

19 TRENDSETTERS

The following case studies aim to highlight the positive and successful projects that have been achieved in all areas of waste management through the country.

Waste Prevention & Minimisation for Business



In Dún Laoghaire-Rathdown County Council (DLRCC) a full time Green Business Officer has been appointed, whose sole function is to raise awareness and provide support to businesses in the area and who has been carrying out this function by usefully applying a variety of tools and instruments. A number of focused and worthwhile events have been facilitated from 2002 – 2004. An event specific to hospitals was held in November 2002 where information was presented and staff from hospitals could discuss common issues of concern and potential solutions. Such events provide practical information from external experts as well as motivational good practice case studies for local businesses and SMEs. The DLRCC website also provides a wide range of useful and timely information with regard to the most pressing environmental issues for SMEs in the Region. It also provides useful links to external sources of advice and support from, for example, EPA, ENFO, Enterprise Ireland, Envirowise etc.

Part of the remit of the Green Business Officer is to work in co-operation with businesses, business associations, chambers of commerce, elected representatives and recycling companies in the development of a Green Business Network. This group aims to bring businesses and other stakeholders together to share experiences and allow networking to find environmental solutions for the benefit of individual companies, sectors and the Region a whole. This is an excellent example of a worthwhile co-operative approach to stimulating beneficial environmental change and is based on best practice principles. The Green Business Officer also visits individual companies, outlining their

requirements in legislation, giving advice, encouragement and support. Companies can be assisted, free of charge, with a waste review, setting up a management system, talking to staff, providing advice on recyclers, composting, waste handling equipment, etc. According to the *Green Business Programme Report 2003*, 28 companies received a full waste consultation in 2003 and 136 business were visited.

Kerry County Council - EcoSense ANSWER Project

The ANSWER (A New Solid Waste Environmental Response) Project was a three year demonstration project funded under the 1999 EU Life Programme. The aim was to develop a new waste management programme for South Kerry. The project required Kerry County Council to work in cooperation with individuals, local communities, commercial sector and non-government organisations to achieve a number of aims.



- To reduce municipal solid waste arisings by 25% by waste avoidance and minimisation measures
- To identify sustainable outlets to divert 60% of the remaining municipal solid waste from landfill by waste recycling and recovery
- To identify appropriate supporting financial instruments
- To assess employment potential of local waste recovery/treatment facilities.

The project programme involved formation of a working group to oversee the project, a public awareness campaign to run the duration of the project, information and advice centres, a central composting scheme to be established in Killarney, on board weighing and identification system on all collection vehicles and identification and development of suitable markets for the recovered/recycled waste.

The project succeeded in raising the awareness of the waste issue among the general public and the commercial sector and increased the diversion rate of waste from landfill. Over the three year period the rate of waste disposal decreased by 12.5% in the project area and the tonnes of material recycled in the project area increased from 945 tonnes in 1999 to 5472 tonnes in 2002.

Integrated Household Waste Recycling



Two Local Authorities have taken a lead in terms of household waste recycling, these are Galway City Council and Waterford County Council. Galway City Council has approximately 18,000 household customers, and since 2001 has implemented a 3-bin collection scheme helping the city reach just over 51% household waste recovery.

Waterford County Council is the first Local Authority to offer a 3-bin system to its entire catchment of household customers, including rural areas. The dry-recyclables collection has been underway since 2003, and the organic waste bin was introduced in 2004. Composting is carried out at a facility established by Waterford City Council (who also have a 3-bin household waste service) operated by a private company. Recycling Centres have also been set up at Tramore, Dungarvan and Lismore for drop off of recyclable bulky wastes.

These successful schemes have the following common characteristics:

- Schemes were rolled out with the support of a team of awareness officers – in Galway 10 staff called door to door to explain the new system before the phased roll-out of bins. Support is ongoing and information campaigns relate the performance back to the public

- Collections are alternated (bin collections are fortnightly) to reduce overall collection costs
- The local authorities have benefit from partnership with private waste industry (sorting and baling dry recyclables for both, and composting in the case of Waterford)
- Customer satisfaction is high, but regulation and bin-inspections are still required to ensure the householder is using the right bin. Non-compliant bins are not collected.

Use-Related charging

The changeover to use-related charging in 2005 has created new challenges for the local authorities and waste management companies. A number of collectors – such as Cork County Council, Dun Laoghaire Rathdown County Council, Mulleady (Longford) and Mr. Bin Man (Limerick) have already proven the effectiveness of these systems.

Mc Elvaney Waste in County Monaghan equipped its vehicles and bins with new electronic systems and commenced a 'pay-by-weight' system for its 6,000 household customers from January 1st 2003. Two wheelie bins are employed – the residual bin is collected up to 40 times per annum (depending on how often it is filled by the householder). A flat rate of €79 is charged every six months, with an additional charge of €11.50 per 100Kg of waste presented. The dry-recyclables bin is collected monthly.

Since the introduction of the service, the weight of waste presented for disposal has dropped from by 40% to 0.7tonnes/ household. About half of the weight has transferred to the recycling bin, with use of bring banks (for glass, textiles, cans), home composting, and waste prevention assumed to be taking the balance. Furthermore the scheme has proven popular with householders after a few teething problems were addressed.

Green Waste Composting

A number of local authorities have been successfully composting green waste for several years. The system offers a relatively low-cost option that diverts substantial amounts of waste away from landfill. With a growing urban population and increased attention to landscaping and gardening, the

quantities of garden waste will continue to grow in all counties. Successful schemes are operated by Cork City Council, Kerry County Council, South Dublin County Council, Limerick County Council as well as a growing number of private facilities. The facilities typically comprise a concrete composting slab with leachate collection, and machinery such as windrow turner, shredder and loading shovel. With Irish green waste enjoying low levels of contaminants, the market potential for the finished compost is healthy.



C&D Waste Management Facility

A number of private C/D waste recycling facilities have been put in place that demonstrate the huge potential for recycling of this major waste stream. In the Greater Dublin Region, a range of facilities are in operation achieving high levels of materials recovery. Companies such as A1 Waste, Roadstone, and Marrakesh are all producing crushed concrete for use as engineering aggregate while recovering other materials such as metals and timber for recycling.

WTE and District Heating

(Dublin City Council Poolbeg Waste To Energy (WTE) project)



The Dublin Local Authorities are keen to tap into the potential environmental benefits offered by the energy created from waste to energy plants. The Poolbeg WTE plant will generate up to 35MW of electrical energy for export to the national grid, but further benefits may be possible. In 2003 Dublin City Council sought expressions of interest from interested parties who could potentially become Service Providers to supply heat energy to customers

in Dublin City and so supervise the propagation of District Heating in the City. Discussions have taken place with a number of potential customers in new developments proposed in the city. These have focussed on concentrated, new-build development, which is most suited to District Heating, particularly in the first few years of network development. Utilisation of thermal treatment facilities as sources of heat for district heating energy supply is well established in certain European countries, most notably Denmark and the Scandinavian countries. This is largely due to the historical support for the development of district heating networks locally and nationally. A large district heating network can ensure that there is a steady demand for heat. This can allow power stations to achieve a high level of overall energy efficiency through combined heat and power (CHP) operation. In addition, where district heating is practical to implement, there can be tangible benefits to local communities served by the plant. District heating can be applied in Ireland even though our climate is relatively mild compared to Denmark and Northern Europe where district heating is widespread.

Market Development

(Midlands Region – Sustainable Design of Recycling Centres)

Developing markets for materials recovered from waste is a key requirement for successful recycling. In a bid to demonstrate what can be achieved with 'waste' materials, the Midlands local authorities have decided to put some novel ideas into place in new recycling centres being developed under the Midlands Regional Waste Management Plan. With the help of grant aid from the EPA Cleaner Greener Production Programme, a number of innovative design initiatives are planned for the new Recycling Centres in Mullingar and Edenderry.

- Recycled glass for paving surfaces
- Asphalt plantings in the bituminous pavement
- Recycled crushed concrete in foundations
- Compost from household food and garden waste in landscaping.

In addition, a range of other eco-friendly features including renewable energy, rainwater harvesting and sustainable building concepts

are being used in the design. The project is led by Offaly and Westmeath County Councils.

Regulation and Enforcement – Clare

Clare County Council have a dedicated multi-disciplinary Enforcement Team/Unit, which is led by a Senior Executive Engineer. The Unit has been established, with the aid of funding from the Environment Fund, to police and prosecute breaches of law and to enforce waste management legislation throughout the county.

The enforcement team work in close co-operation with a wide range of organisations which include the Gardaí, Coillte (and other forestry owners), town councils, neighbouring Local Authorities, EPA Office of Environmental Enforcement, Trade Representative Associations, Tidy Towns Committees, lobby groups and the local community.

Activities of the Unit include tracking of suspect vehicle movements, aerial surveys to detect illegal dumping, use of publicity campaigns in local press and radio to step-up enforcement issues, undertaking waste characterisation surveys and placing strong emphasis on the enforcement drive of their ongoing education and awareness campaigns.

The following specific activities are receiving attention by the Team: Littering, illegal dumping, abuse of bring banks, burning and burial of waste, unpermitted waste collection and breach of collector permit, disposal of C&D waste segregation of waste by householders, packaging and plastic bags regulations, farm plastics regulations, export of hazardous wastes and other situation-specific regulations.

The Enforcement Team has had a positive impact to date on restricting unauthorised waste movement and in promotion and emphasis of environmental and educational campaigns.