



Towards a Resource Efficient Ireland  
Ireland's National Waste Prevention Programme

*Annual Report 2015*

## ENVIRONMENTAL PROTECTION AGENCY

The Environmental Protection Agency (EPA) is responsible for protecting and improving the environment as a valuable asset for the people of Ireland. We are committed to protecting people and the environment from the harmful effects of radiation and pollution.

### The work of the EPA can be divided into three main areas:

**Regulation:** *We implement effective regulation and environmental compliance systems to deliver good environmental outcomes and target those who don't comply.*

**Knowledge:** *We provide high quality, targeted and timely environmental data, information and assessment to inform decision making at all levels.*

**Advocacy:** *We work with others to advocate for a clean, productive and well protected environment and for sustainable environmental behaviour.*

## Our Responsibilities

### Licensing

We regulate the following activities so that they do not endanger human health or harm the environment:

- waste facilities (*e.g. landfills, incinerators, waste transfer stations*);
- large scale industrial activities (*e.g. pharmaceutical, cement manufacturing, power plants*);
- intensive agriculture (*e.g. pigs, poultry*);
- the contained use and controlled release of Genetically Modified Organisms (*GMOs*);
- sources of ionising radiation (*e.g. x-ray and radiotherapy equipment, industrial sources*);
- large petrol storage facilities;
- waste water discharges;
- dumping at sea activities.

### National Environmental Enforcement

- Conducting an annual programme of audits and inspections of EPA licensed facilities.
- Overseeing local authorities' environmental protection responsibilities.
- Supervising the supply of drinking water by public water suppliers.
- Working with local authorities and other agencies to tackle environmental crime by co-ordinating a national enforcement network, targeting offenders and overseeing remediation.
- Enforcing Regulations such as Waste Electrical and Electronic Equipment (WEEE), Restriction of Hazardous Substances (RoHS) and substances that deplete the ozone layer.
- Prosecuting those who flout environmental law and damage the environment.

### Water Management

- Monitoring and reporting on the quality of rivers, lakes, transitional and coastal waters of Ireland and groundwaters; measuring water levels and river flows.
- National coordination and oversight of the Water Framework Directive.
- Monitoring and reporting on Bathing Water Quality.

## Monitoring, Analysing and Reporting on the Environment

- Monitoring air quality and implementing the EU Clean Air for Europe (CAFÉ) Directive.
- Independent reporting to inform decision making by national and local government (*e.g. periodic reporting on the State of Ireland's Environment and Indicator Reports*).

## Regulating Ireland's Greenhouse Gas Emissions

- Preparing Ireland's greenhouse gas inventories and projections.
- Implementing the Emissions Trading Directive, for over 100 of the largest producers of carbon dioxide in Ireland.

## Environmental Research and Development

- Funding environmental research to identify pressures, inform policy and provide solutions in the areas of climate, water and sustainability.

## Strategic Environmental Assessment

- Assessing the impact of proposed plans and programmes on the Irish environment (*e.g. major development plans*).

## Radiological Protection

- Monitoring radiation levels, assessing exposure of people in Ireland to ionising radiation.
- Assisting in developing national plans for emergencies arising from nuclear accidents.
- Monitoring developments abroad relating to nuclear installations and radiological safety.
- Providing, or overseeing the provision of, specialist radiation protection services.

## Guidance, Accessible Information and Education

- Providing advice and guidance to industry and the public on environmental and radiological protection topics.
- Providing timely and easily accessible environmental information to encourage public participation in environmental decision-making (*e.g. My Local Environment, Radon Maps*).
- Advising Government on matters relating to radiological safety and emergency response.
- Developing a National Hazardous Waste Management Plan to prevent and manage hazardous waste.

## Awareness Raising and Behavioural Change

- Generating greater environmental awareness and influencing positive behavioural change by supporting businesses, communities and householders to become more resource efficient.
- Promoting radon testing in homes and workplaces and encouraging remediation where necessary.

## Management and structure of the EPA

The EPA is managed by a full time Board, consisting of a Director General and five Directors. The work is carried out across five Offices:

- Office of Environmental Sustainability
- Office of Environmental Enforcement
- Office of Evidence and Assessment
- Office of Radiological Protection
- Office of Communications and Corporate Services

The EPA is assisted by an Advisory Committee of twelve members who meet regularly to discuss issues of concern and provide advice to the Board.

# **Towards a Resource Efficient Ireland**

## **Ireland's National Waste Prevention Programme**

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**Annual Report for 2015**



## Acknowledgements

The EPA acknowledges the following for their support in the ongoing development and implementation of the National Waste Prevention Programme in 2015:

- Alan Kelly, TD, then Minister for the Environment, Community & Local Government for providing finance from the Environment Fund and for ongoing support. Also the advice and guidance of his Department staff;
- The National Waste Prevention Committee who have provided their time and collective knowledge to the programme (See Appendix A);
- The Board and staff of the EPA, in particular the Resource Efficiency Unit: Shane Colgan, Jane Brogan, Odile Le Bolloch, Keiron Phillips, Abigail Murphy;
- The many local authority staff who have contributed significantly to the development of the programme;
- The consultants and partners who work with the EPA to progress many of the projects, in particular the Clean Technology Centre at Cork Institute of Technology.

*Cover photo: 'Warehouse of Wonders' at ReCreate, Dublin. ReCreate is a social enterprise that takes surplus packaging & stock from businesses for re-use as art materials. [www.recreate.ie](http://www.recreate.ie)*



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## FOREWORD

The national “waste landscape” has changed significantly in the last 12 months in terms of the economics of waste disposal and recycling, with low commodity prices affecting the market, and the availability of landfill capacity once again causing concern as the economy begins to recover. In addition, the establishment and resourcing of the regional waste structure has added a new dimension to waste prevention, with regions now having additional capacity to promote and support new initiatives. The coordination of such initiatives with the objectives of the National Waste Prevention Programme (NWPP) will add significant value to our collective efforts in waste prevention and resource efficiency.

December 2015 saw the adoption of the EU’s anticipated ‘circular economy’ package. The associated proposed actions can contribute to “closing the loop” of product lifecycles through greater recycling and re-use and bring benefits for both the environment and the economy. Some important features of the package include specific targets for recycling (65% of all waste, and 75% packaging by 2030), as well as special consideration for industrial symbiosis and recovery/re-use projects. The success of these activities will require investment and new imaginative economic instruments to be developed.

The impact of the recent economic crisis is still reflected in lower funding than would be optimal for the NWPP, and ironically, the success of the Landfill Levy has seen the diminution of the Environment Fund suggesting perhaps that a more progressive funding mechanism to support the NWPP needs to be developed.

Notwithstanding the funding challenges, together we have delivered another remarkable year of achievement for NWPP. The programme is now evolving appropriately to encompass activities related to water use, energy use, raw materials consumption, industrial symbiosis and domestic resource exchange. In this way we are realising significant environmental and economic dividends and are increasingly recognising and promoting the associated social and community benefits. In this way NWPP is at the forefront in building our sustainable future.

Finally, I would like to thank my dedicated staff, and our project partners, without whom we would not achieve so much. In particular I would like to pay tribute to the outgoing Chair, Dr Jonathan Derham, whose vision and insight has been fundamental to the development of the NWPP over many years.



Dr Tom Ryan

Chair, National Waste Prevention Committee

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## NWPP HIGHLIGHTS 2015

## BUSINESS

**Green Business**  
**€1.2m of savings**  
**in 29 businesses.**

Resource Efficiency conference.

220 companies engaged since 2011.

Average identified savings €38k

**Savings to date:**  
**€7.9m.**

**Green Hospitality**  
 170 members in 2015.  
 Member hotels...  
 waste ↓ 81%  
 water-use ↓ 40%  
 energy-use ↓ 34%

**SMILE Resource Exchange**

- 1,319 active members
- 5052 tonnes of materials exchanged - value: €1.25m
- Participating in 2 EU funded projects

**54 Green Enterprise Projects**  
 funded since 2012,  
 valued at c.€2.5m

**Smart Farming**  
 650 farmers shared the learnings from 30 on-farm resource efficiency assessments and generated average cost savings of > €5,000/farm.

## HOME / COMMUNITY

**Stop Food Waste**

- 400,000 website hits.
- 11 Stop Food Waste Challenges held, reporting food waste reductions between 35-45%.
- Wasted Food Working Group set up with Bia and Foodcloud

**Community Re-use Network Ireland:**  
 Revival Roadshow, in summer 2015

- 60 workshops held
- Featured on Eco-Eye and Nationwide

21 CRNI members in 2015 - many are social enterprises working with long-term unemployed.

**FreeTrade Ireland:**

- ✓ 12,351 items exchanged
- ✓ 542,000 website hits
- ✓ 161 tonnes waste diverted.

## OTHER NWPP AREAS

## PUBLIC SECTOR

**Local Authority Prevention Network...**  
 31 local authorities grant aid of €217,000 for waste prevention projects and activities.

**Green Healthcare:**

15 road-shows held

Water benchmarks developed for over 60 facilities

Water saving potential of €19,000 identified at 1 facility

15 local authorities directly engaged with the **Stop Food Waste Programme** with all 31 authorities having access to Stop Food Waste resources

**598 tonnes of hazardous farm waste**  
 brought by **4,832 farmers**  
 to **26 collection centres.**

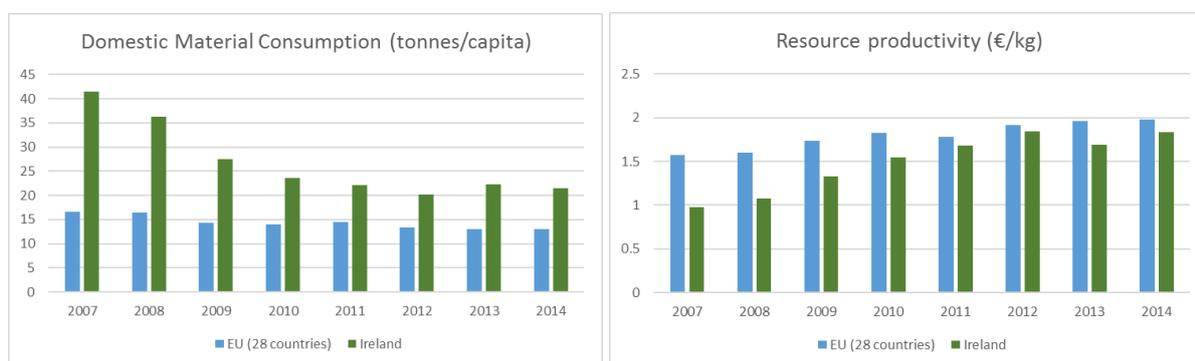
(including... 46t of pesticides; 31t of veterinary medicines; 294t of waste oil; 32t of paints; and 158t of WEEE & batteries)

**Ireland meets EU targets for End-of-life Vehicles, Waste Electronic and Electrical Equipment, Packaging and Batteries & Accumulators**

## 1. INTRODUCTION

In the forty years since the emergence of the waste hierarchy, policy has evolved continuously but ‘prevention’ has always been identified as the most favoured option. In the most recent waste policy developments, prevention (and resource efficiency) continue to be priority actions, and are now formally underpinned by the European Commission’s Circular Economy Package.

In terms of national context, the most recent data from Eurostat indicates that Ireland continues to be well above the EU average for material consumption. Following significant drops during the recession, the rate of material consumption is rising again, although it appears to have decoupled somewhat from GDP growth; giving rise to a welcome increase in resource productivity - see below.



The overall message therefore is that having experienced a welcome reduction in consumption, we must now ensure that even in a strongly growing economy, our consumption rates do not return to their previous unsustainable levels.

### 1.2 Circular Economy

December 2015 saw the relaunch of the European Commission’s Circular Economy Package.<sup>1</sup> The package is structured around two major parts: an *Action Plan for the Circular Economy*, including a list of specific actions; and a set of *revised legislative proposals on waste*.

In summary, this economic model looks to prompt a move away from the prevailing ‘take-make-dispose’ approach which is based on the availability of plentiful and inexpensive natural resources. With increasing risks of resource supply



<sup>1</sup> <http://ec.europa.eu/environment/circular-economy>

disruptions coupled with rising and increasingly volatile prices, this model is no longer tenable and it is critical that growth is decoupled from resource-use.

The circular economy concept looks to effect this change by keeping products in use for longer and reducing the need for virgin raw materials. This can be achieved in many ways including eco-design for increased product longevity; increased reuse, repair & upgrading of products; and the development of shared ownership models. Significantly the circular economy also brings 'recycling' back into focus as a key part of sustainable waste management. The European Commission identifies five key action areas for the circular economy as shown below:

<b>Production</b>	
Objectives	<ul style="list-style-type: none"> <li>• Provide incentives to boost circular product design</li> <li>• Innovative and efficient production processes</li> </ul>
Key actions	<ul style="list-style-type: none"> <li>• Durability, reparability and recyclability of products – Ecodesign Directive, Extended Producer Responsibility</li> <li>• Best practices for waste management and resource efficiency in industrial sectors - BREFs</li> <li>• Industrial symbiosis, remanufacturing</li> <li>• More coherent policy framework for products, tools for SMEs</li> </ul>

<b>Consumption</b>	
Objectives	<ul style="list-style-type: none"> <li>• Repair and reuse of products</li> <li>• Reliable information to consumers</li> </ul>
Key actions	<ul style="list-style-type: none"> <li>• Better labelling: EU Eco-label, Environmental Footprint</li> <li>• New forms of consumption – collaborative economy, digital platforms</li> <li>• Guarantees and action on false green claims</li> <li>• Independent testing programme to assess possible planned obsolescence</li> <li>• Circular Economy criteria in Green Public Procurement</li> </ul>

<b>Waste Management</b>	
Objectives	<ul style="list-style-type: none"> <li>• Improve waste management in line with the EU waste hierarchy</li> <li>• Address existing implementation gaps</li> <li>• Provide long-term vision and targets to guide investments</li> </ul>
Key actions	<ul style="list-style-type: none"> <li>• Revised EU targets for recycling 65% of municipal waste and 75% of packaging waste by 2030</li> <li>• Binding target to reduce landfill to a maximum of 10% of total waste by 2030</li> <li>• Improve waste management, new investments in recycling capacity, avoid overcapacity in incineration and mechanical-biological treatment</li> <li>• Ensure coherence between waste investments under EU cohesion policy and the waste hierarchy</li> </ul>

**Secondary Raw Materials**

Objectives	<ul style="list-style-type: none"> <li>• Increase the use of secondary raw materials</li> <li>• Increase the use of recycled nutrients and water</li> <li>• Safely managed chemicals</li> <li>• Improve knowledge of material flows</li> </ul>
Key actions	<ul style="list-style-type: none"> <li>• EU regulation on fertilisers</li> <li>• Legislative proposal on minimum requirements for reused water</li> <li>• Quality standards for secondary raw materials</li> <li>• Analysis on the interface between chemicals, product, and waste legislation</li> <li>• EU-wide electronic system for cross-border transfers of waste</li> </ul>

**Innovation, investment, and other horizontal measures**

Objectives	<ul style="list-style-type: none"> <li>• Enable new technologies, process, services and business models</li> <li>• Support research, innovation &amp; modernisation of the economy &amp; society</li> <li>• Support SMEs and identify barriers to better resources and waste management</li> </ul>
Key actions	<ul style="list-style-type: none"> <li>• Inclusion of 'industry in the circular economy' in the Horizon 2020 work programme</li> <li>• Launch of a pilot approach for 'innovation deals' to identify and address obstacles for innovators</li> <li>• Engagement and outreach to stakeholders on the circular economy and in particular implementing the action plan</li> </ul>

**1.3 Regional Waste Management Plans**

The most important national development with regard to waste prevention and more broadly the entire waste management sector was the introduction of a three-region structure for waste management, based on 6-year plans published in May 2015. The make-up of the regions is shown below:

<b>Connacht-Ulster Region</b>	<b>Eastern-Midlands Region</b>	<b>Southern Region</b>
<ul style="list-style-type: none"> <li>• Cavan</li> <li>• Donegal</li> <li>• Galway City</li> <li>• Galway County</li> <li>• Leitrim</li> <li>• Mayo</li> <li>• Monaghan</li> <li>• Roscommon</li> <li>• Sligo</li> </ul>	<ul style="list-style-type: none"> <li>• Dublin City</li> <li>• Dun Laoghaire Rathdown</li> <li>• Fingal</li> <li>• Kildare</li> <li>• Laois</li> <li>• Longford</li> <li>• Louth</li> <li>• Offaly</li> <li>• Meath</li> <li>• South Dublin</li> <li>• Westmeath</li> <li>• Wicklow</li> </ul>	<ul style="list-style-type: none"> <li>• Carlow</li> <li>• Clare</li> <li>• Cork City</li> <li>• Cork County</li> <li>• Kerry</li> <li>• Kilkenny</li> <li>• Limerick</li> <li>• Tipperary</li> <li>• Waterford</li> <li>• Wexford</li> </ul>

The three waste plans were prepared in an integrated style with broadly common approaches and structures used – which facilitates knowledge transfer and collaborative working. There is a strong emphasis on resource efficiency and waste prevention throughout the plans which are based around eight key objectives:

- Implement EU and national waste and related environmental policy
- Prioritise waste prevention through behavioural change activities to decouple economic growth and resource use
- Encourage the transition from a waste management economy to a green circular economy
- Coordinate the activities of the Regions and to relevant stakeholders to ensure the effective implementation of objectives
- Promote sustainable waste management treatment in keeping with the waste hierarchy and the move towards a circular economy and greater self sufficiency
- Implement a consistent and coordinated system for the regulation and enforcement of waste activities in cooperation with other environmental regulators and enforcement bodies
- Apply the relevant environmental and planning legislation to waste activities and reduce impacts on the environment and to protect human health
- Establish policy measures for other waste streams not subject to EU and national waste management performance targets

From a waste prevention point of view, a particularly significant aspect of the plans is a firm commitment to a minimum expenditure on waste prevention activities each year. The local authorities within each region will provide a minimum of €0.15/inhabitant to be spent on local prevention projects. Prevention and circular economy ambitions are also reflected in the overarching targets set-out in the plans – see below.



Overall therefore, these two major policy developments (EU's Circular Economy Package and Ireland's Regional Waste Management Plans) will prompt significant activity in the waste prevention area. Ireland's NWPP will play a central role in implementation of these. The programme of activities detailed in the following section provides good examples of resource efficiency in action. Building on the strong foundation of the NWPP, Ireland is clearly well-placed to be a leader in demonstrating a functioning circular economy.

## 2. RESOURCE EFFICIENCY ACTIVITIES

### 2.1 Green Business

The Green Business Programme is now eight years in existence and is a flagship component of the NWPP. Green Business has been managed by the Clean Technology Centre (CTC) since June 2011 and during this time Green Business has visited over 200 companies and identified more than €7.9 million worth of potential cost savings for businesses.

The main emphasis of the project in 2015 was providing direct support to companies through on-site Resource Efficiency Assessments (REAs) as well as providing further support through workshops, case studies and a conference.



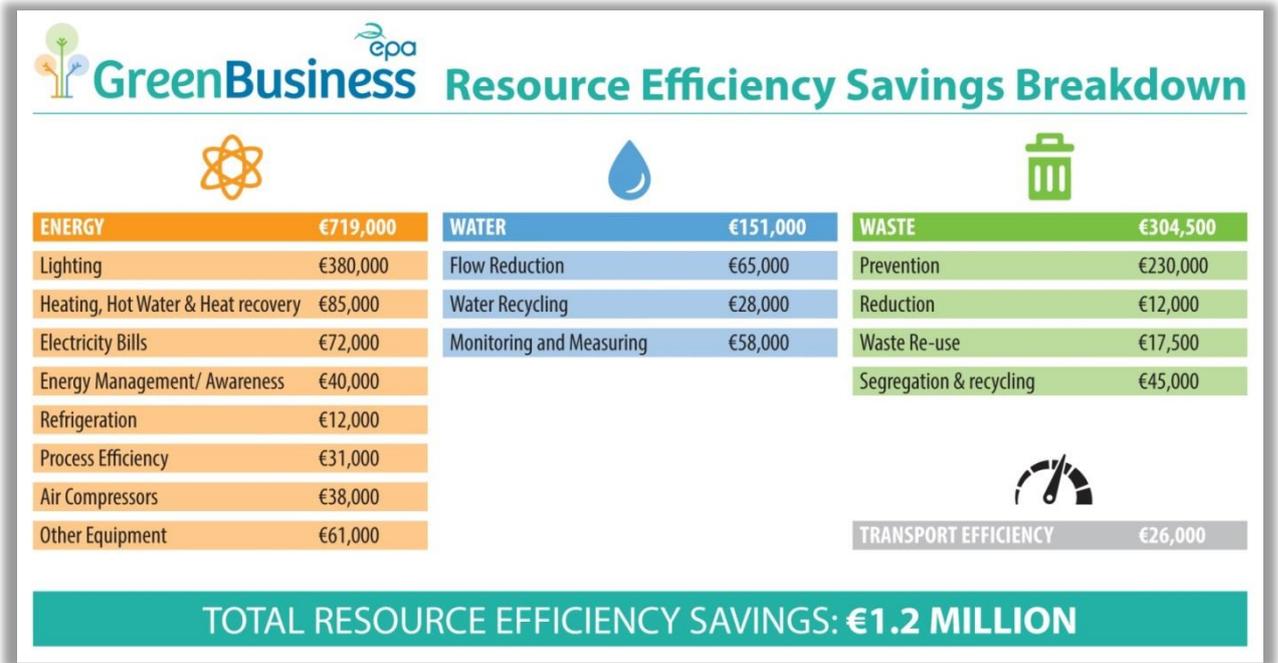
#### *Resource Efficiency Assessments*

In 2015, Green Business visited 29 companies and identified €1.2 million worth of cost saving opportunities, an average cost saving opportunity of €41,500 per company visited. Almost half of the site visits were in the food sector where 46% of total costs saving opportunities were identified. This was in line with the continuing support of the Bord Bia *Origin Green* programme, which is driving food exports on the basis of good quality and good environmental standards. This was followed by the engineering and retail sectors, which accounted for a further 25% and 17% of potential cost savings, respectively. The table below provides details of the REAs conducted in 2015.

## Potential savings identified in Irish companies in 2015

SECTOR	EMPLOYEES	POTENTIAL SAVINGS	PROVINCE
Engineering	500	€48,000	Connaught
Engineering	200	€69,500	Connaught
Engineering	400	€112,000	Leinster
Engineering	250	€81,000	Leinster
Food	7	€3,090	Munster
Food	100	€9,510	Leinster
Food	80	€16,500	Leinster
Food	25	€22,900	Leinster
Food	40	€26,600	Ulster
Food	20	€31,000	Leinster
Food	61	€34,100	Ulster
Food	120	€35,000	Munster
Food	130	€38,000	Leinster
Food	42	€216,500	Leinster
Food	45	€39,000	Connaught
Hospitality	80	€20,000	Leinster
Hospitality	80	€62,000	Leinster
Meat	50	€6,800	Munster
Meat	270	€44,000	Leinster
Printing	59	€24,000	Leinster
Recycling	24	€37,000	Munster
Retail	87	€22,000	Leinster
Retail	115	€52,200	Leinster
Retail	320	€111,500	Leinster
Retail	12	€19,000	Leinster
Seafood	43	€3,700	Leinster
Seafood	35	€16,700	Munster
Seafood	60	€19,500	Munster
Service	18	€4,300	Munster
<b>TOTALS</b>	<b>3,273</b>	<b>€1.2 MILLION</b>	
<b>TOTAL COMPANIES 29</b>		<b>AVERAGE SAVINGS PER COMPANY: €41,500</b>	

As expected the greatest utility cost savings were associated with energy management, which accounts for 60% of the opportunities identified. Key opportunities were identified in lighting efficiency, management of thermal energy, heat recovery and control of unnecessary charges on electricity bills. Options for better waste management account for 25% of potential savings identified with food waste prevention on process lines being the significant opportunity identified. The key water savings opportunities are associated with better monitoring and measuring of water, flow rate reduction in hoses and taps and water reuse. The table below provides a breakdown of the savings identified during the REAs conducted in 2015.



**Publications**

The new Green Business Case Study Booklet was produced and launched in October 2015. Entitled “Greening Your Business – How Much Can You Save?”, this publication features 13 practical case studies grouped by savings made by controlling use of Waste, Water and Energy.

Featured sectors include Retail, Food and Drink, Hospitality and Engineering, as well as handy tips and hints on how to achieve quick wins. The guide can be downloaded from the Green Business website.



### **Green Business Events**

The Green Business programme, in association with Ibec, held the national Green Business conference on 'Financing & Funding Opportunities for Greening your Business' in May, 2015 in Killashee House Hotel, Naas, Co Kildare.



The theme of the conference was to highlight ways that businesses could avail of funding or finance to carry out resource efficiency projects. This included direct grants, ESCO-type arrangements, green finance from banks and supplier finance. This theme was chosen as feedback from previous surveys had identified that access to finance was one of the key issues as to why savings opportunities were not being converted to actions.

A full list of the presentations from the conference and a guide to financing and funding opportunities for greening your business is available on the Green Business website.<sup>2</sup> The conference was attended by over 110 delegates and feedback was very encouraging. In addition, Green Business Staff made 25 presentations on Resource Efficiency on behalf of Green Business and the EPA during the year.

### **Green 50**

In 2015, Green Business developed and launched a CSR programme called "Green 50". This initiative is aimed at helping organisations save money and improve their environmental performance, while redirecting 50% of the savings achieved to charity or the local community. Organisations involved so far include RTÉ, Carbery Group and APB Foods. For more information see [www.green50.ie](http://www.green50.ie).



### **Sponsorships and Promotion**

The Green Business team work closely with the NWPP-supported Ibec Green Business executive to promote resource efficiency to the Ibec membership and other stakeholders.

Green Business continued its sponsorship and promotion of the Green Awards in 2015. Promotion of the awards by the Ibec Green Business Executive assisted in achieving over 180 award category entrants of exceptional quality.

<sup>2</sup> <http://greenbusiness.ie/workshop-event/financing-and-funding-opportunities-for-greening-your-business>

## Repak Prevent & Save



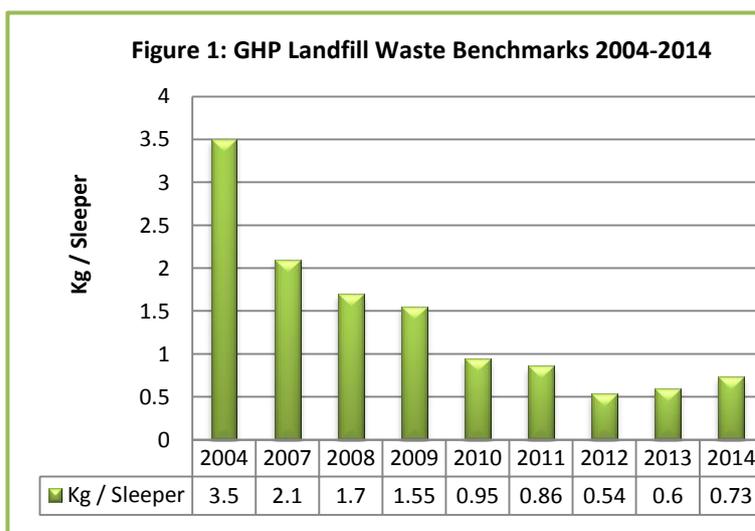
Repak's Packaging Waste Prevention Programme aims to assist Irish businesses with positive and practical ways to reduce packaging and to promote those achievements to a wider audience. The Prevent and Save Programme has received financial support from the EPA, and is also supported by the Department of the Environment, Community and Local Government. The initiative started in 2007 and has been running since then under the guidance of a steering group representing both industry and the government.

- On-going on-site packaging audit programme of Repak member's, carried out by Repak Packaging Technologists to identify ways to reduce or optimise packaging and to assist with specific technical projects. Clients in 2015 included packaging manufacturers, pharmaceutical companies, hotels and large retailers.
- Repak's Packaging Technologists also deal with members packaging queries on a one-to-one basis. Subjects include pack formats, packaging materials, packaging legislation, symbols and identifiers and cost reduction opportunities.
- The Pakman award for 'Waste Prevention in Business'. In 2015 this was presented to the Sandymount Hotel for their integrated waste management and prevention programme. Waste prevention is also a factor in the other Pakman awards.

## 2.2 Green Hospitality Programme

The Green Hospitality programme which was funded by the EPA from 2008 to 2015 currently now has 179 hospitality businesses as members. Of these members 105 are hotels and 69% of these members have achieved Environmental Certification through the Green Hospitality Programme (GHP) and the other members are aspiring to achieve certification.

Over the 8 years of the programme a total of 330 Irish Hotels engaged directly with the Green Hospitality Programme, more than 33% of Irish Hotels and representing approximately 55% of Irish Hotel Rooms.



GHP also engages across the hospitality sector and has 74 non hotel members at present from various industry sub-sectors – contract catering, bed & breakfast, activity centres, attractions, bars, restaurants and leisure centres.

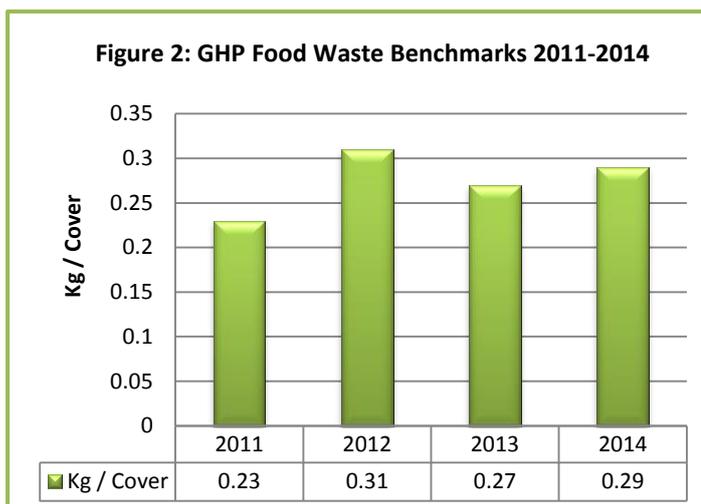
Environmental improvements made by GHP hotels are measured annually using environmental benchmark figures provided by the members. Certified members are obliged to provide their environmental benchmark on an annual basis. Since GHP first commenced benchmarking in 2004, GHP hotels have made significant improvements, as shown below.

**Residual/Landfill Waste**

Benchmark figures for 2014 indicate that GHP members sent 81% less waste to landfill per sleeper (overnight guest) when compared to 2004.

**Food Waste**

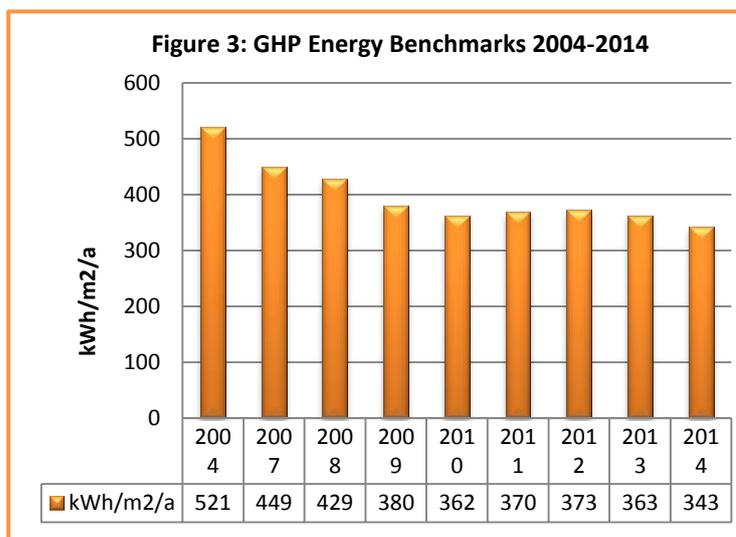
GHP recorded that the average quantity of food waste produced per sleeper by Irish hotels in the years 2011 to 2014 was 0.29 kg/ sleeper. This is equivalent to an average of 50 tonnes per annum per hotel.



It is estimated that 60% of this food waste or 30 tonnes per hotel is avoidable. Based on a value of €5,000/ tonne the average Irish hotel has potential to reduce its costs associated with food waste by €150,000/ annum. As can be seen, food waste in hotels does not seem to be declining in line with other resource usage and this will require targeted action in the coming years.

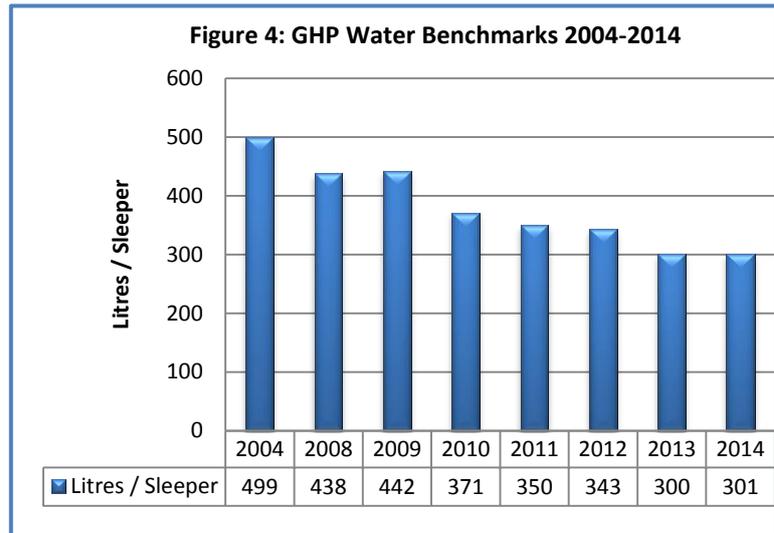
**Energy Consumption**

Benchmarks for energy consumed by a sample of GHP hotels show a 34% reduction in energy consumed per annum when compared to a sample of GHP hotels from 2004. Energy consumption has had a consistent downward trend which reflects the continuous improvement achieved by GHP hotel in the last 10 years. GHP expects these trends to continue to decrease due to improved technology and greater awareness. Importantly, manufacturers, especially in the lighting sector, are able to offer attractive payment schemes to allow hotels to re-bulb and spread the cost with payments that are less than the monthly savings achieved. This can make it a “no-brainer” for the business.



### Water Consumption

Benchmarks for water consumed by a sample of GHP hotels show a 40% reduction in water consumed per annum when compared to a sample of GHP hotels from 2004. This is a great achievement. However many hotels continue to waste water through uncontrolled urinals and undetected leaks. In some instances, where leaks are difficult to detect, reducing pressure overnight can help significantly reduce losses without affecting guest experience.



### Economic Impact of the Green Hospitality Programme

The average energy cost per sleeper for a GHP hotel in 2014 was €4.70. Water and waste costs averaged at €0.92 per sleeper. In 2014, GHP hotels had circa 6.4 million sleeper nights, with an estimated utility cost of €36 million. Had GHP hotels not taken actions to reduce utility costs since 2004, GHP suggests that the 2014 utility would be at **least 33% higher** suggesting these hotels have reduced their utility costs by **€12 million** per annum, through being resource efficient.

### Marketing & Promoting GHP

The GHP hosted the 2015 National Travel & Tourism Conference and Awards in October 2015 and this was promoted widely in trade press, GHP website and newsletters.

In 2015, the Green Hospitality Programme developed a new website [www.greenhospitality.ie](http://www.greenhospitality.ie), which will be the platform that the programme continues forward on.



It is hoped that the sector will continue to engage with the Programme going forward and consolidate the huge gains achieved since the project was first trialled. It is clear from the benchmark figures that the scheme had a very significant role in increasing both the environmental and economic performance of the Irish hotel sector. The fact that over half of the hotel beds in Ireland, and a third of hotels (including most of the larger properties) have played a part in the scheme over the years underlines the quality of the scheme and the commitment of the properties to take a lead in responsible tourism.

## 2.3 Green Healthcare Programme

The following areas were worked on in 2015 under the Green Healthcare programme:

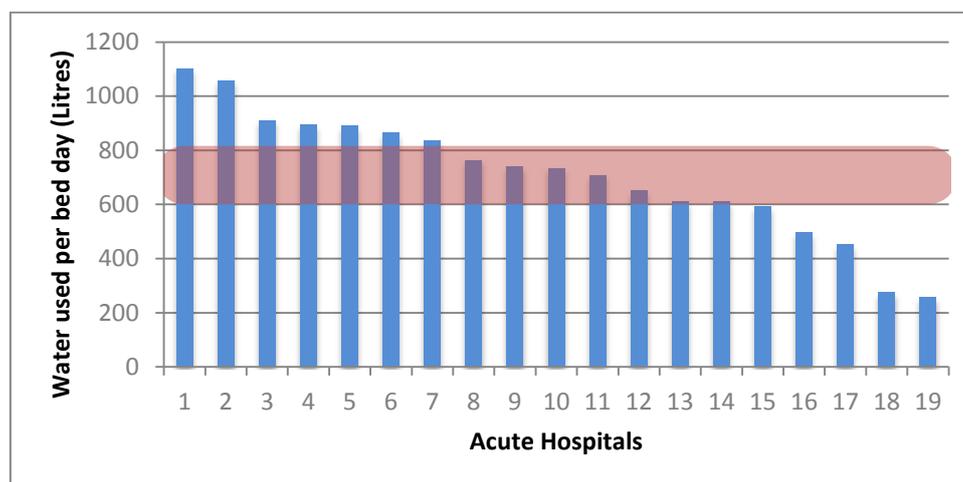
- Water Use
- Awareness Raising
- Nursing Homes
- Review of waste benchmarks
- Continued support for existing facilities

### Water Use

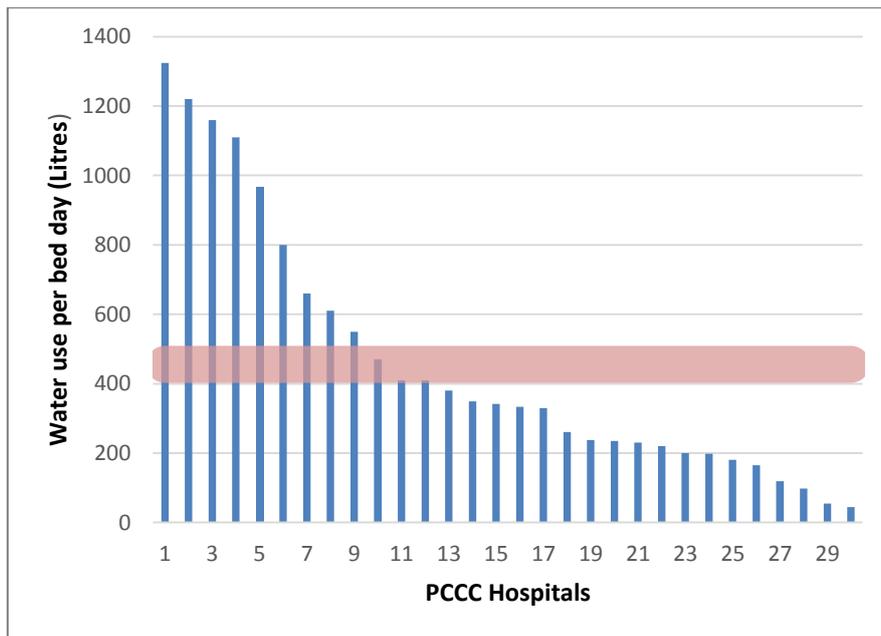
Prior to 2015 there were no Irish benchmarks for water used by Irish hospitals. Historic UK values were used but few, if any, Irish hospitals were actually benchmarking their water use. The Green Healthcare Programme started by benchmarking hospitals in Cork County and have now extended the data set to include 20 acute hospitals (**Figure 5**) and over 40 Primary, Community and Continuing Care Facilities (PCCC).

The process of gathering the data involved firstly liaising with local authorities to obtain historic water consumption data. From this, and bed-day data obtained from the individual hospitals, a comparison of water use versus bed-days per year was used to generate benchmarks (litres per bed-day). The process has now been refined and large users, in terms of benchmarks, have been identified and communicated to the HSE. As can be seen, the PCCC's show a greater range in water usage than the acute hospitals with a difference between the highest and lowest users of approximately 1,300 litres/bed day (**Figure 6**). - Note the red band in the figures below indicates the benchmark for water use in Ireland.

**Figure 5: Acute hospital water use benchmarks 2014 (litres per bed day)**

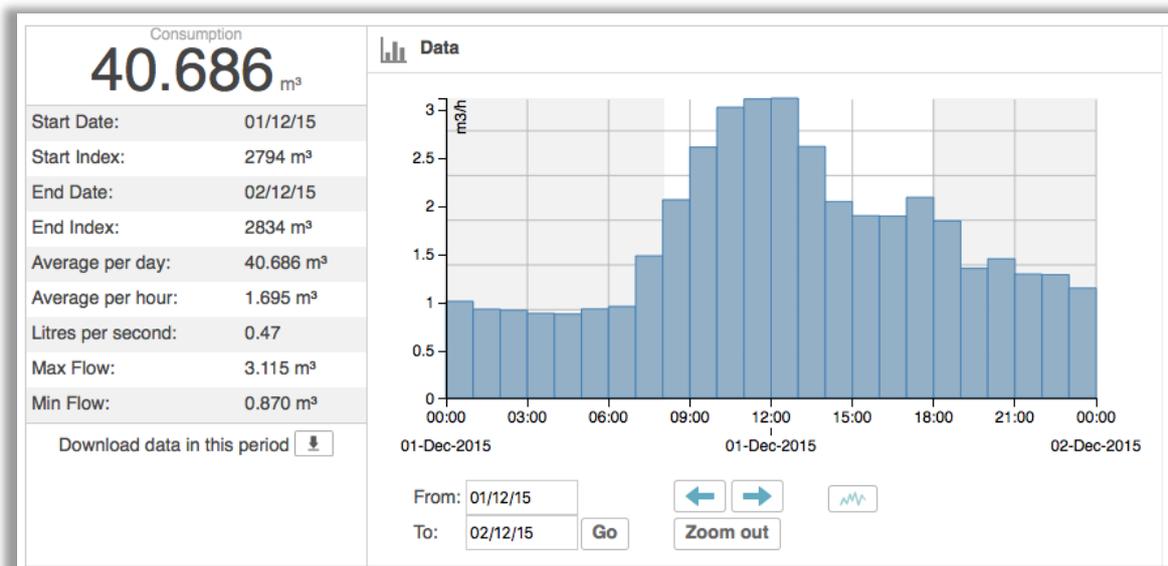


**Figure 6: PCCC hospital water use benchmarks 2014 (litres per bed day)**



Based on the outcomes of the benchmarking work a number of high water using sites have been identified which require further investigation. The next step was to install a data logger to build a more detailed picture of water use at the site over a longer period. This indicated that the background water use, most likely due to leaks, is costing the HSE approximately €10,000 to €19,000 annually at this site (**Figure 7**). A review of the site, with a view to repairing the leaks, is currently underway by HSE.

**Figure 7: Online data logger information showing hourly background water use of 1m<sup>3</sup>/hour.**



In order to justify the costs associated with retrofitting fixtures and fittings with high efficiency models it is imperative to have quantified data. There are currently no indicators available for the healthcare sector that give the typical volume of water used by toilets, showers, taps, etc.

In order to address this need, a suitable hospital location has been identified whereby sub-meters can be installed on *the hot water supply, the cold water supply and the sluice water supply* (toilets and sluice system). Once in place, the three water streams will be analysed for a period of time, a fixtures and fittings survey conducted and from this a retrofit plan developed and costed. This is being done in conjunction with the HSE.

This careful and incremental procedure ensures that both maximum value and effectiveness can be gained by repair and retro-fit. The next stage is to clearly present the methods, findings and cost-effectiveness of work carried out so that other facilities have a clear understanding on the process and benefits of replicating this type of work.

A number of water-related Case Studies and Fact Sheets have been produced to date. These are listed below. A number of others will also be produced once specific works have been completed.

- Case Study: Newcastle Hospital Leak Detection and Repair, Wicklow
- Case Study: Reverse Osmosis Water Reuse in Portlaoise
- Case Study: Reverse Osmosis Water Reuse in Tullamore
- Case Study: Connolly Hospital Leak Detection and Repair
- Factsheet: How to assess the potential of water re-use from reverse osmosis
- Factsheet: Benchmarking water use in Irish Acute and Long Stay PCCC hospitals – (under construction)
- Guidance Booklet: Water Use: Best Practice Guide for your Hospital (under construction)

### ***Awareness raising***

Initially, it was proposed that five training events were to be held at individual hospital locations around the country during 2015. However, due to exceptional demand (25 hospitals applied) this aspect of work was extended. To date, ten hospital awareness day events have been conducted with another five due to be completed by the end of April 2016, and additional ones planned for beyond this.

The awareness days are designed around three key topic areas:

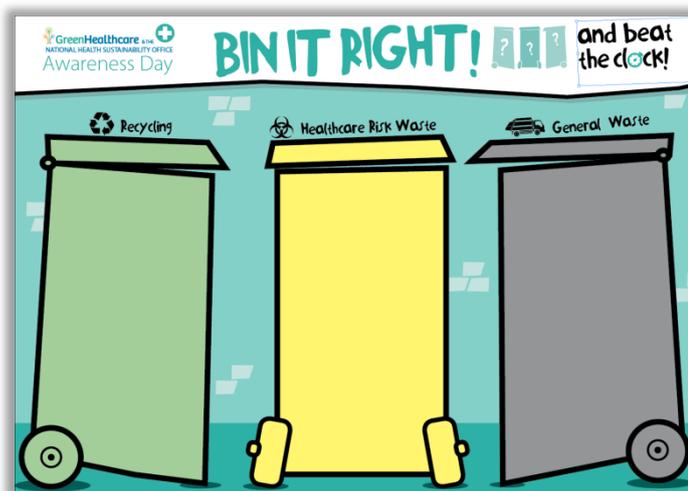
- Food waste;
- Clinical, recyclable, and general waste;
- Water use.

The target audience differs depending on the topic, so each event has been structured differently depending on the needs of the hospital. This has ensured staff can just attend relevant segments as needed. For example: engineers, maintenance building/services for water conservation, services managers/waste officers for waste management; clinical staff for risk waste; catering staff for food waste prevention. Over 300 people attended the information days held to date.

In addition to the individual training sessions, an information stand is run during the awareness day. The purpose of this stand is to promote the Green Healthcare work to hospital staff but also to promote food waste prevention for householders. This stand is supported by the EPA Stop Food Waste programme and the materials provided have been very well received. Additionally, at each awareness day, there is a quiz for staff which is handed out in the canteen and at the awareness stand. The aim of this quiz is to reinforce the main messages outlined in the training sessions and approximately 60 entries are typically received at each location.

### **Training materials**

The training presentations that have been developed have been made available to all the hospitals that have been visited to date. Also, a waste game has been developed to assist staff determine the correct bins for different waste materials. This has been very well received and a number of these games have subsequently been re-produced and sent out to different hospitals to use in their ongoing waste training activities.



### **Nursing Homes**

The Green Healthcare programme is currently in the process of conducting REAs with a number of private and public nursing homes. These are being done in conjunction with Nursing Homes Ireland (NHI) who represent over 80% of the sector and through local authority contacts. These REAs will inform the production of a sectoral guidance document for resource management in private nursing homes and similar HSE-run facilities. This production will be promoted through the HSE to PCCC type facilities and to the private sector through NHI. Additionally, NHI intend to include a “green aware” category in their annual award ceremony to promote resource efficiency in their sector, in association with Green Healthcare.

### **Review of waste benchmarks**

Data has been gathered on non-risk waste (general, recycling, food) and risk waste. This is also being gathered as part of the roadshows. Once these are completed, the benchmarking figures will be updated as needed.

### **Continued Support for Existing Facilities**

Throughout 2015 Green Healthcare continued to provide ongoing assistance to participating hospitals as well as advice and assistance to newly interested facilities.

## 2.4 Community Reuse Network Ireland

Community Reuse Network Ireland (CRNI) is an all-Ireland umbrella body that represents community-based organisations involved in reuse and has a broad stakeholder base including grassroots reuse organisations, the wider environmental & social enterprise sectors, government officials and the public. CRNI sits on a number of bodies including the National Waste Prevention Committee (NWPC), Eco-tourism Ireland and the board of the European-wide reuse network (RREUSE). The aims of the network are set out in its current 5-year strategy as:

- Promotion of reuse
- Support for members
- Communication – internal and external
- Membership drive
- Policy input
- Research (including market research)
- Networking and Links (including European links)

The majority of CRNI's members are social enterprises and the network members provide substantial benefits in both environmental and socio-economic terms as shown below.



In 2015, the network consolidated its position as a key player in policy discussions affecting the community reuse sector, built additional capacity in event management and further raised its profile outside Dublin. This occurred against a backdrop where the importance of resource efficiency and circular economy is taking centre stage both nationally and internationally.

In promoting reuse to a wider audience, CRNI undertook an EPA-funded Green Enterprise Project. The Revival Roadshow involved over 60 reuse workshops, each catering for 10 to 12 people. A decommissioned Dublin Fire Brigade ambulance was reused(!) to deliver mobile workshops along the length and breadth of the country.

As part of this initiative, CRNI co-hosted a reuse seminar along with the Southern Regional Waste Office. The seminar was aimed at reuse social enterprises and micro-enterprises and featured stories from CRNI members as well as social enterprise and reuse experts.



CRNI strives to give the members the best possible value for their participation. In 2015, CRNI undertook a review of the network and its offerings to members, which fed into the development of the 2016 Workplan. Supports for members included identifying opportunities for collective purchasing and social media training amongst other things. In order to broaden the network, CRNI focused on promoting the network throughout the country to attract new members from outside of Dublin. One new member joined in 2015: *Revived & Retro*, a micro enterprise from Tipperary that focuses on furniture upcycling.



CRNI continued in 2015 to gain traction on social media and the Revival Roadshow garnered attention with primetime broadcasts including Nationwide and EcoEye. The CRNI quarterly e-Newsletter was also a key communications tool and has done much to raise the profile of the organisation.

Participation in policy processes remains a key aim for CRNI. The beginning of 2015 saw the network come together to formulate its submission to the Regional Waste Management Plans, much of which made it into the final plans. Thus CRNI helped to shape waste policy in a meaningful way in Ireland. CRNI participated in submissions to the Department of Environment Community and Local Government's (DECLG's) review of the market development programme and also the circular economy package, through the RReuse network ([www.rreuse.org](http://www.rreuse.org)).

Research is key to informing and developing the reuse sector. In 2015, CRNI participated in four research projects to assist members in promoting reuse: *Development of a Reuse Quality Mark*; *Quantification of reuse through the development of KPIs*; *Development of protocols and material specific guides for reuse in Ireland*; and *Development of a Resource Exchange Best Practice Guide*. These collaborative projects with RReuse Network and the Rediscovery Centre will continue in 2016.

## 2.5 SMILE Resource Exchange

SMILE Resource Exchange is Ireland's industrial symbiosis platform which provides a free service for businesses to connect and identify industrial synergies where unwanted materials from one business can be employed as a resource for another. Potential Synergies are identified through an online exchange platform ([www.smileexchange.ie](http://www.smileexchange.ie)) or through facilitated technical support. Encouraging a move towards the circular economy, the project began in 2010 and expanded nationwide during 2014.

### *Technical Support Consultants Pilot*

In 2015 an additional support to members was piloted in the form of practitioner support. Synergy identification and development has always been the core work of SMILE, however, after reviewing other European industrial symbiosis programmes it was recognised that in order to identify larger synergies it was necessary to engage with consultants with technical expertise to work with SMILE members. A Technical Support Consultant (TSC) was appointed in each of the three waste regions across Ireland i.e. the Southern Waste Management region, the Eastern Midlands Waste Management region and the Connacht Ulster Waste Management region. The pilot was operated over a 5 month period from June 2015 to November 2015. During that time the technical support consultants were given deliverables and targets and were centrally co-ordinated by the SMILE team. The consultants worked with existing members and also identified new members through their own networks. Overall the pilot was very successful: 57 successful synergies were identified with five of these being large-scale (10+ tonnes).

### *Synergy Development*

The core work of SMILE is to develop synergies between businesses and in 2015 SMILE directly supported 359 new synergies. Of these 173 were identified through the SMILE website and a further 186 by the SMILE team or through the Technical Support Consultants who provided technical expertise to the project. There were 85 successful synergies recorded in 2015 equating to over 5,000 tonnes of material actually diverted from landfill to recovery/recycling; or diverted from recycling/recovery to reuse/remanufacturing. In total, the 85 synergies combined represent actual costs saving for businesses of €1,229,201.

85 synergies  
identified in  
2015  
representing  
savings of  
€1,229,201

### *SMILE Activity*

**Membership:** In 2015 the project grew to a membership of 1,319 including Cork (471); Limerick, Clare, Kerry (335); Dublin (281); and National/Other (232).

**Event:** In September, SMILE held an event in collaboration with the EPA funded Open Practises project in the Spencer Hotel, Dublin. The aim of the event was to bring together people from the public sector and other resource efficiency programmes to update them on the developments of SMILE and to raise their awareness of the benefits of industrial symbiosis. SMILE also wanted to engage with other projects that aim to improve resource efficiency and explore the potential opportunities for future collaboration.

## Communications

SMILE continues to focus much effort on communications and awareness campaigns including:

- **MEDIA COVERAGE:** SMILE achieved national and regional coverage in print and online media including 12 pieces of coverage with a combined readership of 1.2 million, a total rate card value of €50,647 and a total advertising value equivalent to €126,618.
- **VIDEO ANIMATION:** Two more video animations were produced in 2015. The first depicted the story of ReCreate and the other the story of Re-box Recycling. All 6 of the SMILE videos were advertised on Facebook on 7 different occasions throughout the year which proved to be a very cost efficient promotional tool reaching 231,962 people and achieving 78,801 views in 2015.
- **NEWSLETTERS:** Newsletters and Mailshots continue to be sent to the members and databases (6,609+ subscribers) across Ireland. Seven newsletters and eight mailshots were issued in 2015.
- **BROCHURE:** New brochures were designed and printed with updated information including the technical assistance and testimonials from the members.
- **PRESENTATIONS:** In 2015 SMILE presented to various audiences at six different events.
- **EXHIBITIONS:** In 2015 SMILE attended and exhibited at 17 different events nationally.
- **SOCIAL MEDIA:** SMILE continues to be very active in developing its online social media presence through Facebook, Twitter, LinkedIn and You Tube. The SMILE Facebook page has 486 likes, 876 followers and following 771 on Twitter and 176 members on LinkedIn. SMILE has 11 videos on YouTube with over 2,633 views.

## Project Development

SMILE continues to identify opportunities for the development of initiatives including:

**BOOMERANG RECYCLING:** SMILE continues to support and promote Boomerang Enterprises who have diverted over 7,000 mattresses from landfill to date. SMILE continues to sit on the Boomerang Steering Committee. 2015 was a successful year for Boomerang having been shortlisted as a finalist in the “Get Involved” sustainable communities award and the “Northside Business Awards”, the results of which will be announced in 2016. SMILE led on a successful research application which was submitted to South Cork Local Enterprise Office in collaboration with Boomerang Enterprises, Dublin Institute of Technology (Crest Centre) and Waterford Institute of Technology. The research proposes to test the textiles from mattresses, which are currently going to Refuse Derived Fuel (RDF), for use as insulation or sound proofing products.



**CIRCULAR OCEAN PROJECT:** SMILE identified a need to find reuse and recycling options for fishing nets following discussions with SMILE members. As a result an application for funding was submitted through the ERDF Interreg VB Northern Periphery and Arctic Programme in collaboration with partners from the Northern Periphery & Arctic region. In pursuit of innovative and sustainable solutions for discarded fishing nets, the Circular



Ocean project seeks to inspire enterprises and entrepreneurs to realise the hidden opportunities of marine waste. This project began in October 2015 and will run for 3 years.

**SourceIT PROJECT:** As a member of the Boomerang steering committee SMILE is familiar with the challenges of the initiative. Boomerang Enterprises collect mattresses from civic amenity sites, retailers, hotels, education centres and waste companies on a regular basis. It was identified by SMILE that software could be



developed to enable more efficient, co-ordinated and environmentally friendly transport systems for such resources/waste materials by allowing existing and new enterprises to track volumes and quantities by location. SMILE submitted a successful application to the CHEST-European fund and the SourceIT project began in September 2015. SourceIT is a GIS (Geographic Information System) mapping tool which aims to support existing and new enterprises, both social and commercial, which have a specific focus on the reuse and recycling of materials, in locating unwanted resources/waste materials which are essential to the existence of such enterprises. It will be trialled on the waste stream of mattresses in conjunction with Boomerang Enterprises and Eco Mattresses.

### *Industrial Symbiosis Working Group*

The National Industrial Symbiosis Working Group was established in 2014 to research and identify the benefits of industrial symbiosis in Ireland. The group continued to meet on a regular basis throughout 2015 and SMILE continues to act as secretariat for the group. As part of the action plan for the group in 2015, a research application was submitted and approved by the EPA which will begin in 2016. The focus of the study will be highlighting the barriers to successful industrial symbiosis synergies and the drivers/support structures etc., that lead to successful implementation in specific waste streams. The research will be led by Prof Don Lyons, UCC and supported by Niall Dunphy, UCC.

## **2.6 Green Enterprise**

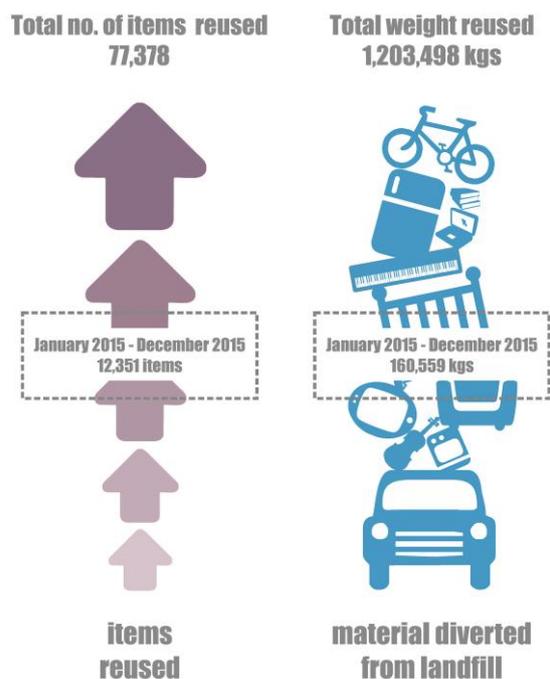
The Green Enterprise Programme is designed to grant aid projects to develop sustainable products, services or to raise awareness. Whilst the Programme still sought applications from the Food and Drink sector, the re-emergence of the Construction and Demolition sector was also subject to special consideration in the project call. In keeping with the recent direction of the Programme, a range of organisations including companies, state bodies, charities and consultants were amongst the applicants. In addition, three projects from the 2013 and 2014 Reserve Lists were called forward for funding. A total of 28 qualifying applications were received, resulting in nine projects being funded plus the three Reserve List Projects. With seven Green Enterprise projects being completed in 2015, there are currently 29 projects underway. The successful 2015 projects are listed below:

Applicant	Project Name
<b>Irish Green Buildings Council</b>	Delivering a Residential Sustainability rating system to Market
<b>Consulteco</b>	Green Teams Recognition Scheme
<b>The Upcycle Movement</b>	The Upcycle Challenge
<b>Food Cloud</b>	Identifying & addressing challenges for the charity sector in maximising the potential of surplus food donations
<b>Central Solutions</b>	EPA Lean Water Community of Practice Phase 2
<b>SpEco</b>	Mattress Research
<b>Ox Business Systems</b>	Simplifying Sustainability Process Management for Smart Green Food Producers
<b>Re-Create</b>	Heads –Up
<b>Wexford County Enterprise Board / Econcertive</b>	GreenSave Wexford 2016
<b>Oliver Carty Meats</b>	Greening the Supply Chain
<b>Midlands Simon Community</b>	Creating Green Jobs in the Simon Community
<b>Wheely Environmental Refuse Service (Wers)</b>	Development of a Sustainable rHDPE Automotive Grade Recyclate

## 2.7 FreeTrade Ireland

FreeTrade Ireland is well aligned to emerging strategic approaches whereby waste streams are viewed as valuable material resources, contributing to the development of a circular economy. The service has been identified as a leading case study of a resource efficient service which meets national and European waste policy objectives.

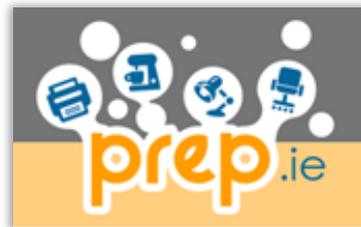
In 2015, FreeTrade Ireland diverted 12,351 items (approximately 160 tonnes) of high quality materials away from landfill to users of the service. This means materials are being used for longer and the resource value is being maximised. The use of the service resulted in CO<sub>2</sub> savings of approximately 1,449 tonnes and



significant financial savings for users of the service. The significant milestone of the reuse of 100,000 items since the inception of FreeTrade was reached in 2015 demonstrating the popularity and success of the service, resulting in carbon savings in excess of 10,000 tonnes.

The membership base continued to grow in 2015 with 2,966 new members signing up to use the service. The overall number of members now using the service stands at over 54,100. The website remains a hub of activity with 542,000 visits to the website in 2015 from over 206,500 unique visitors.

FreeTrade Ireland has also developed a similar reuse exchange service that is solely for the use of public sector organisations in order to maximise resource efficiency in the public sector. The Public Resource Exchange Platform (PREP) went live in 2015 and the first ads were posted on it. It is expected to be rolled out across the public sector in 2016, with the lead in the rollout being taken by the Department of the Environment, Community and Local Government. PREP will demonstrate how the FreeTrade Ireland concept can be applied and transferred to different sectors and further contributes to the circular economy.



## 2.8 Sectoral Study: Craft Brewing

On occasion, the NWPP seeks to operate “one-off” projects working with a sector that may offer particular opportunities for resource efficiency. In 2015, Flannery Nagel Environmental Ltd were commissioned to prepare resource efficiency guidance and case studies for the craft brewing sector. This is a rapidly expanding sector in Ireland, which by its nature, uses significant amounts of energy and water, and produces quantities of potentially polluting waste in brewers grains and contaminated water. This short study involved working with four Irish craft brewers, in consultation with The Independent Craft Brewers of Ireland (ICBI).

### *Pressures and Resource use*

The main environmental pressures of the craft brewing sector are water and energy use, waste water management, by-products, waste and packaging.

**Energy** - Microbreweries can consume as much as twice the energy per barrel of finished product when compared with large breweries but typically have narrow profit margins. There is more awareness amongst craft brewers of energy consumption compared with water use, although generally there is only limited metering in-place so a detailed breakdown on energy use across the site is not possible.

**Water** is another significant resource use in the brewing sector yet only a portion of the incoming water is used in the final product. Most craft brewers use water sourced from municipal water mains. Monitoring of water use is minimal, with many availing of input and output meters only. There is no monitoring of water usage in high use areas such as cleaning.

**Wastewater** generated in the brewery is characterised by large variations in their physicochemical parameters, in particular high COD and BOD. Most craft breweries do not operate a waste water

treatment plant and discharge trade effluent to the public sewer. There is a common practice of diluting effluent to acceptable levels of COD and pH, using fresh water or diluting solids to enable discharge to the drain.

**By-products** - The organic by-products like spent brewery grains and yeast surplus can be used mainly for animal feed and generally are provided for free to farmers by the breweries.

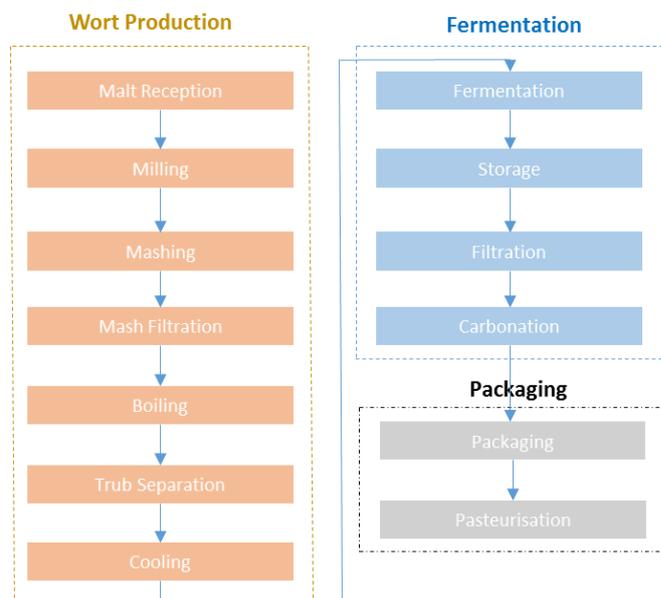
**Waste** - The main waste arising includes incoming packaging (cardboard and plastic) as well as waste in the form of filtration media. All breweries engage in recycling of cardboard and plastic.

### *Resource Efficiency and Sustainability Measures*

There is an increasing interest amongst craft brewers in Ireland to operate more efficiently and more sustainably. Under the Bord Bia Origin Green Programme there are currently 26 craft breweries engaged in the programme. Many are at the early stage of operation, and gathering resource use data for water and energy (electrical and thermal) by installing meters at various points throughout the brew process for monitoring water and energy use. This will enable the companies to establish key performance indicators and measure performance.

### *Options for Process Efficiencies*

The study presents options for process efficiencies for each stage of the brewing process, wort production, fermentation and packaging and provides case studies where available. The options provided have been considered specifically in the context of applicability to micro-breweries in Ireland. The findings from the report will be shared across the sector to reduce environmental impact and increase efficiency.



## 2.9 Stop Food Waste

Stop Food Waste aims to promote changes in behaviour that lead to food waste prevention. Since its inception in 2009, the programme has been raising awareness, engaging communities and businesses, and building capacity for food waste prevention in society, through a combination of education, provision of easy to use information, training, local champions and peer example. The programme, designed to empower consumers to reduce food waste, has now become an established and recognised forum to promote food efficiency and composting to Irish householders.



Stop Food Waste delivers local community-based initiatives by working in partnership with local authorities and other networks to build capacity at grass roots level. During 2015 Stop Food Waste continued to work with these main project partners and networks to enable behaviour change at a local level and around the country.

### *Working with local authorities*

Through the Local Authority Prevention Network (LAPN), local authorities implement food waste prevention initiatives in local communities using materials developed by Stop Food Waste. By supporting local authorities in the various activities they drive locally, the programme gains much in terms of exposure and outreach. In 2015 Stop Food Waste engaged directly with 15 local authorities through on-site assistance at events, festivals, talks and local training programmes. It is estimated that over 10,000 people have been directly interacted with through these activities. By providing a consistent message, and one branded through a national programme, the extent of public awareness is greatly improved. Stop Food Waste also supports all 31 local authorities through the provision of support materials in the form of presentations, promotional materials and educational resources (e.g. flyers, portion measures, booklets).

### *The Stop Food Waste Challenge<sup>3</sup>*

The Stop Food Waste Challenge is a structured programme on the topic of food waste in a community-based setting. Working in peer groups, this easy to follow, stepwise programme guides people through the food cycle to identify areas where changes in behaviour can lead to reducing food waste. The challenge involves a series of workshops covering a range of issues including awareness of what is being wasted, meal planning, smart shopping, proper food storage, and composting methods. While each of these areas is important, the most important one will be different for everyone and the programme helps people find the best solutions to their specific food waste issues.

A number of pilot 'challenges' were run in 2014 in partnership with local authorities and during these interventions, participants were able to share their experiences to reduce the quantities of food that their households wasted each week. As well as improving their shopping habits and saving money, participants reported significant food waste reductions. Using the successful community-

<sup>3</sup> <http://www.stopfoodwaste.ie/food-we-waste/challenges>

based model, a further 11 challenges were run in 2015. Over 135 people were involved and as with previous years the response was very positive, with average food waste reductions of 35–45% realised.

### *Stop Food Waste Ambassadors & Master Composters<sup>4</sup>*

Though not strictly prevention, composting is a good practice community action on organic waste management. Composting at home also highlights the impact of wastage and acts as a driver to adopt behaviour changes.

The Stop Food Waste programme builds capacity for food waste prevention and home composting at grass-roots level by training local champions. Over 450 trained Master Composter volunteers have been trained on food waste prevention and home



composting. These volunteers act as Stop Food Waste ambassadors, providing information on food waste prevention and home composting in their communities and help to build composting demonstration sites. There is a network of these home composting demonstration sites in locations around the country<sup>5</sup> such as in public parks, allotments, adult education centres and housing estates, giving a practical demonstration of composting in action and examples of different composting systems.

In 2015, two master composter development programmes took place in counties Laois and Carlow during which 57 volunteers were trained. In Laois, three local demonstration sites were built in addition to the main master composter site in Clonaslee. A number of 'grasscycling' tests were also conducted in public areas. These will be assessed during the early part of 2016. In Carlow, the training took place later in the year and the outreach work will begin during spring 2016.

In addition to these full training programmes, a number of mini programmes were carried out in conjunction with Ballyhoura Development Company, and this alternative three day programme (as opposed to full programme of 7-9 days) will be further trialled during 2016.

### *Working with others*

To get the message to as many people as possible, and to avoid duplication of effort, Stop Food Waste fosters partnerships with others to promote food waste prevention. As well as working with local authorities, Stop Food Waste actively pursues opportunities for collaboration with other organisations targeting similar audiences or having mutually beneficial goals. Groups worked with during 2015 include Green Home, GIY, Healthy Food for All, Tidy Towns groups and HSE Health and Wellbeing Division (community dietitians).

<sup>4</sup> <http://www.stopfoodwaste.ie/home-composting/master-composters>

<sup>5</sup> <http://www.stopfoodwaste.ie/home-composting/master-composters>

In addition, a *Wasted Food Working Group* was established in 2015 between Stop Food Waste, FoodCloud and Bia Food Initiative to cooperate on promoting food waste reduction and advocating for supportive policy.

### **National promotion**

Community-based activities have been shown to be most effective to engage and collaborate with individuals, communities, businesses and other organisations to bring about real changes in behaviour. However, running in parallel to local activities it is also important to raise awareness by continuing to provide information and promote the brand nationally.

Stop Food Waste continues to contribute regularly to media requests for statistics and comment on current topical issues relating to food waste, by preparing or contributing to articles; appearing on TV and radio; or speaking at events. In addition, collaboration with high profile chefs and cooks, such as Catherine Fulvio, Brian McDermott and Sheila Kiely, is important in promoting the main messages to as wide an audience as possible.

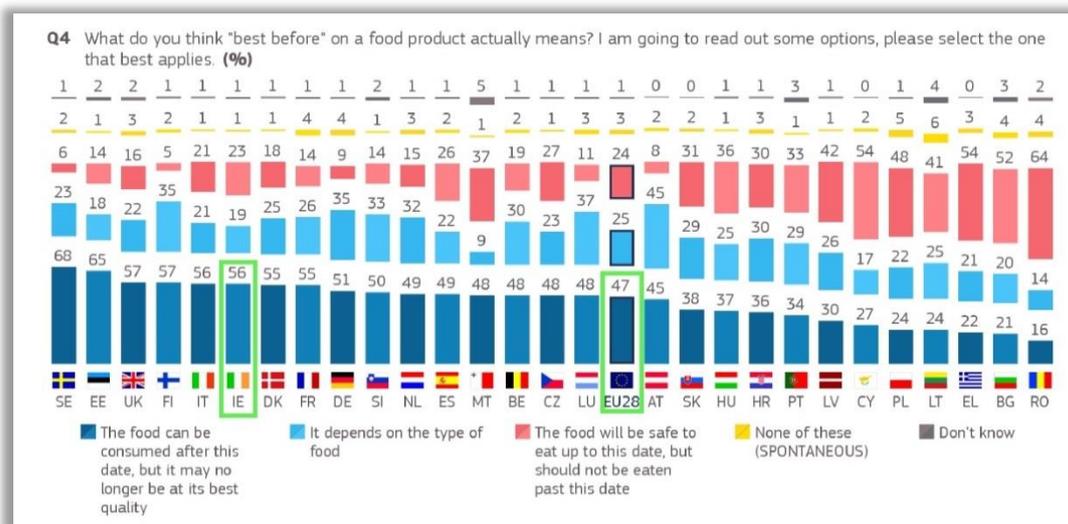
The programme actively engages with individuals and community groups using a variety of social media platforms. These media are important to reinforce and promote key seasonal messages, e.g. wasting less food at Christmas; using the fridge and freezer; composting fallen leaves in autumn. Where possible these are done in collaboration with other groups, to increase exposure by also availing of other networks nationally.



### **Food waste and date marking**

The European Commission estimates that up to a third of household food waste could be linked to the misunderstanding of the meaning of "use by" and "best before" dates. A public survey was carried out in 2015 by the European Commission on awareness, attitudes and practices related to

the management and consumption of food.<sup>6</sup> In the survey, consumers identified themselves as the most important influence in preventing food waste (71%). Correct interpretation of food labelling is therefore critical when it comes to reducing the amount of food waste. Over half of Irish participants correctly identified 'Best Before' label on a food product to mean the food can be consumed after this date, but may no longer be at its best quality. A similar number correctly understood 'Use by' to mean that the food will be safe to eat up to this date, but should not be eaten past this date. These rates are well above EU averages (see below), but point to some level of confusion nonetheless on this issue.



Currently the European Commission is considering options to simplify date marking on foodstuffs, such as extending the list of foods that are not required to have a 'best before' date. The survey reported that over half of Irish respondents indicated that they do not need the 'best before' label on non-perishable foods. A large number (68%) also reported that if they found a package of spaghetti in the kitchen cupboard with no 'Best Before' date, they would use it.

It is clear that confusion over date labelling contributes to the waste of safe, edible food and so Stop Food Waste always promotes awareness on the meaning of the different dates.<sup>7</sup> It has been involved in high-profile campaigns on this topic and in April 2015, Stop Food Waste featured on The Consumer Show on RTE television about date labelling and food waste reduction.

## 2.10 Local Authority Prevention Network

Co-ordinated by the EPA, the Local Authority Prevention Network (LAPN) is a collaborative network of local authority personnel undertaking waste prevention and resource efficiency activities with communities, businesses and other organisations across the country. The EPA provides financial assistance, training, technical assistance and networking opportunities to each of the 31 local authorities. In 2015, grant aid was distributed to each local authority through the three Regional

<sup>6</sup> <http://ec.europa.eu/COMMFrontOffice/PublicOpinion/index.cfm/Archive/index>

<sup>7</sup> <http://www.stopfoodwaste.ie/food-we-eat/best-before-use-by>

Waste Management Offices (RWMOs), who also co-ordinated the projects and collated the results. The total amount of grant aid provided to local authorities was €217,000 to fund a range of activities, including:

- **Greening of Festivals and Events** through reduction of single use packaging, increased segregation of recyclable waste; encouraging vendors to use compostable food packaging and crockery:
  - Clare (Inis Fest);
  - Cavan (Taste of Cavan, Bailieborough Agricultural Show);
  - Dublin City (Bloom, Taste of Dublin);
  - Galway Co. Co. (Clarenbridge Oyster Festival);
  - Sligo (Fleadh Cheoil na hEireann);
  - Tipperary (Fleadh Cheoil na Mumhan);
  - Waterford (Comeragh Crossing, Sean Kelly Cycling Festival, Waterford Festival of Food);
  - Wexford (Maritime Festival, Bannow Rathangan Agricultural Show).
- **Stop Food Waste Prevention** challenges, food waste prevention and composting awareness activities, including running a cinema advert and cookery demonstrations, food waste reduction events at food festivals;
- Promotion of the **reduction of household hazardous products** through workshops and distribution of Greener Cleaning and Greener Gardening guides;
- Promotion of **reusable water bottles** through local fitness and running groups, athletics events, community groups and schools and **reusable beverage cups** (Louth, Leitrim), **reusable 'event' pint glasses** (Sligo);
- **Community interaction** using existing networks (e.g. Tidy Towns groups) to promote waste prevention through workshops and awareness events:
  - Cork Co. Co. (Green Guides for sustainable living);
  - Clare (Resource Efficiency Awareness workshops);
  - South Dublin (businesses);
  - Wicklow (businesses and households);
  - Kilkenny (reusable cotton bags);
  - Cavan (prevention events at CA sites);
  - Galway Co. Co., Roscommon (schools and local authority offices).
- Other **reuse** activities – textiles (Wicklow) and paints (Dun Laoghaire Rathdown, Longford); surplus food donation (Kerry); clothes upcycling (Kilkenny); ReCreate craft workshops (Waterford); support to surplus food distribution projects (Kerry, Monaghan); reuse of tents after festival (Sligo);
- **Promotion of activities and prevention messages** through local radio, press, in cinemas and social media
- **Other activities** – No Junk Mail stickers (Carlow, Clare); waste prevention category in local competition (Wexford), household hazardous waste collection to gather baseline data on

amounts and behaviours (Longford); support to water harvesting project, furniture restoration (Monaghan).

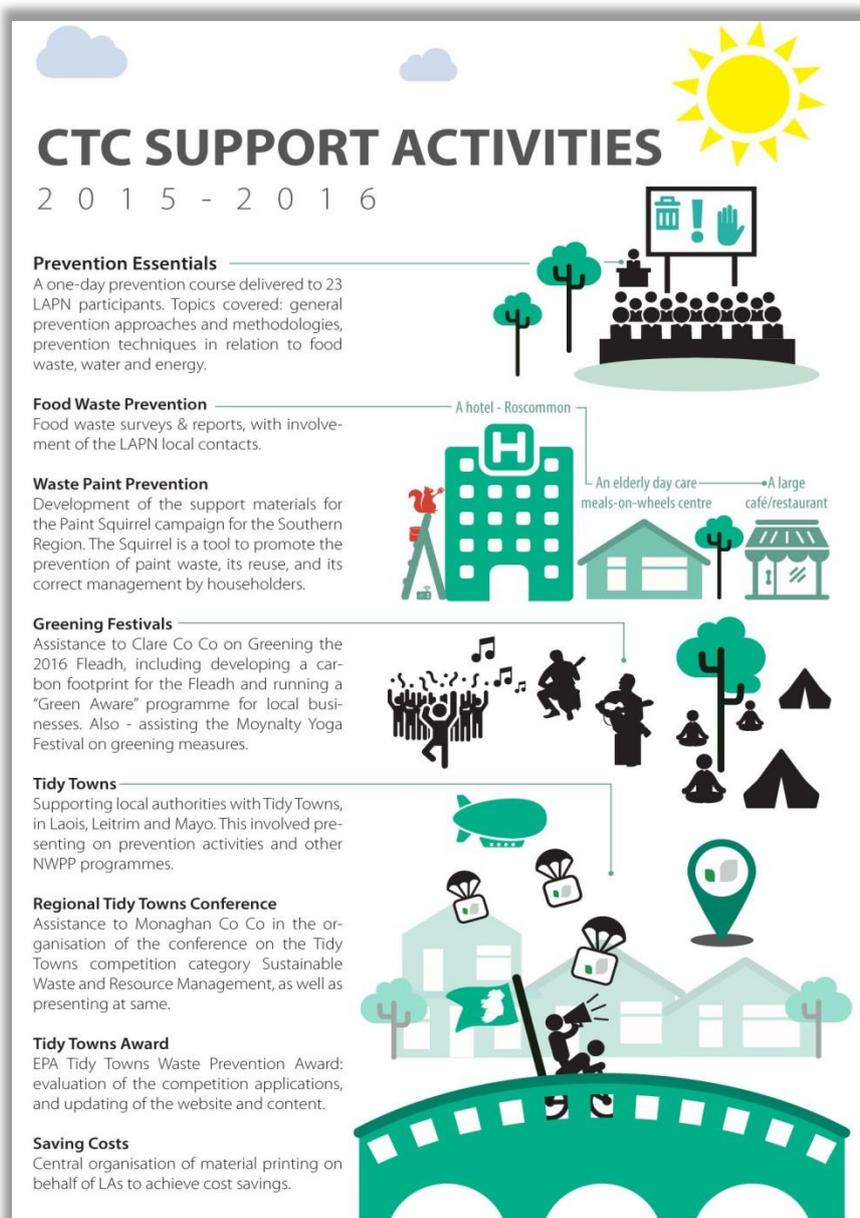
**Table 1:** Local Authority Prevention Network Projects

	Food waste prevention & composting awareness	Greening festivals & events	Reduction of single use items / reusable water bottles	Household hazardous waste reduction	Community interaction	Reuse	Other
Carlow	✳		✳	✳	✳		✳
Cavan	✳			✳			
Clare	✳	✳	✳		✳		✳
Cork City			✳				
Cork County	✳			✳	✳		
Donegal	✳						
Dublin City	✳	✳					
Dun Laoghaire Rathdown						✳	
Galway City	✳				✳		
Galway County	✳	✳	✳	✳	✳		✳
Kerry						✳	
Kildare			✳				
Kilkenny			✳		✳	✳	
Laois	✳				✳		
Leitrim			✳				
Limerick	✳		✳		✳		
Longford				✳			✳
Louth			✳				
Mayo			✳		✳		
Meath	✳						
Monaghan	✳				✳		✳
Offaly	✳						
Roscommon	✳		✳			✳	
Sligo	✳	✳	✳		✳		
South Dublin	✳		✳		✳		
Tipperary	✳	✳	✳	✳			
Waterford	✳	✳	✳			✳	
Westmeath	✳						
Wexford	✳	✳	✳		✳		✳
Wicklow				✳	✳	✳	

Technical assistance, training and support to local authorities and the RWMOs implementing waste prevention activities in their area is provided by the Clean Technology Centre, Cork Institute of Technology on behalf of the EPA. The technical support team provides direct assistance to the participants (through meetings, site visits, review of documents, technical advice), facilitates collaboration and partnership approaches, and co-ordinates many of the collaborative outputs from the Network.

The technical support team also maintains an LAPN internet forum, manages networking activities and supports the EPA with the management and implementation of the programme. Activities in 2015 included:

- Support to all 31 local authorities;
- Evaluation of LAPN project applications;
- Website updates.



### Tidy Towns Waste Prevention Award

In 2015, 18 entries were received for the EPA sponsored Special Award for Waste Prevention. In its second year, this award is to recognise communities that have undertaken activities to prevent waste and use resources efficiently. Examples of waste prevention activities for community groups are collated on the LAPN website ([www.localprevention.ie](http://www.localprevention.ie)).

<p><b>WASTE PREVENTION AWARD</b></p> <p>SPONSORED BY ENVIRONMENTAL PROTECTION AGENCY</p> <p><b>NATIONAL AWARD WINNER OF €1,000</b></p> <p>Glaslough TidyTown, Co. Monaghan</p> <p><b>HIGHLY COMMENDED AWARD OF €500 EACH</b></p> <p>Sligo TidyTown Partnership, Co. Sligo Abbey Village, Loughrea, Co. Galway</p>	 <p><b>ADDITIONAL PRIZE - MOST INNOVATIVE PROJECT: €1,000</b></p> <p>SPONSORED BY CLEAN TECHNOLOGY CENTRE, CORK INSTITUTE OF TECHNOLOGY</p> <p>Moyross Residents' Forum</p> 
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### 2.11 Smart Farming

Smart Farming, the voluntary on-farm resource efficiency initiative that focuses on ways to improve farm returns through better resource management, continues its national roll-out. The Smart Farming initiative is led by the Irish Farmers' Association (IFA) in conjunction with the EPA. It brings together the knowledge and expertise of Teagasc, UCD, SEAI, Farm Tractor and Machinery Trade Association, Fertiliser Association of Ireland, Grassland Association of Ireland, and the National Federation of Group Water Schemes and demonstrates the benefits of better resource management on farms.

During 2015 there was a strong emphasis on working with farmers in the North-West and West. This took place to ensure a balanced regional distribution of the initiative since its launch. In 2016 the initiative will once again be available nationwide.

***“I would say if you get an opportunity to partake in it, do it, it’s as simple as that!”***

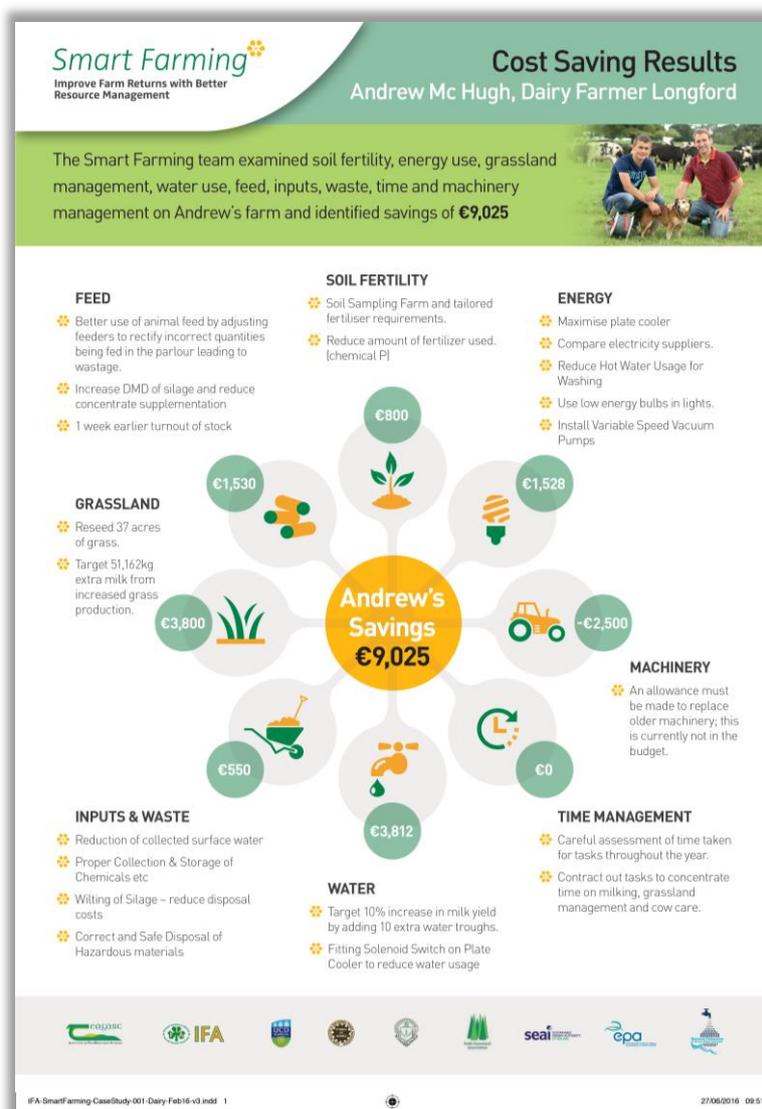
Andrew McHugh, Dairy Farmer

2015 also saw a greater emphasis on the nationwide communication of Smart Farming. In December it featured on RTE’s flagship rural affairs programme Ear to the Ground. The key message in the broadcast was the dual focus of cutting costs and carbon through Smart Farming. The outputs of the Smart Farming studies were also debated at a scientific meeting of the Fertilizer Association of Ireland and the inaugural Midland Regional Energy seminar organised by the Midlands Energy Agency.

The programme website was re-launched ([www.smartfarming.ie](http://www.smartfarming.ie)) and developed to be compatible with many other communication tools, including smart phones and tablet. Short video clips were

produced with the Smart Farming ambassador farmers, providing an overview of the Smart Farming initiative as well as an individual focus on each of the eight areas of: feed, soil fertility, grassland, machinery, water, time management, inputs & waste and energy. These are available to view on the Smart Farming website and YouTube.<sup>8</sup>

The emphasis on cost savings through better resource management continues. A key objective of Smart Farming is to identify at least €5,000 of on-farm savings - in the context of average farm income of €25,000.<sup>9</sup> In addition, the Carbon Navigator tool was piloted on a number of farms where the studies took place. It is designed to assist farmers in assessing their greenhouse gas emissions status, with a focus on mitigation actions that can be taken to achieve improvements. The pilot phase of the use of Carbon Navigator will now be rolled out across participating Smart Farming farms during 2016. Many of the measures identified in the Smart Farming studies are symbiotic in terms of climate mitigation actions and improving farm profitability.



<sup>8</sup> [www.youtube.com/watch?v=\\_aXWsgbvUgo](http://www.youtube.com/watch?v=_aXWsgbvUgo)

<sup>9</sup> <https://www.ifa.ie/wp-content/uploads/2015/01/Farm-Income-Review-2014-Final.pdf>

### 3. WASTE REPORTING & STATISTICS

The EPA supports the successful implementation of the National Waste Prevention Programme through the compilation and reporting of national waste statistics.

#### 3.1 EU Waste Targets

The EPA produces statistics on the generation and management of waste. See [www.wastereport.ie](http://www.wastereport.ie) for the latest published data.

In 2013 (the most recent reference year for which data has been submitted to the European Commission), Ireland achieved targets set under various EU waste Directives:

- **End-of Life Vehicles (ELVs).** Ireland met the ELV Directive targets in 2013, with 80% reuse and recycling and 92% reuse and recovery of ELVs. Higher targets came into effect in January 2015. Ireland is at risk of not achieving the higher targets based on current treatment of ELVs.
- **Waste Electrical and Electronic Equipment (WEEE).** Ireland met the WEEE Directive targets for collection, reuse, recycling and recovery in 2013. New ambitious collection targets come into effect in 2016 under the WEEE Directive recast.
- **Packaging.** Ireland met the Packaging Directive targets for the recovery of waste packaging and the recycling of various waste packaging streams (plastic, paper & board, wood, metals, glass) in 2013. The EU's Circular Economy Package currently in development is proposing higher recycling targets for packaging waste.
- **Batteries and Accumulators.** Ireland met the Battery & Accumulator Directive targets for the collection of portable batteries and recycling efficiencies of different battery & accumulator types in 2013.



Data for reference year 2014 is currently being compiled by the EPA. Most reporting deadlines for reference year 2014 fall on 30<sup>th</sup> June 2016.

#### 3.2 Waste Classification – List of Waste and determining if waste is hazardous or non-hazardous

Since 1<sup>st</sup> June 2015, legislation on the classification of waste has changed and is based on:

1. Commission Decision of 18<sup>th</sup> December 2014 (2014/955/EEC), amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC of the European Parliament and of the Council.

2. Statutory Instrument No. 233 of 2015, European Union (Properties of Waste which Render It Hazardous) Regulations 2015 transposing the Commission Regulation (EU) No 1357/2014 of 18<sup>th</sup> December, 2014 replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives.

This waste classification system applies across the EU and is key to all waste reporting obligations.

In June 2015, the EPA published “*Waste Classification. List of Waste & Determining if Waste is Hazardous or Non-hazardous*”. The document incorporates both the EU Commission Decision and Regulation and provides guidance on how to follow them. The consolidated document replaces:

- The 2002 European Waste Catalogue and the Hazardous Waste List.
- Hazardous Waste Classification Tool.
- Hazardous Waste Classification Worksheet.

The publication is an important reference document for waste operators and waste regulators and is available for download on the EPA website.<sup>10</sup>

### 3.3 Quarterly National Household Survey - Environment Module

In March 2016 the Central Statistics Office (CSO) published the *Quarterly National Household Survey – Environment Module*. The publication provides valuable and comprehensive information on people’s attitudes and behaviours regarding waste management, energy use and purchasing.

The EPA was represented on the CSO Working Group which developed the questions for this survey. One of the key reasons for the EPA’s involvement was to address knowledge and data gaps regarding household waste management practices, such as how many households share a wheellie bin service and how households manage hazardous waste streams such as waste pesticides and waste oils. The information is published at national level, and also broken down by region, urban/rural area, dwelling type, construction date, nature of occupancy, nationality, household working status.

The report can be downloaded from the CSO<sup>11</sup> and the EPA issued a press release welcoming its publication.<sup>12</sup>

Some of the main findings from the survey regarding household waste management which will be of interest to those involved in waste regulation, waste reporting and waste prevention initiatives included:

- For 84% of households the main method for managing non-recyclable (residual) waste was a kerbside bin or bag service (79% of households used this method for managing recyclable

<sup>10</sup> <http://www.epa.ie/waste/municipal/waste/class>

<sup>11</sup> <http://www.cso.ie/en/releasesandpublications/er/q-env/qnhsenvironmentmoduleq22014>

<sup>12</sup> <http://www.epa.ie/newsandevents/news/name,59071,en.html%20-%20.VuvL503ctaQ>

waste). Four per cent of households share a bin with a neighbour, relative or friend. 2% of households reported that they didn't recycle household waste.

- The most popular methods of disposing of food and garden waste were through use of a brown bin or bringing the waste to a recycling centre (35% of households). 26% of households reported using a collection bin other than a brown bin for managing food and garden waste.
- 33% of households reported bringing out of date and unwanted household medicines to a pharmacy, while 22% of households reporting putting this waste in with household waste.
- Small waste electrical and electronic equipment (WEEE) was generally well managed with 50% of households reporting bringing it to a recycling centre and 27% bringing back to a retailer, but 7% of households reporting putting WEEE in with household waste.
- Almost three-quarters (72%) of householders recycled small batteries. Rented households (36%) and persons living alone, aged 65 and over (41%) were the least likely to recycle small batteries. Reasons given for not recycling small batteries were didn't know they could be recycled (6%), don't know where/how to recycle them (3%) or recycling small batteries isn't a priority for me (5%).
- The most popular method used by households to reduce waste was to purchase only what can be consumed by the sell-by date (51%). The next most popular measure was to purchase products with less packaging (35%).



The last municipal waste characterisation study was last carried out in 2008, following a prior study in 2004. At this point, knowledge of the composition of Ireland's municipal waste is out of date and the urgent requirement for a new waste characterisation to be conducted is well recognised. Through the support of the DECLG, it is planned that a new national study will commence during 2016.

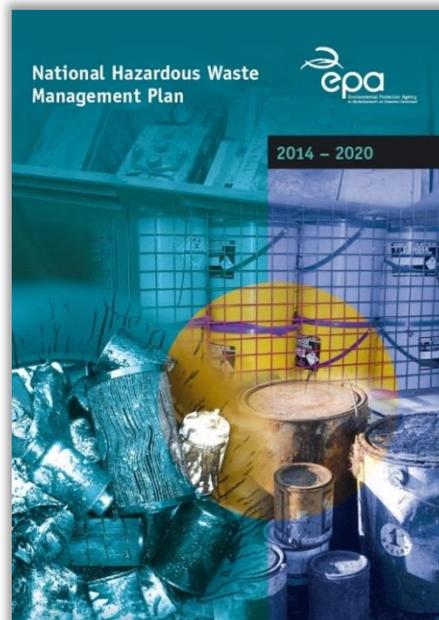
## 4. HAZARDOUS WASTE ACTIVITIES UNDER NWPP

### 4.1 Hazardous Waste Prevention and Management

The revised National Hazardous Waste Management Plan (NHWMP), (2014-2020) was published in June 2014. The plan was developed in accordance with Section 26 of the Waste Management Acts 1996 as amended.

The NHWMP is a strategic level document designed to provide overall direction to decision and policy makers involved in the prevention and management of hazardous waste. The main components of the National Hazardous Waste Management Plan 2008-2012 remain intact in the revised plan. The key objectives of the revised plan are:

- To prevent and reduce the generation of hazardous waste by industry and society generally;
- To minimise the environmental, health, social and economic impacts of hazardous waste generation and management;
- To maximise the collection of hazardous waste with a view to reducing the environmental and health impacts of any unregulated waste; and
- To strive for self-sufficiency in the management of hazardous waste and minimise hazardous waste export.



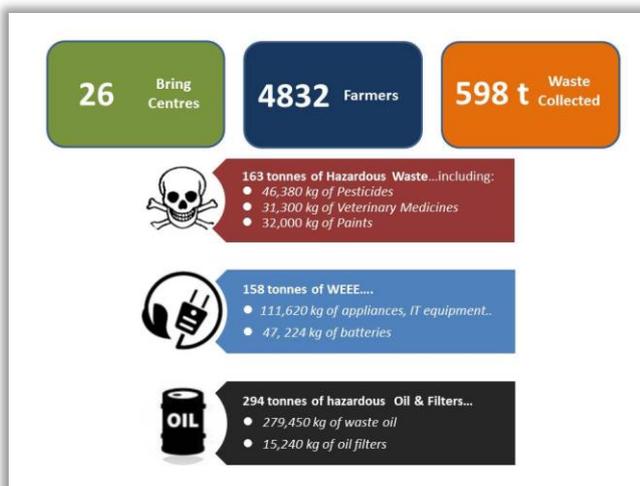
The key to achieving the Plan's objectives is effective implementation. Some of the key priority areas implemented to date include:

- The inclusion of relevant hazardous NHWMP recommendations within the Regional Waste Management Plans, regional planning guidelines and regional and area development plans in accordance with Sections 22(8) and 26(6) of the Waste Management Act 1996, as amended.
- Organisation and completion of a further 10 farm hazardous waste bring centres during 2015.
- Small scale hazardous waste collections for householders were initiated at civic amenity sites organised through the Regional Waste Management Offices.
- Continuous engagement with priority sectors (pharmaceutical, health, agricultural and household) and communities (e.g. via Local Authority Prevention Network) on hazardous waste prevention activities as detailed in the Plan.

## 4.2 Farm Hazardous Waste Collections

In 2015, EPA continued to collaborate with Teagasc and Local Authorities to hold a series of bring centres to facilitate the collection, recovery and disposal of hazardous waste from farms. This initiative is also supported by DECLG; Department of Agriculture, Food and the Marine; WEEE Ireland; and the European Recycling Platform. The farm hazardous waste campaign was also promoted and supported by many other bodies including Bord Bia, IFA, ICMSA, IFFPG, livestock mart owners, local development groups, and agricultural co-operatives & merchants.

Since the initiation of the programme in 2013, almost 5,000 farmers have used 26 one-day hazardous waste collection centres; and the average weight collected per farmer was 90 kg. This campaign probably represents the largest ever voluntary bulk removal of highly toxic pollutants out of the Irish environment.



While some wastes are accepted for free at the centres, farmers paid a subsidised rate of €2/kg for the disposal of certain hazardous wastes. Wastes collected included pesticides, veterinary healthcare products, used oils, lead batteries and WEEE. Among the waste pesticides collected were substantial quantities (1,220 kg) of highly toxic and persistent substances such as DDT, Lindane and Endosulfan which are recognised as posing serious risks to both human health and the environment.

To date, the farm hazardous waste campaign has facilitated the removal of almost 600 tonnes of hazardous waste from farms; and has also contributed to building a picture of the types and quantities of hazardous wastes generated and stockpiled on farms. The campaign receives strong voluntary participation from farmers, demonstrating their willingness to contribute financially to the environmentally sound management of waste, when presented with a practical opportunity to do so.

**Farm Hazardous Waste**  
Collection Centres, Locations & Charges **OCTOBER & NOVEMBER 2015**

**LOCATE** your nearest collection centre | **SAVE** the date of your waste | **DISPOSE** safely & correctly

Collection centres will open from **9:30am to 3:30pm**

**Centres:**

- Team Mart, Co. Galway: Friday 6th November
- Ennis Mart, Co. Clare: Monday 2nd November
- Cahir Mart, Co. Tipperary: Tuesday 17th November
- Castledward Mart, Co. Kerry: Saturday 14th November
- Bandon Mart, Co. Cork: Friday 27th November
- Deside Agri Country Store, Ardee, Co. Louth: Friday 20th November
- Ballymahon Mart, Co. Longford: Wednesday 28th October
- Mountrath Mart, Co. Laois: Tuesday 20th October
- Tullow Mart, Co. Carlow: Monday 9th November
- New Ross Mart, Co. Wexford: Wednesday 25th November

**CHARGES FOR WASTE TYPES**

Waste Type	Charge
Pesticides and biocides Veterinary medicines Animal health care wastes Nails and awnings Waste paints Barrellets Cartridges (acid, detergent) Oil and air filters Oily wastes Drake fluids Brake pads Antifreeze Adhesives Coolants Grease cartridges Cassette	€2/KG (incl. VAT @ 13.5%)
Contaminated empty plastic containers which would have contained for example pesticides, biocides, dairy hygiene products, paints, waste oil, antifreeze, diesel etc.	€4/KG (incl. VAT @ 13.5%)
Waste engine oil and waste hydraulic oil including that contained within air used for the transport of these waste oils to the collection centre	Free of Charge
Waste Electrical & Electronic Equipment (WEEE): TVs Computers Fridges Freezers Power tools, kettles All batteries Refrigerant lamps (including CFL)	Free of Charge

Please see overleaf for safety advice.

The farm hazardous waste campaign has confirmed that there are substantial quantities of farm hazardous waste present on farms (both legacy and current) which pose a potential risk to people, crops and animals along with a reputational risk to Ireland's highly valued image as a provider of safe, clean foodstuffs.

This pilot scheme has also clearly identified a successful, workable solution for this issue - based on inter-agency collaboration and voluntary farmer

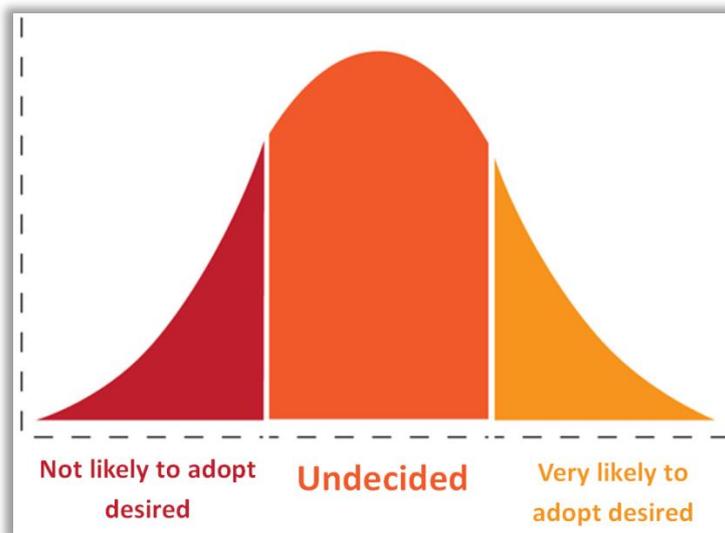
participation. The development of a long-term sustainable and affordable national collection scheme for farm hazardous waste is a national priority and requires urgent attention. In the meantime EPA, Teagasc, DAFM, DECLG and local authorities plan to operate another ten centres across the country in 2016 to ensure the continuation of this important initiative in the interim period.

## 5. COMMUNICATING THE OUTPUTS

The NWPP is not just about developing tools and technologies to ensure that Ireland as a nation, becomes more resource efficient. Possibly the most important element of all is translating the projects, products and services developed under the many arms of the NWPP into actual behavioural change, and this is a complex issue.

Experience has shown that in any population, a certain proportion will never adopt a certain behaviour, for example recycling, and conversely, a proportion will be very likely to adopt the desired behaviour. This leaves a middle ground of people who can be influenced by the correctly presented interventions.

**Figure 8:** *Likelihood of a population to adopt a desired behaviour*



To better understand what motivates people to act in an environmentally responsible way, and to incorporate these elements into projects, the EPA commissioned a study called “Open Practices.”

### 5.1 Open Practices

“Open Practices” is funded by the EPA Research Programme and explores how government interventions and public services in Ireland can enable sustainable behaviour change in businesses and communities in Ireland. The research is integrating emerging knowledge on sustainable behaviour change with empirical insights from existing EPA interventions with businesses and communities in Ireland. Alongside in-depth research with businesses and communities, Open

Practices is conducting interviews, workshops and surveys with public sector organisations across Ireland.

Open Practices is applying design research methods such as ethnography, user journey mapping, service safaris and contextual interviews. The research is design-led in that it is producing prototype services that can be trialled and tested by the EPA in the future. The project is also engaging in on-going dialogue with international experts on sustainable behaviour change and participating in international conferences and research workshops. For more details, please see [www.openpractices.net](http://www.openpractices.net).



**Why deliver this research?**

The last decade has seen a rapid growth in the application of behavioural insights to the development of policy and public services. A number of governments, including EU member states, have established “behavioural insights” teams or “policy labs” that are exploring how to integrate behaviour into policy making. These teams use behavioural insights alongside design-led methods of policy development to improve outcomes for citizens, businesses and government. Internationally, the World Bank and the OECD are championing the use of behavioural insights.

While much of the work on behaviour change is focussed on individual behaviour (e.g. energy use in the home, reducing litter), Open Practices is currently focussed on services and policy interventions aimed at businesses and communities. This is an under-researched but important context because businesses participate in and impact on the socio-technical conditions that drive long-standing behaviours and habits among the wider public.



There is currently no equivalent behavioural unit or policy lab in Ireland but a number of research projects (many funded by the EPA) are addressing aspects of behaviourally informed policy and public services. Additionally, there are individuals within public sector organisations in Ireland, such as ESRI, which are championing behavioural approaches. It is intended that this research will help outline how behavioural insights can be developed as an approach to policy making and public service design in Ireland.

## 5.2 BeGreen.ie

The NWPP web presence comprises a large number of individual programmes and projects, each focussed on a particular target audience or sector. In order to best present these initiatives together under one umbrella, the BeGreen.ie website was developed. This site offers an “at a glance” overview of the main elements of the NWPP grouped by their main target audience.



The EPA has always tried to make its functions accessible to the public through a variety of means. One of the most effective is the ongoing sponsorship of the Eco-Eye series on RTE television. In 2015, the series included an episode “The Story of Stuff” which was produced in association with the NWPP. In this programme, a number of Green Enterprise projects were featured including The Revival Roadshow (CRNI), Ecotourism on Inisboffin (Ecotourism Ireland), Bia Food Initiative and FoodCloud, as well as Eco-Mattress and Eco-cell. Presenter Duncan Stewart drew the parallels between Inisboffin addressing its waste as an island community with the issues facing the larger island of Ireland.

## 5.3 Livegreen.ie

During 2015, the EPA also developed an online resource for householders and families called ‘Live Green’. The site contains tips and guidance on a range of environmental and health matters, with content provided by EPA along with Irish Water and the HSE. It is structured around four household themes:



- Health & Community projects
- Water conservation
- Waste prevention
- Energy efficiency

The site employs a tagline: ‘**Small Changes, Big Difference**’ to reflect the ethos that making small changes at home or in communities can make a big difference to wellbeing.

## 6. CONCLUSION AND OUTLOOK

This report is intended to provide an engaging overview of the wide ranging activities carried out through the NWPP over the course of 2015. Most of the resources, reports and data presented in this report are available in further detail through the NWPP website at [www.begreen.ie](http://www.begreen.ie). While many parts of the NWPP do not lend themselves to simple value for money calculations, those that do demonstrate that the programmes continue to deliver value as illustrated in the figures below:

Programme	2015 NWPP funding	Savings <sup>a</sup>	Return on Investment
<b>Green Business</b>	€300,000	€1.2m	4 : 1
<b>FreeTrade Ireland</b>	€40,000	€502,500	12 : 1
<b>SMILE Resource Exchange</b>	€100,000	€1,25m	12 : 1
<b>Community Re-Use Network</b>	€70,000	See below	
<b>Smart Farming</b>	€100,000	€3.25m	32 : 1

<sup>a</sup> Savings achieved & identified

One significant area that cost and value is difficult to quantify is through the activities of the social economy, with which the NWPP has been increasingly involved in the last few years. This can be for a variety of reasons. For example a lot of environmental benefit is gleaned from projects funded from social funding, and indeed vice-versa. Other difficulties involve the quantification of creating training and work opportunities, or rehabilitating a marginalised member of society into an potential employee.

Recent European Environment Agency reviews of waste prevention programmes across Europe shows that Ireland punches well above its weight in respect of the breadth and depth of its NWPP and is one of the most mature and well-rounded programmes of its type.

Current signals from Irish waste statistics suggest that there has been a de-coupling of waste production rates from economic activity. While it is too soon to confirm this shift, especially in light of the severe recession and austerity in recent years, but initial signs are hopeful.

As the economy recovers and consumption increases, it will be a real challenge to hold the hard fought ground, and maintain a focus on resource efficiency. EPA will be working with its partners, including the new waste regions, to promote and expand waste prevention across households and workplaces. The circular economy framework can act as a driver for this activity and it is envisaged that as it unfolds, that the NWPP will be a focal-point for realising Ireland's circular economy ambitions, through supporting efficiency projects and through encouraging knowledge exchange.

The overall goal is to encourage personal and organisational behaviours towards a lifestyle that deliver a high standard of living, but with a lesser impact on our planet.

## Appendix A: National Waste Prevention Committee (2015)

<u>Representative</u>	<u>Organisation</u>
<b>Jonathan Derham</b> (Chair)	Environmental Protection Agency
<b>Shane Colgan</b> (ex officio)	Environmental Protection Agency
<b>Philip Nugent</b>	Department of Environment, Community & Local Government
<b>Bernie Kiely</b>	Department of Environment, Community & Local Government
<b>Jean Clarke</b>	Department of Environment, Community & Local Government
<b>Marian Byrne</b>	Department of Agriculture, Food & the Marine
<b>Orla O'Brien</b>	Department of Jobs, Enterprise & Innovation
<b>Phillippa King</b>	Southern Waste Region
<b>Hugh Coughlan</b>	Eastern & Midlands Waste Region
<b>Kevin Swift</b>	Connacht Ulster Waste Region
<b>Brendan Keane</b>	Irish Waste Management Association
<b>Enda Kiernan</b>	Chartered Institution of Wastes Management
<b>Des Cummins</b>	Small Firms Association
<b>Andrew Cartwright</b>	Irish Small & Medium Enterprises
<b>Michael Gillen</b>	Pharmaceutical Ireland (Ibec)
<b>Anne Murphy</b>	Ibec
<b>Thomas Ryan</b>	Irish Farmers Association
<b>Robert Geraghty</b>	Enterprise Ireland
<b>Ray Bowe</b>	IDA Ireland
<b>Dermot Cunningham</b>	Clean Technology Centre
<b>Mindy O'Brien</b>	Environmental NGOs
<b>Mark O'Mahoney</b>	Chambers of Commerce of Ireland
<b>Joanne Rourke</b>	Community Re-Use Network Ireland
<b>Helen Maher</b>	Health Service Executive
<b>Olivier Gaillot</b>	Engineers Ireland

## Appendix B: National Waste Prevention Committee Terms of Reference

- Monitor the development and implementation of the National Waste Prevention Programme;
- Monitor the implementation, by relevant public authorities, of National Hazardous Waste Management Plan recommendations;
- Advise and provide strategic direction to the Core Prevention Team in developing and driving the National Waste Prevention Programme;
- Provide input to the Environmental Protection Agency for the purpose of section 26(6) of the 1996 Waste Management Act;
- Identify priorities for action and make recommendations to relevant public authorities and private bodies;
- Consider and make recommendations to the Minister for the Environment, Community and Local Government regarding appropriate policy and legislative initiatives;
- Have regard to national, European Union and international policy and legislation and best practice in relation to waste prevention and hazardous waste management;
- Facilitate, support and promote co-ordination and liaison between relevant bodies, public and private, on the National Waste Prevention Programme and the National Hazardous Waste Management Plan;
- Consider and make recommendations to relevant bodies regarding public awareness requirements in relation to hazardous waste and the prevention of waste;
- Monitor and evaluate new research and data on waste prevention, trends in hazardous and non-hazardous waste production and waste management practices;
- Consider and make recommendations to the Environmental Protection Agency and the Department of the Environment, Community and Local Government on research priorities;
- Monitor progress in sectoral producer responsibility initiatives;
- Disseminate information on best practice in waste prevention and hazardous waste management;
- Consider and make recommendations to relevant bodies regarding the provision of funding to support implementation of the National Waste Prevention Programme and the National Hazardous Waste Management Plan; and
- Prepare and submit to the Minister for the Environment, Community and Local Government an annual report outlining progress on the implementation of the National Waste Prevention Programme and the National Hazardous Waste Management Plan.

## Appendix C: Progress towards EU waste recycling, recovery & diversion targets (May 2016)

Directive	Title	Article	Targets		Current progress to target in Ireland	Indicator	
			Target date	Specifics			
94/62/EC as amended	Packaging Directive <sup>13</sup>	6(1)	31-12-2011	60% as a minimum by weight of packaging waste will be recovered or incinerated at waste incineration plants with energy recovery.	88%	Achieved	
				55% as a minimum by weight of packaging waste will be recycled.	70%	Achieved	
				No later than 31 <sup>st</sup> December 2011 the following minimum recycling targets for materials contained in packaging waste will be attained:			
				(i) 60% by weight for glass;	80%	Achieved	
				(ii) 60% by weight for paper and board;	79%	Achieved	
				(iii) 50% by weight for metals;	79%	Achieved	
				(iv) 22.5% by weight for plastics, counting exclusively material that is recycled back into plastics;	40%	Achieved	
(v) 15% by weight for wood.	82%	Achieved					
2002/96/EC	WEEE Directive <sup>14</sup>	5(5)	(31-12-2006) 31-12-2008 <sup>15</sup>	Separate collection of > 4kg of WEEE from private households per person per year.	7.2 kg	Achieved	
		7(2)		For large household appliances:- – recovery shall be increased to a minimum of 80% by an average weight per appliance; and – component, material and substance reuse and recycling shall be increased to a minimum of 75% by an average weight per appliance.	84%	Achieved	
				For automatic dispensers:- – recovery shall be increased to a minimum of 80% by an average weight per appliance; and – component, material and substance reuse and recycling shall be increased to a minimum of 75% by an average weight per appliance.	83%		
				– component, material and substance reuse and recycling shall be increased to a minimum of 75% by an average weight per appliance.	81%		
				For IT and telecommunications equipment:- – the rate of recovery shall be increased to a minimum of 75% by an average weight per appliance; and – component, material and substance reuse and recycling shall be increased to a minimum of 65% by an average weight per appliance.	91%		
– component, material and substance reuse and recycling shall be increased to a minimum of 65% by an average weight per appliance.	85%	Achieved					

<sup>13</sup> 2013 data, most recent reported to European Commission.

<sup>14</sup> 2013 data, most recent reported to European Commission.

<sup>15</sup> Ireland secured a two-year derogation.

Directive	Title	Article	Targets		Current progress to target in Ireland	Indicator
			Target date	Specifics		
				For consumer equipment:- <ul style="list-style-type: none"> <li>– the rate of recovery shall be increased to a minimum of 75% by an average weight per appliance; and</li> <li>– component, material and substance reuse and recycling shall be increased to a minimum of 65% by an average weight per appliance.</li> </ul>	95%	Achieved
					92%	
2002/96/EC	WEEE Directive <sup>14</sup>		(31-12-2006) 31-12-2008 <sup>15</sup>	For small household appliances, electrical & electronic tools, toys, leisure and sports equipment:- <ul style="list-style-type: none"> <li>– the rate of recovery shall be increased to a minimum of 70% by an average weight per appliance; and</li> <li>– component, material and substance reuse and recycling shall be increased to a minimum of 50% by an average weight per appliance.</li> </ul>	91%	Achieved
					82%	
				For medical devices:- <ul style="list-style-type: none"> <li>– the rate of recovery shall be increased to a minimum of 70% by an average weight per appliance; and</li> <li>– component, material and substance reuse and recycling shall be increased to a minimum of 50% by an average weight per appliance.</li> </ul>	90%	Achieved
					82%	
				For monitoring and control instruments:- <ul style="list-style-type: none"> <li>– the rate of recovery shall be increased to a minimum of 70% by an average weight per appliance; and</li> <li>– component, material and substance reuse and recycling shall be increased to a minimum of 50% by an average weight per appliance.</li> </ul>	89%	Achieved
					81%	
For lighting equipment:- <ul style="list-style-type: none"> <li>– the rate of recovery shall be increased to a minimum of 70% by an average weight per appliance; and</li> <li>– component, material and substance reuse and recycling shall be increased to a minimum of 50% by an average weight per appliance.</li> </ul>	94%	Achieved				
	86%					
				For gas discharge lamps, the rate of component, material and substance reuse and recycling shall reach a minimum of 80% by weight of the lamps.	92%	Achieved
2000/53/EC	End of Life Vehicles Directive <sup>16</sup>	7(2)(a)	1-1-2006	Reuse and recovery to a minimum of 85% by average weight of vehicle and year.	92%	Achieved

<sup>16</sup> 2013 data, most recent reported to European Commission.

Directive	Title	Article	Targets		Current progress to target in Ireland	Indicator	
			Target date	Specifics			
				Reuse and recycling to a minimum of 80% by average weight of vehicle and year.	80%	Achieved	
		7(2)(b)	1-1-2015	Reuse and recovery to a minimum of 95% by average weight of vehicle and year.	(92%)	Risk Due January 2015	
				Reuse and recycling to a minimum of 85% by average weight of vehicle and year.	(80%)	Risk Due January 2015	
2006/66/EC	Batteries Directive	10(2)	31-12-11	Minimum 25% collection rate for batteries & accumulators.	28% <sup>17</sup>	Achieved	
			26-9-2016	Minimum 45% collection rate for batteries & accumulators.	(33%) <sup>18</sup>	Risk Due September 2016	
		12(4)	26-9-2011	Recycling processes shall achieve the following minimum recycling efficiencies:			
				(a) recycling of 65 % by average weight of lead-acid batteries and accumulators, including recycling of the lead content to the highest degree that is technically feasible while avoiding excessive costs;	96% <sup>18</sup>	Achieved	
				(b) recycling of 75 % by average weight of nickel-cadmium batteries and accumulators, including recycling of the cadmium content to the highest degree that is technically feasible while avoiding excessive costs; and	100% <sup>18</sup>	Achieved	
(c) recycling of 50 % by average weight of other waste batteries and accumulators.	57% <sup>18</sup>	Achieved					
1999/31/EC	Landfill Directive	5(2)	(16-7-2006) 16-7-2010 <sup>19</sup>	Biodegradable municipal waste going to landfills must be reduced to 75% of the total quantity (by weight) biodegradable municipal waste produced in 1995 (< 916,000 t)	860,000 t <sup>20</sup>	Achieved	

<sup>17</sup> Collection rate for 2011, target year.

<sup>18</sup> 2014 data, most recent reported to the European Commission.

<sup>19</sup> Ireland secured a four-year derogation on first and second targets.

<sup>20</sup> Biodegradable Municipal Waste tonnage disposed to landfill in 2010.

Directive	Title	Article	Targets		Current progress to target in Ireland	Indicator
			Target date	Specifics		
			(16-7-2009) 16-7-2013	Biodegradable municipal waste going to landfills must be reduced to 50% of the total quantity (by weight) biodegradable municipal waste produced in 1995 (< 610,000 t)	380,800 t <sup>21</sup>	Achieved
			16-7-2016	Biodegradable municipal waste going to landfills must be reduced to 35% of the total quantity (by weight) biodegradable municipal waste produced in 1995 (427,000 t)	(380,800 t) <sup>21</sup>	On track Due July 2016
2008/98/EC	Waste Framework Directive	11(2)(a)	12-12-2020	Preparing for reuse and recycling of 50% by weight of household derived paper, metal, plastic & glass ( <i>includes metal and plastic estimates from household WEEE</i> ).	45% <sup>22</sup>	On track Due December 2020
		11(2)(b)	12-12-2020	Preparing for reuse, recycling and other material recovery (incl. beneficial backfilling operations using waste as a substitute) of 70% by weight of C&D waste (excluding natural soils & stone)	91% <sup>22</sup>	Achieved
		29	12-12-2013	Establishment of a National Waste Prevention Programme (NWPP)	NWPP established in 2004	Achieved

<sup>21</sup> Biodegradable Municipal Waste tonnage disposed to landfill in 2013.

<sup>22</sup> 2012 data, most recent reported to the European Commission.

## AN GHNÍOMHAIREACHT UM CHAOMHNÚ COMHSHAOIL

Tá an Gníomhaireacht um Chaomhnú Comhshaoil (GCC) freagrach as an gcomhshaoil a chaomhnú agus a fheabhsú mar shócmhainn luachmhar do mhuintir na hÉireann. Táimid tiomanta do dhaoine agus don chomhshaoil a chosaint ó éifeachtaí díobhálacha na radaíochta agus an truaillithe.

## Is féidir obair na Gníomhaireachta a roinnt ina trí phríomhréimse:

**Rialú:** Déanaimid córais éifeachtacha rialaithe agus comhlíonta comhshaoil a chur i bhfeidhm chun torthaí maithhe comhshaoil a sholáthar agus chun díriú orthu siúd nach gcloíonn leis na córais sin.

**Eolas:** Soláthraimid sonraí, faisnéis agus measúnú comhshaoil atá ar ardchaighdeán, spriocdhírithé agus tráthúil chun bonn eolais a chur faoin gcinnteoireacht ar gach leibhéal.

**Tacaíocht:** Bímid ag saothrú i gcomhar le grúpaí eile chun tacú le comhshaoil atá glan, táirgiúil agus cosanta go maith, agus le hiompar a chuirfidh le comhshaoil inbhuanaithe.

## Ár bhFreagrachtaí

### Ceadúnú

Déanaimid na gníomhaíochtaí seo a leanas a rialú ionas nach ndéanann siad dochar do shláinte an phobail ná don chomhshaoil:

- saoráidí dramhaíola (*m.sh. láithreáin líonta talún, loisceoirí, stáisiúin aistrithe dramhaíola*);
- gníomhaíochtaí tionsclaíocha ar scála mór (*m.sh. déantúsaíocht cógaisíochta, déantúsaíocht stroighne, stáisiúin chumhachta*);
- an diantalmhaíocht (*m.sh. muca, éanlaith*);
- úsáid shrianta agus scaoileadh rialaithe Orgánach Géinmhodhnaithe (*OGM*);
- foinsí radaíochta ianúcháin (*m.sh. trealamh x-gha agus radaiteiripe, foinsí tionsclaíochta*);
- áiseanna móra stórála peitрил;
- scardadh dramhuisce;
- gníomhaíochtaí dumpála ar farraige.

### Forfheidhmiú Náisiúnta i leith Cúrsaí Comhshaoil

- Clár náisiúnta iniúchtaí agus cigireachtaí a dhéanamh gach bliain ar shaoráidí a bhfuil ceadúnas ón nGníomhaireacht acu.
- Maoirseacht a dhéanamh ar fhreagrachtaí cosanta comhshaoil na n-údarás áitiúil.
- Caighdeán an uisce óil, arna sholáthar ag soláthraithe uisce phoiblí, a mhaoirsiú.
- Obair le húdarás áitiúla agus le gníomhaireachtaí eile chun dul i ngleic le coireanna comhshaoil trí chomhordú a dhéanamh ar líonra forfheidhmiúcháin náisiúnta, trí dhírú ar chiontóirí, agus trí mhaoirsiú a dhéanamh ar leasúchán.
- Cur i bhfeidhm rialachán ar nós na Rialachán um Dhramhthrealamh Leictreach agus Leictreonach (DTLL), um Shrian ar Shubstaintí Guaiseacha agus na Rialachán um rialú ar shubstaintí a idíonn an ciseal ózóin.
- An dlí a chur orthu siúd a bhriseann dlí an chomhshaoil agus a dhéanann dochar don chomhshaoil.

### Bainistíocht Uisce

- Monatóireacht agus tuairisciú a dhéanamh ar cháilíocht aibhneacha, lochanna, uisce idirchriosacha agus cósta na hÉireann, agus screamhuiscí; leibhéal uisce agus sruthanna aibhneacha a thomhas.
- Comhordú náisiúnta agus maoirsiú a dhéanamh ar an gCreat-Treoir Uisce.
- Monatóireacht agus tuairisciú a dhéanamh ar Cháilíocht an Uisce Snámha.

## Monatóireacht, Anailís agus Tuairisciú ar an gComhshaoil

- Monatóireacht a dhéanamh ar cháilíocht an aeir agus Treoir an AE maidir le hAer Glan don Eoraip (CAFÉ) a chur chun feidhme.
- Tuairisciú neamhspleách le cabhrú le cinnteoireacht an rialtais náisiúnta agus na n-údarás áitiúil (*m.sh. tuairisciú tréimhsiúil ar staid Chomhshaoil na hÉireann agus Tuarascálacha ar Tháscairí*).

## Rialú Astaíochtaí na nGás Ceaptha Teasa in Éirinn

- Fardail agus réamh-mheastacháin na hÉireann maidir le gáis cheaptha teasa a ullmhú.
- An Treoir maidir le Trádáil Astaíochtaí a chur chun feidhme i gcomhair breis agus 100 de na táirgeoirí dé-ocsaíde carbóin is mó in Éirinn.

## Taighde agus Forbairt Comhshaoil

- Taighde comhshaoil a chistiú chun brúnna a shainithint, bonn eolais a chur faoi bheartais, agus réitigh a sholáthar i réimsí na haeráide, an uisce agus na hinbhuanaitheachta.

## Measúnacht Straitéiseach Timpeallachta

- Measúnacht a dhéanamh ar thionchar pleananna agus clár beartaithe ar an gcomhshaoil in Éirinn (*m.sh. mórphleananna forbartha*).

## Cosaint Raideolaíoch

- Monatóireacht a dhéanamh ar leibhéal radaíochta, measúnacht a dhéanamh ar nochtadh mhuintir na hÉireann don radaíocht ianúcháin.
- Cabhrú le pleananna náisiúnta a fhorbairt le haghaidh éigeandálaí ag eascairt as taismí núicléacha.
- Monatóireacht a dhéanamh ar fhorbairtí thar lear a bhaineann le saoráidí núicléacha agus leis an tsábháilteacht raideolaíochta.
- Sainseirbhísí cosanta ar an radaíocht a sholáthar, nó maoirsiú a dhéanamh ar sholáthar na seirbhísí sin.

## Treoir, Faisnéis Inrochtana agus Oideachas

- Comhairle agus treoir a chur ar fáil d'earnáil na tionsclaíochta agus don phobal maidir le hábhair a bhaineann le caomhnú an chomhshaoil agus leis an gcosaint raideolaíoch.
- Faisnéis thráthúil ar an gcomhshaoil ar a bhfuil fáil éasca a chur ar fáil chun rannpháirtíocht an phobail a spreagadh sa chinnteoireacht i ndáil leis an gcomhshaoil (*m.sh. Timpeall an Tí, léarscáileanna radóin*).
- Comhairle a chur ar fáil don Rialtas maidir le hábhair a bhaineann leis an tsábháilteacht raideolaíoch agus le cúrsaí práinnfhreagartha.
- Plean Náisiúnta Bainistíochta Dramhaíola Guaisí a fhorbairt chun dramhaíl ghuaiseach a chosc agus a bhainistiú.

## Múscailt Feasachta agus Athrú Iompraíochta

- Feasacht comhshaoil níos fearr a ghiniúint agus dul i bhfeidhm ar athrú iompraíochta dearfach trí thacú le gnóthais, le pobail agus le teaghlaigh a bheith níos éifeachtúla ar acmhainní.
- Tástáil le haghaidh radóin a chur chun cinn i dtithe agus in ionaid oibre, agus gníomhartha leasúcháin a spreagadh nuair is gá.

## Bainistíocht agus struchtúr na Gníomhaireachta um Chaomhnú Comhshaoil

Tá an ghníomhaíocht á bainistiú ag Bord Iánamseartha, ar a bhfuil Ard-Stiúrthóir agus cúigear Stiúrthóirí. Déantar an obair ar fud cúig cinn d'Oifigí:

- An Oifig um Inmharthanacht Comhshaoil
- An Oifig Forfheidhmithe i leith cúrsaí Comhshaoil
- An Oifig um Fianaise is Measúnú
- An Oifig um Cosaint Raideolaíoch
- An Oifig Cumarsáide agus Seirbhísí Corparáideacha

Tá Coiste Comhairleach ag an nGníomhaireacht le cabhrú léi. Tá dáréag comhaltaí air agus tagann siad le chéile go rialta le plé a dhéanamh ar ábhair inní agus le comhairle a chur ar an mBord.

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