b>Number of Inspections</b>
Health	133
Education	86
Public Administration	238
Manufacturing/Extraction/Utilities	56
Construction	5,058
Transport/Storage/Communications	988
Hotels/Restaurants	100
<b>Wholesale/Retail</b>	<b>699</b>
Financial Office	15
Business/Real Estate/Renting	366
Agriculture/Forestry/Fishing	995
<b>Total Number of Inspections</b>	<b>8724</b>

Given the number of businesses in Ireland and the limited number of inspections e.g. 699 inspections of the retail sector, that can be undertaken each year, see table 2.7 above, consideration should be given to the use of regional safety representatives, a model used in Sweden, the UK, Italy and the Netherlands.

#### **Regional safety representatives.**

The regional safety representatives, who are generally supported by the unions, focus on these smaller businesses. They assess the situation, and make recommendations, which they discuss with the employer as well as the employees. The objective is to improve risk awareness and reduce the risks. Increasingly, the personal contact, familiarity with the culture of these businesses, and the practical approach seem to contribute to the success of the regional safety representatives.

European Communities, 2003, *“Improving occupational safety and health in SMEs: examples of effective assistance”*



“The Commission wants to involve others, primarily the social partners i.e. employers and employees, as well as the member states, in health and safety policy. This is particularly relevant with respect to enforcing the legislation. It’s nice to have good laws, but compliance needs to be enforced.”

There is usually more of a family feeling in small businesses, where employers feel more responsible for the wellbeing of their employees. The absence of an employee due to an accident or occupational disease is a major risk for small business, as they cannot easily reassign the work. Hence, agreements between employers and employees on prevention measures are possibly even more important to these businesses than others.”

“It is in the interests of all parties to make good agreements about health and safety at work. Any accident or occupational disease is a personal tragedy for the employee. But it is also bad for the reputation, atmosphere at work and competitive strength of a business to lose employees due to poor workplace conditions.”

“Legislation continues to be an important instrument, and I don’t wish to undervalue it, however, what we see is that as our economies shift from traditional industries to service industries, new health problems are appearing, the psychosocial problems. Examples include stress, depression, sexual harassment and aggression. These problems are more difficult to deal with through legislation, they require that both employers and employees make an effort.”

Kon Kow - part of our activities related to the changing world of work and in particular due to the increase in women’s participation in the labour market we have been studying the link between gender and health and safety at work “..... due to gender segregation,



women often work in the service sectors, such as health and social care, retail and commerce. The typical health problems which many women have to face such as musculoskeletal problems, allergies, stress and harassment, are often underestimated.”

The use of legislation to instigate change in the habits of SMEs requires enormous resources.

*“While industry has to change and develop in a sustainable way, we cannot afford wholesale closure of industry in order to bring about environmental improvement because that simply brings with it different problems” Weldon R. and Gouldson A. Environmental Management and Business Strategy, Pitman Publishing 1993*

IBEC and Chamber of Commerce are lobby groups for reduced regulation and cost on business.

### **2.3.5 Environmental Charges - Levies & Taxes**

Legislation and fiscal incentives can support the business case. The principle of environmental taxation – shifting the tax burden from labour to environmental outcomes – is one way to internalise external costs. The landfill tax, climate change levy and aggregates taxes provide recent examples of such legislation. Ref Race to the top Environment briefing paper

#### **Plastic bag levy**

The Plastic Bag Levy was introduced on the 4th March 2002 in order to reduce the huge number of plastic shopping bags that were being used everyday. Customers who want a plastic shopping bag must pay the Levy. To avoid paying the Levy, simply use re-usable bags. [http://www.galway.ie/enviro/plastic\\_bag\\_levy.pdf](http://www.galway.ie/enviro/plastic_bag_levy.pdf)

The success of the plastic bag levy was reported by the Minister for Environment and Local Government, Mr. Martin Cullen TD in August 2002 with over 1 billion plastic bags removed from circulation and “€3.5 million raised is ring fenced in the Environment fund to finance further incentives”

<http://www.environ.ie/DOEI/DOEIPub.nsf/0/>

A lack of understanding by businesses regarding the purpose of environmental charges is reflected in the Chamber of Commerce report on Commercial Rates “The Business Burden 2003” where it states “Rising commercial rates are closely linked to the wider issue of local government funding. The Governments failure to fund local government properly has led to an explosion in the local authority charges levied on business” businesses without an understanding why these charges were implemented will not see the reward from better managing environmental aspects.

The evolution of environmental policies has seen a change in focus from enforcement to more voluntary measures,

### **Changing to the Carrot Approach**

In 2001 the EU published it's- Sixth Action Programme entitled- “Environment 2010-Our Future, Our Choice” which establishes environmental objectives for the next 10 years.

The Sixth Action Programme sets out the following objectives integrating sustainability and environmental objectives into industry.

- The Commission, in cooperation with industry groups, will develop a range of tools aimed at helping businesses understand EC environmental requirements and how they should be met. This will include, for example summaries of legislation,

'notebooks' on best practice, cleaner technology, the development of an environmental services vendor directory, and environmental management software.

- Specific attention will be given to tailoring these tools to the needs of Small and Medium-Sized Enterprises (SMEs).
- Those that go beyond any legal or voluntary requirements should be rewarded.
- Promoting green purchasing by introducing an obligation to carry out, before purchasing, an assessment of the environmental impact of the different alternatives available that meet the needs of the contracting authorities. In this way, decisions will be taken with full awareness of the environmental consequences.

With so many different products and actors one simple policy measure is not enough. There is a whole variety of tools – both voluntary and mandatory – that can be used to achieve this objective. These include measures such as economic instruments, substance bans, voluntary agreements, environmental labelling and product design guidelines.

*(<http://europa.eu.int/comm/environment/policies/industry/ipp/>)?*

The following tools have been identified as environmental management tools for SMEs

Environmental Management Systems

Environmental Auditing

Environmental labeling

Life Cycle assessment

Environmental Indicators

Environmental Policies

Ecobalances

Environmental Reporting

Environmental Charters

*“Environmental management Tools for SMEs: A Handbook Edited for the EEA by Richard Starkey The Centre for Corporate Environmental Management (CCEM), Ingvar Andersson, Project Manager European Environmental Agency March 1998”*

It has been suggested that the tools listed above are more suited to large corporations rather than to SMEs.

In general SMEs do not have a person with environmental knowledge. An evaluation of the environmental management tools from a business perspective would prove a lot more beneficial e.g. how much would this cost to implement? How much time would it take? How could it be sustained? Where would I get the trained personnel?

There are very few critical reviews of environmental tools as they are generally assessed from the environmental managers viewpoint.

Many of the tools have been tailored for use by a certain size or sector of business, in an attempt to increase the levels of environmental management within businesses.

*(European foundation for the improvement of living and Working Conditions “Sustainable SME”s)*

## 2.4 Management Systems

A Management System is a problem-identification and problem-solving tool, based on the concept of continual improvement that can be implemented in an organisation in many different ways depending on the sector of activity and the needs perceived by management.

([www.uneptie.org/pc/pc/tools/ems.htm](http://www.uneptie.org/pc/pc/tools/ems.htm))

### 2.4.1 Environmental Management Systems (EMSs)

“Regulation remains the key driver of end-of-pipe pollution control, while cost reduction, risk reduction, regulation and increasingly supply chain pressures are driving the uptake of EMS (ISO 14001) and waste minimisation activities. While new regulation triggers a wave of both supply of and demand for conferences, workshops etc. (particularly in the UK) it is the move to ISO 14001 and increasing interest in waste minimisation that are the longer-term drivers of the demand for environmental education and training. Other drivers, such as employee concerns, concern for the local community etc. are very much secondary.”

*Professional Education and Training*

*for Sustainable Development in the UK and the Netherlands* M. Hilton, E. Archer and P. van Nierop, ECOTEC Research and Consulting Ltd., Birmingham, U.K.

Under the health and safety and welfare at work act 1989 all companies, regardless of size, are required to have a health and safety management system. However a similar requirement for environmental management systems does not exist with the exception of the EPA Act that requires licensed industries to implement an environmental management programme.

In Sweden and Norway, national law requires that management systems be put in place for the working environment and for the external environment. “*Sustainable Development SMEs and New enterprises*” Eurofound



There are two main systems: the International Standards Organisation (ISO)14001 standards adopted worldwide, and the eco-management and audit scheme (EMAS) which has been set up by the EU. The main reason for installing ISO 14001 or EMAS in companies is to achieve better relationships with regulators and clients. They are therefore important marketing tools and help in negotiations with governments on environmental regulations. *EU Third Environmental Assessment*

The number of EMSs in Europe grew by 160 % between 1999 and 2002. Nearly 40,000 certificates have been issued worldwide: Around 36,000 ISO 14001 and nearly 4,000 EMAS. The EU accounts for almost 50 % of these certificates worldwide (Ref). Leading business organisations and companies are already integrating sustainable development into their core business strategies through the implementation of environmental management systems, such as EMAS or ISO14001 and reaping the benefits.

#### **2.4.2 Eco-Management Audit Scheme (EMAS)**

The use of Eco-Management Audit Scheme (EMAS), as a voluntary instrument to implement a sustainable approach to business development has been recognized as a success from its uptake by many large industries across Europe.

The Sixth Action Programme hopes that EMAS will be implemented right across Europe on a cross sector basis covering not only industry but small-medium enterprises, commercial and financial businesses. This will encourage businesses to respond with innovations and management initiatives that will spur growth, profitability, competitiveness and job creation, in a sustainable manner.

In order to achieve this increased uptake of EMAS the European commission hopes to develop measures to encourage a much greater proportion of companies to publish rigorous and independently verified environmental or sustainable development performance reports.

As EU environmental policy objectives require EMAS to be implemented it is therefore necessary to continually review and assess the effectiveness of EMAS as an environmental management tool.

The results achieved from the implementation of policy objectives are a true measure of a policy's success. As is illustrated by Appendix 1, the EU policy objective to implement EMAS, as a way of curbing pollution and increasing environmental awareness, was an overall success in relation to large industries across Europe.

However as stated in the Global assessment " Member states are often lagging behind in implementing what has been decided at European level so that citizens and the environment do not benefit from these decisions as they should." This is demonstrated in the less developed countries within the EU.

#### **2.4.3 ISO 14001**

ISO 14001 was first published in 1996 and specifies the actual requirements for an environmental management system. It applies to those environmental aspects which the organization has control and over which it can be expected to have an influence.

ISO 14001 is often seen as the corner stone standard of the ISO 14000 series. However, it is not only the most well known, but is the only ISO 14000 standard against which it is currently possible to be certified by an external certification authority. Having stated this, it does not itself state specific environmental performance criteria.

<http://www.iso14000-iso14001-environmental-management.com/iso14001.htm>

## **Differences between EMAS & ISO14001**

ISO14001 is seen as a stepping stone to achieving EMAS certification. EMAS is regarded as having more stringent criteria than ISO14001. Listed below are the main difference in criteria between the two systems.

**Preliminary review:** EMAS requires a verified initial environmental review - ISO does not.

**Public availability:** EMAS requires that the policy, programme, environmental management system and details of the organisations performance are made publicly available as part of the environmental statement. ISO requires only that the policy be publicly available.

**Audits:** EN ISO 14001 requires audits, although the frequency is not specified nor is the audit methodology set out in as much detail as in EMAS.

**Contractors and suppliers:** EMAS is slightly more explicit in its control over contractors and suppliers, requiring that procurement issues are addressed and that the organisation endeavours to ensure that contractors and suppliers comply with the organisation's environmental policy. EN ISO14001 requires that relevant procedures are communicated to contractors and suppliers. In effect there should be no difference.

**Commitments and requirements:** EN ISO14001 does not stipulate the extent to which performance must be improved. EMAS specifies that organisations must attempt to "reduce environmental impacts to levels not exceeding these corresponding to economically viable application of best available technology".

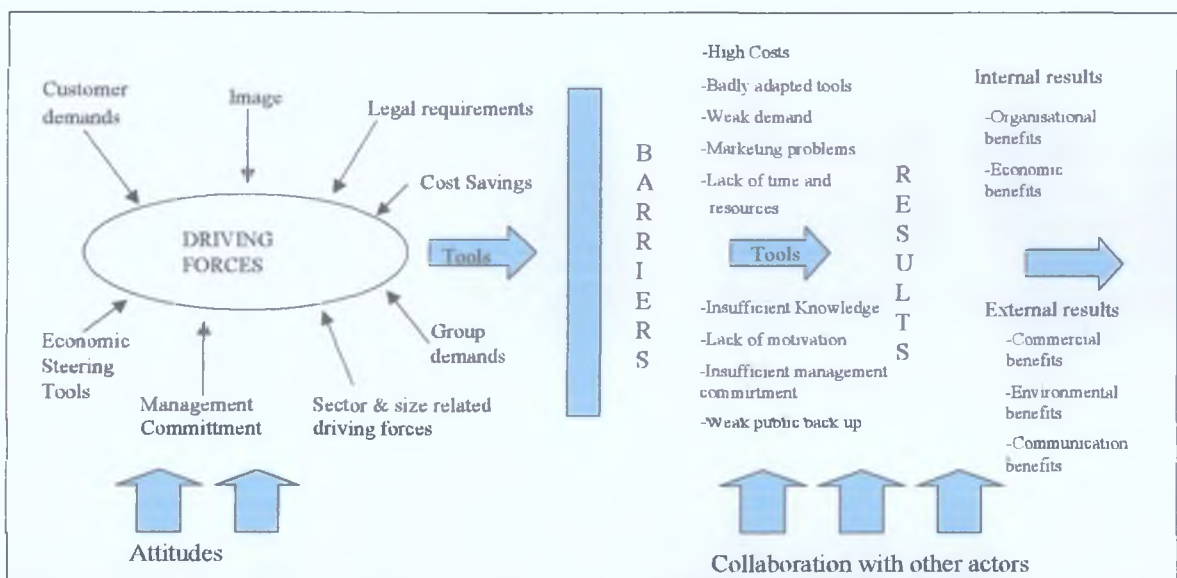
[http://europa.eu.int/comm/environment/emas/tools/faq\\_en.htm#iso14001](http://europa.eu.int/comm/environment/emas/tools/faq_en.htm#iso14001)

#### 2.4.4. Environmental Management Drivers & Barriers

“Big business may be catching the sustainable development bug but SMEs are resistant to the business case. When it comes to sustainable development small business owners either show little awareness or lack of interest. SMEs face huge barriers implementing sustainable strategies due to lack of resources, skilled staff and technical expertise. SMEs frequently have poor access to finance due to market bias and often fall victim to burdensome red tape and regulation.

SMEs and sustainable development (World Business Council for Sustainable Development) Geneva, 17 November 2003-10-20

**Figure 2.8 Environmental Management Drivers and Barriers**



It is evident from various sources of literature that many barriers prevent SMEs implementing environmental, health and safety management systems.

It is generally viewed that financial, time, staff and skill resources are the barriers that exist.



Efforts have been made by trade organisations to minimise these barriers. However membership of these trade organisations is required to avail of their services e.g. Small Firms Association, IBEC, Enterprise Ireland.

James Colthurst work showed that those organisations that have implemented ISO 9001 (Quality Assurance) found it less difficult to then implement ISO 14001 or OHSAS 18001.

The questionnaires sent out assumed the business in question was aware that it had an environmental impact and had responsibilities in relation to environmental, health and safety. The low response by small businesses to the questionnaire suggests that a lack of awareness of environmental health and safety matters exist or that one or many of the barriers already mentioned have prevented the implementation of a management system.

In the EU, engaging SMEs in environmental improvements is viewed as a vital part of the drive towards sustainable development (CEC 1992) (Small and Medium Sized Enterprises and Environmental Management Systems: Experience from Europe Hillary R. NEMA Network for Environmental Management and Auditing, London.

While it is largely recognised that the uptake of EMSs formal and less formal is generally low in the EU, it is clear that some countries have a higher uptake than others. The study identified best policy practices that fostered/encouraged the implementation of EMSs in SMEs. Hillary, R. *“Public Policy Initiatives to Promote The Uptake of EMSs in SMEs” final report of the best project expert group January 2004.*

The definition of Good practices within the study was: initiatives involving less formal EMSs presents a summary analysis of informal EMS programmes under the headings SME-orientated, Effectiveness and positive feedback, self sustaining and reproducibility.



Hillary identified “Data constraints impose clear limits on what is possible in terms of quantitative indicators in the context of this Best project.....Finally any meaningful, EU wide data on less formal EMSs do not seem to exist at all.”

The factors that were identified as fostering success of public policies, programmes and initiatives to encourage the voluntary uptake of EMSs in SMEs were those that had one or more of the features listed below.

- Organisational arrangements for EMSs
- Embedment of EMSs
- Assistance provided to enterprises establishing EMSs
- Initiatives involving less formal approaches to environmental management
- Benefits offered to enterprises with an EMS

In order to ensure an increase in the uptake of EMSs none of these measures should be relied upon in isolation but form a structure that encourages and facilitates EMS implementation.

The drivers and barriers experienced by businesses wishing to manage their environmental aspects see figure 2.8 above are the same barriers and drivers experienced by businesses implementing an environmental management system(EMS).

The section 2.4.5 assesses solutions presented to overcome resource barriers and encourage the uptake of environmental management systems by SMEs.

#### 2.4.5 Overcoming the Barriers to EMS implementation

Many small companies apply ISO 14001 or EMAS rules without actual certification because of the costs involved.

[http://www.inem.org/new\\_toolkit/comm/environment/emas/toolkit/toolkit\\_2\\_4.htm](http://www.inem.org/new_toolkit/comm/environment/emas/toolkit/toolkit_2_4.htm)

The cost involved in implementing EMAS depends on the size of the organisation and the number of people it employs. Experiences in northern European countries show that there is no standard rule as to what governs the cost of implementation.

Financial resources spent on setting up an environmental management system, including external consulting fees and associated communication and registration costs, are on average: (figures don't integrate public aid)

€ 10,000 for very small companies (< 10 employees)

€ 20,000 for small companies (< 50 employees)

€ 35,000 for medium companies (50 <250 employees)

€ 50,000 for large companies (> 250 employees)

[http://www.inem.org/new\\_toolkit/comm/environment/emas/toolkit/toolkit\\_2\\_4.htm](http://www.inem.org/new_toolkit/comm/environment/emas/toolkit/toolkit_2_4.htm)

The total administrative effort (for companies and society) in applying and running a typical company EMAS is between 0.7 and 1.2 person months of work per year (Lulofs, 2000). Around 20 % of the costs are borne by the companies. Ref

Enterprise Ireland became involved in offering support to SMEs wishing to implement an EMS “in order to improve the strategic capability of SMEs in the management of their environmental issues and to develop and exploit the market opportunities that improved environmental performance can provide.”

<http://www.envirocentre.ie/downloads/New%20Env%20Management%20System.pdf>

Enterprise Ireland operates a grant scheme to assist small- and medium-sized enterprises (SMEs) to implement Environmental Management Systems (EMS). Under this initiative, suitable applicants may receive grant support towards the costs of engaging independent consultants to install, in full or in part, a certified EMS to ISO14001 or the EU Eco-Management and Audit Scheme (EMAS) standard. These are specific to the manufacturing sector and are not available to those in the retail trade.

However in order to qualify for the grant scheme offered the organisation must be an Irish indigenous manufacturing company employing > 10 people that also exports product.

<http://www.envirocentre.ie/downloads/New%20Env%20Management%20System.pdf>

#### **2.4.6 Phased Implementation**

In an attempt to reduce the time constraints faced by small to medium sized industries in applying for EMAS or ISO14001 accreditation, NAB and the Irish Productivity Centre have introduced a Phased Implementation system. Dept of Enterprise, Trade & Employment- Mr. Noel Treacy

#### **2.4.7 Project Acorn**

Project Acorn is a programme compatible with the needs of small and medium sized organisations to help them improve their environmental performance. It offers a new five-level approach to implementing an environmental management system (EMS) in line with ISO 14001, with a sixth level that facilitates external communication and registration to the European Eco-Management and Audit Scheme (EMAS). Project Acorn provides a

framework for the systematic management of environmental issues within individual organisations and the supply chains to which they belong.

Given the need to help smaller organisations improve their own environmental performance and to improve supply chain relationships, the model:

- Provides information to organisations on environmental protection, environmental management systems and the use of environmental performance indicators (EPIs).
- Gives organisations high quality, practical, modular training (including tutorial support), workbooks, consultancy and help-line support to progress through the scheme and achieve ISO 14001 certification and the opportunity to gain registration to the EMAS Regulation.

All training events seek to motivate delegates to discover and exploit the business opportunities provided by environmental management and to initiate culture change within their organisations. The training links closely with implementation tasks and is very practical.

In order to overcome some of the resource constraints that affect smaller organisations, support may be offered by Project Acorn delivery partners such as consultancies and other support bodies. The consultants will be able to review progress so far and advise on the best route forward to the next level. In addition, telephone help and web-based support are also available.

- Helps organisations to satisfy the environmental criteria set by their existing major clients and to win new business by meeting the environmental criteria increasingly being set in contract tenders.



- Encourages the development of closer and more effective supply chain relationships by involving key customers in mentoring and supporting suppliers throughout the project.
- Produces a workbook for organisations that describes the six-level incremental approach to EMS and environmental performance evaluation indicators (EPE).
- Has a dedicated website that acts as a central source of information about the project and provides an opportunity to establish web-based distance learning programmes.
- Includes the dissemination of results of the pilot project to a wider audience.

Businesses interested in the Acorn Project should not assume that the services provided are free as a result of it being a non-profit organisation. Non-profit organisations still need to pay employees wages as well as bills for rent, heat and lighting.

The cost of participating in the Acorn Project depends on a number of variables: the number of levels to be achieved, the size and complexity of the company, and the level of support required. An individual quotation will be prepared for each participant based on this information. For those companies wishing to achieve ISO 14001, an additional, chargeable, certification audit may be required following Level 5.

#### **2.4.8 NUTEK**

The business development programme “Environment-driven business development”, aims at strengthening the competitiveness of SMEs by stimulating product- and business development from a sustainability perspective. NUTEK, The Swedish Business Development Agency, has provided 28 mSEK to the programme.

The programme "Environment-driven business development" started 2001 and will end by 2005 and compared to previous programmes it is oriented more towards integrating environmental issues into the core business strategy of the SMEs. The on-going projects are typically managed by Regional development agencies, Municipalities, Consultants, Universities and Industrial Research organisations. The projects are conducted in networks with active participation by 350 small and medium-sized enterprises. Tools, methods and products coming out of these projects will be documented and disseminated widely. NUTEK contributes with 30 percent of the total project cost.

#### **2.4.9 Eco-Lighthouse project**

The "Eco-Lighthouse" concept was born in 1996, when Kristiansand was selected along with six other municipalities to participate in "Sustainable Communities," a Norwegian Local Agenda 21 pilot program. The city authorities presented a proposal to nine companies as diverse as a hotel, a housepainter, an ice-cream factory and a wood product company. The city paid a consultant to do an environmental audit and draw up a three-year plan for reducing resource consumption and environmental impact. The plan was designed in co-operation with workers and management, and also focused on work environment. In return, the firms undertook to carry out the plan and share their experiences with other firms in the same industry. Based on the audits, criteria for local, industry-specific environmental certification schemes were developed. The original "lighthouse" firms became eligible for certification once the first measures in the consultant's plans had been carried out. Other firms could also apply for certification and receive a 50% subsidy for the consultant's audit and plan.

The Eco-lighthouse project started as a three year pilot project in 2000 with annual funding of two million Norwegian crowns from the Norwegian Ministry of Environment. The program has been positively evaluated and will receive financial support in the National

Budget for 2003. The amount of financial support for the environmental analyses varies by municipality.

Experience from Kristiansand shows that financial support is an incentive for joining the program. The City of Kristiansand offers free environmental analyses for no. 1 companies within each industry. The County and municipality pay 50% of the costs for the subsequent companies.

The municipalities use the media (newspapers, Internet, radio and TV) to present the Eco-Lighthouse project and put it to the population and industries.

### **Recruiting Companies**

A key factor in the success of the Eco-light house project was the ability to recruit companies to the programme.

The Eco-Lighthouse Program started the recruitment process by working with and certifying one single company from each industry, these are known by the programme as “Number One” companies.

Work must be put in finding a good no. 1 company in every industry. These companies are examples for others to emulate, a company which joins the programme half-heartedly is not likely to be creative and active in solving problems. A generally innovative company is more likely to be innovative with environmental issues. A company whose leaders actively participate in local trade organisations will be more active in improving and promoting the company.

The local consultant when working within a specific industry gains experience within the industry and these pioneer or no. 1 companies act as ambassadors to colleagues within their industry. Pioneer companies should also be given extra time with consultants even if industry criteria already exist, to ensure that they can motivate other companies to join.

#### 2.4.10 Green Dragon

The Green Dragon Environmental Standard was initially developed with support from the Welsh Assembly. It is now being extended to Ireland through a cross border initiative between Waterford Chamber of Commerce and Pembrokeshire Chamber of Commerce, with funding from the EU Interreg III Programme.

At the launch, the Minister presented a certificate to Faithlegg House Hotel, the first Irish company to be accredited to the standard, Waterford Chamber of Commerce decided to encourage environmental management among businesses in Waterford through the use of the Greendragon.

The Green Dragon Standard offers an environmental management system relevant to the specific needs of the company and rewards actions taken to achieve environmental improvements. Participating companies gain recognition for effective environmental management without necessarily adopting a formalised environmental management system. The Green Dragon Environmental Standard TM developed by Groundwork Wales and Arena Network is a 5 stepped approach to developing an Environmental Management System (EMS). By being stepped it recognises achievements as part of the process and allows businesses to develop a system relevant to their size and activities. Check web [www.greendragonwales.com](http://www.greendragonwales.com) for no.s registered

Each of the five stages within the Green Dragon Standard is a stand alone EMS, and incorporates the key elements of Planning, Taking Action, Checking Progress and Reviewing Achievements to realise Continual Environmental Improvement.



Companies achieving any level of the Green Dragon Standard receive a certificate demonstrating the level of the company's achievements and commitment to environmental management.

Companies achieving levels 3, 4 & 5 also receive the Green Dragon Plaque and are able to display the Green Dragon Logo on their stationery and marketing materials in recognition of reaching these advanced stages of environmental management. Displaying the Green Dragon logo demonstrates to suppliers and other interested parties that the company is committed to environmental management

**Table 2.8 The Green Dragon five levels**

Level 1	Level 2	Level 3	Level 4	Level 5
Responsibility	Statement of Environmental Impacts	Register of Environmental impacts	Training	Internal audit module
Environmental Review	Register of Environmental Legislation	Evaluation of significance of impacts	Environmental Manual	Management Review
Environmental Policy	Internal Communication	Pollution Prevention Plan	System Procedures	Carbon Reduction
Improvement Plan	Records	Objectives & Targets	Control of Documents	Indirect Environmental Impacts
		Monitoring Environmental Progress	Problem Identification and Correction	Environmental Report
		Carbon Data Collection (company energy needs)	Carbon Data Collection (company transport use)	
		Environmental Statement *	Environmental Statement	

Given the low take-up of EMS in the SME sector, the question of how to make management systems attractive to small companies is still moot but as a starting point, advice and tools must be user-friendly, jargon-free as far as possible and sector-relevant.

“Sustainable Development SMEs and New enterprises” Eurofound

#### **2.4.11 Sector based phased implementation**

The launch of a BREEAM scheme for retail developments concluded a two-year project to develop a methodology to assess the relative environmental impacts of retail developments. The project was led by Building Research Establishment (BRE) in partnership with FaberMaunsell, WSP Environmental and Upstream. The development of the scheme was sponsored by a wide range of stakeholders who also acted as an advisory and consultation group to the project team.

BAA, British Land Company Ltd, Chartwell Land Development Ltd, Chelsfield Plc, Grosvenor Ltd, Hammerson UK Property Plc, Land Securities Plc, Lend Lease Global Investment Plc, Marks & Spencer Plc, Sainsbury's Property Services, Tesco.

The British Retail Consortium was also a member of the project advisory group, acting for and on behalf of its members.

Assessments are carried out by independent assessor organisations who are licensed and trained to complete assessments. Each formal assessment achieves a BREEAM rating and certificate on the basis of their performance against the standard.

All types of retail space can be assessed at any of the following stages:

New build or refurbishment stage: "Design & Procurement BREEAM"

Retail store fit-out stage: "Tenant Fit-out BREEAM"

Existing (occupied) stage: "Operation and Management BREEAM"

#### **2.4.12 K-environmental store diploma**

Kesko developed a tailored system for K-food retailers together with the Finnish Association for Nature Conservation on finding the ISO 14001 a somewhat bureaucratic management system for food stores which did not include specific requirements. This management system is called the “K-environmental store diploma”. It consists of a set of 160 checking points in ten different environmental management areas. Following self-assessment and needed amendments, all personnel are trained and an environmental third party audit must then be passed. The framework of the checklist has remained with emphasis changing from year to year e.g. from awareness and training to energy conservation concept was one of the award winners in Johannesburg (ICC/UNEP World Summit Business Awards for Sustainable Development Partnerships), interest in becoming a diploma store is growing.

#### **ENDS Report on ems criticisms**

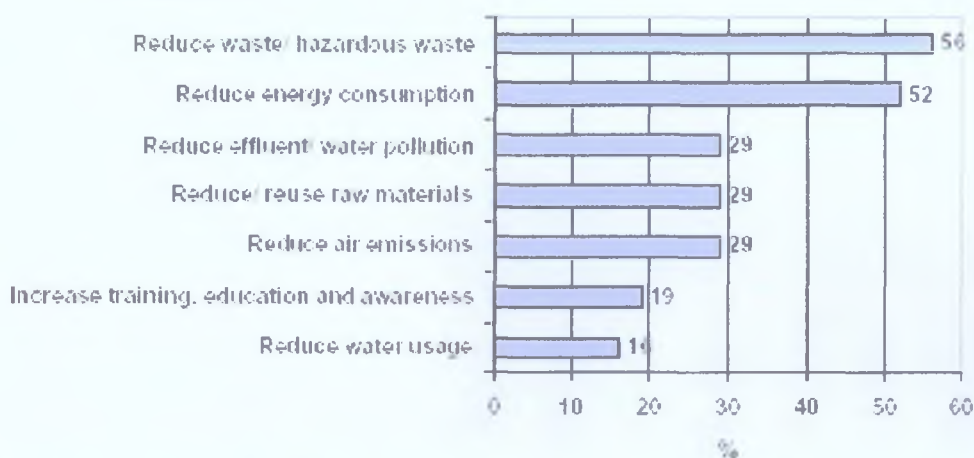
The implementation of EMSs will only be considered by businesses that are some what aware of environmental issues already and of their businesses contribution to the environmental impacts local and global. Awareness programmes should be driven well before management systems to foster a culture of ownership and responsibility.

As noted by Hillary, R “quantitative data on the uptake of formal and less formal EMSs by SMEs are scarce” therefore a true evaluation of the effectiveness of the less formal EMSs as discussed above is difficult.

### 2.4.13 Criticisms of Environmental Management Systems

The German Environmental Ministry on reviewing EMAS, argues that in many cases, knowledge is concentrated on material and energy flows through the company and does not include knowledge on the effects these flows might have on the environment. Subsequently, anecdotal evidence shows that companies sometimes target the highest energy consumption (which mostly is heating) and not the highest contributor to greenhouse gas emissions (which is often electricity). *EMAS Review*

**Figure 2.9 The Percentage of all registered sites to EMAS main environmental objectives**



*Fig. 2.9: Percentage of all registered sites main environmental objectives (Source: Hilary 1998).*

These weaknesses suggest that EMAS has been inadvertently altered by industry to serve as an economic management tool rather than an environmental management tool. Although this maybe the case it is hardly surprising given that the economic case for implementing an EMS is emphasized in nearly all promotional information provided to encourage the uptake of EMSs.



It further suggests that caution should be exercised to ensure environmental awareness should be fostered through the implementation of EMAS and that EMAS or ISO 14001 does not turn into another bureaucratic paper chain.

Lack of sufficient funds for the implementation of environmental programmes will be of concern as new member states with poor environmental standards join the EU

#### 2.4.14 Health & Safety Management Systems

Currently there is one internationally recognised safety management system

OHSAS18001, this system has not as yet been adopted by the International Standards Organisation (ISO).

Unlike environmental management systems the need to have a safety management system is mandatory under the Safety Health and Welfare at Work Act, 1989.

While it is mandatory for all businesses to have a safety statement it does not necessarily mean that all businesses comply with this piece of legislation or are even aware that it exists.

Table 2.9 The Percentage of Businesses with Safety Statements per Sector in 2004

Sector	% Businesses with safety statements
Health	79.7
Education	79.1
Public Administration	76.9
Manufacturing/Extraction/Utilities	74.6
Construction	71.2
Transport/Storage/Communications	68.3
Hotels/Restaurants	60.2
<i>Wholesale/Retail</i>	<b>56.6</b>
Financial Office	47.4
Business/Real Estate/Renting	45.4
Agriculture/Forestry/Fishing	28.9

Even though some employers are largely compliant with regard to completing a safety statement and hazard and identification they are failing to gain employee ownership of the safety management system. This situation will not help to improve employees attitudes towards health and safety or the company's culture towards health & safety

The Small Firms Association (SFA)<sup>7</sup> undertook a study of its members in the last quarter of 2003. This study was based on the response of over 565 companies, employing over 15,273 people across a range of sectors.. The study revealed that 81% of small firms involved in the study have safety statements, 80% consult with their staff on safety issues and 20% spend more than €5,000 a year on safety The survey found that the manufacturing sector were the most safety conscious.

<http://www.sfa.ie?Sectors?S...?D913A1DDBC39E00D80256EOD00382371?OpenDocument> (press release 12/31/2003) printed 09/03/04 (Ring SFA to find out who was questionnaires sent to were they SFA members)

While the figures presented in the SFAs study are most encouraging they are in stark contrast to HSA statistics which show that 43% of firms with less than 15 workers do not even have a safety statement, the basic legal requirement for all companies. (<http://www.has.ie/press/press03/march/inscosts.htm>)

One possible reason for the high level of compliance found in the SFAs study is the provision of support and information given by the SFA. The SFA has an online information centre to provide members with advice and guidance on business related topics such as Health & Safety. The guidance provided under the heading of health and safety includes Guidance on writing a safety statement, First Aid Kit Contents, Dealing with

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<sup>7</sup> The Small Firms Association is a branch of the Irish Business and Employers Confederation (IBEC) that provides economic, commercial, employee relations and social affairs advice and assistance to small to medium sized enterprises. Irish Business and Employers Confederation (IBEC) as the main representative body for Irish Industry.

Stress In the workplace, Safety at Work: Risk Management & Loss control and Occupational Health and Safety Management Guide

[http://www.sfa.ie/Sectors/SFA/SFADoclib4.nsf/wvICSS?OpenView &RestrictToCategory](http://www.sfa.ie/Sectors/SFA/SFADoclib4.nsf/wvICSS?OpenView&RestrictToCategory)

While this is a valuable source of information the documents themselves have restricted access to Small Firm Association members only.

The North Western Health Board is aiming to develop safe and healthy workplaces in the northwest with the launch of a series of related initiatives. These include an information pack for Small to Medium sized enterprises, a dedicated website and a follow up report on a related conference held in October 2002.

<http://www.nwhb.ie/internet/HealthServices/HealthPromotion/Settings/Workplace/>

While the HSE website provides access to an abundance of guidance and information on health and safety matters including a webpage devoted to guidance for small to medium sized enterprises it does not provide specific information in relation to the retail sector. One of the studies of particular interest was a study on “The costs of compliance with health and safety regulations in SMEs” An initiative in 1999, conducted by better Regulation Task Force (BRTF), considered the regulatory barriers to start-up, success and growth of small business and found that smaller firms often at a competitive disadvantage compared with larger firms because of the cost and time involved in regulatory compliance. This was highlighted by the participants of this HSE study and supported in a recent evaluation of the Manual Handling Operations Regulations commissioned by HSE (Lancaster et al,2001). The study revealed that the cost per employee in organisations taking action to manage manual handling risks was 3341 per employee for small organisations and £37 per employee for large organisations.

The study found that the main motivator for developing health and safety systems was legal compliance particularly for SMEs.

Large organisations were more likely to report that the benefits outweigh the costs. This may be due to the fact that SMEs are less likely to have experienced an accident and therefore do not realise the costs associated with not taking action. SMEs were also less likely to have performance targets and measures in place and therefore rely on their perception of the benefits and costs rather than a more calculated objective view.

Medium organisations report more accidents per employee than small and large organisations. However, in the site visits, there were more accidents in small organisations than medium and large organisations.

Large organisations preferred Internet based sources of information, compared with a preference for paper based information among SMEs.

The main frustrations, when establishing health and safety systems, for newly established organisations were reported as time restrictions, cost, lack of knowledge/skill and lack of information and guidance it is interesting to note that this finding has not been related to organisational size.

Following from recommendations made by international policy documents such as the report from the UK Health & Safety Commission on “Occupational Health Advisory Committee Report and Recommendations On improving Access to Occupational Health Support” along with the European Network for Workplace Health Promotion. and national policy documents including The National Health Strategies – “Healthy Bodies- Healthy Work” 1998 and the “National Health Promotion Strategy” 2002 – 2005 to promote health in the workplace



The “Workplace Health Partnership” was established in December 2001 following from recommendations resulting from the policy documents outlined above.

The “Workplace Health Partnership” is the first of its kind in Ireland. The partnership comprises the Health & Safety Authority, North Western Health board, Western Health Board and the Occupational Health Nurses Association of Ireland (OHNAI).

*“Workplace Health Challenge & Solutions Conference Report October 2002”*

The “Workplace Health Partnership” launched the “SME Workplace Health Information Pack” to support and enable SMEs in the north west of Ireland to develop healthy and safe workplaces.

British industry is currently losing £13billion every year from sickness absence, the equivalent of 30 million working days. Death rates in Scotland from cancer, heart disease and strokes are higher than in almost every other western industrialised country. “Scotlands health at work is the national award scheme which rewards your efforts and achievements in building a healthy workforce, a healthy workplace and a healthy organisation. There are three levels of award: bronze, silver and gold. There are core and additional criteria with each level. This means that progress through the award levels can be tailored to meet the needs of the workplace. Each level will give a plan of action to improve health in your organisation. A signed certificate of compliance with health and safety legislation and regulations is required as a pre-requisite in registering for the scheme. “Scotlands Health at work award scheme Employers Information”

The European Agency for Safety and Health at Work was set up by the European Union to help meet the information needs in the field of occupational safety and health.

Promoting Health & safety in European small and medium sized enterprises

In 2001 as part of a drive to reduce accidents in Europe, the European Agency for Safety and Health at Work launched a 5million SME funding scheme. The objectives of the scheme were to create awareness amongst SMEs regarding the social and economic consequences of accidents. The promotion and identification of best practices in accident reduction, address the diversity of SMEs within Europe and to promote OSH as “Good Safety and Health is Good Business”.

450 applicants applied for funding, and were narrowed down to 51 covering a broad range of topics and sectors.

Transferability is an important feature of projects identified for funding. An example of this is the project from Finland designed a toolkit to train health and safety instructors and people from SMEs. This project was an instant success when first run in Finland. As part of the OSH funding scheme the project became transnational project which brought the Finns together with the UK and German OSH experts to transfer the knowledge gained and profit from the Finnish Experience. (<http://sme.osha.eu.int> 25/02/04)

OSHA have also launched an online guide for Europes SMEs. The Bilbao based European Agency for Safety and Health at Work has just completed a survey of national, regional and sectoral initiatives aimed at increasing SME awareness. The survey examines 18 successful occupational safety and health assistance services to SMEs, ranging from industry wide projects to highly focused initiatives in 14 Member States *Small, safe and productive – how to strengthen the prevention culture in Europe’s SMEs.html last modified 20/01/04 printed on 25/02/2004*

## 2.5 EHS labelling - Eco-Labeling & CE marking

### 2.5.1 EU Eco-label

While no human activity is completely 'environmentally friendly', there are always opportunities to reduce the impact that certain products have upon the environment. The EU Eco-label scheme regulation (EEC) No 880/92 is a simple way of helping customers to make informed choices about the products that they buy. The Flower logo<sup>8</sup> is recognised all over Europe and covers a wide range of product groups, making it easier to recognise quality products that are less harmful to the environment. ([www.eco-label.com/faq.htm](http://www.eco-label.com/faq.htm))

The EU Eco-label scheme has drawn up a set of environmental and performance criteria for judging products.

Only if products meet all the criteria can they be awarded the EU Eco-label. These environmental criteria will take into account all aspects of a product's life, from its production and use to its eventual disposal (cradle-to-grave approach).

The EU-ecolabel (flower logo) is awarded to individual products on the basis of definitions of product groups and related ecological criteria. Ecological criteria for each product group are defined on the basis of an assessment of the environmental impact of the product group, and developed after a technical study and consultation with environment, consumer and industry experts. ([www.eco-label.com/faq.htm](http://www.eco-label.com/faq.htm))

Eco-labels have become prolific with each creator establishing their own set of standards. In the case of own-brand products, retailers define their own terms of reference and are accountable on more or less the same level as producers. Adopting a greener approach is part of a global business strategy. In response to the latest food scares and the need to restore consumer confidence in food products, a number of retailers have used organic production channels.

Among the amendments offered by the Parliament is an obligation that, if a product is entitled to carry both the Community ecolabel and a national ecolabel, the two logos must be displayed side by side on the product. ([www.radtech-europe.com/hse62001.html](http://www.radtech-europe.com/hse62001.html))

The EU eco-label has not achieved the success in terms of market penetration as envisaged when it was created in 1992. A general lack of awareness of the scheme, the prominence of some national eco-labelling programs and other factors contributed to this. Even today, the scheme has not been an unqualified success, notwithstanding the fact that a fair number of product categories have by now been developed. There certainly has not been a stampede of manufacturers, retailers and importers applying for the right to apply the EU eco-label. However this situation appears to be changing, judging by the rising levels of awareness (especially throughout the EU) of the label, and the rapidly increasing number of successful applications for a EU eco-labels in 2001. During this year, the number of manufacturers using EU eco-labels doubled to over 100 companies (103 companies as of May 2002), comprising over 400 products. According to the EU Eco-Label Secretariat, approximately 17 million products (with an ex-factory value of 38 million Euros) bearing the EU eco-label were sold in 2000. This is due to a number of reasons, including the fact that the range of product categories for which ecological criteria have been developed have increased, and marketing efforts and awareness campaigns accelerated



The use of eco-labels to designate environmentally preferable products for public procurement is not (yet) particularly widespread. Evidence that this situation may change in the near future was noted by the eco-label helpdesk<sup>9</sup>. While most enquiries to the eco-label helpdesk have originated inside the EU, numerous information enquiries were also received from outside the EU, including South Africa, USA, India, Malaysia, South Korea, Sri Lanka, Mexico, Pakistan and Indonesia.

This could favour domestic firms i.e. EU firms, over foreign enterprises, and larger firms over SMEs, in the process. South Africa is making significant progress in terms of export market penetration. In terms of the SA/EU Trade Protocol, tariff-based trade barriers will continue to be downscaled over the next decade, although the potential clearly exists that technical trade barriers (including eco-labels) could in future restrict export growth. *(Fund for research into industrial development, growth & equity Global review of eco-labels: implications for South Africa phase one report)*

“Indeed, even if they do become successful, eco-labels could deflect firms from the key issue of environmental improvement. By drawing the customers’ attention to environmental credentials, eco-labelling is supposed to encourage the manufacturers to achieve better environmental standards. But eco-labels only consider products, and not a company’s environmental performance. To achieve better environmental standards a firm needs to be considered as a whole rather than by individual products.”

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<sup>9</sup> The eco-label "Helpdesk" which has the task of answering the inquiries and supports the European Commission in their promotional activities

Consumers must understand the labels in order to make the recommendations work. Labelling regulation will only be effective if linked to a complementary programme of consumer education and advice and the restriction of marketing opportunities from 'umbrella claims'.

Consumers are bombarded with many different messages which vary over time and between the interest groups. The trouble with labels is that unless they are properly designed they can create as much confusion as they convey information. They may be meaningless without explanation in some environments and cultures

*(Future Technologies, Changing Consumer Decisions and Labelling Requirements [Anette Schmitt, VDI-TZ](#))*

If you are a retailer, you can contribute significantly to the success of the European Eco-label. Retailers can also request, or even insist (as happened in France with "Les Trois Suisses") that your suppliers apply for the eco-label. Large-scale retailing companies in European countries with a high concentration of hypermarkets or supermarkets are already signalling their general interest e.g. in France, Belgium and Italy.

<http://europa.eu.int/comm/environment/eco-label/retailers.htm>

Waitakere City Council, New Zealand produced "The Green Retail Guide" that gives retailers advice on points to be considered when buying and selling green goods. The guide covers, green management and the benefits of clean green retailing and the marketing green goods e.g. displaying and advertising green goods is one such way as will attract consumers attention.

### 2.5.2 Health Safety

The Machinery Directive (98/37/EC), applies to all new machinery manufactured or supplied in Ireland, wherever it is to be used in the EEA (The European Economic Area which includes all EU and EFTA countries with the exception of Switzerland.) The term 'machinery' is broadly defined and includes what is generally understood by the term, as well as some other products.

CE marking cannot guarantee safety as it is not a quality or safety mark and affixing it on machinery is only one of the several requirements that the manufacturer has to meet. By affixing CE marking to machinery, the manufacturer is claiming that all relevant legal requirements have been met, but you must still make sure as far as you can that the machinery is safe for use at your location.

## 2.6 Environmental, Health & Safety Procurement Policy

“Innovation and new technology are pervasive in the modern economy. This is creating unprecedented opportunities to meet society's needs and aspirations with greatly reduced environmental impact.

This is not just about using cleaner and leaner technologies - although this will be important. It is also about new ideas and re-thinking business models to find smarter forms of production and consumption that use resources more productively.

Improving the way goods and services are designed, made, delivered, used and disposed. Providing greater value, performance and choice for the consumer - as well as reducing environmental impacts.” *New Ways of Doing Business, Dept Trade and Industry (DTI), UK*

### 2.6.1 Environmental procurement

A number of factors have combined to create a need for a product-focused environmental policy. There has been a growing awareness that the traditional focus on production processes may no longer be appropriate in environmental policy and regulation.

“While industrial and energy production remains an important source of pollution and waste, the relative importance of consumption-related emissions and wastes has been rising over the past two decades. For instance, an inventory of volatile organic compound (VOC) emissions in the Netherlands in the late-1980s revealed that three-quarters of emissions were consumption-related, in particular in the application of paints and during vehicle refuelling.” Emission sources of several key gaseous pollutants, such as nitrogen dioxide and carbon monoxide, arise primarily from the use of vehicles. (*EUROPEAN COMMISSION DGXI: INTEGRATED PRODUCT POLICY: FINAL REPORT The United Kingdom firm of Ernst & Young is a member of Ernst & Young International A study analyzing national and international developments with regard to*



*Integrated Product Policy in the environment field and providing elements for an EC policy in this area, March 1998)*

All products cause environmental degradation in some way, whether from their manufacturing, use or disposal. Integrated Product Policy (IPP) seeks to minimise these by looking at all phases of a products' life-cycle and taking action where it is most effective.

“Decoupling and waste prevention increases the resource productivity of society as a whole. The proposed EU Integrated Product Policy will also be an important driver of change in promoting eco-design and cleaner production, resulting in cleaner consumption”. (***National Waste Prevention Programme Outline Work Plan 2004 to 2008, April 2004***)

## 2.6.2 Health & Safety- Public Procurement

The General Application Regulations require the General Principles of Prevention to be applied when dealing with a workplace hazard. The primary action to take when faced with a hazard is to see if the hazard can be avoided.

The key to reducing injuries to workers throughout the supply chain is close cooperation between suppliers, manufacturers and retailers.

Issues such as those highlighted above, which affect parties upstream or downstream, need to be discussed freely and action taken to minimise any adverse effect on others.

Doing so will ensure injuries to workers are reduced along with associated industry costs (HSE)

Danish-Swedish fixed link, have shown us that accidents and illness can be reduced effectively on projects where occupational safety and health is taken into account in the procurement process.

Deputy Prime Minister of the UK has recently published public procurement guidelines for UK central government authorities concerning safety and health issues in the procurement process for government construction projects.”

“The retail sector is also a significant part of the value chain of the manufacturing sector in Ireland, providing an outlet to consumer markets. Up to 50% of the output of Irish-owned food and clothing firms is sold on the Irish market, with associated employment of up to 17,500”..... “The links and levels of co-operation between the retail sector, whether Irish or foreign, and the manufacturing sector are therefore important issues from an industrial development perspective. The links and levels of co-operation between the retail

sector, whether Irish or foreign, and the manufacturing sector are therefore important issues from an industrial development perspective.” Forfas “The dynamics of the retail sector”

### **Suppliers**

The main problems usually relate to manual handling (which causes 30% of food industry injuries). For example can product be supplied in bulk (e.g. bulk bags) rather than in sacks or in drums etc. or, if not;

- are products supplied at reasonable unit weights (e.g. 25kg sacks or boxes). If weights are greater than this does the customer have the necessary equipment to avoid manual handling;
- are boxes, crates etc provided with suitable hand holds.

## 2.7 Corporate Social Responsibility

“Corporate social responsibility is about meeting public expectations while improving business performance. It can bring real business benefits by reducing risks, enhancing brand value, fostering customer loyalty and motivating staff.”

The First Ever Survey of Consumer Attitudes in Ireland towards Corporate Responsibility  
(Business in the Community, Ireland) Dec.2002

Consumers do not believe companies pay enough attention to their social and environmental responsibilities.

Consumers are willing to reward socially and environmentally responsible companies

Well-developed internal and external innovative communication is required to highlight companies' practices i.e. if they are socially and environmentally responsible.

The environmental and social performance improvement programme is designed to differentiate the Musgrave Brand, as well as those of its retail franchises SuperValu and Centra, from its main competitors. It is expected that successful brand differentiation will lead to increased sales through community support of local initiatives, increased staff retention through generating staff satisfaction in the company's values, and increased profits through sustainable business.

*CSR Environmental and Social Accountability Report 2002 – People, Places, Products* has been acknowledged as the world's first report to be in accordance with the GRI 2002 Guidelines. The report was the winner, once again, of the ACCA Irish Environmental Reporting Award in 2002.

What is of “Major importance” to the group is “the issue of our retail customers” the group are embarking on a major public attitudes survey which will focus on the environment, openness, honesty, social and ethical issues.



These SMEs should be made aware of this survey to highlight the importance of the environment to the general public and the benefits of being environmentally friendly

1. Corporate social responsibility refers to companies' behaviour in carrying out their activities. Any type of initiative in this context could not therefore be regulated. Commonly agreed values might be promoted as drivers to guide this behaviour towards the general objective of sustainable development. Nevertheless, taking up CSR should remain voluntary to avoid creating unnecessary administrative burdens, particularly for SMEs (e.g. compulsory reporting).

In contrast, SMEs may take a long-term view in the local community and have more links to the local community and have more links to the civil and cultural and/or religious environment, as they are generally less mobile organizations. This is known as Silent Corporate Social Responsibility

### **2.7.2 Silent CSR**

SMEs play an important role as income generators; this is particularly true for the developing world where an informal system of micro and small enterprises is the main source of employment for the poor.

The development and formalisation of micro and small enterprises provide a realistic step toward poverty alleviation and is therefore a key aspect of sustainability. This was noted at Jo'burg 2002. WBCSD believes that large companies influence the environmental and social performance of SMEs through supply chains. Big Business is able to build skills and standards into the supply chain while more indirect influence can be leveraged through community involvement in developing countries where corporations are often large sources of employment.

Large inward investors often create what is known as the “honey pot effect” where workers migrate to a company’s operations in search of employment. This is often to the detriment of the communities from which the workers have moved. Responsible companies can help minimise the effect by engaging with local businesses and establishing small or micro enterprises that provide services that they can purchase.

SMEs and sustainable development (*World Business Council for Sustainable Development*) Geneva, 17 November 2003-10-20

Approximately 2,000 companies worldwide voluntarily report on their economic, environmental and social policies, practices and performance

(*Global Retail Industry Facts and Figures UNEP Meeting of the Retail Industry on Sustainable Development*)

### **2.7.3 CSR – Health & Safety**

OSHA is actively contributing to the promotion of occupational safety and health in modern management thinking and will shortly be publishing a report on ‘Corporate Social Responsibility and occupational safety and health’ which provides some very interesting case examples of how to promote occupational safety and health through this new business tool of Corporate Social Responsibility.

Following the publication of the European Commission’s Green Paper on CSR, the Agency organised a special seminar on linking CSR and OSH.

It is evident from the case studies provided in CSR reports that there are clearly cost benefits to business from environmental good practice. While the above examples are

based on large brand names which influences the economy of scale, savings could still be achieved in small family run retail outlets if focused on a group scheme.

## 2.8 Linking Health & Safety Management to Cost Differentiation

While cost benefits are more obvious when reactive measures are put in place to existing problems or incidents that may have already occurred. Convincing businesses of the cost benefits of preventative measures can sometimes be difficult. This is particularly the case in occupational health and safety.

In terms of the motivation of employers to invest in prevention, I believe that it is important to increase their awareness not just of legal and moral obligations but also of the value of workplace health and safety to their competitive strength. Differentiated insurance premiums, reflecting the safety and health performance of a company, are one of the most basic and important financial instruments. – However the problem is that they are normally based on accidents and traditional, recognised diseases, while the majority of work-related health problems such as chronic diseases which develop over a longer period, are not sufficiently taken into account. Furthermore, the premiums are based on past experience, while the aim of the new EC strategy is to put more emphasis on prevention of current and future safety and health problems.

Caroline van Wijk will be explaining the tax benefits available to employers in the Netherlands who take measures to improve the health and safety of their workers. Alan Morley will be explaining the health and safety index developed by the Health and Safety Executive (UK) for small and medium-sized enterprises to be used by the insurance companies for the differentiation of premiums to be paid by SMEs. The workshop will also present an example of subsidies. Henrik Andersen will present the experiences with a subvention scheme to reduce RSI in Denmark.”

The Chamber of Commerce in conjunction with the Irish Insurance Federation launched is to launch a new in company health & safety training programme. ChamberSafe, an



occupational health and safety programme for small to medium sized enterprise, will examine the training needs of participating SMEs that wish to implement an occupational health and safety management system.

It is hoped that businesses that have the training programme will receive reduced insurance premiums.

The Health and Safety Authority (HSA), which have been in discussions with the Insurance Federation on the development of a system that would reward companies that are complying with safety regulations with lower insurance premiums, highlights the development of a pilot initiative in partnership with the insurance sector, as one of the ways it will use to try to assist small businesses improve safety management. *“Health & Safety Review” March 2004*

While tailoring environmental, health and safety management tools for SME use is only a part of the solution. If SMEs are not aware that they have any environmental impacts to manage or how to manage environmental impacts, the tailoring of tools no matter how good is of little use.

The following section assesses methods used to increase environmental awareness in SMEs.

## 2.9 Mentoring

Environmental mentoring is the use of expertise to help another entity improve its environmental management and performance. The basic goal of environmental mentoring is to provide help that enables the mentee<sup>10</sup> to achieve and maintain compliance (legal req) or go beyond legal compliance and established best management practices. Such help can range from being highly technical to simply increasing awareness of different options. The role of the mentor is to facilitate learning through instructing, coaching, modelling and advising. <http://www.neetf.org/mentor/aboutmentoring.cfm>

Environmental mentoring describes on a small number of programmes that focus on cultivating improved environmental performance through interaction among business peers

“Environmental mentoring benefits, challenges & opportunities” the National Environmental Education & Training Foundation and the Institute for Corporate Environmental Mentoring 2000 dicusses vertical and horizontal mentoring. Horizontal mentoring is mentoring between companies in the same business or within an industry sector and enables efficient transfer of knowledge and technology. It is thought that this method. It is thought that this method is best for raising an industry sector’s standard. Vertical mentoring companies in a supply chain is thought to be an effective way to ensure environmental excellence by suppliers.

Eco design awareness raising campaign.

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<sup>10</sup> Mentee is the organisation that is being mentored

This event focuses on SMEs in the electronic sector. This event introduces the legislative framework strategies for greening the supply chain and lean environmental management. Environmental producer responsibility is an opportunity to design better products and increase business success. The event is part of a European wide campaign.

The Irish event will be run by Enterprise Ireland in conjunction with the Fraunhofer Institute for Reliability and Microintegration (IZM) on behalf of the European Commission. The event is suited to electronics companies operating in Ireland, North and South. The workshops are free of charge and offered especially to SMEs that produce equipment and components or are component. Speakers include experts from industry, government, industry support organisations and research and development. This event is financed by the European Commission

<http://www.epa.ie/NewsCentre/EventsTenders/FileUpload,6310.en.pdf>

While considerable efforts have been made to make courses and other material more suitable and accessible, and to promote training and its benefits, numerous barriers still persist, particularly in the UK. Demand for environmental education and training is still lowest from small and micro SMEs, in the UK and the Netherlands. Companies themselves perceive the main barriers as being:

- resources constraints, human and financial;
- accessibility, lack of local or on-site provisions;
- suitability, material often being too general or designed for larger companies.

These barriers are certainly real enough, particularly in the UK. There are however additional barriers:

- lack of awareness of the real benefits and cost-saving opportunities;
- poor awareness of skill/competency needs to capitalise on opportunities;

- poor awareness of provisions/support options to meet these needs.

There are also two key external factors which influence awareness of benefits, needs and provisions:

- the extent to which support networks are in place and properly co-ordinated;
- the extent to which support networks are active in reaching SMEs.

In the UK many smaller firms are confused by the wide range of support organisations, initiatives and provisions. In fact it appears that uncoordinated activity has often been counter-productive through its 'initiative fatigue' effect. In addition the passive help provided has often not been enough to kick start improvement programmes. The way ahead, therefore, has to involve better co-ordinated, better directed and more active support and training provisions.

*"Professional Education and Training for Sustainable Development in the UK and the Netherlands"* M. Hilton, E. Archer and P. van Nierop, ECOTEC Research and Consulting Ltd., Birmingham, U.K. European Foundation for the Improvement of Living and Working Conditions, 2000

Currently the local authorities in the Republic of Ireland are focusing on waste management. This is evident both from local authority websites and information campaigns such as "The Race Against Waste Campaign" aimed at reducing waste being produced and increasing the current levels of reuse and recycling being undertaken. The local authorities have to date largely focused these waste management campaigns towards schools "green flag" initiative and the general public. However more recently this role has expanded to include businesses. The implementation of the Waste Management (Packaging) Regulations, 2003 was one possible catalyst along with the "The Race Against



Waste” Campaign which introduced a business focused campaign called “Small Change” an initiative aimed at small businesses “to provide practical solutions to help you minimise the amount of waste produced by your business and thus save money”. This campaign was run in partnership with the local authorities and the Chamber of Commerce

On examining local authority websites, it is clear that all but one county council is addressing the issue of greening businesses. This Dun Laoighire Rathdown County Council Environmental Services Department Green Business Programme Report 2003

Chepstow Life Funded Project – Travel awards and Chepstow’s Business Travel Seminar. The increase in employers offering alternative travel incentives was only small and this was for employee convenience rather than for environmental reasons

PortPhillip City Council, Victoria, Australia

Coleraine Borough Council

Lack of knowledge within authorities to give information on EMSs to businesses

The International Chamber of Commerce advocates sustainable development and environmental protection. The Chamber of Commerce plays an advisory/support role for businesses. As such, increasing costs placed on smes from environmental taxes and levies i.e. the plastic bag levy, waste and water charges and the upcoming introduction of the carbon tax have put increased pressure on The Chamber of Commerce Ireland to address environmental issues. As part of the “Small Change” initiative “aimed at providing practical solutions to help minimise the amount of waste produced in your business and thus save money” under the “Race Against Waste Campaign”. Both Mullingar & Athlone

Chamber of Commerce's in partnership with Westmeath County Council are hosting a workshop entitled "Manage Your Waste Mind Your Money" open to anyone who owns or runs a small-medium sized business.

Most environmental support tend to be passive (informing rather than directly assisting), often due to budget constraints. Ref as above

"NEETF found that most companies place a high value on programs that provide a direct interpersonal component" i.e. one to one mentoring as it has the advantage of providing the most targeted and tailored assistance to ensure organisational improvements are implemented. This type of mentoring is considered resource intensive and does not reach many mentees "Environmental mentoring benefits, challenges & opportunities" the National Environmental Education & Training Foundation and the Institute for Corporate Environmental Mentoring 2000

One to many mentoring programs that focus on issues common to an industry or across industries are likely to have greater impact than one to many programs that provide more general and less industry specific information.

"You don't know what you don't know" was a statement by of , one of no. companies While mentors "carefully avoided mentees compliance issues" Regulatory issues did play a part in every program with four out of five mentee companies interviewed had experienced compliance issues that helped jump start their environmental programs.

An example of such a program is the "Race Against Waste Campaign" Small Change program.

Chamber of Commerce have been instrumental in introducing a litter free campaign and street pride with hanging baskets etc.

### 2.9.2 Internal training

“Poor staff awareness is a common barrier that prevents progress”

<http://www.envirowise.gov.uk/envirowise3v.nsf/textkey/MBEN4PBHS5>

Envirowise states that “staff need to be given facts about the environmental issue, information on how the programme applies to them as individuals and the benefits”

Appointing an environmental team or champion helps create awareness of environmental issues and demonstrates the company’s commitment to environmental issues. The champions’ role will be to co-ordinate and facilitate environmental activities e.g. waste minimization programmes. The champion’s role will be to motivate staff to take action and participate in environmental initiatives. When employees are involved in taking action they will have greater ownership of the project. Successful initiatives are a result of combined staff effort.

Champions also serve as a communication channel between managers and employees and for the feedback of results from particular initiatives.

The decision of who to choose as champion will depend on the size, nature and culture of the company combined with a person’s enthusiasm, credibility, communication skills and ability to motivate staff. Management commitment and employee ownership go hand in hand in achieving a culture of environmental stewardship. The creation of such a culture ensures environmental management within the organization is more sustainable. and likely to permeate into the employees lifestyle

<http://www.envirowise.gov.uk/envirowise3v.nsf/textkey/MBEN4PBHS5>

The use of teams and champions to raise environmental awareness the basis of creating ownership of environmental management systems. Co-ordinate and facilitate environmental programmes, champions must have the support and commitment from top

management in order to be successful. Helps increase staff awareness and motivation to take action. Champions and teams are also the focal point for communication and act as a mechanism for continual feedback. Involvement creates ownership and helps foster a culture of environmental stewardship.

Motivated staffs “are keen to generate ideas”. Feed back on the success of schemes especially those that have been suggested by employees provides added motivation and incentive.

A recent US online survey by Career Builder, a placement firm, showed that 36% of retail workers were dissatisfied, compared with 29% of workers in areas such as health services, manufacturing, information technology and banking or in government. According to the William M. Mercer report, a typical cashier in the United States makes around US\$7 an hour and, in 2000, the personnel turnover rate among part-time cashiers in US retailing was over 100% – the highest in the sector.

A study was undertaken on the effectiveness of the Coleraine borough mentoring programme by Invest NI, the funding body. However the results of this study were confidential, however George Dawson a member of the ARENA Network a body involved in the role out of involved with the study stated the outcome was positive.

### **Conclusion**

The success rate of mentoring programmes and the benefits that they bring to business is difficult to measure. However it is evident that the most effective form of mentoring is one to one mentoring which provides the most targeted and tailored assistance. The more targeted and tailored the assistance is to the mentee the better.

### **3.0 METHODOLOGY**



### **3.1 Introduction**

This thesis aims to demonstrate the importance of the retail sector in achieving more sustainable patterns of consumption and reducing workplace incidents. As a result the level of environmental, health and safety awareness and management within the retail sector was assessed.

Both the environmental aspects and the hazards and risks of the retail sector were identified and their significance discussed.

Global best practices and tools for environmental management and improvements in safety culture were assessed to identify what best suited or could be tailored to suit the retail sector.

A comparison was carried out of large retail outlets compared to SMEs and of the Irish situation compared to international best practice.

The objectives were achieved through:-

The collection of information on a European and global basis regarding best practice within the retail sector and SMEs with regard to environmental, health & safety management.

The collection of information from surveying retail outlets located in Mullingar, Co. Westmeath, consideration was given to surveying another town in the Midlands however time constraints did not allow for this.

Determining if the findings from the survey reflect the findings of other European and global studies.

### **3.2 Literature Review**

The literature review was based on research regarding environmental, health & safety management within small to medium sized enterprises and within the retail sector. Best practice initiatives for the management of specific environmental impacts along with an assessment of environmental management systems was examined. Research in international best practices to improve the health & safety culture within the retail sector was also undertaken.

The Internet and the library's online journal and database proved invaluable tools.

Research within Ireland focused on environmental, health and safety management levels within Ireland the drivers and barriers affecting the uptake of environmental management systems within SMEs. Publications produced by the Environmental Protection Agency, Health and Safety Authority, Health Boards, County Councils, Chambers of Commerce, business advisories and the CSO helped establish stakeholders' contribution to improving environmental, health and safety.

### **3.3 Selection of organisations to be questioned**

#### **Retail Sector**

Organisations from the retail sector were chosen for the purpose of my study. Various factors determined the retail outlets to be surveyed; these were size, location and management/ownership. Location and management/ownership were chosen to determine whether these factors influenced environmental management practices.

The size of the retail outlet refers to how many are employed within the retail outlet, this allows for a comparison of environmental management practices between large and small to medium enterprises. A difference in environmental management practices as a result of the size of the organisation reinforces the findings of past research that

“As a general rule, the smaller the firm, the lower the attention to environmental issues. As a result, SMEs tend to be a significant source of pollution”. (<http://www.wbcsd.org>)

### **3.4 Stakeholders**

Stakeholders can provide support or have a strong influence on how a business is managed especially with regard to environmental, health and safety issues.

In particular county councils whose function it is to both create awareness of and enforce legislation. On the other hand organisations such as Enterprise Ireland, The Chamber of Commerce, Small Firms Association, Irish Small to Medium Enterprises and RGDATA are paid membership by businesses to receive updates on information and to be part of lobby groups that can influence change. These stakeholders were contacted by telephone to assess the importance and support they give to environmental, health and safety issues.

### **3.5 Type of survey chosen**

Questionnaires were used as a means of surveying the retail sector on environmental, health and safety management practices.

### **3.6 Compilation of questionnaire**

The questionnaire was compiled in a manner that would allow for a comparison with the findings of international research. The compilation of the questionnaire included the EU eco-label logo as those answering the pilot questionnaire equated the EU eco-label with the Tetra Pak logo.

### **3.7 Sample**

A stratified random sample was taken by listing all supermarkets, clothes and footwear stores, sports stores, pharmacies and hardware stores. Once the list was compiled the names of all the stores were put into a hat and thirty were chosen.

### **3.8 Administration of Questionnaire**

A letter explaining the nature of the study accompanied the questionnaire. Those with management responsibility within the selected retail outlets were approached to complete the questionnaire. Approaching management personally helped ensure completion of the questionnaire, it added a face to the name and also allowed for any queries or difficulties in completing the questionnaire to be addressed. The questionnaire was left with those that wished to complete the questionnaire in their own time and collected at a later date.

### **3.9 Questionnaire Format**

Two pilot tests were carried out following the correction of the original survey. Those completing the pilot study managed a retail outlet in Mullingar. It was concluded from the pilot that the questionnaire was too long and time consuming and that some of the questions were difficult to interpret.

The format of the questionnaire was revised and changed from a Word document to a table format in Excel (Appendix ). The change in format alone improved how the questionnaire was received in the second pilot study. The questionnaire now appeared more concise and enabled the questionnaire to be completed in less time. The questions that had been found difficult to interpret were simplified or clarified



### **3.10 Questionnaire Structure**

The questionnaire was structured in four sections. The purpose of the first section was to enable general information regarding the business to be attained e.g. the size, location and the level of authority the individual completing the questionnaire had.

The second section assessed environmental awareness, the third environmental management and the fourth health and safety awareness and management. The questionnaire was structured to cater for all levels of awareness and management. Questions were composed in such a way as to remove any possibility of bias being introduced. For the purposes of analysis and ease of answering some questions were followed by options to be ticked.

## 4.0 RESULTS

The following results were obtained from questionnaires distributed to retail outlets in Mullingar. Therefore the results relate to the Mullingar area and are influenced by EHS awareness campaigns and support programmes or lack thereof within the Mullingar area.

**Table 4.1 Questionnaire Response.**

Number of respondents	21
Number that didn't respond	10
Total Surveyed	30

It is interesting to note that 6 of the 10 retail outlets that did not respond to the questionnaire were chain stores. Three of which informed me that the completion of questionnaires required approval from head office. This suggests that head office activities were isolated from daily management activities.

**Table 4.2 Type of Retail Outlets Surveyed**

Type of Retail Outlet	Number
Supermarket	4
Gifts/Newsagents	2
Ladies Clothing	5
Menswear/Footwear	4
Hardware	2
Pharmacy	2
Sports Shop	1
Office Supplies/Toy Store	1

**Table 4.3 Number of Employees in Businesses Surveyed**

No. of Businesses	No. of Employees
13	≤10
4	10 - 50
1	50 - 100
1	100 - 150
1	150 - 200

It is interesting to note that the majority of retail outlets surveyed were micro enterprises as they consisted of ≤ 10 employees.

**Table 4.4 Type of Retail Outlet**

Sole Trader	18
Franchise	2
Chain Store	1

Information on the type of retail outlet was gathered as it intended to show a correlation between the type of retail outlet and levels of environmental, health and safety management. However due to the small sample size this was not possible.

**Table 4.5 Location of Retail Outlet**

Industrial Estate	1
Street	18
Shopping Centre	2

The purpose of determining the location of the retail outlets surveyed was to assess the viability of a spatial solution for environmental management within retail outlets e.g. the provision of a recycling park for waste packaging, WEEE.

**Table 4.6 Number of Retail Outlets Owned and Rented**

Rented	2
Owned	19

Determining whether the building was rented or owned allowed an assessment be made on how much control the manager had on the buildings design.

Of the 21 respondents 18 had responsibility for the daily running of the business.

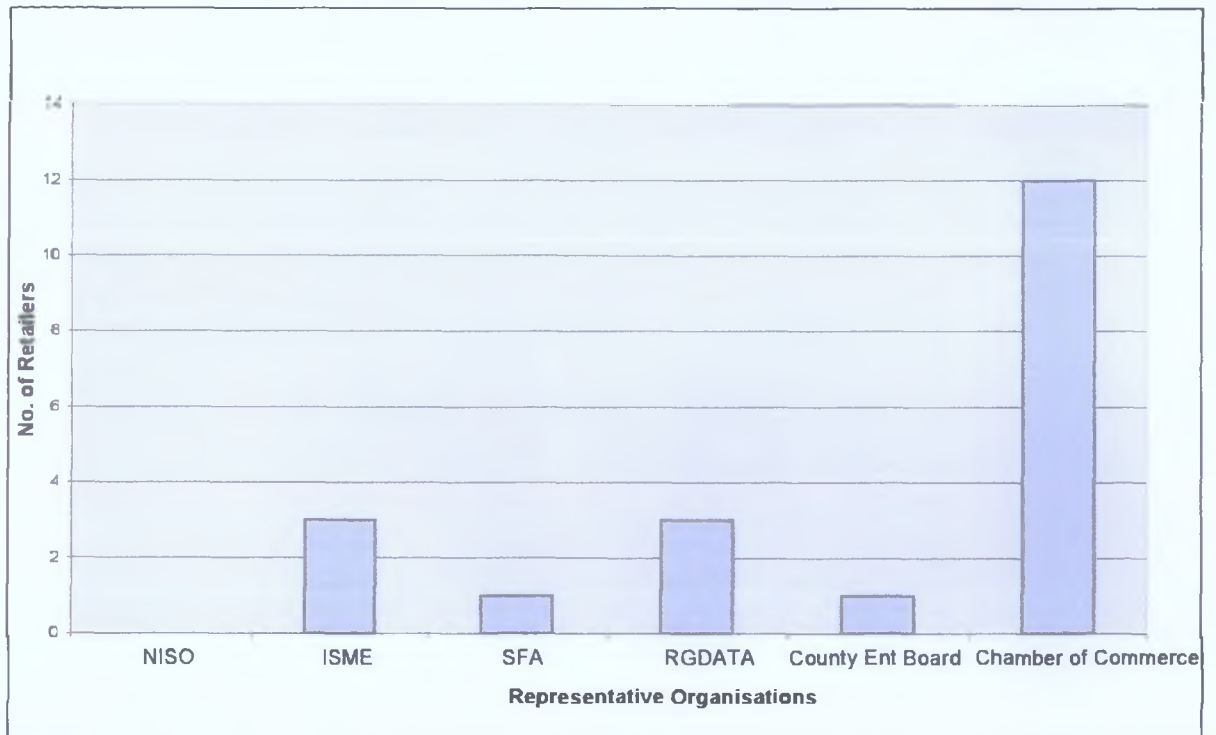
The analysis of the results has been split up into three main sections

- Environmental awareness
- Environmental management and
- Health and safety management.

The second section on environmental management has been split up further into subsections the first subsection deals with overall environmental management with the following subsections assessing the levels of management of specific environmental impacts i.e. waste, energy, transport and purchasing of the retail sector.

It was noted in the literature review that businesses with membership to representative organisation have greater access to environmental, health and safety information and those businesses that do not.

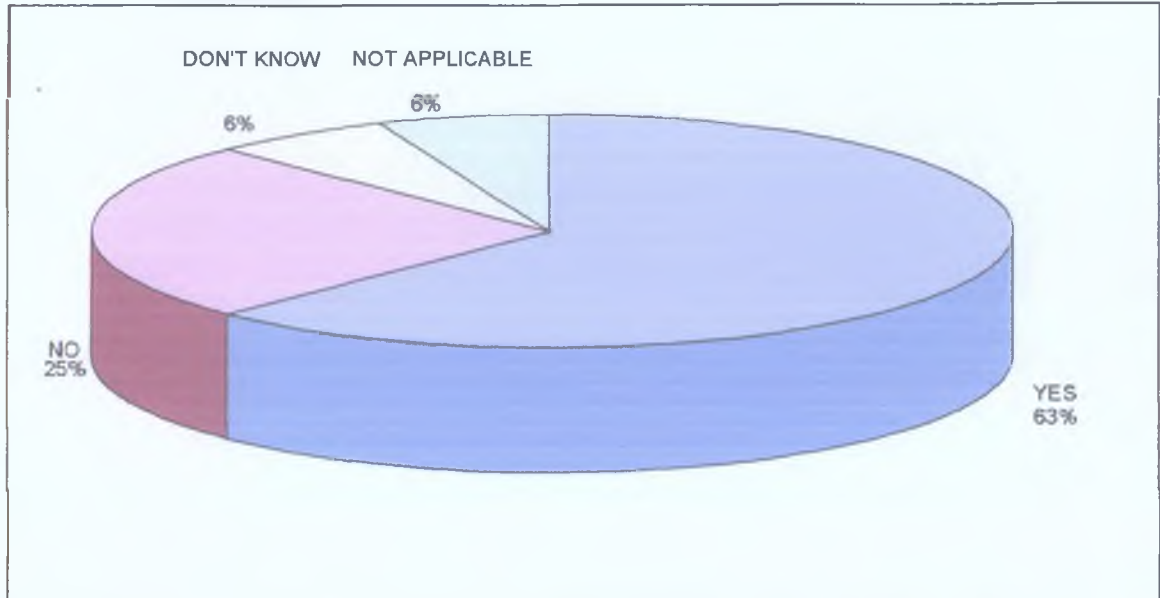
**Figure 4.1 Retailers and Representative Organisations to which they belong**





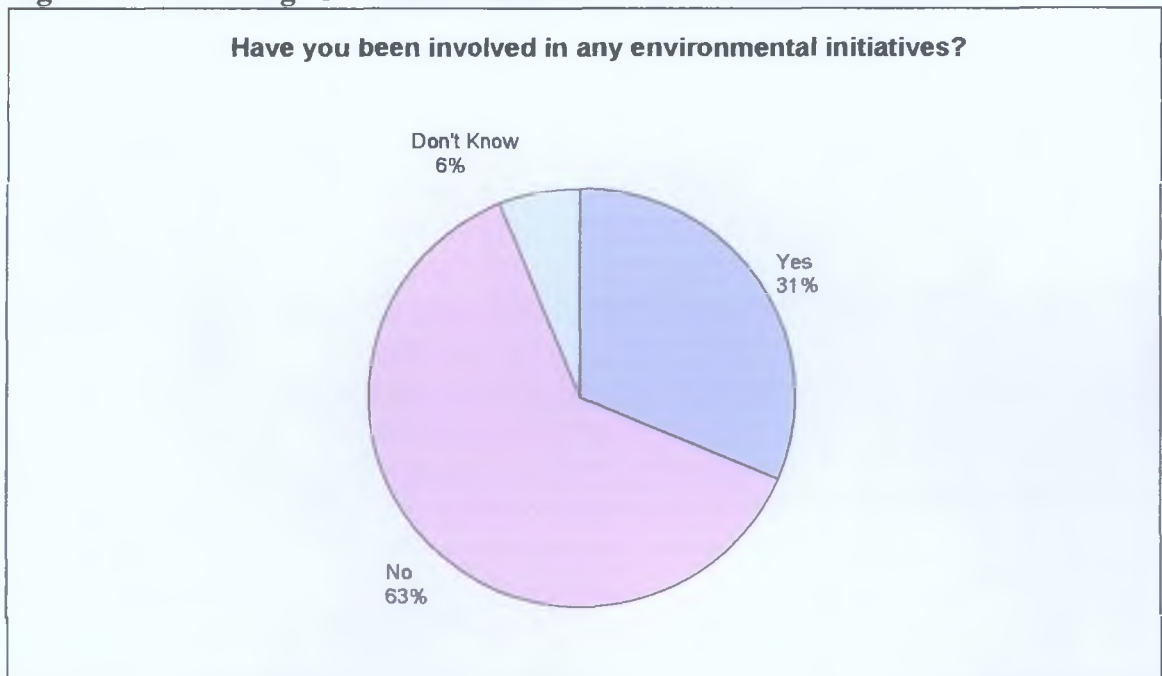
## 4.2 Environmental Awareness

**Figure 4.2 The percentage of retailers that consider their business to impact on the environment**



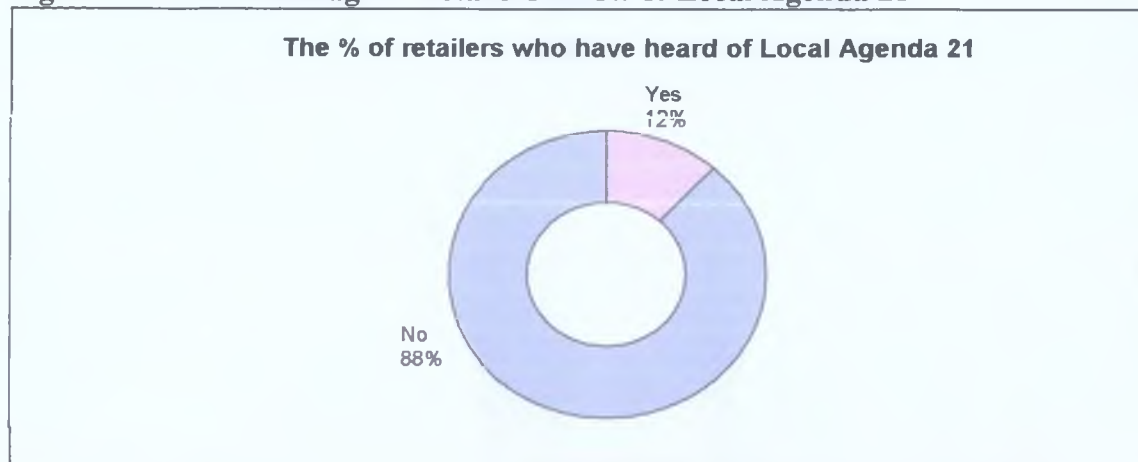
The pie chart above illustrates that 63% of those surveyed know their business has an impact on the environment while 37% are not aware that their business has an impact on the environment.

**Figure 4.3 Percentage of retailers involved in Environmental Initiatives**



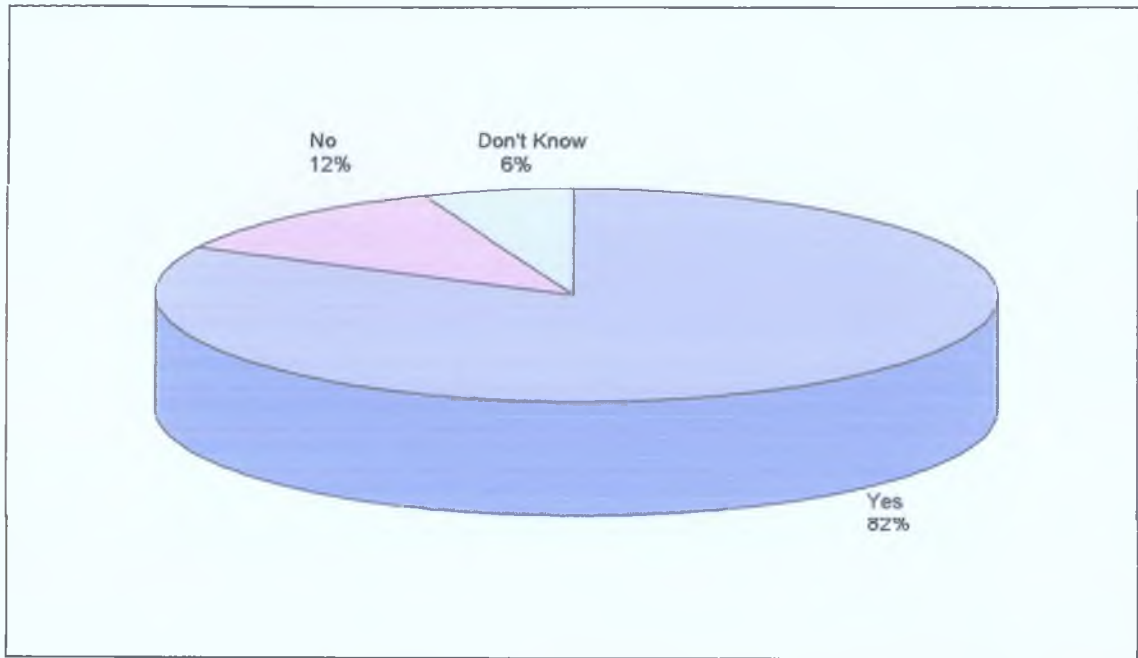
The majority of retail outlets surveyed, 63%, have not participated in any environmental initiatives. 31% of retail outlets surveyed have participated in environmental initiatives. These initiatives were very varied and included using paper bags instead of plastic, the separation and recycling of waste, attending a talk on the environment held by the Soroptomists and attending an environmental awareness day organised by the Chamber of Commerce Mullingar.

**Figure 4.4 The Percentage of Retailers Know of Local Agenda 21**



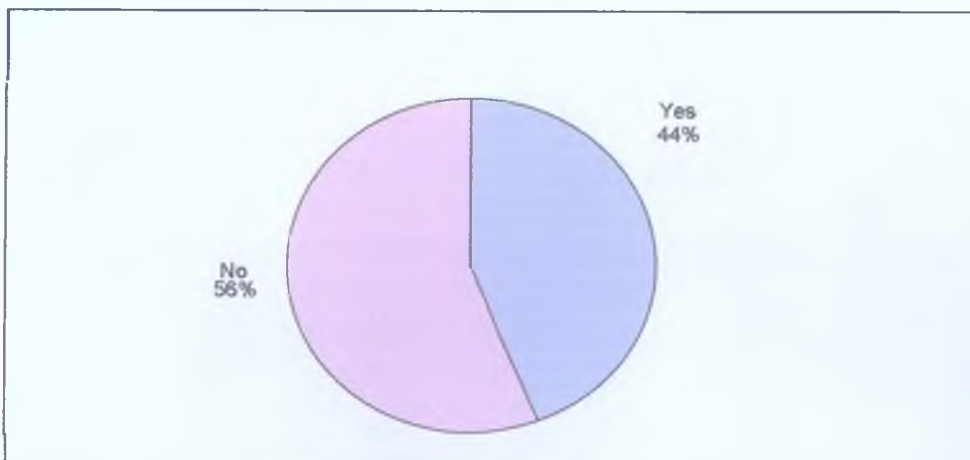
Local Agenda 21 promotes sustainability through community initiatives. Local Agenda 21 focuses on partnership and involving all. Therefore the fact that 88% of those surveyed had never heard of Local Agenda 21 suggests that there are no Local Agenda 21 initiatives being promoted by local authorities or others in Mullingar.

**Figure 4.5 The Percentage of retailers that believe there are commercial benefits from environmental good practice**



82% of retail outlets believed there were commercial benefits to environmental good practice. However when asked to state what they believed these benefits to be no response was given by any of those surveyed. This suggests a lack of awareness exists among retailers as to the benefits of environmental good practice.

**Figure 4.6 The Percentage of businesses that have heard of Eco-labels**

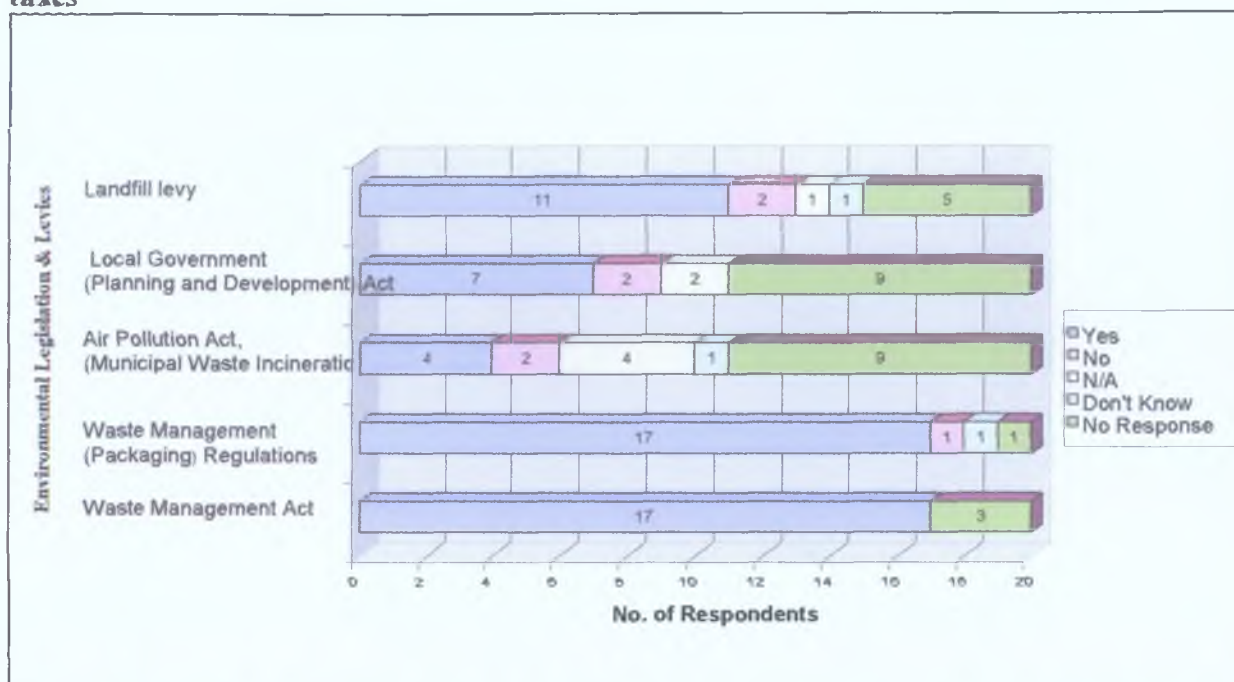


56% of retail outlets had not heard of the term eco-labels while 44% had. A lack of awareness of eco-labels effects consumer choice. If the retailer doesn't give a preference to

EU eco-labelled products then there is even less of a chance that the consumer is likely to purchase EU eco-labelled products.



**Figure 4.7 Percentage of Retailers aware of the following environmental legislation or taxes**



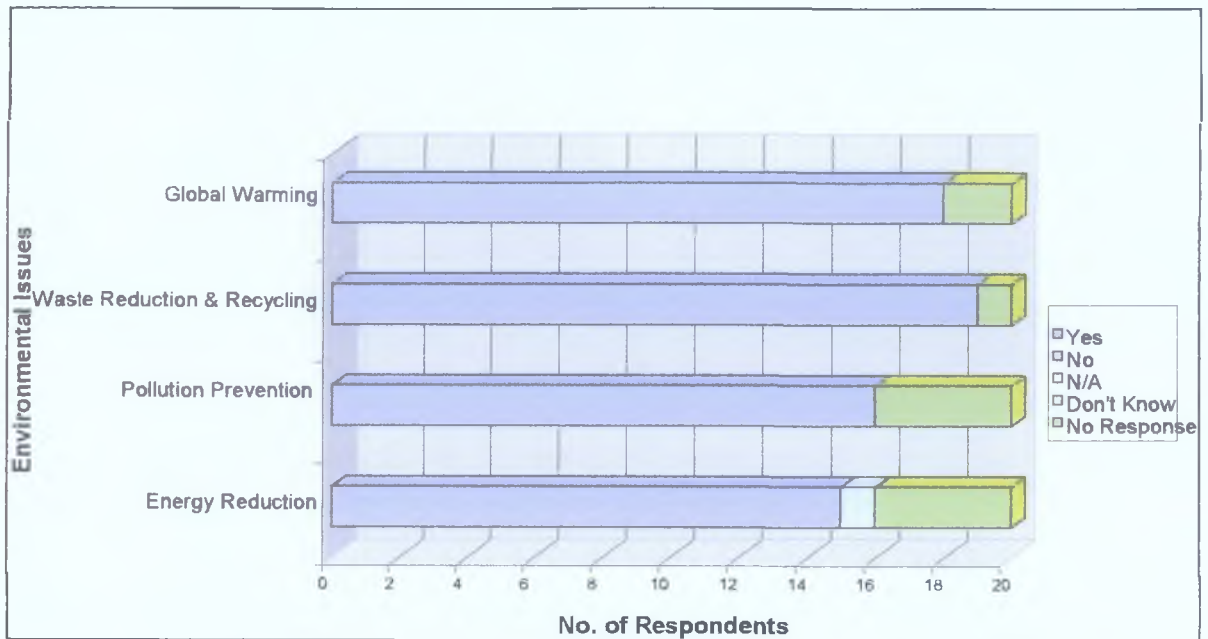
With the plastic bag tax, landfill levy and the onus on retailers to accept back uncontaminated waste packaging from customers or sign up to Repak. It is no surprise that the Waste Management Act, Waste Management Packaging Regulations and Landfill Levy all score high on the awareness scale with retailers. However this heightened awareness of waste legislation could be attributable to the Race Against Waste Campaign.

It is however, a little surprising that only 8 of the 21 retailers surveyed were aware of the Local Government (Planning and Development) Act

While only 4 of those surveyed were aware of the Air Pollution (Municipal Waste Incineration) Regulations.

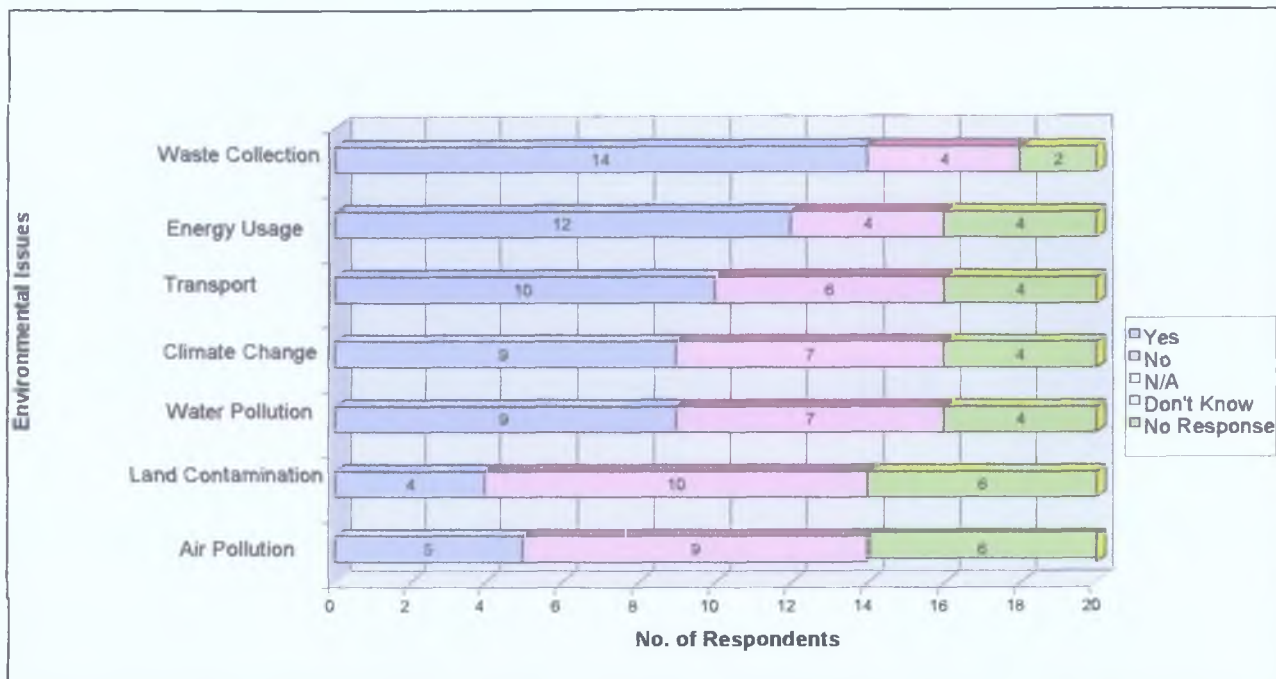
Lack of response appears to be inversely proportionate to the number of yes answers suggesting that those surveyed did not wish to highlight any lack of knowledge they may have pertaining to the listed pieces of legislation.

**Figure 4.8 Number of retailers aware of Environmental Issues**



Up to 15 of those surveyed were aware of the four environmental issues in the graph above. 19 of those surveyed were aware of the need for waste reduction and recycling again highlighting retail outlets heighten awareness toward waste management issues.

**Figure 4.9 Number of retailers that feel their businesses could be threatened by environmental issues**

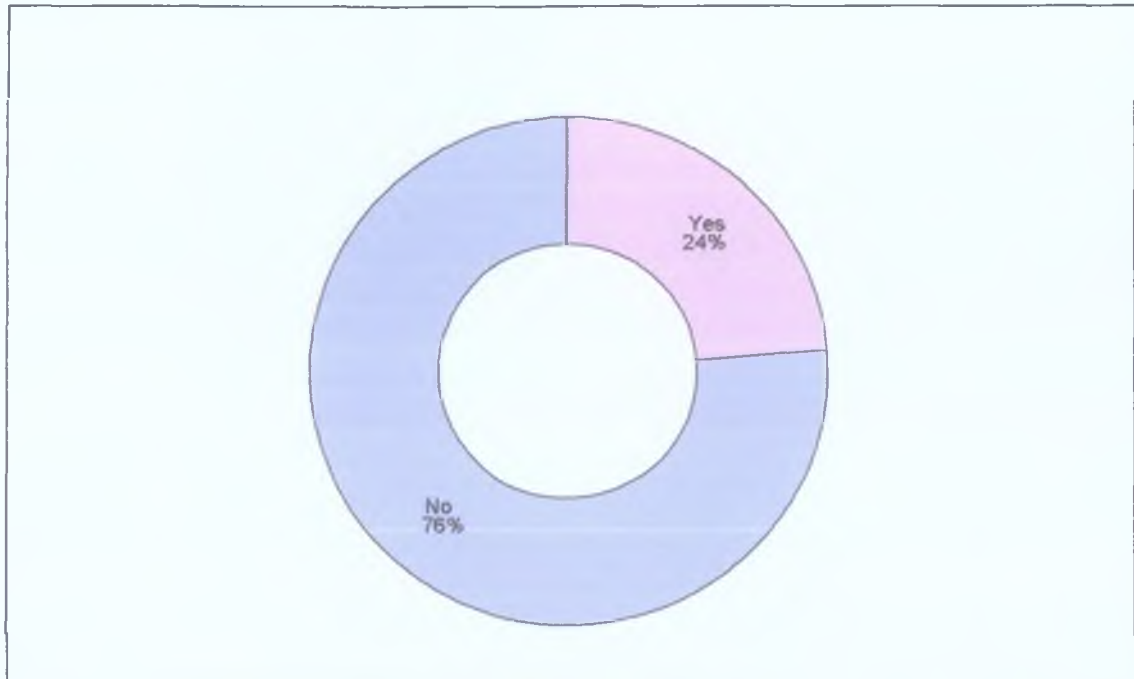


Decreasing waste disposal options and increasing costs for waste management and energy usage have been purported to be threats to business competitiveness.

Climate change and water pollution are also rated as a threat by 9 of the retail outlets surveyed. Local water shortages, the presence of algal bloom and the presence of *Cryptosporidium* in the Mullingar water supply have left little doubt that there are environmental threats present. However businesses often find it difficult to make a link between these environmental aspects and local/global environmental impacts.

### 4.3 Environmental Management

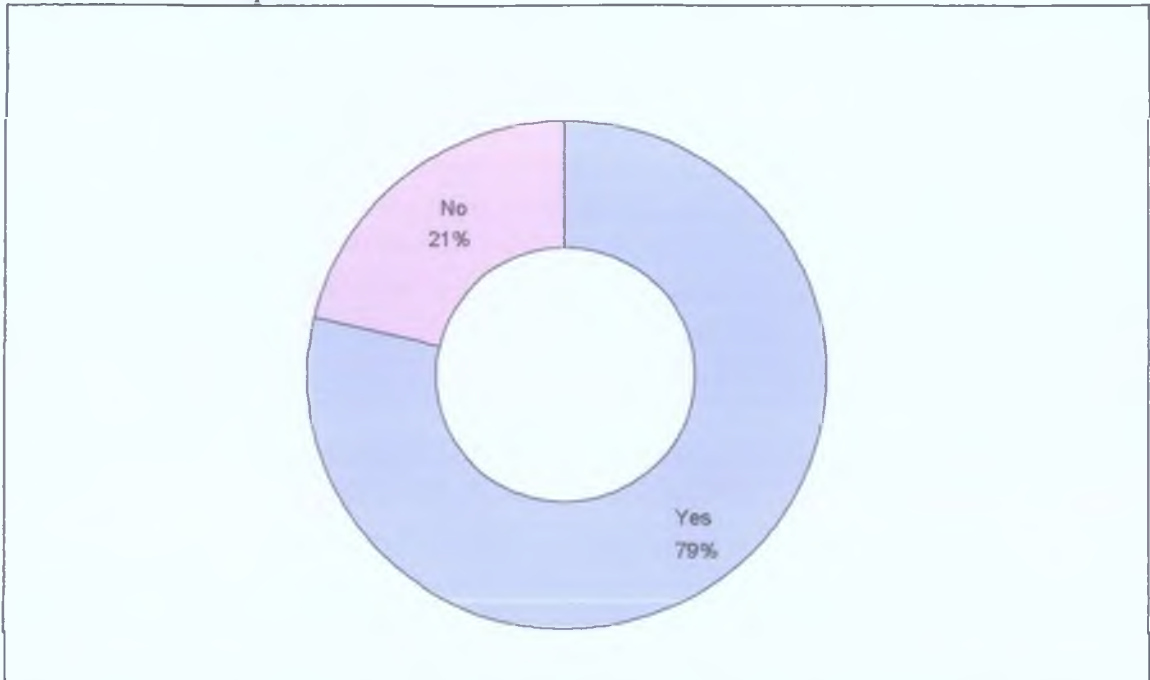
Figure 4.10 Percentage of retail outlets with written environmental policy?



24% (n = 4) of those surveyed had a written environmental policy. Policies set out the intentions of an organisation with an environmental policy being no different. An environmental policy should set out how the business intends to protect the environment or manage its environmental aspects.

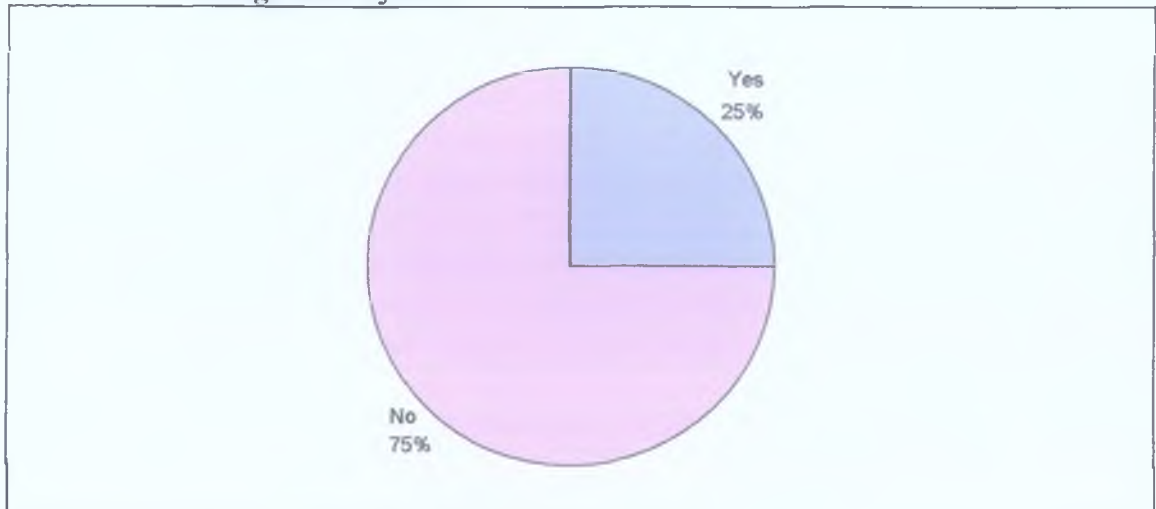


**Figure 4.11 Percentage of businesses that have introduced methods to reduce their environmental impact**



79% of retail outlets surveyed had introduced methods to reduce their environmental impacts. When queried as to what these methods they all were related to waste recycling or segregation with some businesses also focusing on energy saving measures.

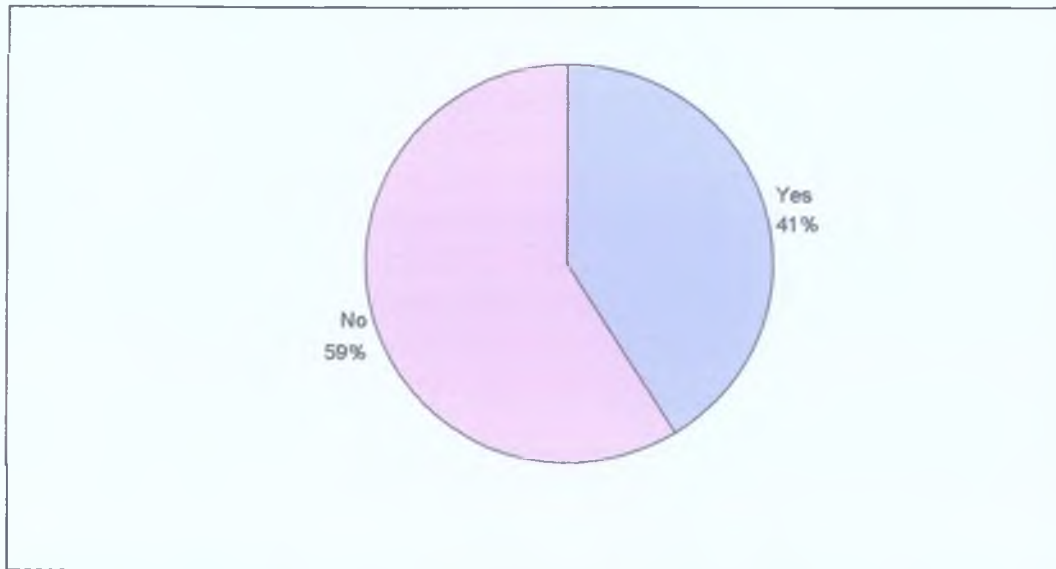
**Figure 4.12 Percentage of retailers familiar with the term "Environmental Management System"**



Many studies undertaken on environmental management and environmental management systems assume a level of environmental awareness exists within businesses already.

The results in graph illustrates that assumptions should not be made particularly where in this case 75% of those surveyed did not understand the meaning of the term.

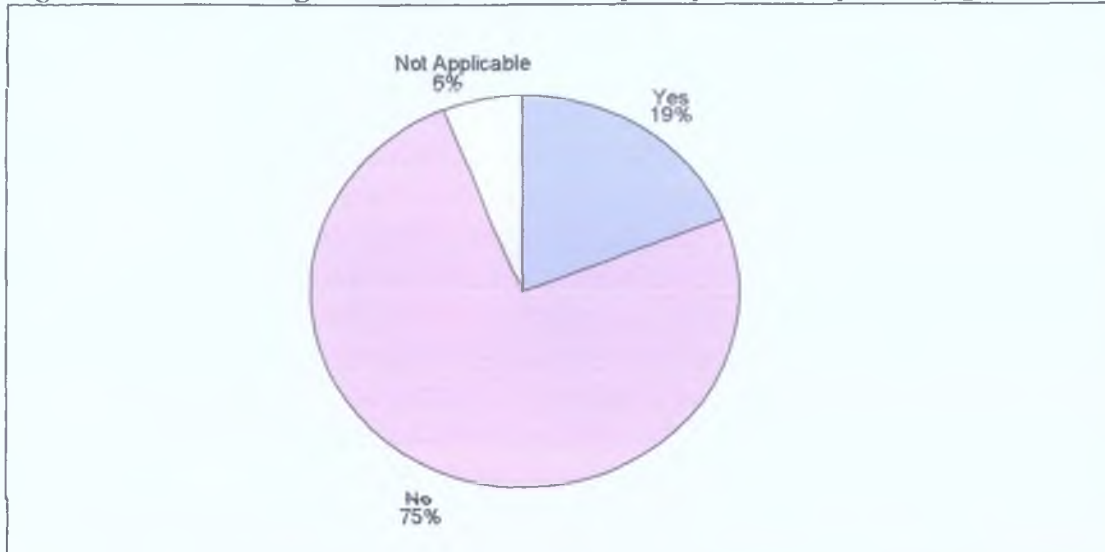
**Figure 4.12 Percentage of businesses with an environmental management system?**



Some anomalies appear when comparing the previous graph . . . and graph . . . above.

While 75% did not understand the term Environmental Management Systems in graph an amazing 41% of the same respondents surveyed managed to have an Environmental Management System in graph

**Figure 4.13 Percentage of businesses with a quality control system (e.g. ISO 9001)**

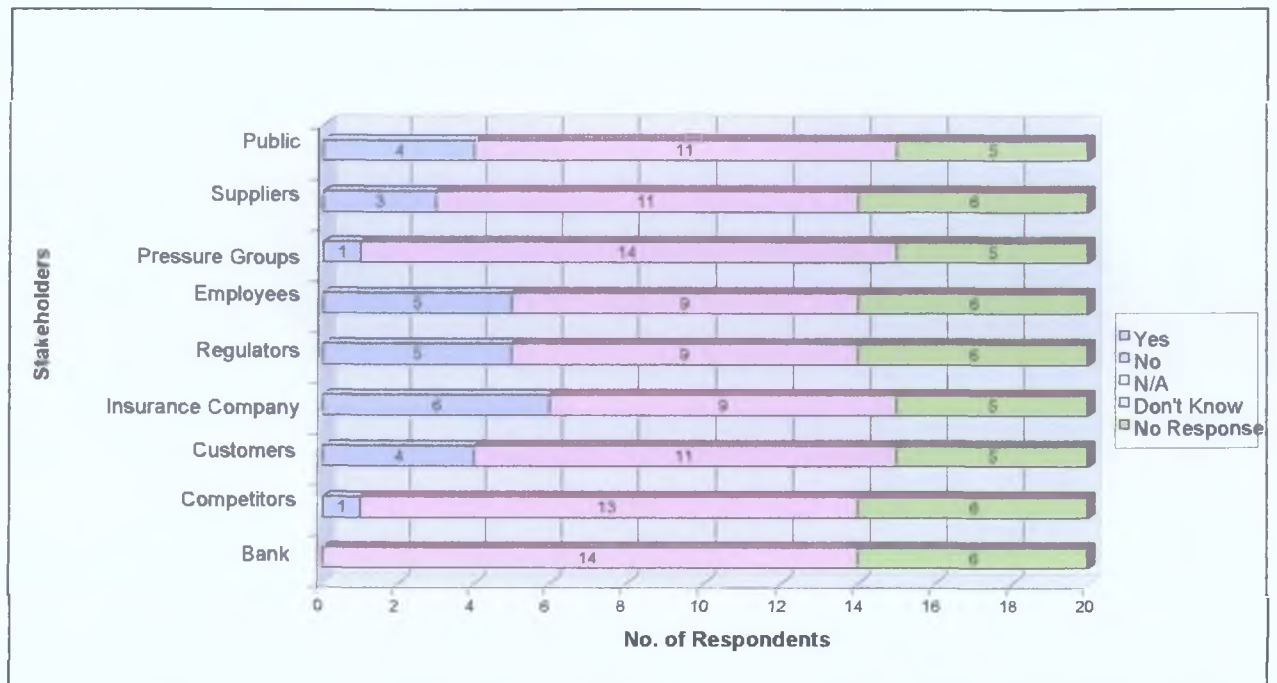


As noted in a study on “SMEs and Environmental Management Systems” by James Colthurst, businesses who implement environmental management systems generally have a quality system already in place and are therefore familiar with the system of plan, do, check, act.

Colthurst further reported that businesses with a quality management system in place also find the environmental management system easier to implement than those businesses that attempt to implement an environmental management system from scratch.



**Figure 4.14 Number of retail outlets approached by stakeholders for environmental information**



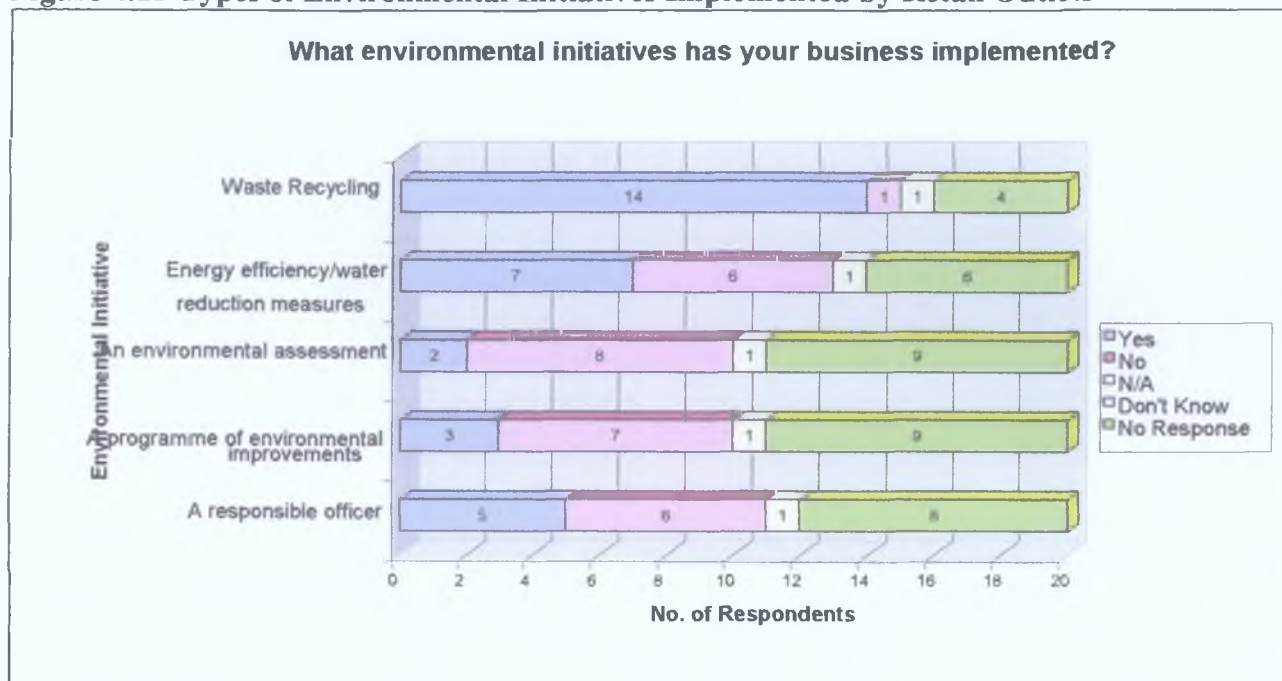
It is evident from fig that environmental information is not generally sought from retailers.

From those who responded the insurance company seems the most likely to request environmental information with regulators and employees following and the public and customers after that. It is of little surprise that the banks have never requested environmental information from those surveyed, as environmental information has little relevance to business transactions with the bank.

Out of those surveyed 5 did not wish to respond to this question.

It is of some concern that regulators have not sought environmental information from retailers.

**Figure 4.15 Types of Environmental Initiatives Implemented by Retail Outlets**



From those surveyed, 14 retail outlets have undertaken to recycle their waste making it the most popular environmental initiative that retail outlets have implemented. This is followed by 7 retail outlets implementing energy efficiency/water reduction measures and 5 retail outlets designating a responsible officer for environmental matters.

Out of the five businesses that designated a responsible officer, two of the business had also implemented four of the other initiatives listed above. The remaining three businesses with a responsible officer were also focused on the waste recycling initiative and the energy efficiency/water reduction measures.

A breakdown in the number of businesses that were focused on energy efficiency as opposed to water reduction measures would have been useful.

### 4.3.1 Waste Management

**Figure 4.16** Number of retail outlets that generate specific waste streams and waste management options chosen



Fig 4.16 combines the use of an area graph and bar graph to demonstrate the number of retail outlets with the waste streams listed and the disposal routes chosen for such waste.

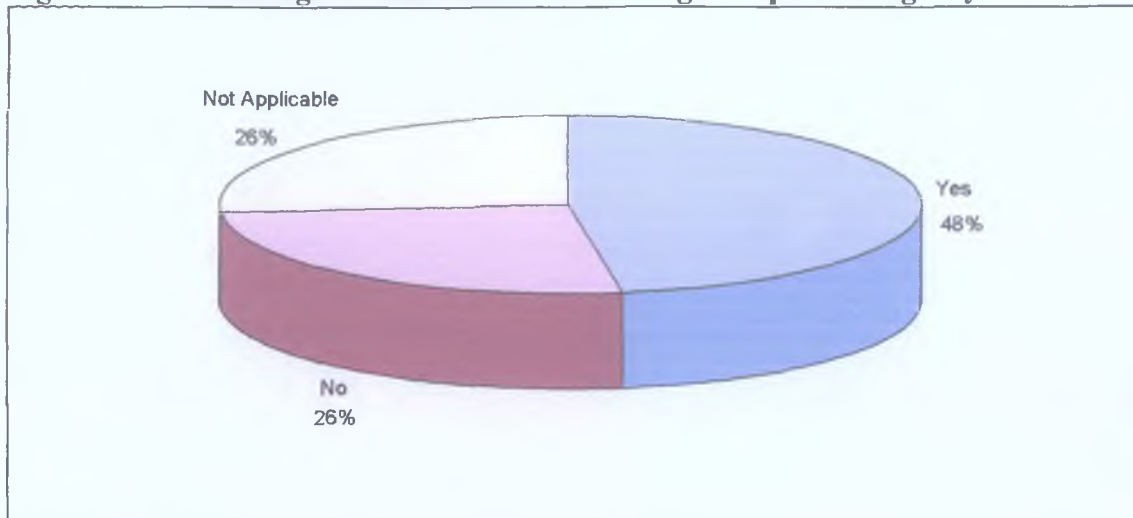
The area graph displays the results of the following three questions asked;

- 1- Does your retail outlet generate office waste?
- 2- Does your retail outlet generate canteen waste?
- 3- Does your retail outlet generate hazardous waste?

From the area graph above it is clear that 13 of the respondents generated all three waste types.

The bar graph displays the results of the disposal options chosen by retail outlet, when those surveyed were asked to state the disposal route chosen.

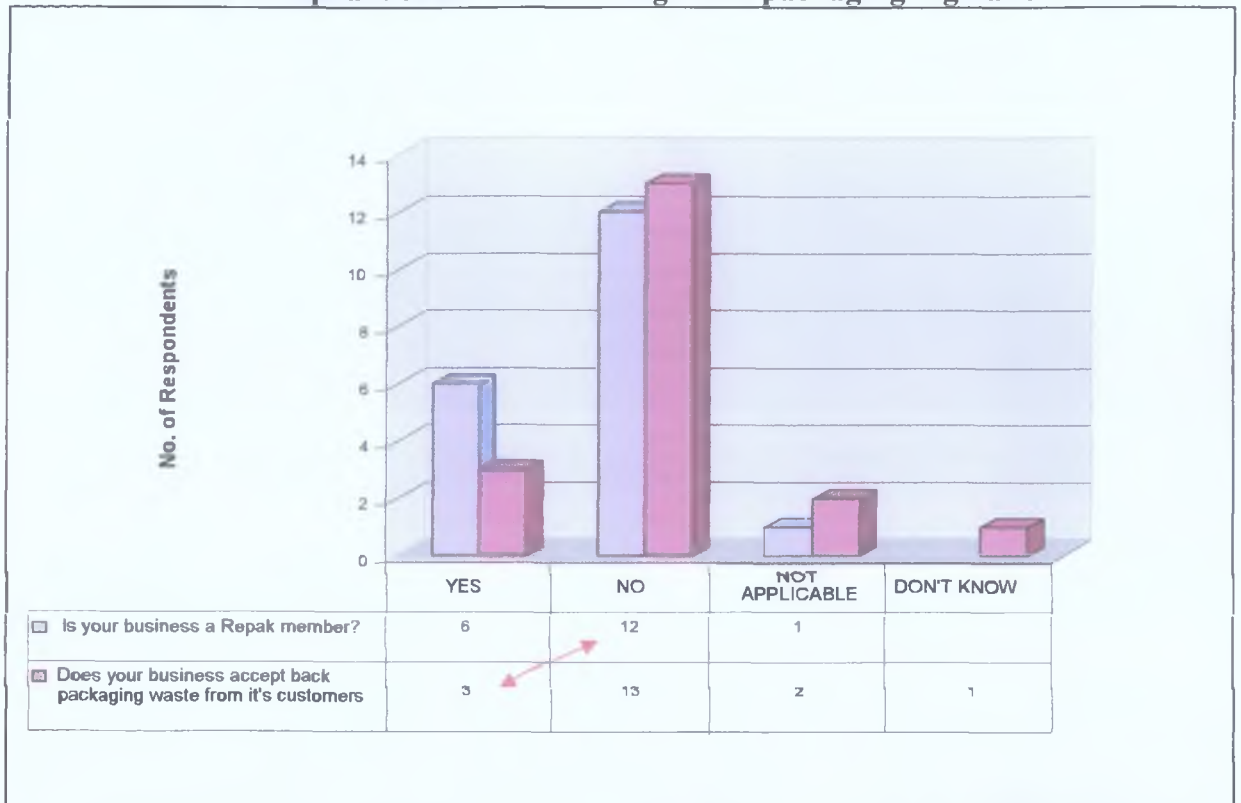
**Figure 4.17 Percentage of retail outlets that charge the plastic bag levy**



48% of businesses charge the plastic bag levy while 26% do not. It was found from further questioning that businesses who do not charge the plastic bag levy absorb this charge into their general operating costs.



**Figure 4.18 A Comparison of retail outlets who are Repak members and those that are Self Compliant under waste management packaging regulations 2003**



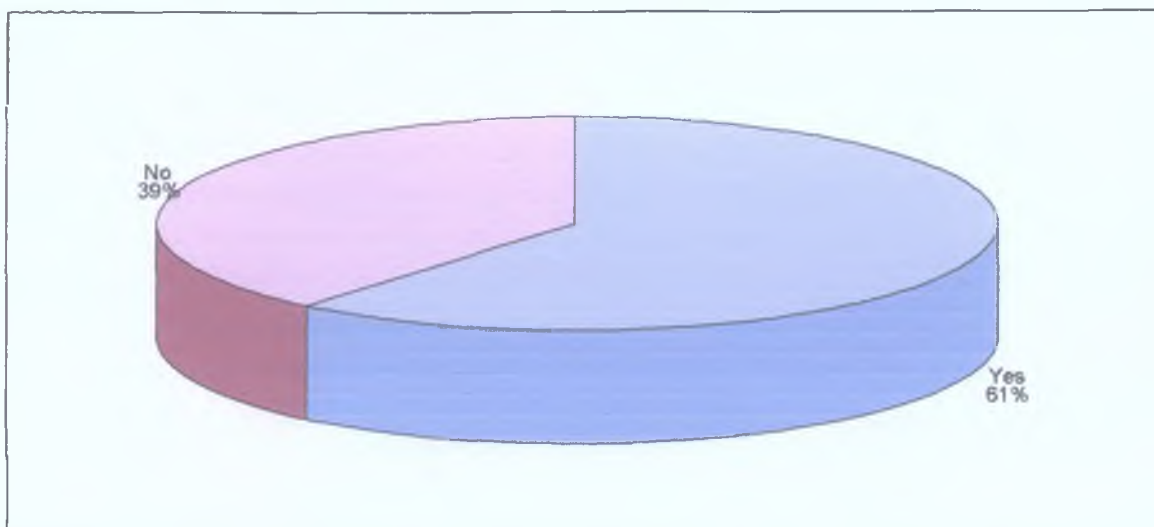
For ease of comparison the results from the following two questions were combined on the one graph.

- 1) - Is your business a Repak member and
- 2)- Does your business accept back packaging waste from customers.

In figure 4.18 Retailers who are not Repak members must be self compliant or fall below the threshold of generating over 25 tonnes of "specified packaging waste" i.e. waste aluminium, fibreboard, glass, paper, plastic sheeting, steel, and wood, in a calendar year and who has an annual turnover of more than €1 million

It is interesting to note that from the 12 businesses that are not Repak members only 3 accept back waste packaging from customers.

**Figure 4.19 Percentage of retail outlets with recycling disposal points for the waste that is going to be recycled?**

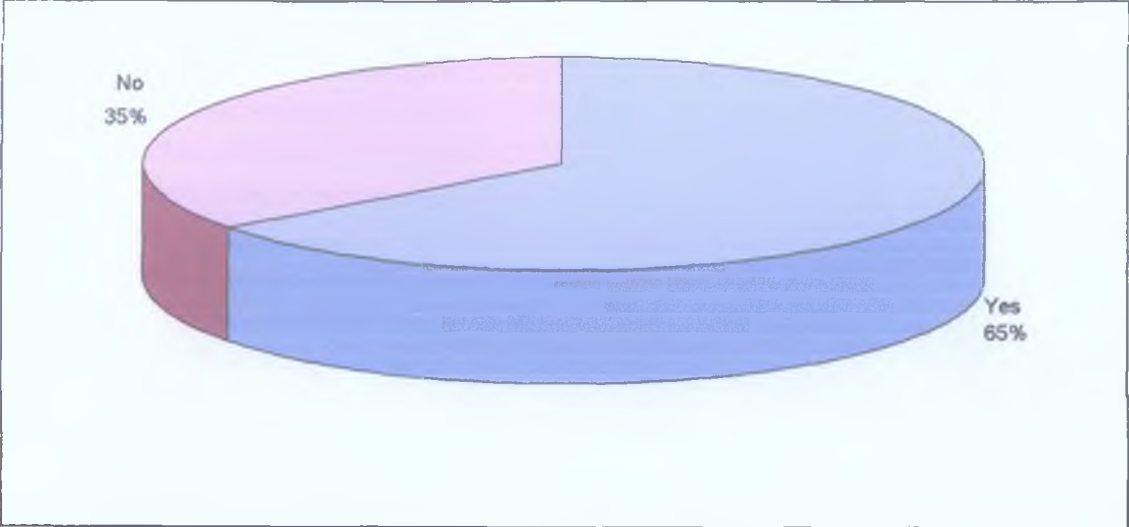


61% of businesses have a dedicated recycling point for recycled waste while 39% do not.

The question “In your opinion are your products heavily packaged?” was asked within the questionnaire.

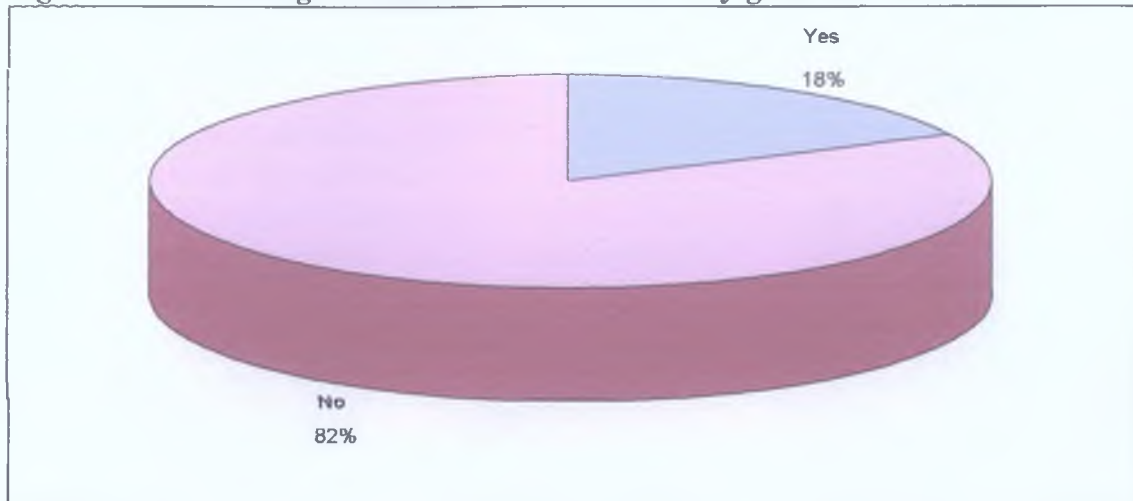
This question is extremely subjective, what one person considers lightly packaged another may consider heavily packaged it served as no addition to the study.

**Figure 4.20 Percentage of businesses that re-use their packaging waste**



The majority of businesses surveyed, 65% reused packaging.

**Figure 4.21 Percentage of businesses aware that they generate wastewater**



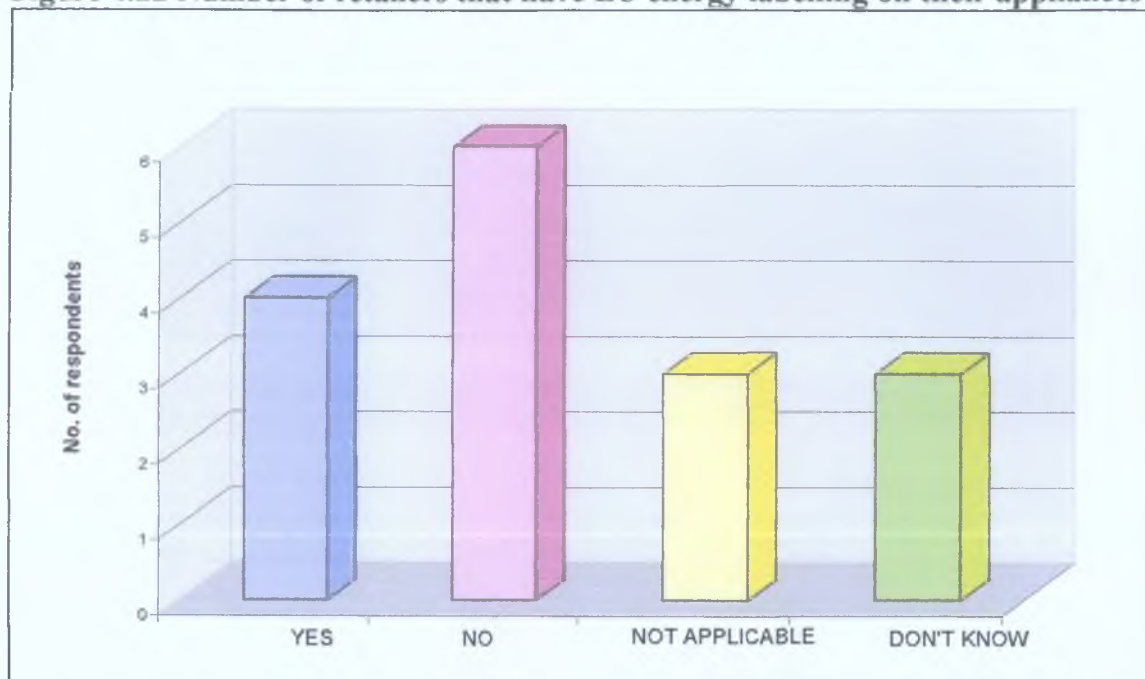
The use of the term liquid waste as opposed to waste water may have caused confusion for some of those surveyed. The term liquid waste was used to prompt those being surveyed to think broadly of all wastes of a liquid nature being generated.

All businesses that have a toilet have a wash hand basin. Therefore all businesses that have employees that wash their hands generate wastewater.



### 4.3.2 Energy Management

Figure 4.22 Number of retailers that have EU energy labelling on their appliances

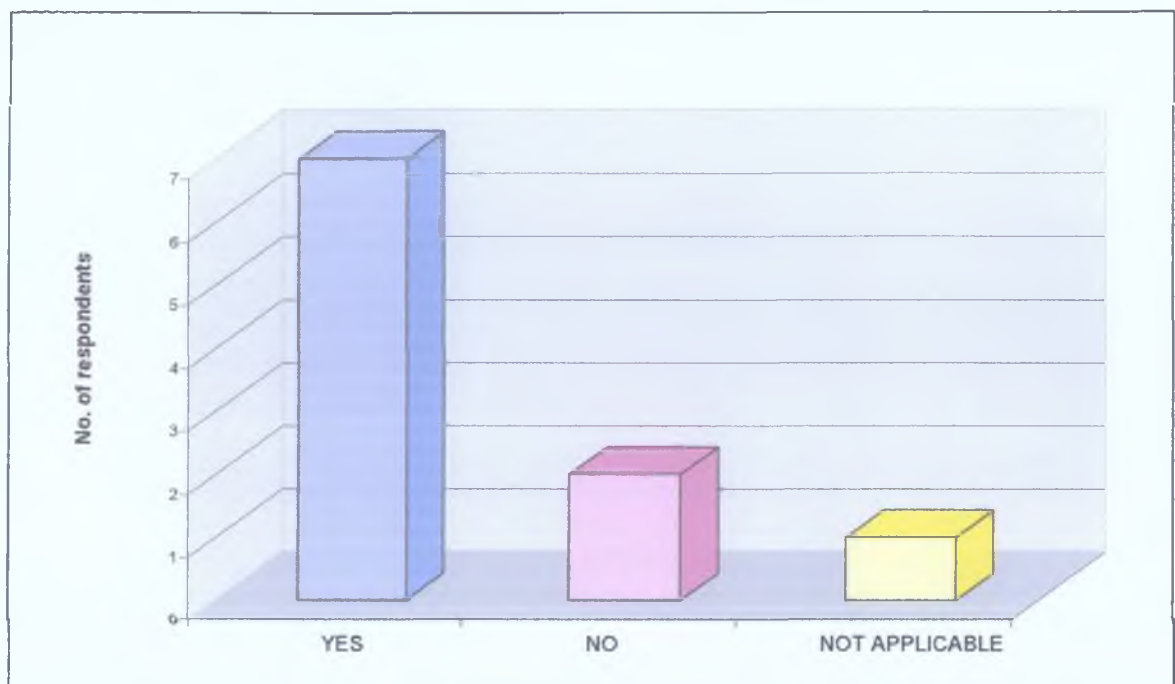


Only 4 respondents had appliances that had the EU energy labelling compared to the 6 that didn't. 3 of the respondents were not aware that EU energy labelling is applicable to everyone as it equates to reduced energy consumption and therefore savings to be made.

Research shows that energy consumption could be substantially reduced level improving the technical efficiency of products and the way that consumers use them.

An EU-wide appliance labelling scheme is gradually being introduced. Such schemes are important to overcome lack of awareness among consumers. The underlying trend is for energy consumption to increase due to increasing numbers of households and appliances. Particular increases are seen in cooking, lighting and heating.

**Figure 4.23 Number of retail outlets that try to minimize energy consumption**



While figure 4.23 shows that 7 of those surveyed try to minimize energy consumption the previous graph contradicts this statement as only 4 retail outlets use EU energy labelled appliances. This suggests that those surveyed are making efforts to minimise energy consumption through minimising the use of appliances and turning off power when the appliance is not in use.

### 4.3.3 Purchasing

Figure 4.24 A Comparison of trends in supplying environmentally friendly products and perceived demand.

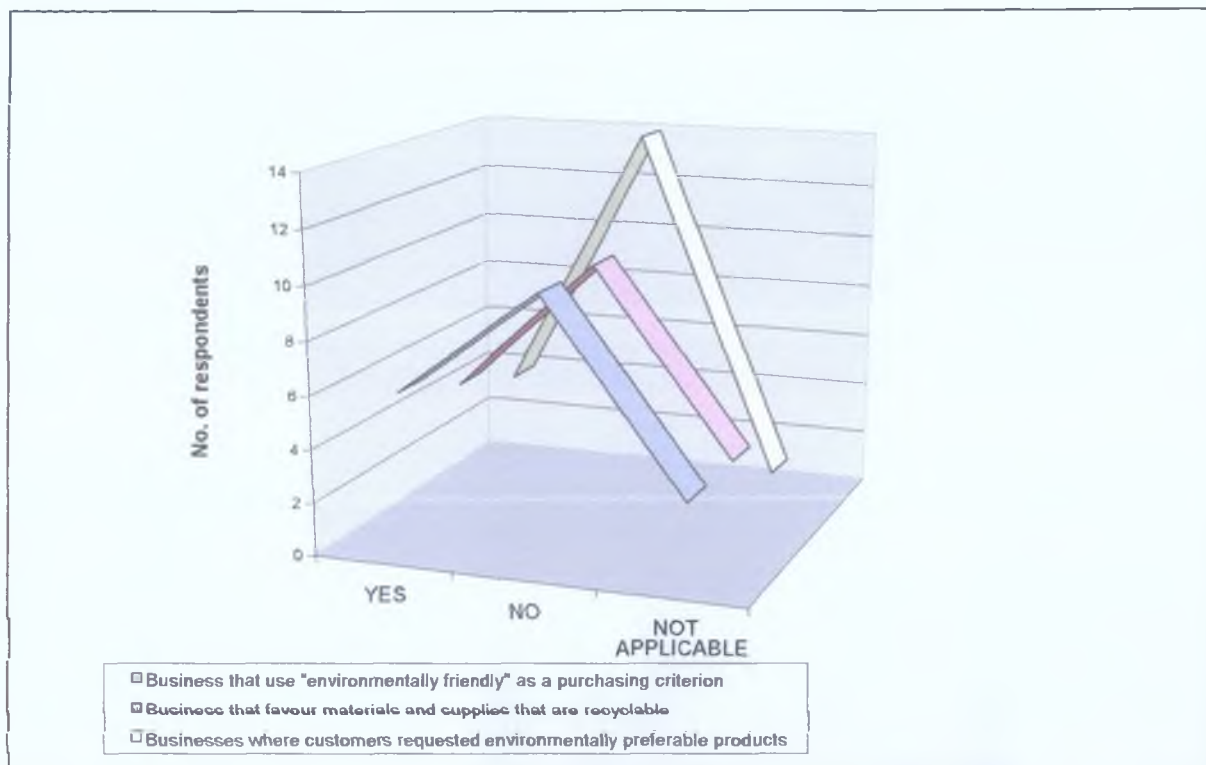


Fig enables a comparison to be made in the results from the following three questions;

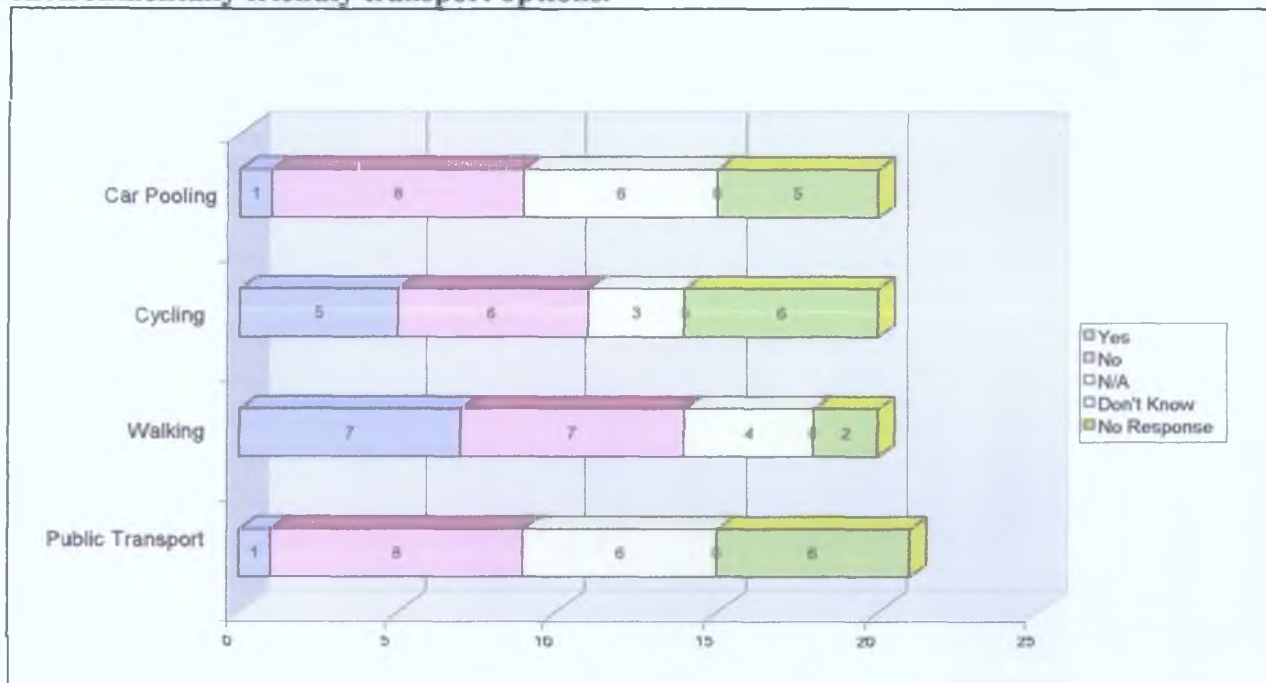
1. Does your business use "environmentally friendly" as a purchasing criterion?
2. Do you have a purchasing policy that favours supplies and materials that are recyclable?
3. Has your business ever received requests from customers to stock environmentally friendly products?

A correlation exists between the number of respondents who did not choose environmentally friendly as a purchasing criteria and did not have a purchasing policy that favoured supplies or materials that could be recycled.

It is evident from figure 4.24 that retailers do not include environmental considerations into their day to day purchasing activities, whether it is purchasing goods for their own business use or for sale to customers.

It is clear from the graph that only 5 of those retail outlets surveyed were requested to stock environmentally friendly products. This is a possible reason as to why environmental considerations were not taken into account

**Figure 4.25 The number of retailers that encourage employees to take environmentally friendly transport options.**

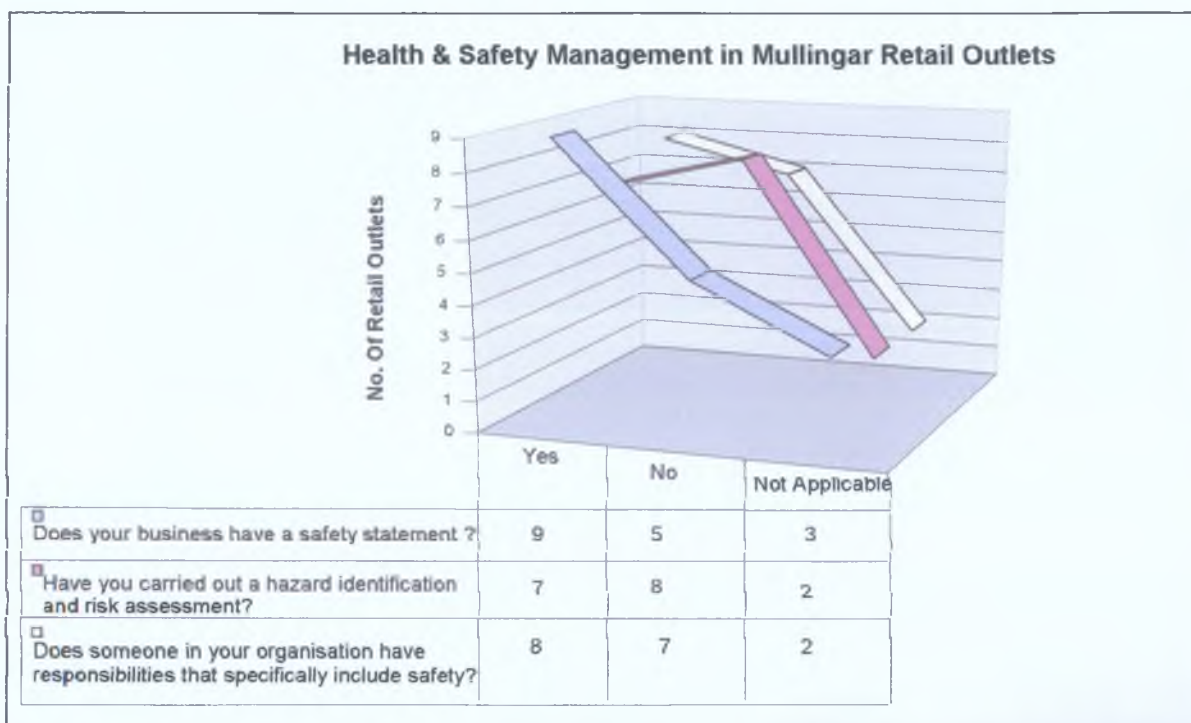


The majority of respondents did not encourage their employees to use public transport due to the lack of public transport in existence. Walking was encouraged however this was seen as exercise rather than a mode of transport.



#### 4.4 Health & Safety Management

Figure 4.26 Health & Safety Management in Mullingar Retail Outlets



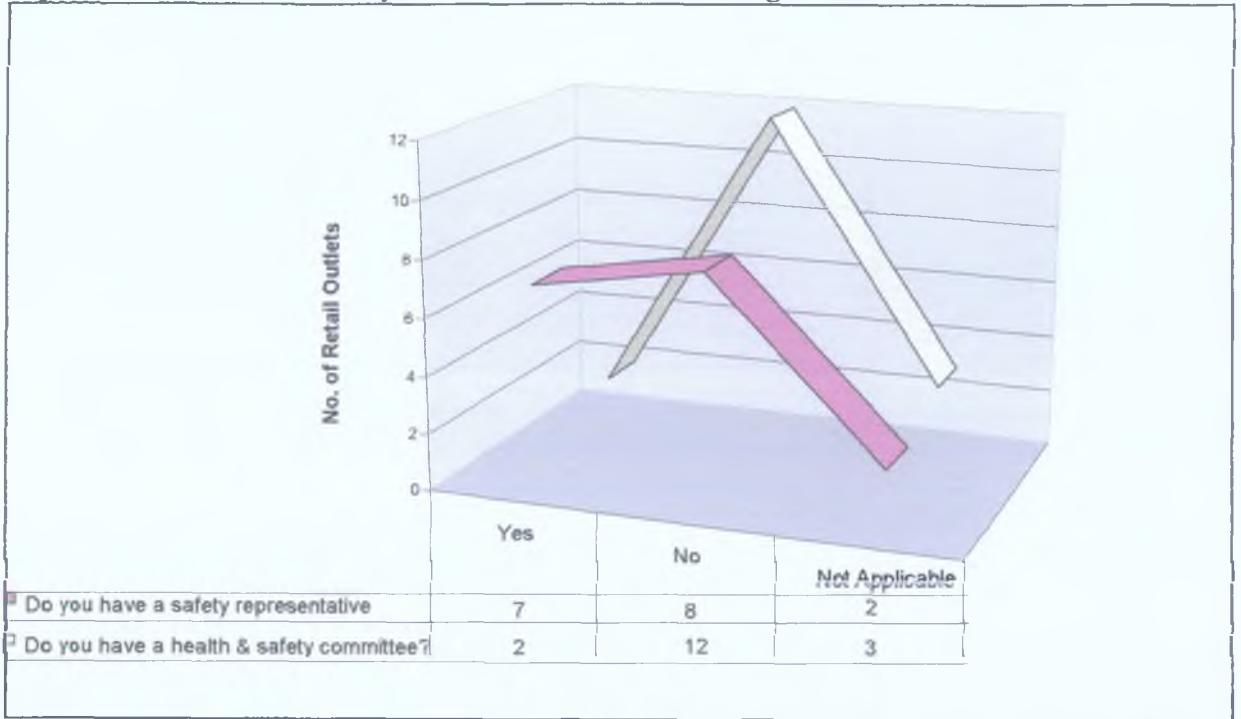
A safety statement is a legal requirement of the Safety, Health & Welfare at Work Act, 1989. The safety statement is essentially a simplified safety management system.

The core of the safety statement is the identification of work related hazards and an assessment of the risk associated with that hazard.

Therefore in order for a business to have a safety statement that complies with the 1989 Act it must have completed a hazard identification and risk assessment.

It is interesting to note that out of the 9 retail outlets that responded “yes” to having a safety statement, 7 had carried out a hazard identification and risk assessment. 3 of the retail outlets surveyed were of the opinion that the requirement to have a safety statement did not apply to them.

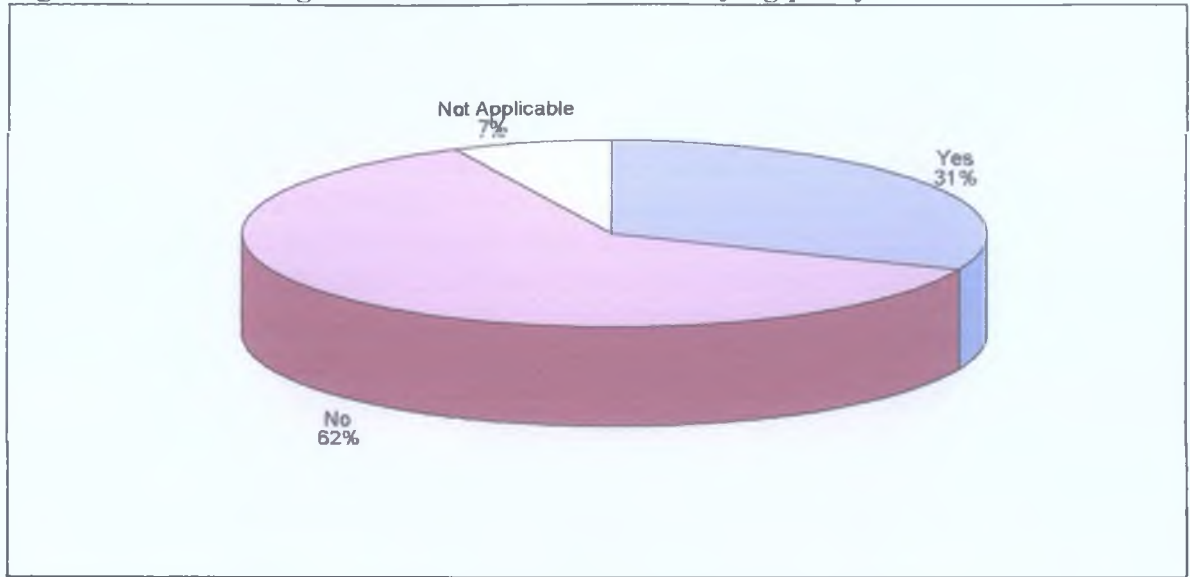
**Figure 4.27 Health & Safety Communication in Mullingar Retail Outlets**



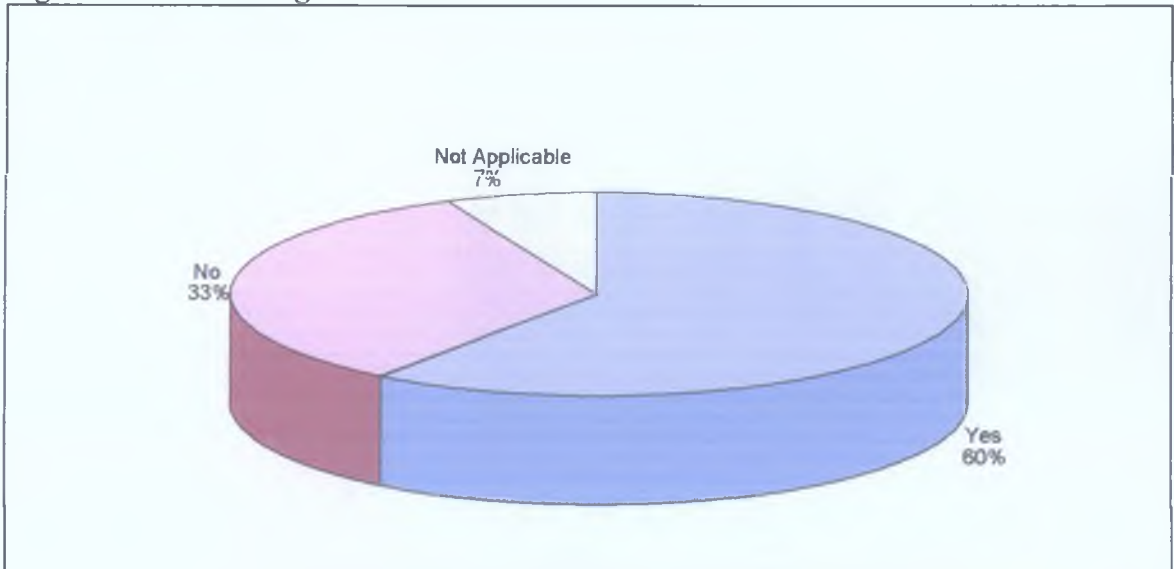
Businesses that facilitate communication of safety concerns of employees help improve the safety culture within the organisation.

While businesses are not legally obliged to have a safety representative, the 1989 act provides for elected safety representatives. Safety committees tend to be present in larger organisations where safety representatives from different areas within the work place could meet and discuss any safety or health concerns they may have. It is expected to find the presence of more safety representatives than safety committees given that it is SMEs being surveyed.

**Figure 4.28 Percentage of business with an anti bullying policy**



**Figure 4.29 Percentage of businesses with a Fire Plan**



**“Have you or any of your employees been off work, unable to perform normal work duties, for more than 3 days as a result of a work related incident?”**

17 businesses replied “No” to this question while four businesses did not respond to this question at all.

**“Have you heard of the Health and Safety Authority?”**

17 businesses heard of the Health and Safety Authority, 1 business had not and the remaining three businesses completing the questionnaire did not respond to this question.

**“Have you ever contacted the Health & Safety Authority?”**

2 businesses had made contact with the Health & Safety Authority however the majority of 16 businesses had not. Two of the businesses completing the questionnaire did not respond to this question.

With regard to Health & Safety Authority inspections of business completing the questionnaire, three of the businesses had been inspected while the remaining 15 had not.



## CONCLUSION

Many definitions have been used in studies to date, for the term SME. This makes comparing studies difficult.

However with regard to smes, it is not the degree of impact from individual enterprises that is of concern but the cumulative environmental impact of such enterprises. In order to establish smes contribution to environmental degradation, their impacts need to be quantified.

There is a lack of quantitative information on the environmental impacts of the retail sector.

A report in UNEP publication "Industry and the Environment" Vol.26 No.1 January-March 2003 entitled "Shopping for a better world: sustainability and retailing" reports on the practical steps that have been taken in the retail sector towards sustainability. While it is undeniable that the article serves as more of a marketing platform for each retailer it does serve as a clear reminder of the opportunities out there for environmental and social improvement within retail outlets in Ireland and the UK.

It is also further proof that the large organisations are far more aware than the SMEs of the environmental and cost benefits that environmental management provides.

The best practices demonstrated by the retail chains involved in the discussion were CSR and the use of eco-labels. There is little mention of the implementation of an EMS in the retail stores except for Kesko, a Finnish retail chain. Musgraves covers environmental training and states there will be further rollout of there environmental training programme in 2003-2005

While the larger retail organisations recognise the benefits of environmental, health and safety management and the competitive advantage it can bring, small to medium sized

enterprises do not allocate the resources financial and human to these areas of concern this could be from a lack of awareness or resource constraints.

While it is mandatory for all businesses to have a safety statement it does not necessarily mean that all businesses comply with this piece of legislation or are even aware that it exists. It is clear that while legislation is effective when implemented, it is difficult to implement. Voluntary measures are more favoured and seen as the way forward by the European Commission.

From the results in Chapter \* it is evident that retailers are confusing waste management with environmental management. High levels of waste management were noted amongst retailers. This could be attributable to one or all three of the following activities; 1) the “Race Against Waste Campaign”, 2) increased waste disposal charges, landfill levies or 3) waste management “packaging” regulations 2003.

As stated by Hillary, “it is often difficult to establish a clear and direct relationship between specific public policies and EMS uptake.” While this is a reference to the uptake of Environmental Management Systems it is equally applicable to waste management.

“acting in a responsible way has to be profitable, either directly or indirectly, or motivation is weak.” Kesko, Finland

There are no established environmental policies relating to sustainability in relation to small – medium sized enterprises other than those of Enterprise Ireland which relate only to small –medium manufacturing industries which are members of the organization. In order for stewardship of the environment to truly involve all stakeholders we need to expand the general interpretation of SMEs to include retail, wholesale, services and financial sectors along with the position assumed by manufacturing industries. To achieve this both environmental concerns and sustainability need to be addressed in a policy

relating to small to medium sized enterprises in the broader sense. A lack of information exists regarding the impact of SMEs on the environment and regarding health and safety issues. Sector specific data needs to be collected and analysed

*. . . (in Ireland) . . . concerning sustainable development there are policies but there is no action, there are plans but there is no implementation. Ireland is not doing much on sustainable development.* Dr Hans van Weenan of the United Nations Environment Programme – Working Group on Sustainable Product Development, stated that he had the impression that:

This makes it all the more necessary for Ireland to further integrate environmental concerns into all policy areas and economic decisions. Local Agenda 21 should involve the whole community, its local elected members and other community and representative groups. Ideally there will be a broad collaborative approach guided and facilitated by local authorities. This will require the provision of information and raising awareness, public consultation and feedback, partnerships between authorities, businesses and communities, and a continuous monitoring of progress towards sustainability.

Local agenda 21 stresses the importance of working in partnership with key groups.

Many groups and organizations already exist within the local authority area; these can form a basis for involving the entire community in the consultation process. Chamber of Commerce, IBEC, SFA, Community development orgs, county development boards, enterprise Ireland etc.

“In the UK many smaller firms are confused by the wide range of support organisations, initiatives and provisions. In fact it appears that uncoordinated activity has often been counter-productive through its ‘initiative fatigue’ effect. In addition the passive help provided has often not been enough to kick start improvement programmes. The way

ahead, therefore, has to involve better co-ordinated, better directed and more active support and training provisions.”

*“Professional Education and Training for Sustainable Development in the UK and the Netherlands”* M. Hilton, E. Archer and P. van Nierop, ECOTEC Research and Consulting Ltd., Birmingham, U.K. European Foundation for the Improvement of Living and Working Conditions, 2000

Retail outlets do not operate in isolation therefore a co-coordinated strategy that incorporates the management of certain EHS issues on a supply chain basis is need. E.g. the regulatory requirement that cement bags be a certain weight to reduce manual handling injuries in the construction sector .

Decoupling of environmental degradation and resource consumption from economic and social development requires a major reorientation of public and private investment towards awareness strategies to combat the degree to which we are consuming alongside new, environmentally friendly technologies. The sustainable development strategy should drive policy makers and public opinion for changes in corporate and consumer behaviour”

Achieving this requires that economic growth that supports social progress and respects the environment, that social policy underpins economic performance, and that environmental performance is cost effective.

“A Sustainable Europe for a Better World”: A European Union Strategy for Sustainable Development



## RECOMMENDATIONS

Even though employers are largely compliant with regard to completing a safety statement and hazard and identification they are failing to gain employee ownership of the safety management system. This situation will not help to improve employees attitudes towards health and safety or the company's culture towards health & safety

Grants are available from Enterprise Ireland for EMAS implementation

In order to overcome some of the resource constraints that affect smaller organisations, support may be offered by Project Acorn delivery partners such as consultancies and other support bodies.

Information needs to gathered on SMEs this information needs to focus on SMEs impact on the environment by sector. More information provides the basis for a more solid foundation for a solution.

County Councils should facilitate the provision of environmental awareness for businesses e.g. the employment of environmental awareness business officer or a more balanced awareness programme that includes business.

A greater use of existing platforms of communication i.e. county councils promoting awareness at SFA meetings etc.

Collaboration between business groups, local authorities and chamber of commerce is required to ensure a more tailored and effective support structure for environmental, health and safety programmes i.e provision of mentoring or support

Further studies into the actual costs involved in environmental management i.e. costs of waste and costs of employing consultants, time spent etc. to get a clear picture as to the barriers that exist.

Business development boards that give advice to business start up projects do not provide advice on environmental health and safety management i.e costs for wastewater, waste disposal and energy consumption as well as the costs saving that can be made through measures to reduce impacts down the line and that can be implemented from the start.

Information dissemination from government bodies to those in business – links to studies and guidance

It is worth noting that certain regions, countries and industrial sectors offer models that can be used to improve the overall effectiveness of environmental education, training and support throughout the EU. Such 'good practice' models should be investigated further to allow more rapid progress towards sustainable development.

Most environmental support tends to be passive (informing rather than directly assisting), often due to budget constraints. As noted above, in the UK many SMEs are confused about the roles of the various players and the value of the provisions. This seems to be less of a problem in the Netherlands.

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