Living better, Using less

Moving Towards the Circular Economy in Ireland

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Figure 9: Circular Economy stakeholders in Ireland (identified at workshop)

Supply side - creating circular economy outputs	Demand side - creating demand	Governance - combination of push and pull
Enterprise support	Policy & regulation	Leaders
SMILE	CRNI	BIA Foodcloud
Enterprise Ireland	BCCAE	Dublin Bike Scheme
EPA	EPA	Enrich Soil Solutions
IDA	Local Authorities	Go Car
Local Authorities	NGOs	IAMECO Radiacourse Contro
Regional Waste Management	WEEE Ireland	Rediscovery Centre Rothar
Offices	Finance & funding	Share Ireland
011000	Finance & funding	SMILE
Users & purchasers	DCCAE	Sunflower recycling
-	Enterprise Ireland	
BIA Foodcloud	Environment Fund	Skills & education
BITC Members	EPA	
Camara	Local Authorities	An Taisce
Online resellers		Clean Technology Centre
Free Trade Ireland Individuals, Bargain Hunters	Evidence & data	Eco Unesco EPA Green Schools
Origin Green Members	Esternic a Ireland	Rediscovery Centre
Social Enterprises	Enterprise Ireland EPA	Rehab
Waste industry	ESP	Recreate
	IBEC	Social Enterprises
Advocacy & awareness	Local Authority Prevention	
	Network	Research & knowledge
Business in the Community	National Waste Collection Permit	exchange
CRNI	Office	
DCC/E EPA / NWPP / CRNI	Repak	Clean Technology Centre Enterprise Ireland
Multinationals	Reuse Organisations Universities	EPA
NGOs	Waste industry	loint Programme Initiatives
Regional Waste Management	waste mudshy	NESC
Offices		Rx3
Repak		Universitiy of Limerick
Waste industry		UCD School Food and
		Biosystems Engineering

Regulatory Role of the EPA

The EPA has specific roles under Waste Legislation principally around the licensing of large or complex waste operations. It also has specific roles derived from the Waste Framework Directive to do with assessing applications for End of Waste. Materials recognised as attaining End-of-Waste status will normally be regarded as having ceased to be waste, and therefore no longer subject to waste management controls.



End of waste Criteria

- The European Commission has role in setting criteria under article 6(2) of the Waste Framework Directive.
- Ireland is entitled under article 6(4) of the Directive to decide on the classification of materials.
- Anyone can apply to the EPA as the competent authority under Article 6(1) of the Waste Framework Directive to obtain End-of Waste state for a waste derived product. They must satisfy the condition set out in Article 6(1). These include
 - The substance or object is commonly used for a specific purpose.
 - A market or demand exists for such a substance.
 - The substance or object fulfils the technical requirements for the specific purposes and meets the existing legislation and standards
 - applicable to products.
 - The use of the substance or object will not lead to overall adverse environmental or human health impacts.
 - The criteria shall include limit values for pollutants where necessary and shall take into account any possible adverse environmental
 - effects of the substance or object.



When things go right

- Tallow as fuel
- Chicken litter as fuel
- Recycled oil in asphalt manufacture
- Animal By products and lands preading
- Compost Quality Assurance Scheme

the only Irish scheme providing third party assessment by Certification Europe and conformity with EPA Funded Research Report-"Development of an Industry-Led Quality Standard for Source-Separated Biodegradable Material Derived Compost



When things go wrong... Foot-and-mouth outbreak of 2001

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Reca Hormone food scandal rocks Europe

By Debora MacKenzie

Scientists are meeting in Brussels on Tuesday to try and resolve Europe's latest food scandal: illegal steroid O Sun, Dec 7 hormones in animal feed, meat and even soft drinks. The contamination may involve eight of the 15 European Union countries, including Belgium, the Netherlands, Germany, France and Spain. All I

> Before the meeting began, the European Commissioner for health and consumer protection, David Byrne, blamed the incident on "fraudulent exchange and disposal of pharmaceutical waste", and pledged new controls on animal feed.

> The first signs of trouble emerged in early July on Dutch pig farms with a wave of infertility among sows. Tests of the pigs' feed revealed medroxy progesterone acetate (MPA), a synthetic progesterone that can cause infertility.

> MPA is a widely-used ingredient in human birth control pills and hormone replacement therapy. It is also used as a growth promoter for livestock in North America and Australia. But hormonal growth promoters are illegal in the EU.

farm Sugar coated

reco The MPA was traced to the now-bankrupt firm Bioland in Arendonk, Belgium, which had sold tainted glucose syrup to feed producers. Bioland made the syrup from waste water containing sugar, which came from a plant near Dublin, Ireland owned by the US firm Wyeth Pharmaceuticals. The water was left over from the process of sugar-coating The hormone pills.

6

Veterinary Office saying today that contaminated meat could have been exported to as many as 25 countries.

"We believe it's in the order of 20-25 countries. It's certainly less than 30," Paddy Rogan said.



Which way?

- Products derived from Incinerator ash
- Contaminated soil for brownfield restoration
- Railway sleepers and garden design
- Sewage sludge landspreading and food safety
- Sewage sludge landspreading and Human Health - AMR



DRAFT Process flowchart for applying End of Waste Criteria to recycled Aggregates





PREVENTING WASTE & SAVING MO



HITTING THE TARGETS FOR BIODEGRADABLE MUNICIPAL WASTE: Ten Options for Change

Abstract

Delivery of the Landfill Directive and National Biodegradable Waste Strategy targets for organic fraction of biodegradable municipal waste (OFBMW) is behind schedule. To comply with the Landfill Directive's 2016 target means that the country must develop additional capacity to manage upwards of 1 million tonnes of OFBMW. This paper reviews the way we manage our OFBMW and suggests ten possible public policy interventions to encourage changes in management practices.

- 1. Promote at-source composting
- 2. Expand R&D for at-source composting
- Increase the landfill levy
- Undertake market research for treated OFBMW products
- Provide a subsidy for the treatment of OFBMW
- Develop and assign responsibility for a national waste management plan
- 7. End waste directions/waste guarantees
- 8. Develop stabilised biowaste standards
- 9. Encourage green procurement
- 10. Undertake marketing of OFBMW products



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Ten Option:

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Biodegrada



1. Promote sustainable Lifestyles (refuse, prevent, reuse, recycle) 2. Resource the creation of standards 3. Legal clarity between recovery and end of waste 4. Tackle the Liability issue. 5. Integrated approach by regulators 6. Overcome Apathy 7. Market research and marketing of viable products 8. Community involvement 9. Green Procurement- Social Clause 10. Price in externalities - preferential VAT arrangements for the Circular economy businesses





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The Need For Standards

the UK <u>Quality Protocol on Tyre-Derived Rubber Materials</u> (WRAP/EA, 2009) is a useful publicly-funded document that was preceded by a number of earlier technical reports that, all in all, indicate that the environmental risk posed by tyre-derived rubber materials is small. The purpose of the Quality Protocol is:

- to clarify the point at which tyre-derived rubber materials cease to be waste;
- provide users with confidence that the tyre-derived rubber products they are buying were manufactured to a recognised standard and are suitable for the designated use; and
- to protect human health and the environment.

The Quality Protocol is a **formal statement** of end-of-waste criteria adopted in the UK. It has been **notified to the European Commission** in accordance with article 6 of the Waste Framework Directive. The Quality Protocol **has the effect of law** in the jurisdictions of the UK where it, or versions of it, are adopted. This means **it can be used and relied upon by recyclers without further recourse to the environmental regulators**. The Quality Protocol has no direct effect in jurisdictions outside the UK.



12

Recovery versus end of waste?

Recycling and the production of an ostensibly useful product is considered a "recovery operation" and has been so regarded at all regulatory and policy levels in Ireland.

Finished products that are produced from the recycled materials are distinct and marketable products and signal the end of the recycling process.

Many Irish recyclers produce and manufacture goods from waste but with no formal recognition of the End-of-Waste status of those products.

There is no enunciated policy or legislative requirement in Ireland or from the European Commission that requires waste recyclers generally to address their recycled outputs through End-of-Waste, so recyclers have been slow to respond and will likely only do so if there is a driver.



13

Caveat Emptor - Who Monitors?

Does the EPA have any statutory responsibility for monitoring the levels or possible impact of chemicals contained in recycled tyre crumb products such as synthetic sports pitches or the monitoring of products made from recycled rubber?

The EPA has no role in monitoring the levels or possible impact of chemicals contained in recycled tyre crumb products such as synthetic sports pitches or the monitoring of products made from recycled rubber.



Integrated approach by regulators?

To whom it may concern,

We are contacting you to remind you of the regulations regarding the consumption of food on the premises. Any food consumed on the premises has to be supplied by an approved supplier; a minimum of two week's notice must be given to for a community Centre. A copy of the suppliers insurance and safety certificates must be forwarded to for the supplier of No home baked goods are allowed to be consumed on the premises. Pre packed buns, cakes, sweets, crisps and fizzy drinks are allowed to be consumed on the premises however, you need to ensure that your insurance policy has adequate Products Liability insurance as for a community Centre insurance will not insure this.

As I am sure you can appreciate we need to ensure that all groups are following the above so that we meet the requirements set by the Food Safety Authority.

We would like to thank you once again for supporting Community Centre. If you have any queries please do not hesitate to contact myself or Community (on



NATIONAL SUSTAINABILITY INFORMATION PORTAL FOR HOUSEHOLDERS

The content of this portal will provide advice, awareness and education on sustainability at home and in your community.



epa

PREVENTING WASTE & SAVING MONE





Did you know that in Ireland we dispose of 509,000 tonnes of paper... each tonne of recycled paper can save 17 trees!



Live Green @EPA_LiveGreen Do you have a private well?

30% of Irish wells are contaminated in Ireland: epa.ie/livegreen/your...



Research sustainable futures



ABOUT V RESEARCH V PUBLICATIONS V BLOG EVENTS & ENGAGEMENT V CONTACT



PREVENTING WASTE 8

- Initiate and support **community-led** initiatives for social change;
- Support community managed social resources;
- design effective community-based social marketing strategies.
- recognise the importance of **social norms** in behaviour change policies;



Theme	Project	Cost	Payback	Tota I
Environmen †	Food waste reduction Compost master classes Reuse/recycle Barter/Repair Bring/take centers Men's sheds Community initiatives	€€€	Increased Resource Efficiency	€
Health	Social engagement Active retirement Age action initiatives	€€€	Increased Wellbeing	€
Economy	Social entrepreneurship Social activisim	€€€	Increased Employment Town regeneration	€
Total				€€



Green Tenders adopts the indicative EU political target of 50% of GPP, where GPP means incorporating green criteria into the procurement contract. This target will apply in respect of both the number and the value of public procurement contracts concluded



Green Tenders, an Action Plan on Green Public Procurement

Green Procurement Guide produced by the EPA as part of Action 308 within the National Action Plan for Jobs (2014).

New guidance being developed for tenderers who want to compete for green procurement contracts



Need to move form this....

- 80 % of what we produce is used once and discarded,
- Only 1 % of the valuable rare earths that we use in products are recycled at the end of the products life.

To this....

- Recycling and re-use of waste are economically attractive options for public and private actors due to widespread separate collection and **the development of functional markets for secondary raw materials.**
- More materials, including materials having a significant impact on the environment and **critical raw materials, are recycled.**
- high quality recycling is **ensured**.

