



2011 Survey of resource efficiency policies in EEA member and cooperating countries

COUNTRY PROFILE:

Ireland



Country information on resource efficiency policies,
instruments, objectives, targets and indicators,
institutional setup and information needs

May 2011

This country profile is based on the information provided by Jonathan Derham and Odile Le Bolloch from the Resource Use Unit, Environmental Protection Agency Ireland. The information is current as of March 2011.

This country profile was prepared as part of the EEA-ETC/SCP 2011 survey of resource efficiency policies, which aims to collect, analyze and disseminate information about national experience in the development and implementation of resource efficiency policies in EEA member and collaborating countries. The work resulted in the following outcomes:

- **Short 'country profiles' (this document)** - self assessments prepared by countries, describing the current status of resource efficiency policies, including key strategies and action plans, policy objectives, instruments, targets and indicators used, institutional setup and information needs.
- **Summary report** - prepared by the EEA and ETC/SCP, the report reflects on trends, similarities and differences in policy responses, showcases selected policy initiatives from member countries and identifies information needs and knowledge gaps.
- A session on resource efficiency policies during the 2011 EIONET workshop to discuss further needs and to facilitate information sharing and experience exchange among EIONET members.

More information about resource efficiency policies, including an analytical report "Resource efficiency in Europe" and thirty one country profiles, can be found at:

<http://www.eea.europa.eu/resource-efficiency>

1. Resource use in Ireland – facts and figures

1.1 General facts and figures about the country



Source:
<https://www.cia.gov/library/publications/the-world-factbook/index.html>

Population (projected inhabitants for 2010) [1]	4,467,854
➤ Percent of total EEA-32	0.76%
Surface area (km ²) [2]	70,273
➤ Percent of total EEA-32	1.24%
GDP at market prices – Purchasing Power Standard – Current Prices (Million Euro, 2009) [3]	133,230
➤ Percent of total EEA-32 (minus Liechtenstein)	1%
GDP per capita in Purchasing Power Standards (PPS) [4] EU27=100 (2009)	127
Urban population (rate of pop., 2009) [5]	61.6%
Main economic sectors and their share in total GDP (2009 est.) [2]	
Agriculture	5%
Industry	46%
Services	49%
EU accession date [6]	1.1.1973

Additional relevant background information on Ireland (and on 37 other EEA member and cooperating countries) can be found at the SOER2010 website:

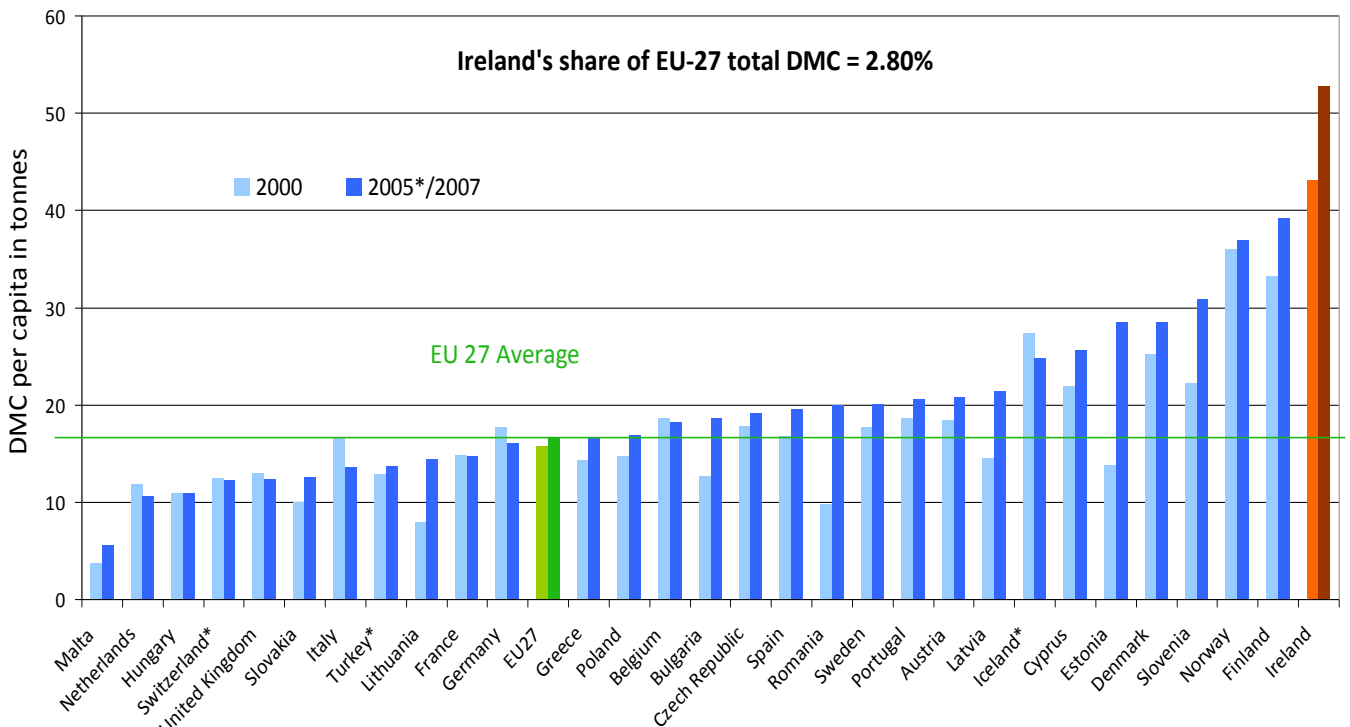
<http://www.eea.europa.eu/soer/countries/ie>

Factsheet on national waste policies for Ireland is available at:

http://scp.eionet.europa.eu/facts/factsheets_waste/2009_edition/factsheet?country=IE

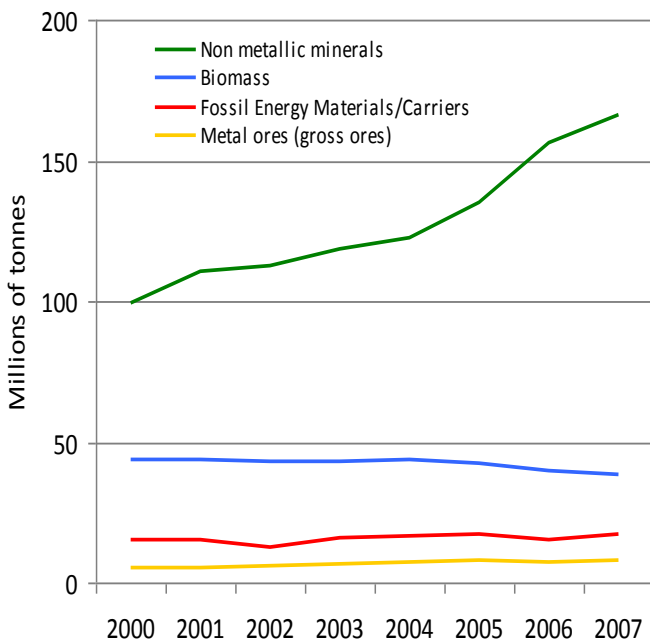
1.2 Facts and figures on resource efficiency for Ireland

Use of resources per capita 2000 and 2007 [tonnes DMC/capita]



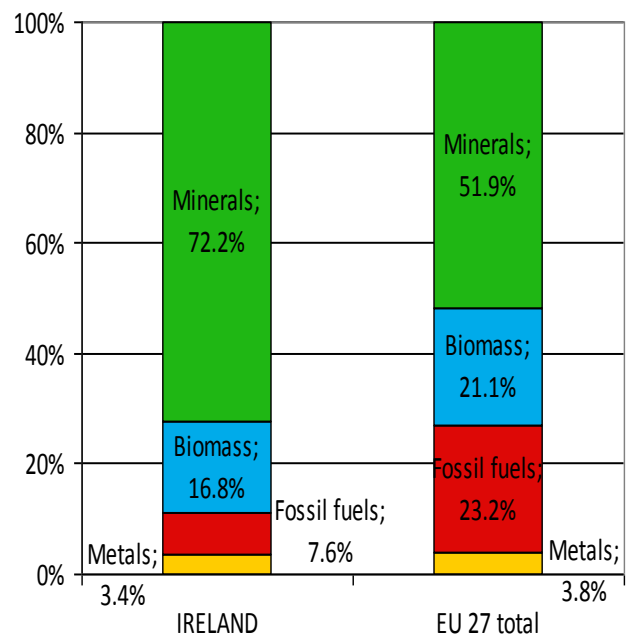
Source: Eurostat, OECD and Total Economy Database [7] * = For these countries data is for 2000 and 2005.

Domestic Material Consumption by category over time, Ireland



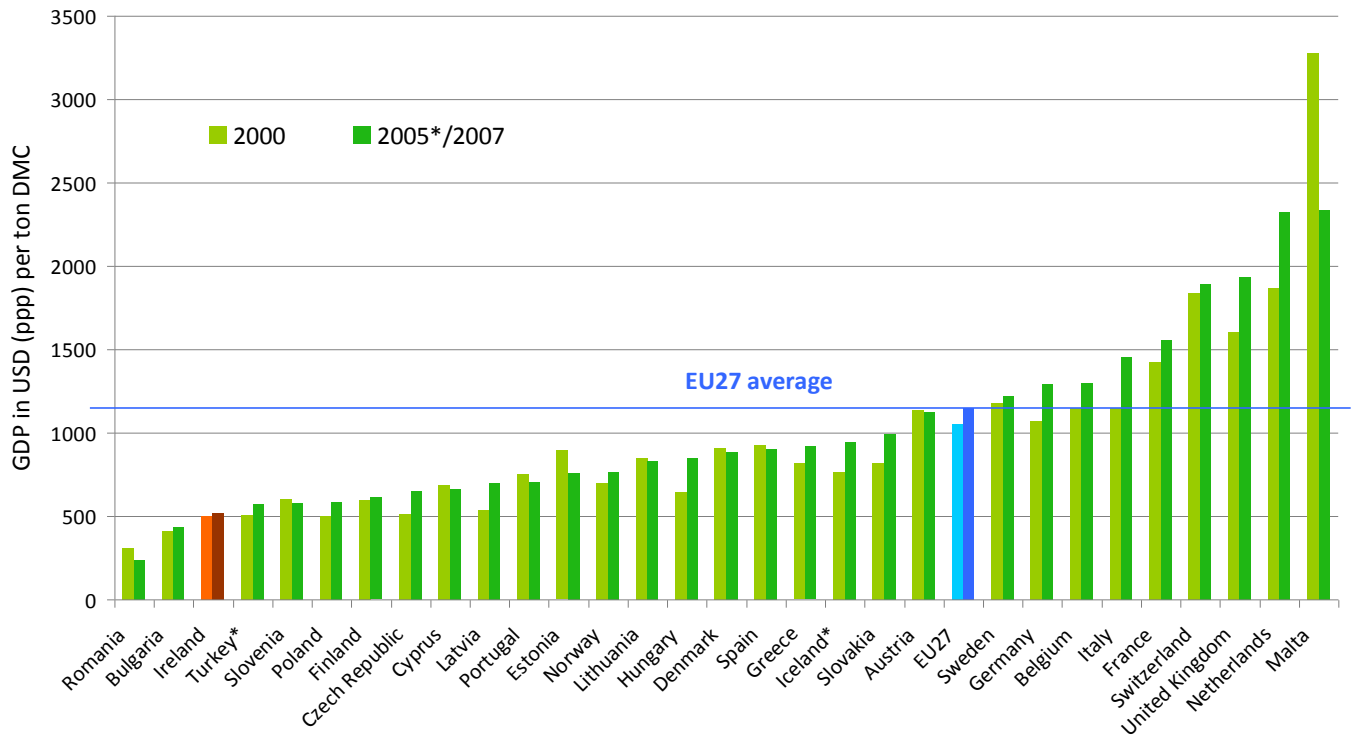
Source: Eurostat [8]

Breakdown of DMC by type of materials (2007)



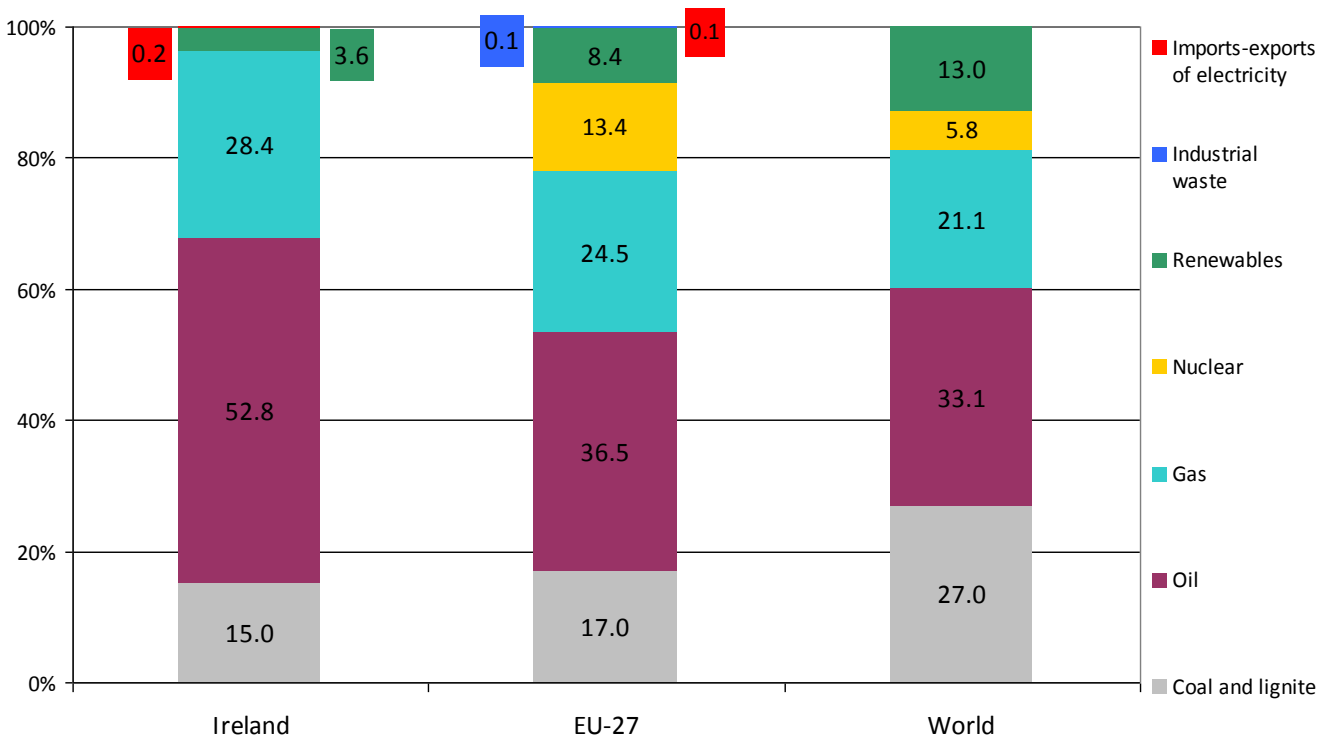
Source: Eurostat [8]

Material productivity 2000 and 2007 [USD ppp/ton DMC]



Source: The Conference Board, Total Economy Database, Eurostat [9]
 * = For these countries data is for 2000 and 2005.

Primary energy consumption



Source: Eurostat [10]

2. Evolution and main drivers for the development of resource efficiency policies

Drivers for resource efficiency in Ireland include:

- Energy costs
- Raw materials costs
- Waste costs
- Regulatory requirements

3. Overall Policy Approach for Resource Efficiency

At the present moment Ireland does not have a dedicated strategy or action plan on improving resource efficiency. Relevant National Strategies that incorporate elements of resource efficiency include:

- Sustainability
 - [Sustainable Development – a Strategy for Ireland](#) (DoECLG, 1997)
 - [Local Agenda21 – Community based SD policy area](#)
 - [Government’s Green Public Procurement Programme](#)
- [National Development Plan](#) and
- [Irish Spatial Strategy](#)

In addition, resource efficiency is addressed in several other strategies, action plans and programmes as described in the section below.

4. Strategies or action plans to improve resource efficiency for individual economic sectors, products or product groups

The Government's [National Waste Prevention Programme](#) (NWPP) was launched in April 2004 and is led by the Environmental Protection Agency. The aim of the NWPP is to explore practical ways to minimise and prevent waste, so as to break the link between economic growth and the environmental impacts associated with resource inefficiency. The programme sets out to deliver substantive results on waste prevention and resource efficiency and integrate a range of initiatives addressing awareness-raising, technical and financial assistance, training and incentive mechanisms.

A [Prevention Plan 2009-2012](#) was published early in 2009 following stakeholder consultation, taking in to account the requirements of the new Waste Framework Directive. The programme has been working since then promoting the development of capacity for waste prevention and resource efficiency in Irish society. There is a wide variety of waste prevention and producer responsibility projects in this plan. All of these projects are concerned with measuring and reducing the consumption of resources and have ongoing regard to the conservation of material resources, water and energy. These reductions have a knock-on benefit in terms of reduced emissions to the atmosphere and potential savings for the organisations concerned. Prevention and managing hazardous waste is also an important priority for all NWPP projects.

To progress the development of new markets for recyclables, the Government established the Market Development Group. This group includes as members a range of stakeholders from across the waste industry and business sectors. The programme operated as the "Market Development Programme Implementation Team". In late 2009, it was renamed [rx3](#) (rethink, recycle, remake) and rebranded to more accurately reflect what the programme is trying to achieve. A number of initiatives are proposed within the Programme to promote and to address the barriers to market development for recyclable material and secondary recycled products.

A range of specific projects are underway in relation to implementation of the revised [National Hazardous Waste Management Plan](#). All of these resource use/hazardous materials projects need to be maintained to fulfil the requirements of relevant binding EU Directives and national regulations. Each project contributes to resource efficiency and waste prevention by managing and avoiding the use and dispersion of hazardous materials.

The [National Climate Change Strategy 2007 -2012](#) sets out the Irish Government's plans to tackle climate change and details the measures that are in place to enable Ireland to meet its commitments under the Kyoto Protocol in the period 2008-2012. It also brings together a non-exhaustive range of actions being examined to reduce Ireland's greenhouse gas emissions further across the energy, transport, industrial, agriculture, forestry and built environment sectors, in the period beyond that covered by the Kyoto Protocol, with a focus on 2020.

[Delivering a Sustainable Energy Future for Ireland - the Energy Policy Framework for 2007-2020](#) is a policy framework designed to steer Ireland to a new and sustainable energy future; one that helps to reduce greenhouse gas emissions and energy costs by promoting efficient energy use and directly contributing to security of energy supply, sustainable transport, affordable energy, competitiveness and environmental sustainability. [National Energy Efficiency Action Plan 2009-](#)

[2020](#) sets out Government plans and actions to achieve its target of 20% energy efficiency savings across the economy in 2020. The Government has committed to achieving, in 2020, a 20% reduction in energy demand across the whole of the economy through energy efficiency measures. Recognising that Government must lead by example, the plan commits to achieving a 33% reduction in public sector energy use. Local authorities are working in collaboration with their local energy agencies to implement climate change strategies at local level, reflecting the commitments contained in the National Climate Change Strategy and the National Energy Efficiency Action Plan.

Considerable efforts are already being deployed nationally to identify and reduce losses of potable water in transmission networks. A National Water Survey has shown unaccounted for water averages 43% nationally. The new [Water Services Investment Programme 2010-2012](#) builds on existing investment in water conservation, which has largely been focussed on putting in the water management systems to allow for active leakage control and better planning of mains rehabilitation. Most Water Services Authorities have now completed or are close to completing the initial phases of this programme and this provides an important platform for identifying the areas which have the highest leakage levels and for targeting investment in mains rehabilitation. Commercial and agricultural users of water increasingly have to pay pro rata their consumption. The Commission on Taxation Report 2009 recommends that domestic water be charged for and this has been shown to be effective at reducing domestic water consumption in the UK and elsewhere. A [Water Services Act](#) provides inter alia for a duty of care to maintain plumbing in a leak-free condition, new powers for local authorities to intervene where water loss is excessive and to issue hosepipe bans and fines. Building Regulations now require that dual-flush toilets be fitted from 2008. Pilot projects in some local authority areas are underway to cost water production and to reduce consumption in domestic and farm settings. A publically funded website at www.taptips.ie is in place to advise people of best practice in relation to water use conservation.

In line with the Government's 'Smart Economy' and 'Green Economy' objectives, Ireland is committed to policies that promote [Green Public Procurement \(GPP\)](#). The annual procurement budget of the Irish public sector is of the order of €16 billion. If buyers in the public sector consistently took environmental factors into account in their procurement decisions, it would provide huge leverage to "move the market" towards providing environmentally superior goods, services and works in a cost-effective way. This will enable Government and the wider public sector to continuously improve the environmental performance of their procurement activities, leading over time to significant benefits to the environment and to public health.

Business:

The [Green Business Initiative](#) is aimed primarily at the business community in Ireland, with an emphasis on small and medium sized enterprises (SMEs). It provides tools and methodologies to help organisations to make financial savings by looking at their resource use, particularly in relation to waste and water, and also to help the environment.

The [Green Hospitality Award](#) is a programme that has already generated in excess of €3 million in saving for 190 participating hotels, by providing an EMS based award scheme, support and training, benchmarking tools and audits. Over 80 hotels have gained awards.

The [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 NWPP is working closely with industrial and employer representative bodies to progress resource efficiency agenda and programmes. To this end the NWPP is supporting the retention of a Green Business advisor/marketing post to work directly with members of these representative bodies (see www.ibec.ie).

The Green Retail programme aims to assist Irish retail outlets (particularly grocery) to operate in a resource efficient way.

[Cleaner Greener Production Programme \(CGPP\)](#)

The Environmental Protection Agency launched the Cleaner Greener Production Programme (CGPP) in 2001 as a grant scheme to encourage Irish organisations to implement cleaner greener practices. The philosophy of the programme is that prevention is better than cure. This programme is now supported by the NWPP.

The projects challenged organisations to produce goods and services in more environmentally friendly ways, targeting the minimisation of emissions through cleaner production methods. The objective was to achieve a balance between economic activity and protection of the environment.

Since 2001 the EPA has committed over €7 million to 89 organisations that have received part funding for demonstration projects under this programme. Companies commit to developing demonstration projects that reduce their environmental impact and are applicable across the business sector. Environmental performance is fast becoming a marketing tool and there is an increasing demand for environmentally sound products and services both in the EU and across international markets. Full details on the programme and results at the web link given.

SMILE Resource Exchange supports the development of mutually beneficial partnerships between businesses. The SMILE network aims to save businesses money by developing a network of businesses that reuse each other's surplus products, by-products and reusable items and share services, space and logistics. The concept is not limited to reusable items, by-products or surplus but can also be applied to logistics, services or skill share. Examples of items and products which may be on offer are plastics, timber, cardboard, paper, pallets, warehouse or office space, etc. The ambition is that these partnerships result in cost savings for businesses and more environmentally friendly practices, in particular the diversion of waste from landfill.

[FreeTrade Ireland](#) is a Government funded web service, similar in purpose to the SMILE resource, and is designed to facilitate and encourage the reuse of household and business items. The service was developed as a free and accessible service for all.

A number of guides aimed at specific business sectors have been produced by various NWPP initiatives:

- [Farming the Environment](#) contains practical steps for farmers to cut costs and improve their environmental performance.
- [Changing Behaviours, Saving Resources](#) provides businesses with information on how to implement good environmental practices.

- An [eGuide on reducing paper consumption](#) lists actions to reduce the amount of paper consumed by any organisation.
- [Calling Time on Waste](#) contains practical steps for publicans to cut costs and improve their environmental performance.
- [A Householder's Guide to Hazardous Waste Prevention](#) is a guide on reducing and preventing hazardous waste in the home.
- An [eGuide to Effective Construction Waste Management](#) contains information on how to recycle more wastes from urban building projects
- An eGuide on how to reduce waste and increase recycling at a [shopping centre](#).
- An eGuide on how to reduce water and energy usage and improve waste management at a [regional airport](#).
- [Smart Garage Guide](#) promotes best practices in Irish garages and explains environmental legislation relating to garages.
- [Less Food Waste More Profit](#) is a guide directed at the hospitality sector for food waste management.

Public sector:

The [Local Authority Prevention Network \(LAPN\)](#) is a key component in continuing to build capacity in local authorities for the promotion of resource efficiency and waste prevention at a local and grassroots level for the benefit of their localities. Over the last 4 years, the programme has demonstrated that implementing waste prevention and resource efficiencies in an organisation can lead to significant savings, in addition to the obvious environmental benefits. Developed under the National Waste Prevention Programme, through LAPN the EPA provides assistance and support to local authorities in Ireland. Research identified that the two principal barriers to implementing waste prevention in the local authority sector have been a lack of resources and a lack of expertise and expert support. By removing these barriers the programme enables local authorities to actively pursue resource efficiency programmes in partnership with businesses, public organisations and communities in their functional areas. Building on their past experience of working with these organisations to introduce recycling, they are now working to encourage them to reduce their consumption of materials, water and energy and to make sure they are getting the best value from the resources they do use.

Green Public Procurement:

<http://www.environ.ie/en/Environment/SustainableDevelopment/GreenPublicProcurement/>

Communities and households:

In order to fulfil objectives in the NWPP Prevention Plan 2009-2012, the EPA initiated the [StopFoodWaste](#) programme in June 2009 to promote food waste prevention and home composting in support of existing policy measures. The initial focus of this programme has been on the householder and is designed to empower consumers to reduce food waste by rethinking how they should shop, store, cook and re-use food and on how to compost any food waste that cannot be prevented.

The [Green Schools](#) programme involves 66% of all Irish schools of which 1,150 have been awarded the coveted Green Flag. A pilot initiative called [Green Home](#) is now being funded by the National Waste Prevention Programme to build on this success and spread prevention to houses and communities. In 2010, there were approximately 10,000 householders linked to the programme and, with an average household size of 2.81 persons, this represents an estimated outreach to over 28,000 people

Healthcare:

A pilot Green Healthcare programme looking at waste prevention and resource efficiency in the healthcare sector. Initial studies have identified significant scope to improve resource efficiency in these organisations. Benchmarks on waste, water and energy consumption per hospital bed capacity are emerging from these surveys. This in turn will enable any healthcare organisation to check their resource efficiency performance against national and international norms. Based on experience gained during the project, a resource efficiency toolkit is being developed to include: training materials, information booklets/leaflets, PowerPoint slides, posters and a DVD.

For a more detailed overview of the wide range of waste prevention and resource efficiency initiatives, please see the most recent [NWPP Annual Report 2009/2010](#).

5. Individual types of resources identified as priority for national or sector-specific resource efficiency policies

Relevant projects have particular regard to the urgent need to prevent, or divert, **biodegradable waste** from landfill) and to **hazardous waste** issues.

Biowaste:

To address a recommendation in the [2006 National Strategy on Biodegradable Waste](#), many of the relevant NWPP projects are adapted specifically to give due regard to food waste:

- The information needs for tracking indicators on the implementation of the national strategy are integrated into the data collection processes involved in the compilation of the annual National Waste Reports;
- Waste characterisation studies are undertaken as needed to determine the biodegradable elements arising or being sent to landfill;
- Considerable input and support has been provided to the EPA Landfill Pre-treatment Guidance initiative aimed at enforcing the diversion of biodegradable waste from licensed landfills;
- The EPA has reviewed all landfill waste licences to limit the amount of biodegradable waste that may be deposited;
- Considerable quantities of biodegradable waste are being prevented or diverted from landfill with the implementation of the Green Hospitality Awards programme;
- A hospitality/catering sector food waste prevention guide "[Less Food Waste More profit](#)" is being widely disseminated arising from the GHA project;
- The extension of the prevention projects to the mass catering, restaurant and HSE/private hospital sectors will also realise significant prevention/diversion of biodegradable waste;

- The Greenbusiness.ie audit tools emphasise the prevention of biodegradable waste;
- The Food Waste Prevention and Home Composting project commenced in 2009 continued strongly in 2010 aimed at developing resources to enable local authorities to limit the amount of household biodegradable waste requiring collection and central treatment (see www.stopfoodwaste.ie);
- Guidance and training on home composting has been developed, as well as two demonstration sites and Master Composter programmes;
- Promotion of home composting is an integral part of the Green Home Programme (as well as the Green Schools programme). These programmes will include food waste prevention also to help people save money by avoiding wasting food in their homes;
- Under the [LAPN](#) Programme, priority is given to projects dealing with biodegradable waste prevention, e.g. the new publicans' prevention guide *Calling Time on Waste* includes tips on food waste prevention;
- Ongoing input is provided to the Market Development Group (now branded as [rx3](#)) on developing markets for compost and to Cré, a group involved in promoting the commercial biological treatment sector;
- The Waste Pre-treatment [guidance](#) issued by the EPA is playing a significant role in clarifying and driving pre-treatment expectations prior to landfill and incineration. Additional resources on the enforcement of these requirements are available [\[here\]](#) and [\[here\]](#).

Hazardous waste:

The Environmental Protection Agency published a [National Hazardous Waste Management Plan 2008-2012](#) in 2008. The Plan describes the national system for hazardous waste management and identifies gaps and recommends actions to ensure all hazardous waste is collected and managed appropriately and in a manner that does not cause environmental pollution. This programme contributes to resource efficiency and waste prevention by managing and avoiding the use and dispersion of hazardous materials.

6. Strategic objectives, targets and indicators on resource efficiency

Waste prevention is a challenge to achieve and to measure. Given its implementation at the micro (enterprise, household, individual) level, it is often difficult to see reductions in waste generation at the macro (county, regional, national) level. Prevention will primarily be measured at the enterprise/sector level, meaning that participating organisations will be asked (or obliged, depending on the project) to contribute statistics and indicators. They may be asked to measure waste generation, water and energy consumption and resource efficiency (all where relevant and depending on the project) before and after intervention and change. Data will be quantitative where possible and qualitative where appropriate. Available data is verified as appropriate and aggregated sectorally or by other means to indicate:

- the amount of resources conserved (tonnes of material, cubic metres of water, kWh of energy) – as measured before and after intervention;
- the quantity of waste prevented (measured as tonnes of waste generated before and after intervention); and

- money saved (the euro difference in waste/water/energy costs before and after intervention or change).

Examples of other indicators include:

- cost of project and time-scale
- number of businesses contacted or participating;
- number of homes or communities contacted or participating;
- number of people who have completed prevention courses; and
- number of prevention officers operating in local authorities.

However, quantitative indicators of this nature are only part of the story and cannot measure or represent all of the potential benefits of spending public money on waste prevention projects.

Examples of project indicators for [Green Business Initiative](#) over the last year include:

- Over 330 companies have registered with the website and are using the waste and water audit tools regularly;
- Over forty detailed on-site Resource Efficiency Assessments have been completed and up to ten more are planned in the next period;
- In the last twelve month period 7,279 visits have been recorded to the greenbusiness.ie website including 5,400 unique visitors making over 22,050 page views;
- Google Internet searches invariably give a high ranking to greenbusiness.ie when entering the terms “reducing waste”, “saving water” or “conserving energy” (over 47% of site visits came via search engines);
- A number of very useful **case studies** for Resource Efficiency Assessments at client GreenBusiness sites are available [[here](#)].
- Savings averaging €50,000 per client site have been identified through recent Resource Efficiency Assessments.

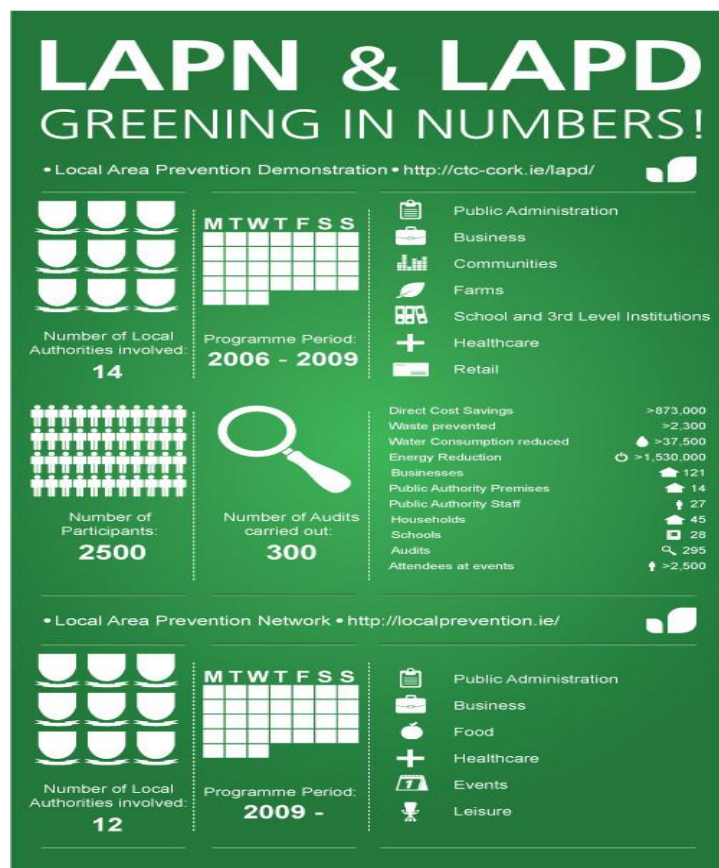
Recent project indicators for [Green Hospitality Programme](#):

- The scheme now has over 200 paid programme members including 138 of the leading hotels in the country as well as many other progressive catering/hospitality organisations;
- There are now 85 holders of Green Hospitality Awards comprising of 19 Gold Awards, 42 Silver Awards and 24 Bronze or Eco-label Awards;
- This includes 77 hotels representing almost 8.4% of all hotels in Ireland - the highest penetration of any similar award in the EU;
- A 2009 survey of 120 properties taking part in the Green Hospitality scheme demonstrated the following conservatively estimated annually recurring savings:
 - Waste landfilled reduced by 6,000 tonnes;
 - Water consumed reduced by 312,000 m³;
 - Energy conserved 30,000,000 kWh;
 - CO₂ emissions reduced by 7,592 tonnes;
 - €4,680,000 per annum direct cost savings for waste services, water and energy supply.

Progress made towards Irish and International benchmarks in the hotel sector:

	Hotels (Average figures)	Irish Hotel Sector Benchmarks				International benchmarks (Average figures)
		2004	2007	2008	% Difference between 2004 and 2008	
Energy	kWh/annum/m ²	51	449	429	17.6%	313
Water	Litres/Sleeper Night	499	399	438	12.2%	275
Waste	kg Waste Landfilled/Sleeper Night	3.5	2.1	1.7	50.0%	1.5

Infographic of key indicators from Local Authority Prevention Network:



Further project indicators for all the programmes are published in the National Waste Prevention Programme [annual report 2009/2010](#).

7. The institutional setup for the development and implementation of resource efficiency policies

The Minister of the Environment, Heritage and Local Government launched the National Waste Prevention Programme (NWPP) in April 2004. It is being led by the Environmental Protection Agency (EPA). The Minister also set up a National Waste Prevention Committee (NWPC) which includes a broad stakeholder group who meet periodically to provide strategic direction for the EPA in implementing the programme. The programme works with stakeholders to explore gaps, opportunities and synergies in EU, national and local policies and exchange knowledge with a wide range of sectors on waste prevention and resource efficiency.

The Department of Environment, Heritage & Local Government published the National Climate Change Strategy in 2007.

The Department of Communications, Marine and Natural Resources published the Energy policy Framework in 2007 and the Energy Action Plan in 2009.

Inter-institutional working groups with some involvement in resource use or resource efficiency include national working groups for water and for waste.

In addition to the Ministry of Agriculture, Ministries for Environment and also for Energy also involved in work on policy initiatives addressing biomass use / efficiency.

Sustainable Energy Authority of Ireland [www.seai.ie].

Water is managed according to the following:

- Local Authority platform for advice on conserving tap water www.taptips.ie
- Local Authority Sustainable Water Network (SWAN)
- Water Framework Directive initiative [<http://www.swanireland.ie/about/>]

8. Selected policy instruments or initiatives on resource efficiency presented in more detail



SMILE Resource Exchange

Saving Money through Industry Links & Exchanges

SMILE Resource Exchange is a free service for business that encourages the sharing and exchanging of resources in order to reduce costs and help the environment. Based on the concept that “one’s waste could be another’s resource”, businesses have the opportunity to identify potential partnerships through networking exchange events and an online exchange facility.

At these exchange events and through the website www.smileexchange.ie, businesses can identify resources they would like to exchange such as:

- Reusable items, by-products & surplus product
- Logistics
- Services
- General business collaboration.

All resources offered are either free of charge or below market value. The ambition is that such collaboration between businesses results in reduced costs for businesses, the diversion of waste from landfill and a reduction in CO2 emissions.

The formation of SMILE Resource Exchange came about as a result of a survey of the business users of the Wastematchers website (www.wastematchers.com) which was carried out in September 2009 by Macroom-E as part of the National Industrial Symbiosis Programme pilot group. A pilot event was took place in March 2010 and subsequently a 6 month pilot project began in September 2010. Over the course of this time 2 events have taken place with over 100 businesses participating. Over 600 potential matches have been identified and support is currently being given to businesses to help make the exchanges happen.

The next event is planned for 2 March 2011 and the website (www.smileexchange.ie) is due to launch on 14 February 2011.

The turnouts at the events and the number of potential matches are very similar to the figures seen in the established synergy workshops run by NISP in Northern Ireland, www.nisp.org.uk).

The SMILE programme is funded by the EPA, Cork City & County Enterprise Boards, Cork City Council, Cork County Council & Macroom E.

9. Topics of interest and information needs for follow up work

The challenge in Ireland – as it is for other Member States – is to articulate indicators and metrics for RE achievements. There is also the matter of the ‘Rebound Effect’, i.e. if all the organisations are saving money through RE, what are the spending these savings on? If it is spent on consuming other resources in an inefficient way, then the overall purpose of the programme will be diminished. A major information need is in the area of Eco-Design and the associated product Life Cycle Analysis. To date there has been little direct interference in how or what products are made; but this has to be an element of future ambition in sustainable production and consumption.

The EPA operates a strong [research programme](#) in the area of waste and resources management, the outcome of which will assist informing future policy.

10. References

10.1 Facts and figures about the country

[1] Eurostat, 2011 [demo_pjan]

http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo_pjan&lang=en

[2] CIA World Factbook (2009 est.)

<https://www.cia.gov/library/publications/the-world-factbook/index.html>

[3] Eurostat, 2011 [nama_gdp_c]

<http://appsso.eurostat.ec.europa.eu/nui/show.do>

[4] Eurostat 2011 [tsieb010]

<http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=en&pcode=tsieb010&plugin=0>

[5] World Bank, Migration and Remittances Factbook 2011

<http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/0,,contentMDK:21352016~pagePK:64165401~piPK:64165026~theSitePK:476883,00.html>

[6] European Commission 2008

http://europa.eu/abc/12lessons/key_dates/index_en.htm visited December 15, 2008

[7] Eurostat, OECD and Total Economy Database

DMC data from Eurostat Database, Material Flow Accounts, and OECD, Population data from Eurostat Database, Population, and The Conference Board — Total Economy Database, September 2010. www.conference-board.org/data/economydatabase/

[8] Eurostat

Material flow accounts, env_ac_mfa, uploaded June 2010

[9] The Conference Board, Total Economy Database, Eurostat

GDP data from The Conference Board — Total Economy Database, September 2010, www.conference-board.org/data/economydatabase/ ; DMC data from Eurostat Database on Environmental Accounts, and OECD.

[10] Eurostat

Energy statistics, uploaded Oct 2010

<http://epp.eurostat.ec.europa.eu/portal/page/portal/energy/data/database>

10.2 Resource Efficiency Policy References

Sustainable Development – a Strategy for Ireland (DoECLG, 1997)

<http://www.environ.ie/en/Environment/SustainableDevelopment/>

Local Agenda21 – Community based SD policy area

<http://www.environ.ie/en/Environment/LocalAgenda21/>

Green Public Procurement Programme

<http://www.environ.ie/en/Environment/SustainableDevelopment/GreenPublicProcurement/>

National Development Plan

http://www.ndp.ie/docs/NDP_Homepage/1131.htm

Irish Spatial Strategy

<http://www.irishspatialstrategy.ie/>

National Waste Prevention Programme

<http://www.nwpp.ie/>

Prevention Plan 2009-2012

<http://www.epa.ie/downloads/pubs/waste/prevention/name,25660,en.html>

Rethink, Recycle, Remake

<http://www.rx3.ie/>

National Hazardous Waste Management Plan.

<http://www.epa.ie/downloads/pubs/waste/haz/name,25129,en.html>

National Strategy on Biodegradable Waste 2006

http://www.epa.ie/downloads/advice/waste/municipalwaste/IRL_National_Strategy_on_Biodegradable_Waste_Final_2006.pdf

National Climate Change Strategy 2007 -2012

<http://www.environ.ie/en/Environment/Atmosphere/ClimateChange/NationalClimateChangeStrategy/>

Delivering a Sustainable Energy Future for Ireland - the Energy Policy Framework for 2007-2020

<http://www.dcenr.gov.ie/NR/rdonlyres/54C78A1E-4E96-4E28-A77A-3226220DF2FC/27356/EnergyWhitePaper12March2007.pdf>

National Energy Efficiency Action Plan 2009-2020

<http://www.dcenr.gov.ie/Energy/Energy+Efficiency+and+Affordability+Division/National+Energy+Efficiency+Action+Plan.htm>

Water Services Investment Programme 2010-2012

<http://www.environ.ie/en/Environment/Water/WaterServices/WaterServicesInvestmentProgramme/>

Water Services Act

<http://www.environ.ie/en/Environment/Water/WaterServices/Legislation/>

Green Business Initiative

<http://www.epa.ie/whatwedo/resource/nwpp/gbi/>

Green Hospitality Award

<http://www.ghaward.ie/>

Packaging Waste Prevention Programme

http://www.preventandsave.ie/Introduction_to_Packaging_Prevention.html

Cleaner Greener Production Programme (CGPP)

<http://www.cleanerproduction.ie/>

FreeTrade Ireland

<http://www.freetradeireland.ie/About.html>

Farming the Environment

<http://www.epa.ie/downloads/pubs/waste/wastepreventionprojectoutputs/name,28072,en.html>

Changing Behaviours, Saving Resources

<http://www.epa.ie/downloads/pubs/waste/wastepreventionprojectoutputs/name,28074,en.html>

eGuide on reducing paper consumption

http://www.managewaste.ie/e_guides/i_eguide_to_reducing_paper_consump.asp

Calling Time on Waste

<http://www.epa.ie/downloads/pubs/waste/wastepreventionprojectoutputs/name,28073,en.html>

A Householder's Guide to Hazardous Waste Prevention

<http://www.epa.ie/downloads/pubs/waste/wastepreventionprojectoutputs/name,30195,en.html>

eGuide to Effective Construction Waste Management

http://www.managewaste.ie/e_guides/i_effective_construction_waste.asp

eGuide on how to reduce waste and increase recycling at a shopping centre

http://www.managewaste.ie/e_guides/i_effective_waste_shopping_centre.asp

eGuide on how to reduce water and energy usage and improve waste management at a regional airport.

http://www.managewaste.ie/e_guides/i_developing_a_waste_action_plan.asp

Smart Garage Guide

<http://www.epa.ie/downloads/pubs/waste/wastepreventionprojectoutputs/name,30512,en.html>

Less Food Waste More Profit

[http://www.epa.ie/downloads/pubs/waste/wastepreventionprojectoutputs/Less Food Waste More Profit Booklet 2010.pdf](http://www.epa.ie/downloads/pubs/waste/wastepreventionprojectoutputs/Less_Food_Waste_More_Profit_Booklet_2010.pdf)

Local Authority Prevention Network (LAPN)

<http://www.lapn.ie/>

StopFoodWaste programme

<http://www.stopfoodwaste.ie/>

Green Schools programme

<http://www.greenschoolsireland.org/>

Green Home programme

<http://www.greenhome.ie/>

Water Framework Directive initiative

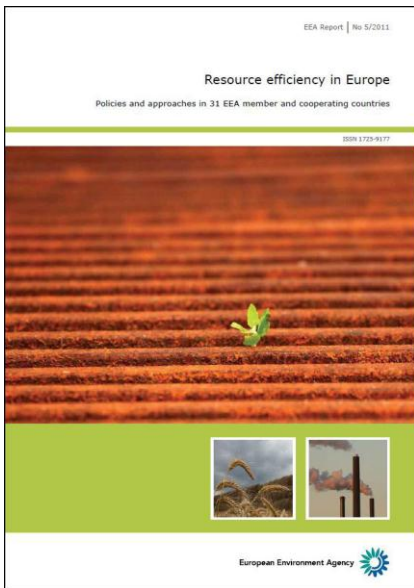
<http://www.swanireland.ie/about/>

Saving Money through Industry Links & Exchanges

<http://www.smileexchange.ie>

Wastematchers

<http://www.wastematchers.com>



Resource efficiency in Europe

Policies and approaches in 31 EEA member and cooperating countries

Further information about resource efficiency policies, including the analytical report and thirty-one detailed country profiles, are available on the EEA website:

<http://www.eea.europa.eu/resource-efficiency>

Selected examples of resource efficiency policies, instruments or targets presented in the thirty one detailed country profiles

