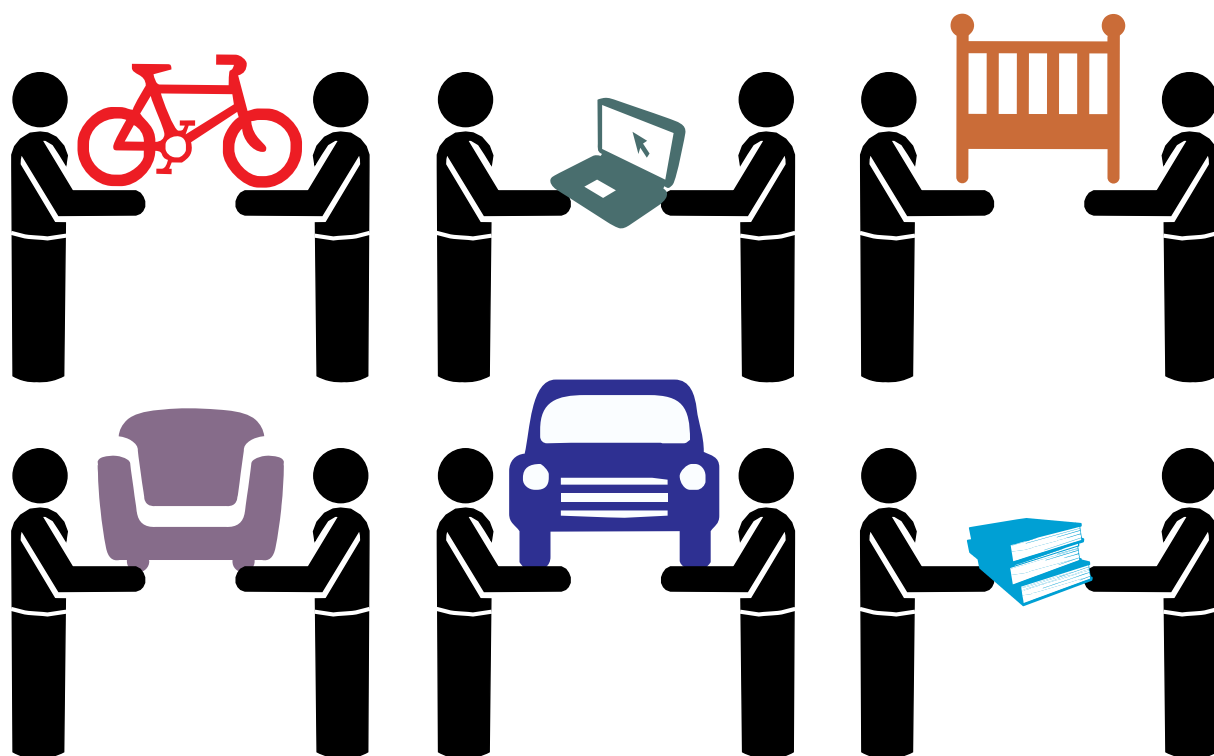


Review of Waste/Resource Exchange Systems and Good Practice Guide

Authors: Louise Connolly, Brian McIntyre, Serena Byrne,
Brenda McEvoy and Louise Campion



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*).

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- 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.

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

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- 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 Radiation Protection and Environmental Monitoring
- 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.

EPA RESEARCH PROGRAMME 2014–2020

Review of Waste/Resource Exchange Systems and Good Practice Guide

(2014-RE-DS-2)

EPA Research Report

Prepared for the Environmental Protection Agency

by

RPS Group Ltd

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DISCLAIMER

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The EPA Research Programme addresses the need for research in Ireland to inform policymakers and other stakeholders on a range of questions in relation to environmental protection. These reports are intended as contributions to the necessary debate on the protection of the environment.

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1 Introduction

1.1 Aim of this Guide

The aim of the good practice guide is to demonstrate how new and existing waste/resource exchange organisations can be set up and operated to the highest standards. This guide is targeted at the full range of waste/resource exchanges, which are set out in section 1.6 under the heading “Types of Waste/Resource Exchange” and also in Chapter 3. Factsheets have also been produced targeting those engaging with waste/resource exchange systems to ensure that their dealings are informed and conducted in line with industry good practice.

1.2 Who is this Guide for?

The guide offers potential developers of waste/resource exchange systems practical advice on the main considerations and how to address them. It provides advice on getting started, understanding the barriers and challenges involved and identifying the critical elements for creating a successful resource exchange organisation.

The guide is also aimed at organisations managing existing resource exchange systems on how to potentially improve their systems.

For groups engaging with resource exchange programmes, such as householders, business and industry, this guide provides information on how to engage with and support the circular economy.

1.3 How to Use this Guide

The guide is broken up into distinct chapters covering the following:

- defining the criteria to determine when a material is a waste or a resource;
- the different groups of organisations in the resource exchange sector;
- the barriers to reuse and resource exchanges and opportunities to increase reuse;
- how to set up and maintain a successful resource exchange;
- how to find outlets for materials and how to source materials.

If you are looking to set up a resource exchange, all of these elements will be of interest in understanding the sector, identifying opportunities and addressing all of the elements in setting up and maintaining a successful service.

If you have an existing resource exchange, all of the elements of the guide will help to identify opportunities for your organisation to increase its activities.

If you have material available to pass on and you want to engage with a resource exchange, Chapter 2, on determining whether a material is a waste or a resource and the regulations/legislation that may be applicable, will be relevant, as will the guidance on finding outlets for your material. This is important because, if you are handling waste materials, you will be required to abide by the relevant legislation. The legislation can still apply even if you do not see the material that you are handling as “waste”.

If you want to engage with a resource exchange to source material, then it will also be important to understand how to determine whether a material is a waste or a resource and the issues relevant to that. Chapter 7, on finding sources of material, will also be relevant.

1.4 Background

Waste/resource exchange has undergone significant development in recent years and is a large growth area. In Europe and Ireland it is supported by both legislation and policy, including the Waste Framework Directive 2008/98/EC¹ [WFD, EC (2008a)], which puts prevention, reuse and preparing for reuse on a firm legal footing as a priority order in the waste hierarchy. The Directive specifies that Member States shall take measures, as appropriate, to promote the reuse of products and prepare for reuse activities, notably by encouraging the establishment and support of reuse and repair networks, the use of economic instruments, procurement criteria, quantitative objectives or other measures. This was transposed into Irish legislation in 2011 (S.I. No. 126 of 2011).

A Resource Opportunity: Waste Management Policy in Ireland (DECLG, 2012) is the latest policy statement on waste resource management in Ireland and is the foundation document for all current and future waste planning in Ireland. This policy commitment was made in order that, firstly, areas of reuse and opportunities for preparation for reuse will be encouraged and promoted through the renewed national waste prevention programme (NWPP), the environmental awareness work of local authorities, the producer responsibility initiative compliance schemes and the enterprise support agencies; secondly, existing reuse websites such as SMILE (Saving Money through Industry Links and Exchanges) and FreeTrade Ireland, which facilitate the reuse of unwanted goods between businesses and members of the public, will be built on; and, thirdly, reuse policy for producer responsibility sectors will be examined and a public sector reuse policy will be developed. Most recently, this policy has been central in the development of the latest generation of regional waste management plans (RWMPs).

The new regional waste management plans 2015–2021 place a key emphasis on prevention, reuse and preparing for reuse, with both the circular economy and the waste hierarchy being central to the plans.

Ireland's NWPP is operated by the Environmental Protection Agency (EPA) and has been in place since 2004. The programme provides businesses, households and the public sector with guidance and support to become more resource efficient. The latest NWPP is called “Towards a Resource Efficient Ireland” to reflect this broad approach and to highlight the key role for the programme in delivering on national priorities on competitiveness and green growth.²

The circular economy is becoming a key pillar in European society and retaining resources within this loop is critical to its realisation and implementation. Waste/resource exchange systems in both Ireland and Europe are an evolving concept that support and deliver on the goals of the circular economy.

In Ireland the development of waste/resource exchange systems has been complemented by the growth of the Community Reuse Network Ireland (CRNI),³ which acts as the umbrella body for reuse organisations in Ireland and provides a platform for stakeholders to engage and share best practice experiences. This, coupled with an ambitious and targeted NWPP managed by the EPA, is aiding the transformation to a circular economy in Ireland.

The Rediscovery Centre⁴ in the EPA's Sustainability Research Programme has recently developed a number of documents for the reuse sector. These include a high-level overarching reuse protocol, and user-friendly material-specific protocols for post-consumer and post-manufacturing goods. These include post-consumer furniture, bicycles and textiles and post-manufacturing food.

The Irish Charity Shops Association (ICSA)⁵ has developed a series of tools for use by charity shops. A practical guide for setting up a charity shop is published by the Association, which is applicable to existing registered charities or those thinking of setting up a charity shop. The document is called “Setting up a Charity Shop – a

1 EU Waste Framework Directive (2008/98/EC), available at <http://ec.europa.eu/environment/waste/framework/>

2 <http://www.epa.ie/waste/nwpp/#.Vx4533IOMf8>

3 <http://crni.ie/>

4 <http://www.rediscoverycentre.ie/>

5 <https://www.icsa.ie/>

practical guide to setting up a charity shop in Ireland". The ICSA also endorses *The Charity Shops Handbook* by Hilary Blume – the essential A–Z of charity shop operation published by the Charities Advisory Trust (Blume, 1995). The ICSA has also produced a "Code of Charity Retailing", which sets out the mandatory good practice that members of the Association must observe, as well as outlining additional recommended but optional good practice. As there is existing ICSA guidance in place, this document does not specifically address the area of charity shops. However, if this document contains information that may be of use to the charity sector, it can be used, providing it does not contravene the codes or guidance set out or recommended by the ICSA.

Chapter 3 of this guide provides information on the different players in the waste/resource exchange sector.

1.5 What is Waste/Resource Exchange?

There is no formal definition of resource exchange at European Union (EU) level, but it involves the exchanging of resources, such as surplus raw materials, surplus finished stock, by-products, packaging, waste and unwanted items, between different parties, such as businesses or householders, in order to save money, reduce waste going to landfill and develop new opportunities.⁶

The US EPA defines waste exchange as an arrangement in which companies exchange their wastes for the benefit of both parties.⁷

1.6 Types of Waste/Resource Exchange

Waste/resource exchange takes many different forms and can be a free or commercial service, such as the following:

- online exchange for domestic users such as householders, e.g. Adverts, FreeTrade, DoneDeal, GiveorGet, etc.;
- online exchange for commercial entities such as businesses and industrial organisations (can be industry specific), e.g. FreeTrade, SMILE, WasteChange.com, etc.;
- online exchange exclusively for the public sector, e.g. PREP;
- direct person-to-person exchange (can include ecotowns), i.e. individuals who live in an ecotown exchanging items – these can be any items that they are interested in;
- direct business-to-business (B2B) exchange (can include eco-industrial parks), i.e. exchange of materials between businesses within an eco-industrial park – these can be any items that they are interested in – which will save the business money and resources;
- physical reuse and resource exchange centre/storage hub, e.g. Bia Food Initiative, ReCreate, etc.;
- favour exchanges (includes exchange of physical items and services, mainly online), e.g. weshare.ie, clonakiltyfavourexchange.ie;
- resource (reuse) exchanges within schools, colleges, workplaces, etc. (may be online or physical hub);
- resource (reuse) exchange, which can include reuse organisations, car boot sales, charities, community groups, volunteer groups, etc.

1.7 Benefits

The benefits that can be gained from a resource exchange industry in Ireland include:

- greater resource efficiency;
- savings of raw materials, water, fuel and energy;

⁶ SMILE Frequently Asked Questions, available at <http://www.smileexchange.ie/faq>

⁷ http://iaspub.epa.gov/sor_internet/registry/termreg/searchandretrieve/termsandacronyms/search.do?search=&term=exchange&matchCriteria=Contains&checkedAcronym=true&checkedTerm=true&hasDefinitions=false#formTop

- reduced greenhouse gases and emissions;
- avoided disposal and landfill costs;
- improved local environment;
- because of increased resource scarcity, it also brings security of supply;
- job creation potential, as there is a high ratio of people employed per tonne of material reused;
- social benefits including training and employment, particularly in the third sector, such as in social enterprises;
- strengthening the local economy and bringing potential householder savings: often, material is sent abroad for reuse or recycling (more so for recycling) and, by engaging in these activities, value is retained in the Irish economy;
- increases awareness and consumer behaviour;
- contributing towards prevention and waste objectives and targets set at a national and local level by the relevant authorities.

2 When is a Material a Waste?

The WFD⁸ is the overarching piece of legislation that governs waste management in Europe. It places the “Waste Hierarchy” on a firm legal footing (see Figure 2.1), and sets out the basic concepts and definitions related to waste management, such as prevention, reuse, preparing for reuse, recycling, recovery, disposal and waste.

It explains the concepts of end of waste criteria (when waste ceases to be waste and becomes a secondary raw material) and by-products (a substance or object, resulting from a production process, the primary aim of which is not the production of that item) and how to distinguish between waste and by-products. It also details the conditions that must be fulfilled to meet both end of waste and by-product status.

The WFD has been transposed in Ireland by the European Communities (Waste Directive) Regulations 2011, S.I. No. 126 of 2011.⁹

The European Commission published a guidance document on the interpretation of the key provisions of Directive 2008/98/EC on waste (EC, 2012a).¹⁰ The guide is intended to assist the understanding of the legislation with the aim of furthering good waste management practices in Europe.

Figure 2.1 shows the waste hierarchy, the preferred order of waste management in Europe, where prevention is the preferred option at the top and disposal is the least favoured option at the bottom. It is important to note that prevention is not a waste activity; therefore, it does not come under waste legislation.

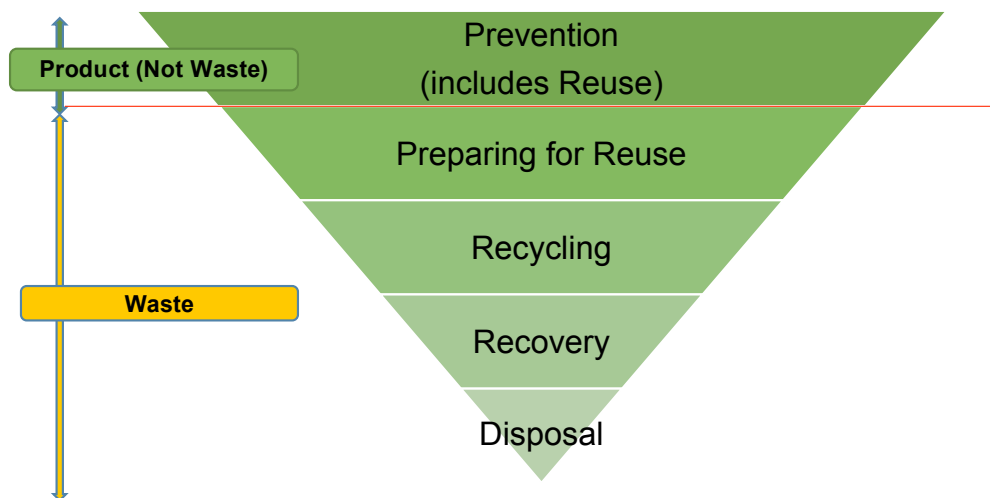


Figure 2.1. Waste Hierarchy in the European Union. Adapted from the EU Waste Framework Directive:
<http://ec.europa.eu/environment/waste/framework/>

It is important to understand the different definitions used in waste management to ensure that materials are managed in an appropriate manner and in line with the laws of Ireland. Figure 2.2 provides an explanation of the definitions and how materials should be managed in each case.

⁸ EU Waste Framework Directive (2008/98/EC), available at <http://ec.europa.eu/environment/waste/framework/>

⁹ European Communities (Waste Directive) Regulations 2011, S.I. No. 126 of 2011, available at <http://www.irishstatutebook.ie/eli/2011/si/126/made/en/pdf>

¹⁰ Guidance on the Interpretation of the Key Provisions of Directive 2008/98/EC on Waste, available at http://ec.europa.eu/environment/waste/framework/pdf/guidance_doc.pdf

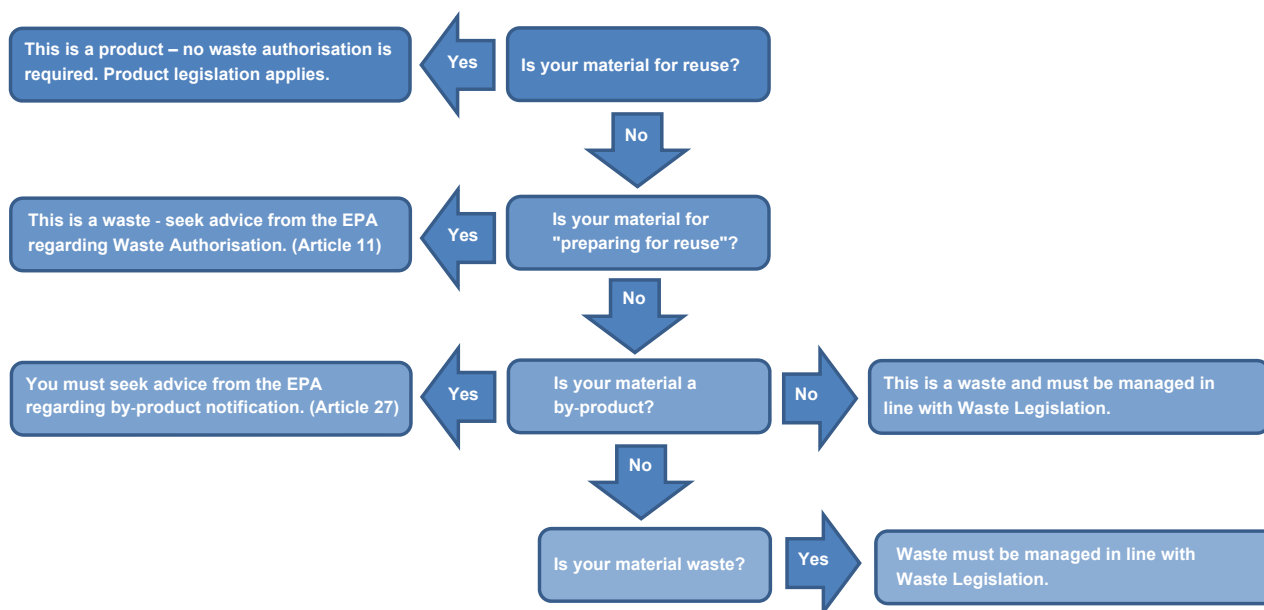


Figure 2.2. Waste or non-waste decision tree. Source: RPS Group.

2.1 Reuse

“Reuse” is defined as any operation by which products or components that are not waste are used again for the same purpose for which they are conceived.

Reuse of materials and/or items is considered a prevention activity. This means that waste legislation does not apply to reuse. Guidance from the European Commission provides the following example: if a person takes over a material, e.g. a piece of clothing, directly from the current owner with the intention of reusing it (even if some repairing is necessary) for the same purpose, this comprises evidence that the material is not a waste.

Resource exchange of materials that meets the above reuse criterion is also considered a prevention activity and does not come under waste legislation.

A “reuse” decision tree has been developed to establish whether a material is classified as “reuse” or “waste” (see Figure 2.3).

2.2 Waste

Waste is defined in the WFD as “any substance or object which the holder discards or intends or is required to discard”.

Where a material does not meet reuse, by-product or end of waste status, it is classified as a waste and must be managed in line with waste legislation. This includes activities such as preparing for reuse, recycling, recovery and disposal of waste.

This section examines the authorisation required for waste activity in Ireland for:

- movement of waste (within Ireland and cross border);
- facilities (civic amenity/recycling centres (CA/RCs), waste management companies, reprocessors, reuse organisations, etc.

It is the responsibility of the entity/organisation collecting and treating waste resources to ensure that they have the appropriate authorisation to do so.

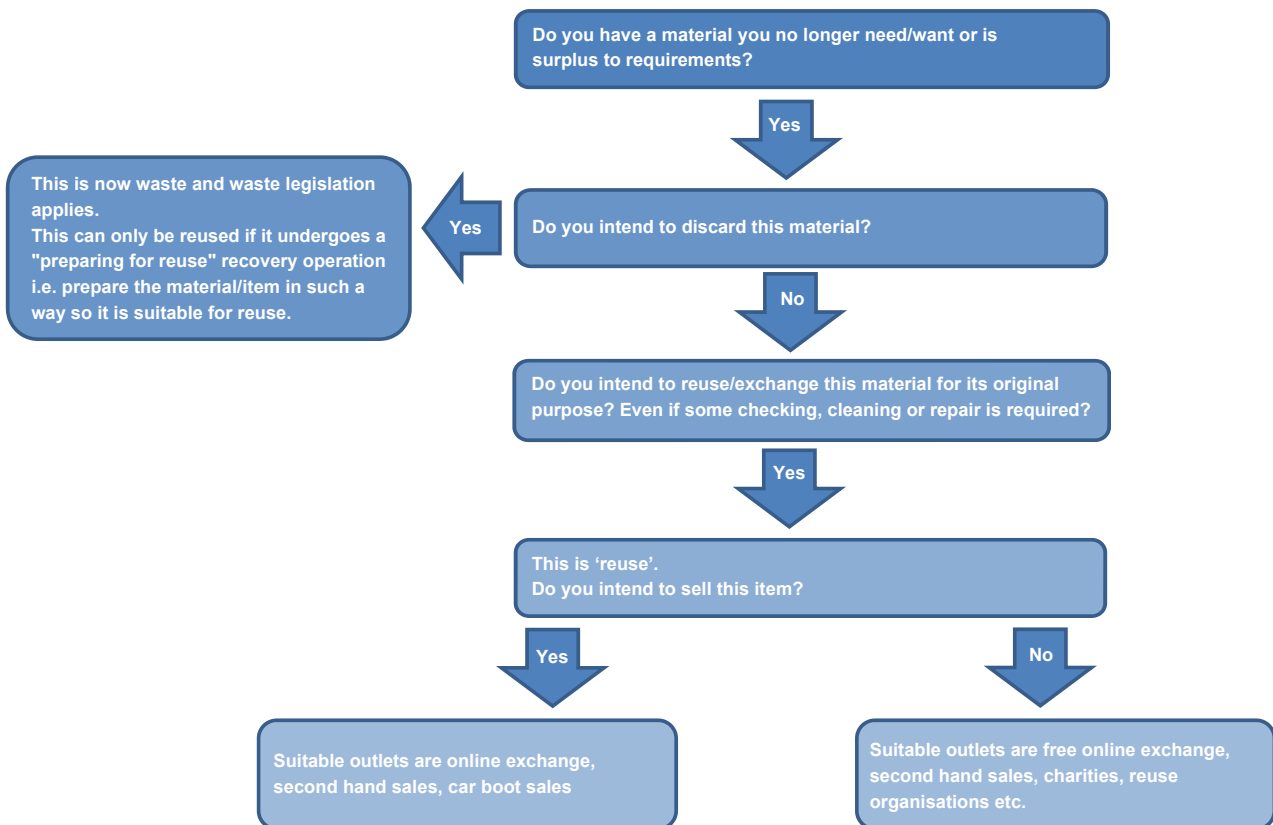


Figure 2.3. Reuse decision tree. Source: RPS Group.

2.2.1 Movement of waste

A waste collection permit is a legal requirement to transport waste. The following exceptions apply:

- transportation of non-hazardous waste by persons who are not directly involved with the waste business, at weights less than 2 tonnes, and in vehicles not designed for the carriage of waste;
- registered charities collecting furniture and large electrical and electronic equipment (EEE) items, subject to compliance with producer responsibility obligations;
- collection of waste at a central collection point by, or on behalf of, a local authority, or with the approval of a local authority, where collection is undertaken by, or on behalf of, a community group.

The exceptions require that the activity is being carried out in compliance with all other legal requirements and in a manner that avoids environmental pollution.

The National Waste Collection Permit Office (NWCPO)¹¹ manages applications for all waste collection permits in Ireland.

Where it is intended to move waste materials across a border, the Transfrontier Shipment (TFS) Regulations apply. The National TFS Office operated by Dublin City Council is the National Competent Authority for TFS in Ireland.¹²

¹¹ <http://www.nwcpo.ie/>

¹² <http://www.dublincity.ie/main-menu-services-water-waste-and-environment-waste-and-recycling/national-tfs-office>

Facilities

In Ireland, all waste disposal and recovery activities are required to hold an authorisation in accordance with the Waste Management Act, as amended or, alternatively, an Integrated Pollution Prevention and Control (IPPC) licence under Section 83 of the Environmental Protection Agency Act.

A waste recovery or disposal activity at a facility:

- requires a waste (or IPPC) licence, or
- requires a waste facility permit, or
- requires a waste certificate of registration/registration certificate, or
- in very exceptional and specific circumstances (e.g. treating by-products rather than wastes), constitutes an excepted activity (i.e. no waste authorisation required). However, in practice, this is a highly unlikely event.

Certain waste activities are exempt from waste licensing under Sections 39 and 51 of the Waste Management Act, as amended. In the case of an exempted activity, the activity would be subject to a certificate of registration/registration certificate in accordance with General Binding Rules under Article 25 of Directive 2008/98/EC specifying the types and quantities of waste that may be covered by an exemption and the method of treatment to be used.

If an organisation is unsure of the level of authorisation required, it may make a request for a determination to the EPA in accordance with Article 11 of the Waste Management (Facility Permit and Registration) Regulations 2007, S.I. No. 821 of 2007, as amended in 2008, as to whether a proposed activity or activities shall be regarded as a licensable activity under Section 39(1) of the Act or as requiring a waste facility permit or certificate of registration under these Regulations, or none of the above.

The EPA has developed a decision tree to help establish the type of authorisation required.¹³

2.3 Preparing for Reuse

“Preparing for reuse” means checking, cleaning or repairing recovery operations, by which products or components of products *that have become waste* are prepared so that they will be reused without any other pre-processing.

It is important to note the distinction between “reuse” and “preparing for reuse”. The key element is the intention behind the transfer of the product/component/material. When it is intended that an item, such as a bicycle, is transferred to be used for the same original purpose, even if there is some checking, cleaning or repair required, this falls under reuse (waste prevention). The item is not categorised as a waste; therefore, waste legislation does not apply. However, where the item (bicycle) has been discarded as a waste, for example in a waste skip at a recycling centre/civic amenity site, with the intention of recovery (including recycling) or disposal, the item will remain a waste until it has been subject to a recovery operation at a waste permitted/licensed facility that allows reuse.

2.4 By-products

A by-product is a substance or object, resulting from a production process, the primary aim of which is not the production of that item. The substance/object/material can be considered a by-product and not a waste only if the following conditions are met:

- (a) further use of the substance or object is certain;

¹³ <http://www.epa.ie/pubs/advice/process/New%20Licence%20Permit%20COR%20Tree%20-%20Local%20AuthorityV15.pdf>

- (b) the substance or object can be used directly without any further processing other than normal industrial practice;
- (c) the substance or object is produced as an integral part of a production process; and
- (d) further use is lawful, i.e. the substance or object fulfils all relevant product, environmental and health protection requirements for the specific use and will not lead to overall adverse environmental or human health impacts (see Glossary – By-products).

To determine by-product status a notification must be made to the EPA. This is done under Article 27 of the European Communities (Waste Directive) Regulations 2011, S.I. No. 126 of 2011. The EPA will decide whether the substance/object/material is indeed a by-product or a waste. The length of time taken for the decision may depend on the complexity of the determination. The EPA can provide guidance with regard to the decision-making timeframe.

If a material is deemed to be a by-product, waste legislation does not apply. However, standard product legislation does apply, including legislation such as the REACH (the Registration, Evaluation, Authorisation and Restriction of Chemicals) Regulation, etc. (see Glossary – REACH)

An example of an approved by-product could be uncontaminated soil and stone from a greenfield site for use in land reclamation based on the aforementioned conditions being met and formally approved by the EPA.

A decision tree produced by the European Commission to help determine whether a material is a by-product or a waste is shown in Figure 2.4.

2.5 End of Waste

Article 28 of the European Communities (Waste Directive) Regulations 2011, S.I. No. 126 of 2011, sets out the grounds by which a material which is recovered or recycled from waste can be deemed to be no longer a waste.

End of waste status is where certain specified waste shall cease to be waste, as per the definition in the WFD and this document, when it has undergone a recovery, including recycling, operation and complies with specific criteria to be developed in accordance with the following conditions:

- (a) the substance or object is commonly used for specific purposes;
- (b) a market or demand exists for such a substance or object;
- (c) the substance or object fulfils the technical requirements for the specific purposes and meets the existing legislation and standards applicable to products; and
- (d) 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.

Once end of waste status has been achieved, waste legislation no longer applies to the material in question. However, standard product legislation does apply, including legislation such as REACH, etc.

The European Commission has produced regulations on end of waste criteria for the following waste streams:

- aluminium and aluminium alloy scrap;
- copper and copper alloy scrap;
- iron and steel scrap;
- glass cullet.

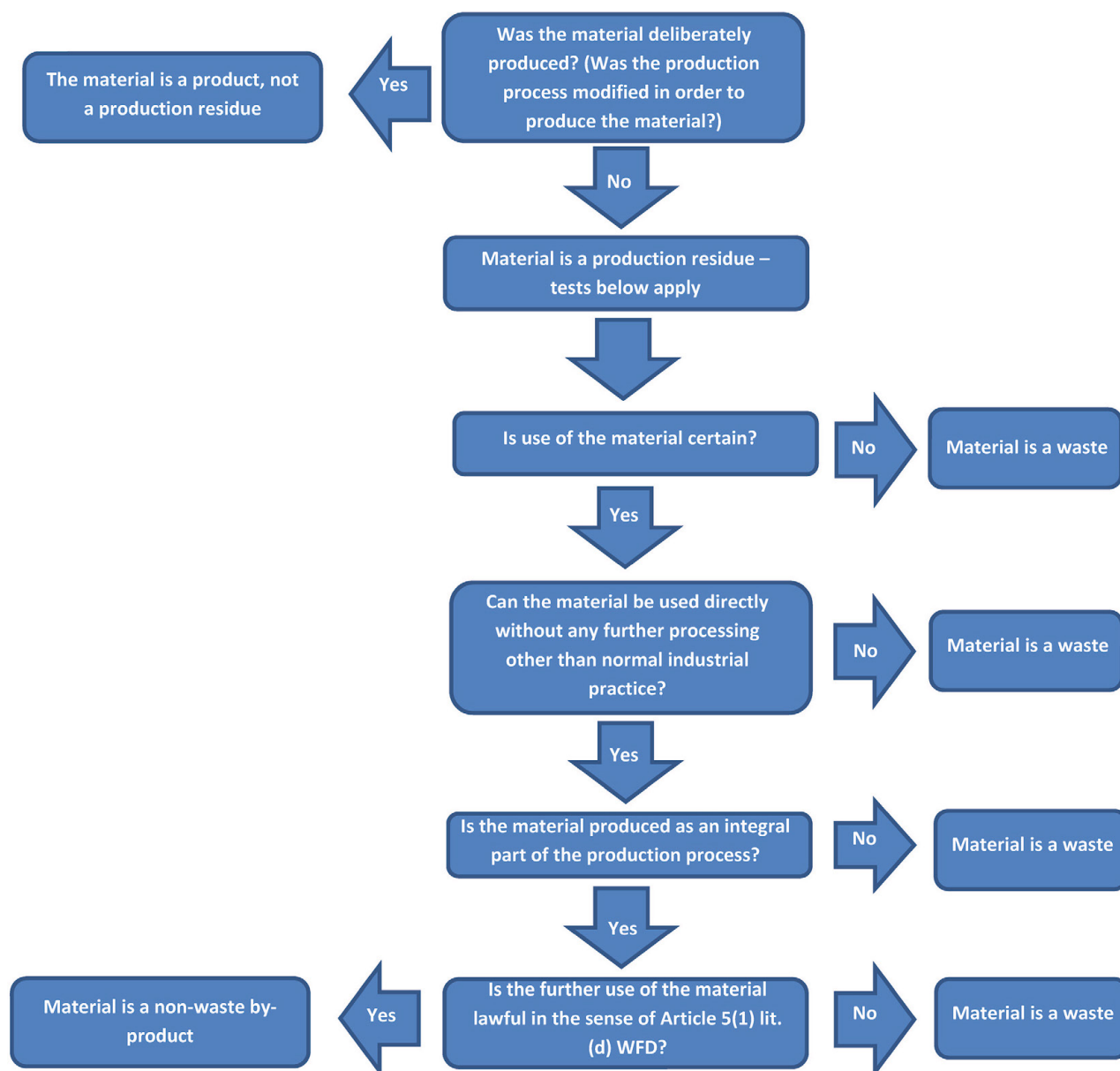


Figure 2.4. Decision tree for determining whether a material is a by-product or a waste. Source: European Commission, 2012a.

The preparation of end of waste criteria by the Commission is under consideration for other materials and work is underway for plastic waste.

The end uses and end markets for end of waste status materials will often be the same as waste materials, e.g. glass cullet will be sent to a glass packaging manufacturer; metal will go to a metal manufacturer. The difference is that once end of waste status is achieved, the materials can be sent outside the waste legislation regime.

Where criteria have not been set at Community level, Member States may decide on end of waste on a case by case basis based on the applicable case law. Any decision made by Member States must be notified to the Commission. The EPA is the relevant decision-making authority for end of waste in Ireland and any proposals for end of waste must be made to them. To date, there have been no end of waste decisions under Article 28.

Figure 2.5 demonstrates a decision tree to help with the end of waste decision process.

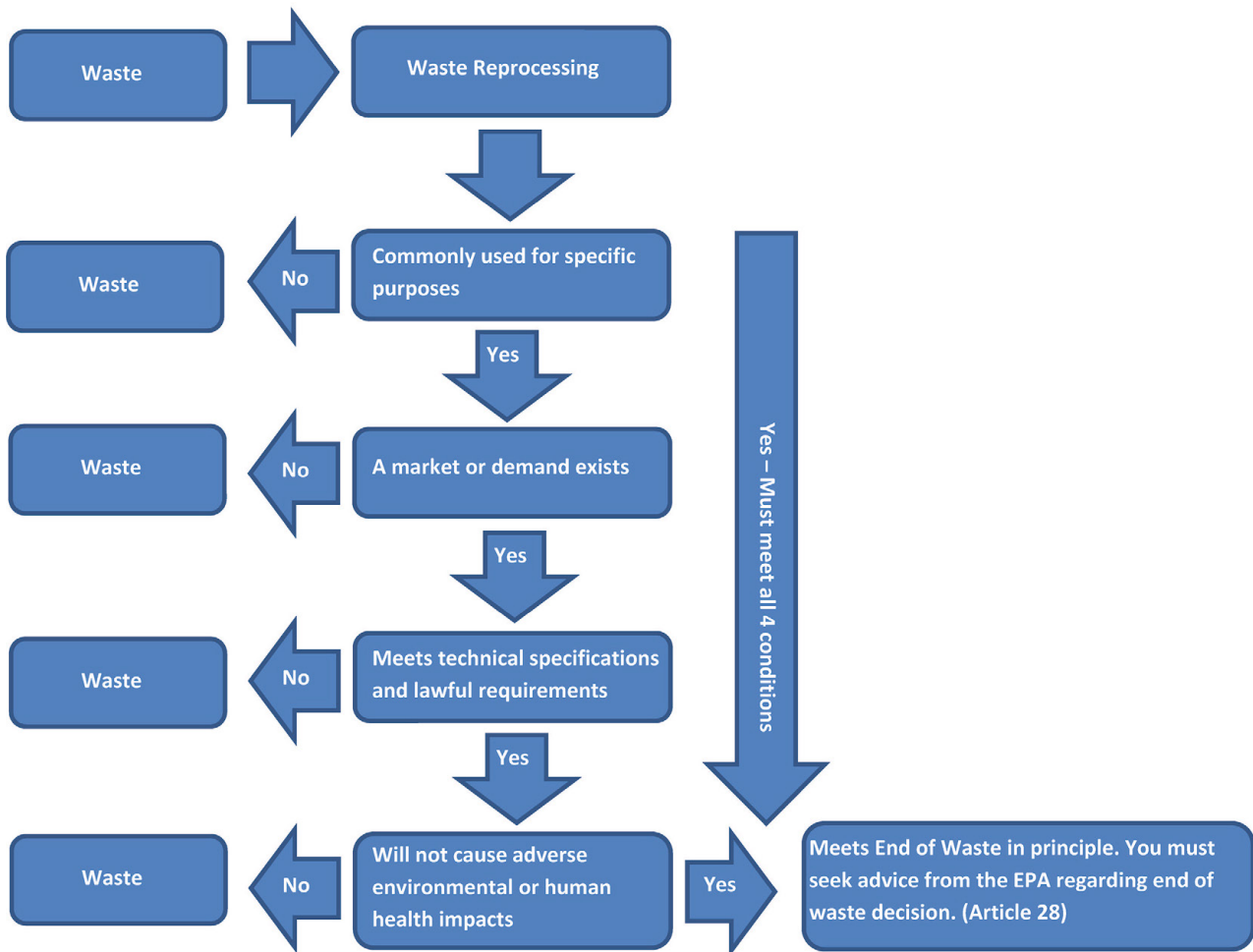


Figure 2.5. End of waste decision tree. Source: RPS, 2016.

3 Sector Mapping and Stakeholders

In Ireland there is a range of reuse and waste/resource exchange programmes serving different demographics, including householders, business, industry and the third sector. The waste/resource exchange sector at present is divided into four broad groups/types of organisation (see Figure 3.1):

- commercial and social enterprises;
- online portals;
- physical reuse centres;
- knowledge and skills training centres.

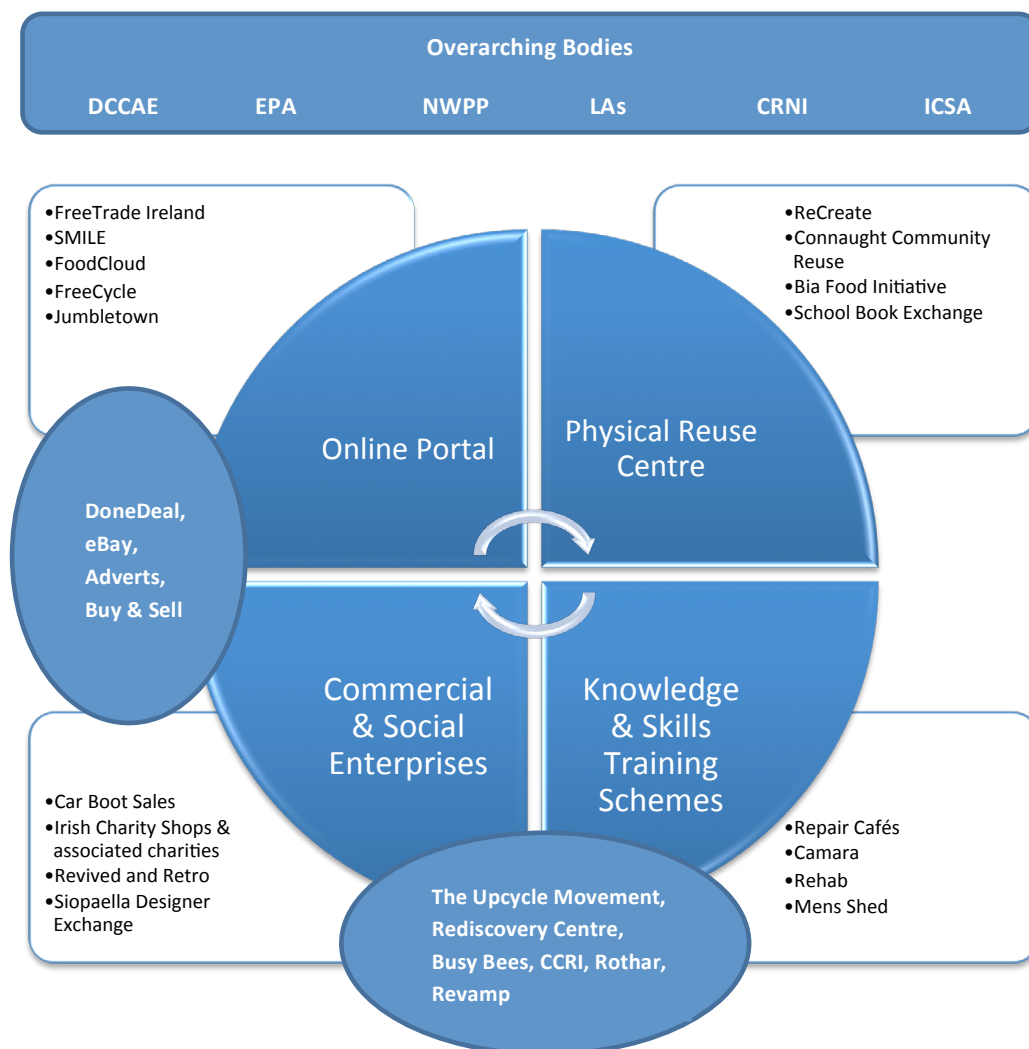


Figure 3.1. The waste/resource exchange sector in Ireland.

Note: this is not a list of all organisations, groups or associations but is an indication of the types of organisations involved in the reuse and waste/resource exchange sector. There are too many stakeholders to represent in such a schematic.

- **Commercial and social enterprises** – Commercial entities may take items for direct resale or engage in a level of cleaning or repair with resale in mind. Community-based reuse organisations generally provide training and help staff/trainees to learn and upskill – ultimately producing an item or material for commercial sale. Items/materials are often refurbished or repaired and value is added to the material. Further organisations, such as charity shops, car boot sales and B2B exchanges, are also included in this grouping.
- **Online or virtual exchange organisations** – These types of organisations have no physical storage points – they enable users to upload items to a digital platform and do not actively take part in the exchange, e.g. FreeTrade Ireland (FTI) caters to households, businesses, schools and towns; SMILE focuses on B2B exchange and also provides technical assistance and face to face networking exchange opportunities for members; FoodCloud is a social enterprise that connects businesses with surplus food to charities in their local community; and DoneDeal is a national classified ads website.
- **Physical reuse / resource exchange centres** – These are storage spaces for materials where no further action is carried out on the item. Generally, the materials are not changed in structure or purpose. The item is simply stored and new owners are invited to collect and use it, e.g. ReCreate (art materials and supplies), Bia Food Initiative (food), Connaught Creative Reuse Network (art materials and supplies).
- **Knowledge and skills training schemes** – These often take the form of repair installations and include both formal and informal activities. The informal repair groups do not have the goal or purpose of selling the items but concentrate on educating users on how to fix and repair their own items. The formal repair activity is usually a commercial/social training-based entity that will sell the final product and/or service, e.g. Rediscovery Centre (bicycles, fashion, furniture, paint), Busy Bees (furniture), Camara (electronics).

The four main groups can be split into further divisions, such as:

- online exchange for domestic users, such as householders;
- online exchange for commercial entities, such as businesses and industrial organisations (can be industry specific);
- online exchange exclusively for the public sector;
- direct person-to-person exchange (can include ecotowns);
- direct B2B exchange (can include eco-industrial parks);
- physical reuse and resource exchange centre/storage hub;
- favour exchanges (includes exchange of physical items and services, mainly online);
- resource (reuse) exchanges within schools, colleges, workplaces, etc. (may be online or physical hub);
- resource (reuse) exchanges which can include reuse organisations, car boot sales, charities, community groups, volunteer groups, etc.

A map of over 600 reuse organisations and waste/resource exchange outlets based on the four main groups is shown in Figure 3.2.

There are also a number of overarching bodies that support reuse and waste/resource exchange including government departments and bodies involved in prevention and waste policy and activity, such as the Department of Communications, Climate Action and Environment (DCCAE), the EPA and the NWPP, local authorities and civic amenities.

Member-based groups include the CRNI and the ICSA. The CRNI is the all island representative body for community-based reuse, recycling and waste prevention organisations. It should be noted that not every organisation is a member but different types of membership are offered depending on organisation type. Full membership is open to community-based, not-for-profit and co-operative groups involved in reduce (minimisation), reuse and recycling projects. Associate membership is open to housing associations, local authorities, business in the community, government departments and other state or semi-state bodies. Affiliate membership is open to any organisation registered in Ireland or Northern Ireland that deals with reuse, recycling and waste prevention and the protection of the natural environment.

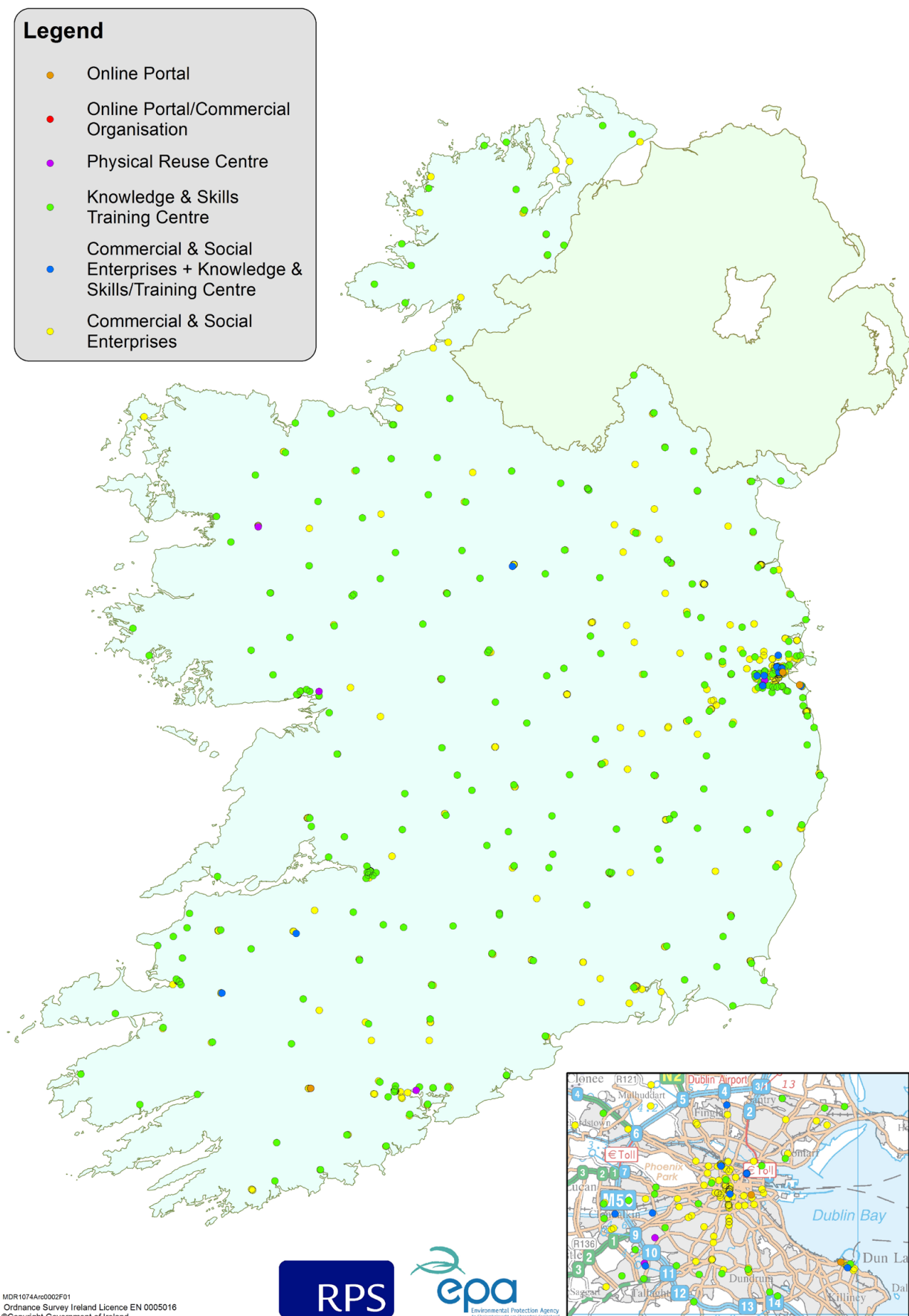


Figure 3.2. Map of reuse organisations and waste/resource exchange outlets. Sources: RPS Group and Ordnance Survey Ireland; © Government of Ireland.

The ICSA is the umbrella group for charitable organisations in Ireland. It provides support and information for the charity shop sector, such as networking, research and development, performance review benchmarking and a code of practice, to ensure that members conduct their business to a certain standard. The group also works to generate media coverage and public awareness, and to lobby on behalf of its members.

Additional stakeholders include but are not limited to:

- householders and consumers;
- communities;
- schools and colleges;
- businesses and small and medium-sized enterprises (SMEs);
- charities;
- reuse organisations and repair groups or networks;
- resource exchange networks;
- Corporate Social Responsibility (CSR) groups;
- regulatory bodies;
- waste management companies;
- environmental consultants;
- manufacturers;
- general public;
- secondary audience;
- scientific community;
- researchers;
- higher educators;
- the media;
- other, as appropriate.

RREUSE is a European non-governmental organisation (NGO) and the umbrella group representing social enterprises active in reuse, repair and recycling across Europe. RREUSE has established a list of principles that reuse organisations and networks should abide by:¹⁴

1. Full safety requirements for workers, vicinity and environment.
2. Keep records of all material streams entering and leaving the reuse centre. Records of materials that are no longer fit for reuse/preparation for reuse and thus sent for recycling and other treatment must also be kept (all documentation based on mass).
3. For every product group prepared for reuse by the reuse centre, a qualified or competent person and/or training regime must be in place. For example, the reuse centre could have a qualified or competent mechatronic/electrical technician for waste electrical and electronic equipment (WEEE) or a carpenter for furniture, etc. Alternatively, a training scheme must at least be in place under the supervision of a relevant qualified person in order to train both permanent and non-permanent staff (the latter being, for example, persons on insertion/integration contracts).
4. Proper handling of used goods in a controlled manner (collection, dismantling, testing, etc.).
5. Commitment to make available safe used goods and reusable parts as applicable (being sales or donations) in line with any relevant national rules on warranty.
6. Compliance with national commerce and waste regulations if applicable. Exemptions from national waste regulations/waste collection or treatment permits (or some of the restrictions/obligations connected with these permits) for reuse centres that only conduct preparation for reuse, not different from commercial repair

¹⁴ <http://www.rreuse.org/approved-reuse-centres-and-networks-principles/>

workshops. These are recommended at national level in order to ease access to small enterprises and social enterprises.

7. Full compliance with relevant legal standards, e.g. for electronics, electrical safety testing to ensure that equipment is safe for purpose.
8. For products classified as waste, the approved reuse centre determines their end of waste status. Prior to waste items gaining the status of a product, these are to be sorted, checked and, where appropriate, tested, repaired and cleaned. These steps must be carried out exclusively by approved reuse centre staff who determine that the item in question is fit for purpose and can be reused (in line with the conditions laid down in the WFD for end of waste).
9. Should the organisation also be active in recycling operations (e.g. dismantling) and other forms of waste treatment, it must provide evidence of how it ensures that (preparation for) reuse activities are prioritised, in accordance with the waste hierarchy.
10. Provide evidence that the products are not going for illegal export.
11. Concerning used products from reuse centres, these must fulfil the same legal obligations in the respective Member State concerning producer liability, warranty and safety as other used products put on the market by other retailers.

4 Barriers and Opportunities

4.1 Barriers

A survey of businesses and waste/resource exchanges was carried out in order to gain an understanding of the issues associated with waste/resource exchange systems in Ireland and outside Ireland that may act as barriers to resource exchange or may facilitate it.

The following are the key recurrent issues with regard to engagement in waste/resource exchange, from the information obtained across both groups surveyed, and including other general information:

4.1.1 Awareness

- There is a lack of awareness around the issue of reuse in general and this follows through to the concept of resource exchange.
- There can be a lack of visibility or awareness of reuse in the public domain and resource exchange is not the first option to spring to mind.
- It would appear that “reuse” is not a term generally used by householders (WRAP, 2011). People tend to use the term “recycling” interchangeably with “reuse” and often are not aware that by participating in a resource exchange activity they are participating in reuse and an activity with a positive environmental impact.
- It can be hard for some smaller scale resource exchange groups to gain a wide reach and access to the public. This is why reuse organisations’ reach may be restricted and sometimes not make it beyond the circles of their members.

4.1.2 Mindset/perception

- In 2011, the European Commission published a report (EC, 2011)¹⁵ based on surveys carried out to determine attitudes of Europeans to resource efficiency. The report found that 68% of Irish survey respondents are willing to buy at least one of a list of second-hand products. This was also the average figure for the EU-27 Member States. Of the Irish participants surveyed who would not buy at least one of the items on the list, 79% cited concern about usability and quality, 75% cited health and safety concerns, 53% were concerned about a less appealing look of the product and 11% were concerned about what others may think.
- People will typically favour the convenience of purchasing a new item to avoid any perceived hassle involved in sourcing, buying, giving away or upcycling older items.
- There is a lack of awareness and, in some cases, a negative perception of materials that can be accessed in a resource exchange.
- Consumerism and marketing have created a mindset whereby brand new, clean, fresh items are deemed preferable and of better quality.
- There are negative associations towards second-hand/“old” items, i.e. that they are of inferior quality, may not be safe/reliable and may not look as good as their new counterparts.
- Full visibility of exchange details on online exchange sites may put some organisations off participating in B2B waste resource exchange.

¹⁵ *Attitudes of Europeans towards Resource Efficiency – Analytical Report*. European Commission, 2011, available at http://ec.europa.eu/public_opinion/flash/fl_316_en.pdf

- Trust/confidence, or a lack thereof, is an issue with respect to the passing on of IT equipment insofar as key people within organisations may not trust that all sensitive information has been fully deleted and are unwilling to pass on the equipment for reuse.
- People may also have concerns and reservations with regard to trust and the risks involved in passing on/receiving items, such as trusting the giver/seller or the quality of the item being passed on.

4.1.3 Availability and quality

- The main barrier is inability to match supply with demand in terms of frequency, quality and quantity. It is not always possible to match the supply with the demand. If material is not consistently available in sufficient quantities, it can make the resource exchange unviable.
- With waste/resource exchange the availability of suitable materials can be an issue – availability of resources can be sporadic, which is unsatisfactory if a business relies on a consistent supply of that material. Businesses wishing to take part in waste/resource exchange and/or industrial symbiosis would typically need consistent and reliable availability of a particular stream – one-off exchanges may not suit.
- Demand for certain types of resources can be an issue, as some types of materials, such as offcuts or by-products, may not be of any use to people, resulting in low demand. Conversely, there may be a high demand for some materials within a resource exchange system that are only available in small quantities.
- The quality of the materials available may not be suitable, i.e. they may not meet the required specifications for use as a secondary raw material.
- Some businesses expect or require a quality mark/standard for items/material before they would consider accepting them for reuse to prevent the exchange of defective items/material.
- Many local authority civic amenity sites are managed by waste companies which own the waste that is brought to the site. This makes it difficult for organisations, such as physical reuse centres, social enterprises and knowledge and skills training schemes, to access materials that could potentially be reused.
- Social clauses are an important factor in allowing access to materials.
- Where items are to be prepared for reuse, the lack of access to service manuals, software or hardware makes repair difficult or, in some cases, impossible.
- Poorly described items/materials can often remain on an exchange because of a lack of detail. Photos and descriptions of sizes, quantities, specifications, etc. must be included to maximise the potential for a successful exchange.
- Businesses may be tied into contracts with waste contractors which confer ownership of the waste to the waste contractor.

4.1.4 Ownership and liability

- There is uncertainty around the chain of custody of the material being exchanged, so the issue of ownership is unclear and creates a major concern around the potential for legal liability. Businesses often avoid such risk by engaging a waste contractor.
- Where issues of legal liability arise, there is concern that there is a risk of a brand or reputation being adversely affected.

4.1.5 Legislation and compliance

- Compliance and the uncertainty around what is required to be compliant is an issue faced by businesses considering B2B exchanges.
- Compliance is a key barrier for businesses trying to engage in resource exchanges. A key requirement for large businesses and manufacturers is that they meet the terms of IPPC licences and any other permits that apply. Depending on the nature of the waste/resource exchange organisation, a waste authorisation may not be required (e.g. if the material is going for direct reuse).

- A lot of businesses with the potential to be involved in resource exchanges are both uncertain and apprehensive about the possible legal requirements of resource exchanges.
- Cost of meeting legal compliance: if a resource exchange organisation requires a waste facility permit, certificate of registration or waste licence, this can be a barrier, as it represents a significant financial burden for the organisation.
- As reuse is a new area that is still developing, the ability of resource exchange organisations to obtain professional indemnity and product liability insurance is a challenge. This is largely caused by the lack of knowledge and understanding of insurance companies regarding the activities of resource exchange organisations.
- Bogus collectors operating under the guise of a resource exchange or charity are collecting material without suitable authorisation. In cases like these, the donor's perception of passing items on for reuse is damaged. It can also be damaging to the environment, as protecting the environment is not a primary concern and it is a loss of input material for the resource exchange.
- Ensuring that processes are robust so that safe products and services can be produced and staff with suitable qualifications and training are available with the capacity to approve items before issuing them to the public.
- Lack of standards regarding reuse and resource exchange, i.e. trading standards are a barrier.
- Lack of guidance documents or guidelines available.
- A registration and approval body, the Producer Register Limited, has been established to ensure that an organisation can become an "approved preparation for reuse of WEEE organisation". This provides the producer responsibility scheme with confidence and reassurance in the organisation. However, there is no such similar "approval" in place for other material types. Such an approval system would generate confidence across the reuse domain and ultimately lead to more materials entering the resource exchange system.
- Engagement with the producers and manufacturers of the original product is a challenge but, by providing information about the materials in products, as well as disassembly and treatment information, they can help to ensure that product life cycles can be extended.

4.1.6 Logistics and infrastructure

- The success of a resource exchange or reuse service is dependent on the transport networks and availability, location, storage capacity, etc.
- Transport options available to an organisation or its users are important, as a lack of options may hinder exchanges taking place.
- Capacity and storage issues can affect exchange systems such as charity shops and physical reuse/resource exchange hubs that may begin to receive a high influx of items.
- Proximity and ease of access to a reuse or exchange system and the type of item for exchange is important, as transport/delivery of materials over long distances may make it unviable.
- An item's size can affect the exchange of an item, as it can hinder the transport, access to or delivery of the item.

4.1.7 Funding and costs

- Unless adequate funding is available, the cost to set up and operate reuse organisations, small businesses or social enterprises can be prohibitive. However, an organisation should aim to be self-sustaining.
- Operating costs will be an issue where revenue is low.
- The labour cost involved in repairing or refurbishing an item can be prohibitive compared with cheap new items – this is a global issue relating to the undervaluing of primary resources and transport.
- There is a lack of long-term funding for some waste/resource exchanges, i.e. funding is based on 1-year cycles and may be negatively impacted by the funding body's own budget constraints.

- The lack of existing tax credits, which would provide an incentive to take part in reuse and resource exchange, e.g. businesses being able to offset the loss of a material asset where they have donated materials that they may have no use for to a social enterprise.
- Where an exchange accepts items to be prepared for reuse, the costs of parts can result in the cost to repair being higher than the cost of a new item.
- Educational costs involved to provide adequate training for staff, including staff from work activation schemes, etc.
- The cost of transportation acts as a barrier, especially where the distance to the source is considerable.
- The small scale of production materials means that some reused materials will cost more than their mass-produced counterparts, which may have a knock-on effect on sales.
- There is a perception that the exchange of resources would add an additional administrative burden.

4.1.8 Staff turnover

- Staff turnover is an issue for social enterprises, in particular where members of staff have come from work activation initiatives, e.g. Tús. These staff will have been trained and assigned roles and responsibilities but will need to be replaced at least once a year and their replacements trained for these roles and responsibilities again.
- When a business's contact person on a resource exchange leaves their job or post, it can result in a loss of exchanges unless another contact person is assigned to take over.

4.2 Opportunities

Through identification of the various barriers to reuse, some key opportunities for the promotion of waste/resource exchange have been identified and they are in keeping with three of the four thematic priorities as described in "Towards a Resource Efficient Ireland":¹⁶

- promoting efficient use of resources in business (water, material, energy);
- minimising food waste and promoting efficient water use in homes and communities;
- maximising reuse and recovery of resources and preserving natural capital;
- encouraging behaviour changes to normalise resource efficiency.

4.2.1 Demonstration of successful waste/resource exchange systems

The majority of the respondents to the B2B survey indicated a willingness to participate in a case study and all of the participants indicated that relevant case studies would encourage their organisation to engage with resource exchange systems. There is an opportunity for the waste/resource exchange sector to engage with businesses in different sectors to conduct case studies demonstrating how waste/resource exchanges can work and benefit those involved.

It is important to demonstrate this across several sectors, as businesses will only be interested if a waste/resource exchange system can work for the materials which they generate or use.

The case study should be presented in such a way that it does not compromise the competitiveness, confidentiality or commercial sensitivity of the business providing the information. If these assurances can be provided to companies then they are more likely to participate, which will result in greater learning, information sharing and exchanges. The company should be provided with the final proof for approval before publishing to ensure that they are completely satisfied that the case study will not negatively affect their business in any way.

¹⁶ Towards a Resource Efficient Ireland: A National Strategy to 2020, available at <http://www.epa.ie/pubs/reports/waste/prevention/TowardsAResourceEfficientIreland.pdf>

4.2.2 Reuse data and reporting

The collection of data on material reused through a waste exchange system is often overlooked but is an important tool in assessing the use of a system, managing a business and quantifying performance. Collecting data allows for the analysis of activity, outputs, trends, etc., which is important as it allows for performance to be assessed and Key Performance Indicators (KPIs) to be determined.

Data can also be used for marketing and sales purposes to promote the service to an existing or potential future customer base. Demonstrating the reuse of materials through a waste/resource exchange system highlights the level to which it is used and thus creates confidence in the value of the system and the quality of materials/items being reused through the system.

The development of data collection systems within each resource exchange system should be prioritised and some KPIs quantifying the level of resource efficiency should be common to each system in order to promote not only the individual systems but resource exchange and resource efficiency as a whole. Section 5.6 contains details on waste/resource exchange metrics.

4.2.3 Reuse standards

The Rediscovery Centre is currently developing a material reuse framework, which will produce a high-level overarching protocol and material-specific protocols for post-consumer and post-manufacturing goods. These include post-consumer furniture, bicycles and textiles, and post-manufacturing food. The aim of these protocols is to assist in the operations of reuse organisations and provide tools for the suitability assessment of material for reuse. The protocols will help to standardise elements of reuse and ensure that a high quality of material is being supplied for reuse.

A reuse certification system and quality mark and/or reuse logo would be of value and could be used as part of the guidance, protocols or any future standards to allow reuse organisations to show that their products meet high quality standards. This will also help to drive the reuse market and instil public confidence in reused goods. The European Commission's circular action plan (EC, 2012b) indicates that quality standards for secondary raw materials will be developed from 2016 onwards.

A reuse standard and logo would engender confidence in reused materials and products and help to expand the market.

Case study: Facilitating “approved preparing for reuse of WEEE organisations” to access WEEE for the purposes of reuse/refurbishment

Research has demonstrated the crucial importance of promoting the reuse of WEEE. In many instances electrical and electronic products are being discarded when they are in full working order and could be diverted for reuse and resale. Although the most common reason for getting rid of WEEE is that the item is broken, in many cases it only requires repair or refurbishment.

Development of a reuse sector provides an opportunity to make a significant contribution to social and economic growth by creating employment and ensuring real sustainable economic growth while at the same time minimising environmental pollution. Development of this opportunity was reflected in the DECLG's policy statement *A Resource Opportunity: Waste Management Policy in Ireland*, published in July 2012, which included proposals for a national reuse policy for WEEE.

Legislative changes through European Directive 2012/19/EU on WEEE (EC, 2012c) oblige EU Member States to prioritise reuse at the earliest stages of WEEE take-back, to separate WEEE for reuse and to enable access for reuse centres or “approved preparing for reuse of WEEE organisations” to collect WEEE prior to any further transfer.

As a result, Regulation 17(3) in S.I. No. 149 of 2014 (the WEEE Regulations) therefore provides that “prior to any further transfer for treatment, a producer or authorised representative shall provide for the separation at their collection points of WEEE that is to be prepared for reuse from other separately collected WEEE by granting access for personnel from approved preparing for reuse of WEEE organisations that have been approved and registered by the registration body”.

In 2015, the Department and the Producer Register Limited (formerly, the “WEEE Register Society”) set up a system to facilitate this process with the following key requirements:

Only “approved preparing for reuse of WEEE organisations” can access the compliance scheme collection sites/hubs.

No access is given to reuse organisations at retailer premises or at CA sites.

The approval process, criteria (e.g. waste permits, PAS 141 accreditation, product indemnity insurance and warranty, etc.) and registration have been developed by the Producer Register Limited as per regulations 8(1)(b), 8(2)(i) and 8(2)(k).

Further information (including the preparing for reuse of WEEE application forms and FAQs) is available at <http://www.producerregister.ie/uploads/content/2015-Re-use%20App.pdf>.

4.2.4 European Commission action plan for the circular economy

The European Commission launched its EU action plan for the circular economy in December 2015 (EC, 2012b). The package has two components: firstly, an action plan which aims to support the development of Europe into a sustainable, low carbon, resource efficient and competitive economy. The second component is a legislative proposal on waste to revise the WFD, the Packaging Directive, the Landfill Directive, the WEEE Directive and the End of Life Vehicles Directive.

The action plan includes comprehensive commitments on ecodesign; the development of strategic approaches on plastics and chemicals; a major initiative to fund innovative projects under the umbrella of the EU’s Horizon 2020 research programme; as well as targeted action in areas such as plastics, food waste, construction, critical raw materials, industrial and mining waste, consumption and public procurement. Other key legislative proposals on fertilisers and water reuse will follow. Finally, horizontal enabling measures in areas such as innovation and investment are included to stimulate the transition to a circular economy. The proposed actions support the circular economy in each step of the value chain – from production to consumption, repair and remanufacturing, waste management, and secondary raw materials that are fed back into the economy. A full list of the proposed actions is listed in the annex of the action plan.

4.2.5 Transfer of ownership

A major barrier to businesses engaging in waste/resource exchanges is the uncertainty/lack of clarity around ownership and how that impacts upon potential liability issues.

The creation of a “transfer of ownership” agreement, which would be legally reviewed, would clarify ownership issues and give reassurance to the organisation supplying the material that it is not exposing itself to liability issues if the material it is supplying is as described and the organisation accepting has satisfied itself that the material is as described.

Such reassurance would create conditions whereby more businesses would consider engaging with waste/resource exchanges.

4.2.6 Legislation and guidance

Many of the businesses surveyed were unsure of the legislative requirements involved in the movement of materials and when the relevant authorisations were required.

This guidance document and the EPA decision tree¹⁷ will provide assistance in determining what, if any, authorisation is required (see Chapter 2). This guidance will help to reassure potential suppliers of materials to a resource exchange that they are not going to be at risk of non-compliance by doing so. SMILE has also produced an FAQ on waste determination, targeted at B2B users, on their website.¹⁸

4.2.7 Waste management plans

Ireland is divided into three waste management planning regions: Connacht–Ulster (Cavan, Donegal, Galway City, Galway County, Leitrim, Mayo, Monaghan, Roscommon and Sligo); Eastern–Midlands (Dublin City, Dún Laoghaire–Rathdown, Fingal, South Dublin, Kildare, Louth, Laois, Longford, Meath, Offaly, Westmeath and Wicklow); and Southern (Carlow, Clare, Cork City, Cork County, Kerry, Kilkenny, Limerick, Tipperary, Waterford and Wexford). Previously, there were 10 regions and 10 plans. The latest waste management plans for the three regions were published in May 2015 and will run for 6 years until 2021.

The main purpose of the RWMPs is to establish a framework which protects the health of the environment and its citizens through the sustainable management of wastes generated in the region¹⁹ and to ensure that European and national mandatory targets are achieved. The policy objectives of the waste plans set out to fundamentally implement the waste hierarchy and prioritise prevention, preparing for reuse, recycling and recovery of waste ahead of disposal.²⁰ The strategic approach of the plan places a stronger emphasis on preventing wastes and material reuse activities and embraces resource efficiency and circular economy thinking through some of the following policy actions:

- engaging with and facilitating enterprises in the development of repair and preparing for reuse activities;
- engaging with the NWPP to support initiatives; reviewing and amending (where appropriate) existing and/or conditioning the award of new local authority CA site contracts to facilitate the segregation of materials for reuse/preparing for reuse by social enterprises and similar organisations (WEEE will be considered subject to discussion and agreement with the compliance schemes);
- engaging with the CRNI and other similar networks to develop a network of reuse/upcycling activities and promotional events;
- examining the possibility of expanding existing reuse schemes throughout the regions;
- engaging in prevention awareness and regionally co-ordinated campaigns;
- establishing partnerships to build knowledge capacity and promote activities at the top end of the waste hierarchy, i.e. prevention, reuse, etc.;
- encouraging SMEs and industry to realise the environmental and economic benefits of resource efficiency;
- liaising with and supporting the economic development departments of local authorities in the identification of enterprises and potential clusters of enterprises for the development of secondary material markets;
- engaging with public procurement officers to incorporate resource efficiency criteria into contracts;
- preparing resource efficiency criteria for local authority waste-related contracts.

17 http://www.epa.ie/licensing/licques/#.VxuB7HION_I

18 <http://www.smileexchange.ie/assets/img/uploads/SMILE%20and%20Waste%20FAQ's.pdf>

19 http://southernwasteregion.ie/sites/default/files/Executive%20Summary_0.pdf

20 <http://www.kerrycoco.ie/en/allservices/environment/seareportofthesouthernwastemanagementplan/thefile,9887,en.pdf>

5 Setting Up and Running a Successful Waste/Resource Exchange

There are a broad range of issues which need to be addressed in setting up a waste/resource exchange and they can differ greatly depending on the type of waste/resource exchange being set up. This chapter aims to demonstrate the types of considerations for the four broad groups of waste/resource exchange outlined in Chapter 3.

There is a variety of publicly available online support providing information on how to set up a business, which covers the general aspects for consideration when setting up a business.

- Citizens Information
 - www.citizensinformation.ie
- Department of Jobs, Enterprise and Innovation
 - www.businessregulation.ie
 - www.actionplanforjobs.ie
 - www.takingcareofbusiness.ie
- Local Enterprise Office
 - www.localenterprise.ie
- Irish Local Development Network
 - www.ildn.ie
- Enterprise Ireland
 - www.enterprise-ireland.com
- The Competition and Consumer Protection Commission
 - www.ccpc.ie
- ThinkBusiness
 - www.thinkbusiness.ie
- SmallBusinessCan
 - www.smallbusinesscan.com

5.1 Starting Up

5.1.1 Planning

Starting out, it is important to establish a plan for the waste/resource exchange system. The core of the plan should be a description of the waste/resource exchange system, its operations, the area/market in which it will sit, the customers/users of the service and financial information. A good, clear plan will be important whether the service is free or commercial, as not only will it provide the basis for the development of the service but it will also be required in most applications for funding.

5.1.2 Funding and support

Funding and support can be sourced from different organisations depending on the type of waste/resource exchange system being set up. The following are examples of possible sources of support and/or funding:

- Local Enterprise Offices (LEOs) provide advice, information and financial support for start-ups and small businesses.

- Local Development Companies (also referred to as Local Area Partnerships, LEADER Partnerships, Integrated Development Companies, and Local Development Companies) work with communities to develop local solutions for local issues and promote economic development locally.
- County Councils have staff officers to help businesses and social enterprises (e.g. Environmental Awareness Officers and Green Enterprise Officers).
- Regional Waste Prevention Officers for the three waste management planning regions: Connacht-Ulster,²¹ Eastern-Midlands²² and Southern.²³
- Enterprise Ireland innovation vouchers, etc. There may be some restrictions, such as companies with charitable status, commercial semi-state companies, not-for-profit organisations, trade associations, company representation bodies such as chambers of commerce, sports clubs and other non-commercial bodies or associations, as well as agricultural sector SMEs that are not eligible to participate in the innovation voucher initiative.
- Social Entrepreneurs Ireland provides financial, technical and practical support to social entrepreneurs who have developed ideas to tackle social (and environmental) issues.
- The Arthur Guinness Fund awards money to projects that have been developed to address social, environmental and community issues in Ireland. Applications are accepted under defined categories and awards are based on how advanced a project is.
- The EPA's Green Enterprise Programme provides grant aid to demonstration-type projects across all sectors of economic activity in Ireland and is open to proposals from companies, institutions and public bodies.
- The EU LIFE Programme is the EU's funding instrument for the environment and climate action. The general objective of LIFE is to contribute to the implementation, updating and development of EU environmental and climate policy and legislation by co-financing projects with European added value.

While there are funding supports available for starting up, it is important to plan ahead in order that the waste/resource exchange system can ultimately become self-funding, where possible. Self-funding mechanisms may include charging membership fees to end users, generating revenue from sales, website advertising, etc.

5.1.3 Structure

If the resource exchange is a commercial service it will first need to register with the Companies Registration Office (CRO). The type of structure depends on the resource exchange with which it will be doing business and managing risk. It is advisable to get the advice of a solicitor or accountant when considering the structure for your business. The CRO website has more information on the different types of structure.²⁴

5.1.4 Tax and PRSI

If the resource exchange is a commercial service, registration with Revenue for tax and pay-related social insurance (PRSI) purposes is a legal requirement.

The types and level of taxes will be based on the structure of the service. Revenue's website provides detailed information on the tax requirements as well as the potential credits and reliefs.²⁵

²¹ www.curwmo.ie

²² www.emwr.ie

²³ www.southernwasteregion.ie

²⁴ www.cro.ie

²⁵ www.revenue.ie

5.2 Insurance

5.2.1 Employers' liability insurance

Employers' liability insurance provides cover in the event that any of your employees suffer physical injury or death, and it is proven that, as their employer, you acted negligently and, consequently, could have prevented their loss. This type of insurance is not mandatory in Ireland; however, if you have employees it is recommended, particularly where employee activity may have an associated element of risk, e.g. using lifting equipment, machinery, tools, etc.

5.2.2 Public liability insurance

Public liability covers damage caused by a business or its operations to a member of the public or to their property. If injury to a person or damage to their property is caused by a business, then the business concerned may be held legally responsible for the damage and may be required to compensate the affected party.

An example of this would be a claim made by a visitor to premises (such as a charity shop, sales point for reuse organisations that produce and sell/provide products or exchange centre) as a result of the visitor being injured or damage caused to his property by equipment or facilities within the premises. This type of claim would be covered by public liability insurance. While it is not a legal requirement that a business or organisation has this cover, it is recommended and good practice.

Different levels of public liability insurance are available depending on the type of organisation and industry involved and the level of cover required. It is recommended that resource exchange organisations consider this matter and consult with a professional insurance provider to assess their specific requirements.

5.2.3 Professional indemnity insurance

Professional indemnity insurance relates to providing cover to professional individuals and companies in order to protect their exposure for their professional services and advice given. Claims typically arise when a person or organisation takes an action against another for breach of professional duty of care or negligence. A professional indemnity policy will often cover additional risks such as libel and slander, breach of confidentiality, copyrights or prosecution defence costs.

While this is not a legal requirement, this type of cover is particularly important if the reuse organisation is an organisation providing training services or a repair café where technicians are demonstrating or completing repair works on an item. If this work ultimately leads to damage or injury caused by the repair work or service administered, the provider or organisation may be held liable for damages.

Different levels of professional indemnity are available depending on the type of organisation and industry involved and the level of cover required. It is recommended that resource exchange organisations consider this matter and consult with a professional insurance provider to assess their specific requirements.

5.2.4 Product liability insurance

Product liability insurance refers to the cover provided for damages that result from damage caused by a product provided by an individual or organisation. While this is not a legal requirement, it is recommended that resource organisations that are responsible for products that are sold or provided to another party obtain suitable product liability insurance to protect themselves against potential claims.

It is also important to note that, in order to become an “approved preparing for reuse of WEEE organisation” by the Producer Register Limited, the organisation must submit a letter from a nominated insurer to demonstrate that an adequate policy is in place to deal with product indemnity on reuse activities. For applicants not yet fully operational as a “preparing for reuse organisation”, a letter from the insurance provider is needed confirming that cover as above will be available if approval is granted.²⁶

5.2.5 Additional insurances

There are a range of other insurances which may be required for your business, some of which are listed below. However, this is a non-exhaustive list and your own particular requirements must be considered carefully to ensure that you have all the essential policies in place to safeguard your business activities.

- buildings insurance;
- contents insurance;
- vehicle insurance;
- cyber and data breach insurance;
- business owner’s policy: a bundle of different insurance policies for business owners; check that the policy covers all your requirements; can be a money saving option;
- directors’ and officers’ insurance;
- life insurance;
- contaminated products.

Case study: Insurance issues for repair cafés

A repair café is an event where members of the public are invited to bring household items that are in need of repair, e.g. electrical goods, bicycles, jewellery, furniture and tools, and have them repaired by an “expert volunteer”.

Following the hosting of such events by community groups, Regional Waste Management Offices (RWMOs) and local authorities in 2014, queries were made to IPB Insurance relating to liability issues. Of particular concern was the issue of volunteers repairing items, particularly electrical items. IPB Insurance advised that the organisers would be required to have product and public liability insurance with limits ranging from €2.6 million for textile products to €6.5 million for electrical repairs, bicycle, furniture and garden tools.

Assistance has been sought from the EPA, which is looking into the wider insurance issues around reuse.

Reuse and repair is a strategic policy action of the RWMPs and events such as repair cafés provide a platform to engage with individuals, social enterprises and communities.

An alternative arrangement, which was trialled by the Southern Regional Waste Management Office in 2015, was to engage local businesses to provide the repair expertise, but it was felt that the spirit of a volunteer-led repair café was lost.

Owing to liability issues, local authorities and RWMOs have temporarily suspended the organisation of repair cafés and the promotion of repair cafés by third parties.

²⁶ http://www.weeeregister.ie/uploads/news/FAQS_for_Preparing_for_resue_of_WEEE_Organisations.pdf

5.3 Staff and Operational Needs

Other resources that a resource (reuse) exchange requires include staff, space, materials, tools and transport.

Staff can include volunteers and/or paid employees. Community training schemes are a good source of staff when available funds for staffing costs are an issue. All people working in the organisation should be fully trained for their specific role, have a clear understanding of their role and responsibilities, and receive adequate supervision.

It is important to set up and implement standard operating procedures (SOPs) to ensure that the various elements of day-to-day operations are carried out in a consistent and efficient manner and to the required standard. They are especially important where roles change regularly or there is a relatively high staff turnover, e.g. where members of staff are from training schemes.

Space is required for the organisation's activities, e.g. workshops, storage, etc. and for general operations, e.g. office space, retail space, meeting space, canteen/kitchen, etc.

Materials are available from various sources. It is important to ensure that there is a regular and sufficient supply of materials in order to meet demand and generate revenue.

Depending on the type of resource exchange organisation, transport may be required in order to access materials.

5.4 Customers/End Users

It is important to identify who your customers/end users will be, as this will inform your communications and marketing plan. It is important to interact with your existing and potential customers/end users using all appropriate routes both in starting up and over the lifetime of the service.

It is important not only to maintain your existing customers/end users but also to expand on these. Your marketing and communications plan will therefore need to evolve over time and be aware of new potential customers/end users.

5.5 Legislative/Regulatory Requirements

All businesses must meet general regulations in order to be compliant with the laws of Ireland, which cover areas such as company law, tax law, employment law, etc.

There are a range of more specific legislative requirements that must be met in relation to waste/resource exchange activities depending on the nature of the material/items, type of organisation and activities taking place. It should also be noted that some of these are also mandatory regulations to comply with the laws of Ireland. The key pieces of legislation, some or all of which may need to be addressed, relate to:

- waste legislation;
- data protection;
- health, safety and welfare;
- product safety;
- food safety.

5.5.1 Waste management

Most of Ireland's waste management legislation stems from the Waste Management Act 1996 and implementing Acts are developed as the need arises.

The Waste Management Act 1996 requires that waste be transferred only to an organisation that is allowed by the Act to receive it. This provision places a legal duty on companies, partnerships, sole traders, householders and other similar bodies that produce waste to ensure that it is handled correctly. If it is not, then the producer of the waste is open to prosecution. If an individual or organisation collects, stores or processes any material that may be a waste material, it may be required to have an appropriate authorisation for the collection and/or management of waste.

Chapter 2 describes in detail the requirements for entities collecting and treating waste resources.

5.5.2 Data protection

Data protection is critical in ensuring that the identity and information available about individuals and companies is used in the correct and appropriate way and personal information and identity are protected. The main piece of Irish legislation dealing with data protection is the Data Protection Act 1988.²⁷ The 1988 Act was amended by the Data Protection (Amendment) Act 2003,²⁸ which brings Irish law in line with the EU Data Protection Directive 95/46/EC. For organisations involved in reuse and/or waste/resource exchange, the impacts of data protection can vary depending on the services and information being collected.

If an individual or organisation collects, stores or processes any data about living people on any type of computer or in a structured filing system, it is considered a data controller. To determine data controller status, it should be asked whether you decide which information is to be collected, stored, to what use it is put and when it should be deleted or altered.

Data controllers have a number of key responsibilities which must be observed to be compliant with data protection requirements:

1. obtaining and processing information fairly;
2. keeping it only for one or more specified, explicit and lawful purposes;
3. using and disclosing it only in ways compatible with these purposes;
4. keeping it safe and secure;
5. keeping it accurate, complete and up to date;
6. ensuring that it is adequate, relevant and not excessive;
7. retaining it for no longer than is necessary for the purpose or purposes;
8. giving a copy of his/her personal data to an individual, on request.

Therefore, if an organisation has a requirement to collect information about individuals or organisations – be it through a website collection function or in hard copy through customer, donation or exchange records – this information must be kept in compliance with the requirements above.

The Electronic Privacy Regulations S.I. No. 336 of 2011 – European Communities (Electronic Communications Networks and Services) (Privacy and Electronic Communications) Regulations 2011²⁹ are important especially with regard to marketing (spam) and restrictions on electronic cookies. This is described further in section 5.7.

²⁷ <http://www.irishstatutebook.ie/eli/1988/act/25/enacted/en/html>

²⁸ <http://www.irishstatutebook.ie/eli/2003/act/6/enacted/en/html>

²⁹ <https://www.dataprotection.ie/documents/legal/SI336of2011.pdf>

A guide detailing the data protection responsibilities of organisations has been developed by the Office of the Data Protection Commissioner.³⁰ The guide and further information can be accessed at the Data Protection Commissioner's website.³¹

5.5.3 Health and safety

The Safety, Health and Welfare at Work Act, 2005³² is the main piece of Health and Safety legislation in Ireland. It applies to all employers (including self-employed persons) who are responsible for creating and maintaining a safe and healthy workplace. An employer's duties include:³³

- managing and conducting all work activities so as to ensure the safety, health and welfare of people at work (including the prevention of improper conduct or behaviour likely to put employees at risk);
- designing, providing and maintaining a safe place of work that has safe access and egress, and uses plant and equipment that is safe and without risk to health;
- prevention of risks from the use of any article or substance, or from exposure to physical agents, noise, vibration and ionising or other radiations;
- providing information, instruction, training and supervision regarding safety and health to employees;
- providing and maintaining welfare facilities for employees at the workplace;
- preventing risks to other people at the place of work including, for example, visitors, customers, suppliers and sales representatives;
- having plans in place for emergencies.

The basis for the management of safety and health is the written safety statement. This document sets out an action programme for safeguarding the safety, health and welfare of employees at work.

The Health and Safety Authority of Ireland (HSA) has overall responsibility for the administration and enforcement of health and safety at work in Ireland. It has developed a free Business electronic Safety Management and Risk assessment Tool (BeSMART.ie) designed for the purposes of helping small business owners/managers to prepare risk assessments and a safety statement for their workplace.

Manufacturers, importers and suppliers have to comply with the following duties:

- Manufacturers, importers and suppliers of equipment, machinery, articles or substances used at work have the duty of ensuring safety and health concerning the use of the materials that they produce or supply.
- Manufacturers, importers and suppliers must provide information on the correct use of the materials to ensure safety and health at work.

The HSA website contains further health and safety information.³⁴

5.5.4 Product safety

It is essential that all second-hand goods are safe.

The General Product Safety Directive (GPSD) 2001/95/EC³⁵ lays down general safety requirements that apply to all consumer products placed on the EU market, whether used, new or reconditioned. It applies in the absence

30 <https://www.dataprotection.ie/ViewDoc.asp?fn=%2Fdocuments%2Fresponsibilities%2FOrganisationsHome%2Ehtm&CatID=3&m=y>

31 https://ec.europa.eu/growth/single-market/ce-marking_en

32 <http://www.irishstatutebook.ie/eli/2005/act/10/enacted/en/print>

33 http://www.hsa.ie/eng/Small_Business/Getting_Started/

34 www.hsa.ie

35 <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32001L0095&from=EN>

of specific European regulations on safety of certain product categories and complements the provisions of sector legislation, which do not cover certain matters, for instance in relation to producers' obligations and the authorities' powers and tasks.

According to the Directive a "product" shall mean any product, including in the context of providing a service which is intended for consumers or likely, under reasonably foreseeable conditions, to be used by consumers even if not intended for them, and is supplied or made available, whether for consideration or not, in the course of a commercial activity, and whether new, used or reconditioned.

The GPSD does not apply to second-hand products supplied as antiques, or as products to be repaired or reconditioned prior to being used, provided that the supplier clearly informs the person to whom he supplies the product to that effect.

The New Legislative Framework (NLF) is a regulatory framework adopted in Europe in 2008 to improve the internal market for goods and strengthen the conditions for placing a wide range of products on the EU Market. It is a package of measures that aim to improve market surveillance and boost the quality of conformity assessments. It also clarifies the use of CE marking and creates a toolbox of measures for use in product legislation.³⁶ The NLF is based on the previous experience of the New Approach to technical harmonisation, which details directives, regulations and standards under this product legislation.³⁷

The framework sets the essential requirements to be fulfilled in order to meet policy objectives, such as health and safety, and environment, and allows manufacturers to decide how the requirements can be technically achieved at product level. Harmonised standards are in place and conformity assessment is based on these standards. A CE marking (Figure 5.1) on the product or its packaging demonstrates a product's conformity to the standard and to the Directive.



Figure 5.1. Official CE marking logo. Source: European Commission.

It is important to note that not all products must have CE marking. It is compulsory only for most of the products covered by the New Approach Directives. It is forbidden to affix CE marking to other products.

It can happen that some products that have not met the CE marking standards will have a CE marking. When assessing the CE marking of a product the middle arm of the "E" should be shorter than the top and bottom arms. The EU provides guidance on how CE marking should be reproduced, which can assist in checking if the CE Marking is fake or genuine.³⁸ The EU has a useful online tool to help check with conformity.³⁹

Anyone manufacturing, selling or repairing furniture in Ireland is obliged to ensure that the materials used (including foams, fillings, coverings and frames) comply with safety standards. Specifically, furniture must pass the "cigarette test". This test proves that covers, foam and lining materials are not likely to go on fire by a lit match

³⁶ http://ec.europa.eu/growth/single-market/goods/new-legislative-framework/index_en.htm

³⁷ <http://www.newapproach.org/>

³⁸ https://ec.europa.eu/growth/single-market/ce-marking_en

³⁹ http://ec.europa.eu/growth/single-market/ce-marking/manufacturers/directives/index_en.htm

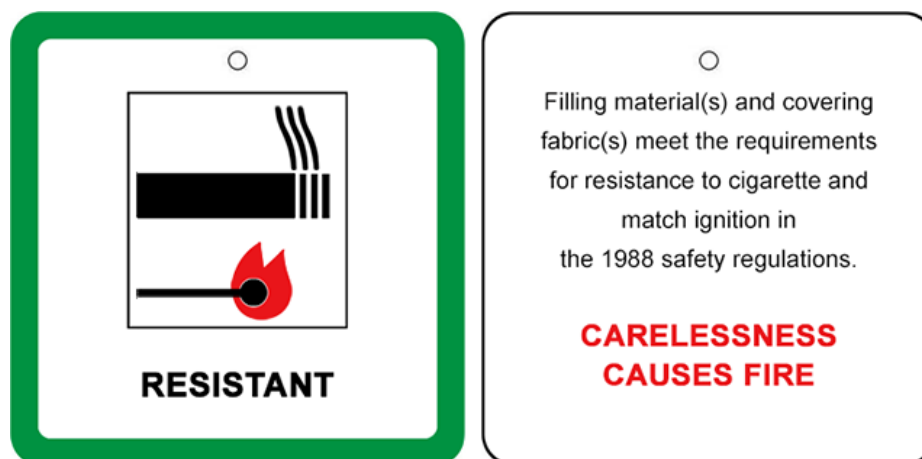


Figure 5.2. Cigarette and match resistant label. Source: DJEI, 1995.

or a cigarette. All furniture passing this test should be clearly labelled (Figure 5.2) to indicate that it complies with Irish fire safety laws.⁴⁰

The “Blue Guide” on the implementation of EU product rules 2016 (EC, 2016)⁴¹ is the definitive guide on product rules produced by the European Commission on how to implement the legislation based on the New Legislative Framework. The guide is intended to contribute to a better understanding of EU product rules and to their more uniform and coherent application across different sectors and throughout the single market.

Further information and additional labels are contained in S.I. No. 316 of 1995 – Industrial Research and Standards (Fire Safety) (Domestic Furniture) Order, 1995.⁴²

5.5.5 Food safety

An emergent area in the resource exchange sector in Ireland is food resource exchange. At present there are two well-established models in operation in Ireland. The first is based on a local food exchange hub where surplus food is stored and delivered to charities. The second is an online platform with national coverage for businesses with excess food to link up with charities that require food resources. This type of exchange serves a very important dual function, as it aims to reduce food poverty in Ireland and also minimises food waste produced by retailers.

Food safety requirements must be considered and fully understood by any parties taking part in this type of exchange.

- Any food materials offered must comply with all the relevant food safety legislation and guidelines.
- Both the charities and the businesses taking part must have a Food Safety Management system in place, which should also include food safety training/instruction.
- Businesses must only donate food that is within its “use by date” (where applicable) and has been managed in accordance with food safety legislation.
- Food with a “best before date” (e.g. bakery goods, fruit and vegetables) can be used after the date has passed at the user’s discretion.
- Food with a “use by date” (e.g. meat, poultry, fish) must be consumed or frozen that evening.

40 http://www.citizensinformation.ie/en/consumer_affairs/consumer_protection/product_safety_and_labelling/safety_of_electrical_and_gas_products_and_furniture.html

41 http://ec.europa.eu/growth/tools-databases/newsroom/cf/itemdetail.cfm?item_id=7326&lang=en&title='Blue-Guide'-on-the-implementation-of-EU-product-rules

42 <http://www.irishstatutebook.ie/eli/1995/si/316/made/en/print>

- When freezing food, apply the normal food safety guidelines and label it appropriately with the date that it is put into the freezer.
- A charity has the right to refuse a donation at the point of collection if the donation is unsuitable for consumption.
- The charity takes responsibility for the food from the point of collection and for ensuring that the food is treated in accordance with food safety legislation.⁴³

The Food Safety Authority of Ireland (FSAI) has national responsibility for co-ordinating the enforcement of food safety legislation in Ireland and is dedicated to protecting public health and consumer interests in the area of food safety and hygiene. The FSAI website hosts a list of food legislation and guidance on the legislation.⁴⁴

5.6 Metrics

The implementation of recording systems and measuring data is an area that can be overlooked. Metrics are of benefit, as they can provide a quantitative assessment of the waste/resource exchange activity, which can assist in analyses such as tracking performance and outputs, comparison data and planning. The type of data generated can also be used for marketing and sales purposes to promote the service to an existing or future customer base and to potential funding bodies. Reuse data is not currently collected by the authorities in Ireland. However, it is of value from an economic and environmental perspective.

The degree of data measurement will depend on the type of organisation and the materials handled. For example, for reuse and preparing for reuse in areas such as IT and white goods, asset management high quality data should be collected. It is important that full traceability to the end user of these types of goods is verifiable to ensure that full confidence is provided to the end user, which creates greater confidence in reuse products.

However, for other reuse activities in the not-for-profit or charitable sector, the collection of data can be very onerous owing to the high number of smaller items coming through the supply chain. Owing to the nature of the items handled, these organisations would have limited resources to measure and record throughput. B2B exchanges, on the other hand, which have a smaller number of exchanges, should facilitate direct measurement or weighing of items/materials or the use of estimates.

It is important to determine the types of metrics that will bring the greatest benefits to your organisation and how feasible it will be to measure this data.

The following are considerations for implementing metrics:

- Hold data centrally where this is feasible.
- For websites, ensure that the Content Management System selected has the necessary functionality for your business needs and can anticipate future business requirements.
- Types of information to be considered for recording should be, e.g. item type, quantity, quality, dimensions, weight, price, environmental data, etc.
- Types of measurement for consideration depending on the activity:
 - actual weights of materials handled, where available (well-established activities);
 - estimates or averages where weights of items are not available or have not been provided;
 - estimates based on scalars, e.g. measure the weight of textiles handled in one shop over a fixed period and scale this up to estimate textiles handled in other branches.
- The Furniture Reuse Network (FRN) product weight protocol is a source of standard weights for furniture items; online access to manufacturer make and model details can also be a source of data.
- For online exchange websites, a final confirmation click-through button on the website can be used to establish if the item has been reused, withdrawn, recycled, recovered or disposed of to landfill.

⁴³ <https://food.cloud/faq-2016/>

⁴⁴ www.fsai.ie

Case study: Data recording on FreeTrade Ireland

FreeTrade Ireland is an online resource exchange that allows individuals, businesses, schools and communities to pass on or pick up items for reuse.

As part of the design process for FreeTrade Ireland, the metrics to be recorded were identified. These include the type of exchange, e.g. household, business, etc.; category and sub-category of the item(s) being passed on; item description; the location; number of items; condition; dimensions; and weight of each item. With regard to weight, users have the option to enter the weight of their item; where weights are not entered, average product weights are used. Membership data are also recorded, including date of registration and whether the member registered via PC, iPhone or Android device.

Capturing these data is central to the website's reporting and allows the website to track changes and trends in reuse through the service and the quantity of material being diverted from landfill.

The data help in planning the locations and material streams to be targeted in promoting the use of the service. The data are also used to promote the service and its successes. For example, the service was able to use the fact that it was responsible for the reuse of 100,000 items (September 2015) in its promotion.

5.7 Websites

A website is an essential business tool which serves both your business and your users. The following are considerations for standard websites, e-commerce websites and waste/resource exchange online platforms. There are some separate considerations for waste/resource exchange online platforms; however, some of these may also be of interest for general website and e-commerce needs.

- Your website is your main communications platform and priority digital and marketing tool.
- You have complete ownership of your website and work on your website will grow in value.
- Conduct research and have clear planning and design objectives to know exactly what you want your website to do and how you want it to look. You may need to work with a developer and designer to address these very different aspects of the website.
- The marketing and communication strategy must be incorporated at the design stage to ensure that your website can accommodate the necessary structure and features.
- Consult with a web adviser/developer and brief them on your full requirements to ensure that the website is capable of delivering the functionality the organisation needs.
- A search engine optimisation (SEO) strategy must be developed at the design stage to drive traffic to your site and allow continuing improved performance.
- Identify the content and structure needed to be search engine friendly.
- Develop a content style guide in line with your overall objectives and strategies.
- Content management should be easy for you to carry out without assistance.
- Consider the integration of social media into your website.
- Consider the integration of other digital platforms into your website.
- Consider the usefulness of developing an app.
- Design the website so that it is mobile-friendly. Google has advice and tools on how to maximise the mobile phone experience.⁴⁵
- Establish a privacy policy, including but not limited to the following items:
 - a description of the service;
 - details on the information that is collected and how it is used;

⁴⁵ <https://www.google.com/webmasters/tools/mobile-friendly/>

- information on traffic data, including the clarification that it is not used in a way that could personally identify the user;
- information on cookie policy, describing the cookies in use;
- protection of information;
- user rights.
- Develop a User Agreement/Terms and Conditions.
- Establish corporate governance/governance code.
- Have a formal sign-up registration to allow use of the resource exchange website: this brings the benefits of useful data, contacts and traceability, and can be used in marketing, planning and feedback.

There are some specific considerations for waste exchange online platforms:

- If posts are publicly available, limit the type of information which can be viewed, such as price and contact details which can only be viewed by registered users.
- Establish specific selection criteria in the search engine, e.g. by end-user, item/material type and sub-type, location or travel distance to item.
- Include fields for additional information such as description of items, which allows the user to provide further information such as full description, dimensions, weight, quality or grade of item, etc.
- Provide registered users with the option of naming and saving particular searches in their user accounts for future use.
- A saved search/interested items feature will send an email or an RSS feed alert notifying users immediately of an interesting item.
- Ensure that systems are set up so that users do not have to give an exact address for their home or business and can make arrangements to view or pick up an item on their own terms with an interested party.
- Provide information on personal safety and safe trading to users of the service; see section 6.5.

5.7.1 Legal advice for websites

Depending on the type of resource exchange system, there are several areas in which legal advice is advised to provide sufficient indemnity both for yourself and for the users of the service.

Terms and conditions

The terms and conditions for the use of the service need to ensure that the service legally indemnifies itself against all claims that may arise as a result of the use of the service. This is important for online resource exchanges where the service is essentially a passive conduit for the exchange of materials.

Privacy policy

An online resource exchange also requires a privacy statement (and privacy policy) to be published on the website including details about any cookies used by the website.

In relation to cookies, the prior consent of the website user to the use of cookies must be obtained. It is therefore necessary to include a prominent notification that cookies are being used at all entry points to the website, whether this is the homepage or otherwise. This notification should request the consent of the user and also contain a link to the privacy policy, which should set out information in relation to the use of personal data. This is a legal requirement. The Data Protection Commissioner's website has more information on what must be included.

Transfer of ownership

Where B2B exchanges are taking place via the service, it might be prudent to have a transfer of ownership template document drawn up for use in exchanges to help clarify issues around ownership and liability.

5.8 Social Media

Social media is an extremely useful digital tool. However, it should not be prioritised over a website but should complement it.

Social media has multiple uses: it helps to build a community within your target audience, promote your service and what it offers, promote events and general advocacy, e.g. posting views and encouraging engagement. The following are important considerations when considering your social media strategy:

- Develop a social media strategy to enhance your business and align your marketing strategy with it.
- There are different tools for different jobs. The type of social media used must match the target demographic and be relevant to your business activity, e.g. LinkedIn may be a more suitable B2B option, whereas Facebook may be better for business-to-consumer (B2C) engagement.
- Social media is free but is time-consuming so personnel time input must be considered as a time cost.
- Pick one or two forms of social media and focus on these. When choosing which social media, think about where your audience is likely to have conversations about your brands.
- Post frequency will depend on the different types of social media used. Put a communications calendar in place to ensure that engagement is regular and consistent.
- Timing of the posts is an important consideration in maximising their reach.
- All of your social media must always direct back to your website.
- Use of social media can be a good way to connect with other types of media without using more traditional routes; therefore, your news may be more likely to be picked up.
- Observe what other successful brands and services do in social media and see what can be applied to your own social media communications.

The area of social media is immense. There are many free comprehensive guides to social media online, which can be accessed to help to develop a social media strategy. Other options are books or engaging a social media strategy specialist.

5.9 Communications/Marketing

Marketing a waste/resource exchange is crucial for its success, not only when starting up but in maintaining and improving its visibility to the target audience.

In setting up, it is important to raise awareness of the service's existence: what it does, who it is for and the benefits of the service to its users are all key messages to be communicated to the target audience. It is critical for the success of the service that it is constantly marketed to its target audience in order to continually grow the service.

Broadly speaking, the main marketing/communications tools include print media (e.g. newspapers, newsletters, trade magazines, etc.), radio and online (e.g. social media, website, digital newsletters, etc.). The choice of medium depends on the audience being targeted but a mix of different media is often most productive. Case studies, examples and testimonials also make excellent marketing tools.

If the target audience is the general public, then most of the communications will be carried out online. For this reason, it is essential to regularly update the website. Social media can be used to drive traffic to the website to see any updates in website content, and social media can also be used in itself to engage more regularly with the audience. Facebook and Twitter are both suited to engaging with the general public because their informal

nature can facilitate interaction with users. They both also offer the option of an inexpensive form of advertising where you can target specific demographics. Instagram is another option that is visual and can be very useful for advertising types of items available through the service.

If the target market is business and industry, then print media will play a bigger role. Publications, such as trade newsletters and trade magazines, are key tools in reaching your audience. It is important to be aware of any and all relevant representative bodies and engage with them in order to see what the potential routes are for communicating with your target audience, e.g. getting contact lists; identifying relevant magazines and newsletters; finding out if they are print or digital, etc.

In terms of social media, LinkedIn is suited to business/industry. It is a form of digital networking, so regular engagement is essential, for example joining relevant communities and initiating and participating in group discussions. Twitter is also well suited to business/industry to facilitate engagement with your target audience. It also provides scope to increase your reach.

Digital newsletters are another useful tool for communicating with the target audience. These are suited to updates on your activities, success stories and providing relevant content so that they do not come across as a sales pitch. However, their success is dependent on the number of contacts on the distribution list. In order to continually grow the reach of your communications, it is important to engage with your audience and get them to sign up to receive digital communications from you.

Print media and radio are also useful in promoting events, achievements and milestones for your service. There is typically an associated cost so it is important to consider the value of these options.

6 If I Have Materials Available

If materials are available for reuse and/or waste/resource exchange, there are a number of different factors that must be considered, which are set out in the following sections.

6.1 Identify Materials and Specifications

In order to identify materials/items with reuse and/or waste/resource exchange potential, a number of considerations should be taken into account.

- An audit of materials/items should be carried out to assess their potential for reuse/waste/resource exchange.
- Are materials post-manufacturing or post-consumer?
- Are the materials/items surplus to requirements, unused, unwanted, no longer needed or no longer applicable?
- Can you use these materials/items elsewhere?
- Can someone else use these materials/items?
- What is the quality of the materials/items?
- Are they in good and reusable condition?
- Are they reusable in their current condition?
- Do they need cleaning, checking or repairing?
- Are they in good condition but requiring slight repair?
- Are any parts missing?
- Is major repair required?
- Is the item repairable?
- Is the item fit for use for the same purpose?
- Is the item functional and can this be demonstrated to a buyer or acceptor?
- Supply for resource demand – is a regular supply available to meet market demand or is it a one-off scenario?
- Are product/materials/item descriptions available such as a product information sheet or a material safety data sheet (MSDS)?
- Are photographs available to show the condition of the product/materials/items?
- Are the materials hazardous?

6.2 Identify Potentially Interested End Users

In Ireland, there is a range of reuse and waste/resource exchange programmes serving different sectors. Some of the materials that are typically sought by reuse organisations, community groups and charities include:

- furniture;
- electronic goods;
- clothes;
- bicycles;
- bric-a-brac;
- books and DVDs;
- paint;
- food.

6.3 Is It a Waste, a By-product or Suitable for Reuse?

Chapter 2 of this guide provides detailed information on how to establish if a material is a waste, a by-product or suitable for reuse/waste/resource exchange. It must be read in conjunction with the summary below in order to make an informed decision and to understand any further actions that may need to be undertaken to ensure that the material is managed in a legally compliant manner.

A summarised version is:

- **Waste:** a substance or object which the holder discards or intends or is required to discard, e.g. placed in a waste bin with the intention of it undergoing a treatment operation such as recycling, recovery or landfill disposal.
- **By-product:** a substance or object, resulting from a production process, the primary aim of which is not the production of that item. Four conditions must be met:
 - further use is certain;
 - can be used directly without any further processing other than normal industrial practice;
 - is produced as an integral part of a production process;
 - further use is lawful, i.e. meets product, environmental and health protection requirements for the specific use and will not lead to overall adverse environmental or human health impacts.
- **Reuse:** any operation by which products or components that are not waste are used again for the same purpose for which they are conceived.

To examine these issues in greater detail, please read the information and references in Chapter 2 of this guide.

6.4 Find Reuse Organisations/Waste/Resource Exchange Outlets

A map of reuse organisations/waste/resource exchange outlets has been produced (see Figure 3.2) and will help you to locate organisations in your area through which your materials/items could be reused/exchanged.

If the waste is generated in a domestic-type setting, there are several options for offering it for reuse, depending on the item:

- **Online portal:** this option is primarily suited to materials/items that are suitable for reuse without any need for preparation for reuse.
- **Commercial and social enterprises:** these offer another route to end users. Cleaning, checking or small repairs before resale may be involved.
- **Knowledge and skills training schemes:** the items are used as part of training and skills development in reuse and preparation for reuse of items.

If the waste is generated in an industrial or commercial setting (e.g. production offcuts, by-products, rejected quality control (QC) batches, redundant retail stock, used raw materials, packaging materials), it is likely the end users will be different but that will depend on the type of material. The main options include:

- **Online portal:** for example, the SMILE Resource Exchange. This platform facilitates the exchange of materials between businesses, allowing you to describe the type and quantity of materials available and the frequency of their availability.
- **Physical reuse centres:** these will typically be supplied with materials generated commercially or from certain industries, including materials such as paper and cardboard, fabric and textiles, containers with lids, plastic, rubber and cardboard tubing, stationery, DIY materials, foam rubber, unused packaging, etc. e.g. ReCreate.

If you are advertising your materials on an online resource exchange, it is important to be aware of bogus collectors/man-with-a-van types who express an interest in the materials you have for reuse, as they may divert

materials from genuine organisations and, additionally, may dispose of unwanted items in a non-compliant and non-environmentally friendly way, e.g. illegal dumping.

Where you have received a bag for door-to-door collections on behalf of a charity, you should do the following:

- Call the charity whose bag has been delivered to establish if the bag and collection is genuine. Often bogus collectors will make counterfeit bags to look like genuine charity bags.
- Check the Charities Regulatory Authority (CRA) database to look for registered charities.⁴⁶
- Ask to see formal identification – authentic groups will issue their collecting agents with a form of identification (ID).

In any other instance where a man-with-a-van type of waste collector contacts you about taking materials/items from you, request to see a copy of their valid waste collection permit. They must carry this with them in their collection vehicle. A list of waste collection permits is available on the NWCPO website.⁴⁷ It should be noted in the case of reuse, however, that a collection permit would not be required.

The expansion of online trading has opened up the market and a wider range of materials/items is now available to buy or accept online. The wider variety of materials available is due to the wider available audience. However, it is important to note that online exchange sites will have specific terms and conditions that must be met in order to use the site and illegal items or activities are not permitted on these sites. Additionally, certain restrictions of non-permitted items will be on sites. A general directory of non-accepted items will be listed, which will give an indication of the types of materials/items not accepted. It is critical that this list is checked and adhered to, as warnings will be issued if there is a breach in user terms and conditions; ultimately, the user account may be closed down in the case of persistent violation of the rules.

B2B exchanges are also unique in terms of the types of materials that will be exchanged. These types of exchanges can be facilitated by specialised free online platforms such as SMILE or FreeTrade Ireland, commercial online platforms, connections made through member associations and direct B2B contact based on research of potential end markets and user needs.

Some civic amenity sites/recycling centres offer reuse points for certain materials. The rx3 bulky waste report (rx3, 2013)⁴⁸ contains details on those centres. However, there may be more sites with reuse points now. These sites may also be a potential source of waste which could undergo “preparation for reuse” operations.

6.5 Storage and Logistics

This section is especially pertinent where there are larger volumes of products/materials/items to be passed on for reuse, e.g. in B2B exchanges. The method of storage is dependent on the product/material/item. However, there are some basic principles to ensure that the integrity of the product/material/item is not at risk.

- Allow sufficient storage space.
- Ensure that the storage area is clean and dry, preferably indoors.
- If indoor storage is not available, store in a contained covered area to avoid potential damage.
- If storing a number of different products/materials/items, separate by type/category and/or by checking, cleaning and repair requirements.
- Items may need to be tied, bagged or boxed to ensure that no parts/materials are lost.
- Keep separate from other items to avoid potential contamination or mixing of materials.
- Where necessary, label the item for ease of identification; this may also include identification such as a product data sheet, MSDS, etc.

⁴⁶ <https://www.charitiesregulatoryauthority.ie/website/cra/craweb.nsf/page/publicregister-reg-of-charities-en>

⁴⁷ <http://www.nwcpo.ie/permitsearch.aspx>

⁴⁸ http://www.rx3.ie/MDGUploadedFiles/file/rx3publications/Bulky_Waste_Reuse_Study_website.pdf (URL valid at time of writing).

- Where applicable, weigh the product/material/item and label with the weight.
- Where items are perishable or have a use by date, label the items with the relevant date.
- Minimise the handling of the product/material/item to prevent contamination or damage and cost.

The type of logistics in place will depend on the type of transaction and materials being handled.

- Ensure the product/material/item is sufficiently packaged so it remains intact and damage-free upon delivery.
- Ensure the vehicle is suitable for the carriage of the products.
- Before confirming the transaction, arrange which party is responsible for the collection or delivery of the items.
- The turnaround time of the exchange is a critical factor: if the time lapses, the item or materials may no longer be required.
- Establish any associated cost or fee with collection/delivery, i.e. postage, courier, delivery fee, etc. and who has responsibility for payment. If it is required that you deliver the material yourself, you will need to bear in mind both the time and transport costs associated with delivery of the material and the return journey.
- Establish a time when you can be contacted.
- Discuss the item with the interested party and their interest in the item in advance of meeting. If necessary, be selective as to whom you arrange to meet to pass on the item.
- If meeting someone to carry out a transaction, ensure it is in a safe and public place.
- Inform a next of kin or other responsible person of whom you are meeting, as a safety measure.
- If an individual is making a collection from your home, either ask a trusted person to be there with you or inform them that the transaction is taking place and give them the other party's details.
- If collecting an item from another individual's home or premises, either ask a trusted person to accompany you or inform them that the transaction is taking place and give them the other party's details.
- If providing a delivery service:
 - Plan your collection schedule in advance, considering all aspects of collection.
 - Ensure any specialised equipment is in place in order to make the delivery, e.g. loading trolley.
 - Ensure the vehicle is clean to avoid any contamination.
 - Delivery routes should be optimised to create efficiencies. Route optimisation software and onboard computer software can bring great advantages to transport, such as optimised scheduling and routing, greater number of collections per journey, reduced fuel use, costs, time and administrative effort.
 - Agree the delivery day and indicative time with the customer.
 - Ask the customer in advance if the delivery can be left with a neighbour.
 - Confirm with the customer that there will be sufficient access to make the delivery in terms of height and width conditions, etc. A specific vehicle may be required if access is limited.
 - Ensure the delivery is made as agreed. If the delivery will be missed, contact the customer to let them know.
 - If the customer is not there at the delivery time, then leave a note to say you called, with the time of attempted delivery and a return contact number. If you have a mobile number for the customer, call or text to see if they are nearby.
 - Establish redelivery charges and terms and conditions in advance – this will also encourage people to be available for the delivery.
 - Decide on the number of delivery attempts to be made.
 - Handle items with care when bringing them into the premises.
 - Agree in advance where the item will be left in the premises, e.g. inside the entrance or upstairs, etc.
 - Provide a receipt, delivery docket or proof of delivery including time and date of delivery and job number, if applicable.

6.6 Offer Criteria

In order to find an outlet for your material, it is important to describe it thoroughly and accurately to encourage potentially interested parties to get in contact. Include details on the type of material, specifications and dimensions, condition, quantity and frequency of availability. Potentially interested parties may be reluctant to make contact if the description is vague, as it may be considered a waste of time.

6.7 Ownership/Liability

6.7.1 Consumer rights

In relation to any goods or services placed on the market, all reuse and/or waste/resource exchange organisations that are selling a material or service are bound by the Sale of Goods and Supply of Services Act 1980.⁴⁹ There are specific criteria that apply to what is expected of new items; however, second-hand goods are not generally expected to be of the same standard as the equivalent new products. Second-hand goods are “sold as seen”, so there may be some fault, imperfection or wear and tear.

Any item bought, including a second-hand item must be:

- as described;
- fit for the purpose for which it has been sold;
- of an expected quality level, given the price paid.⁵⁰

Considerations:

- The potential buyer must examine the item carefully and obtain as much information on the item as possible prior to purchase.
- The seller should be asked to point out any damage or imperfections.
- It is the consumer’s responsibility to ensure the item works as expected and performs to the standard required.
- Consumers should be helped to trial/test the item of interest in order to avoid later disappointment and returns or complaints.
- If the item turns out to be faulty, the purchaser has the right to return it to the shop where it was bought and ask for a replacement, a repair or a refund.
- If second-hand items are bought through a private sale – such as a second-hand car through a newspaper or website advert – the buyer has no consumer rights, as the item has not been bought from a business.
- If buying from a private seller, the item only has to be owned by the seller and fit their description of the goods. The item does not have to be suitable for any purpose; therefore, “buyer beware” or *Caveat Emptor*!
- Under these circumstances, the item should be checked carefully to ensure the buyer is happy before making the purchase. For example, if considering buying a second-hand car privately, it is strongly recommended that a mechanic assess the car first.⁵¹

If you buy something from an individual, either directly or through a website, consumer rights legislation does not apply. Items sold in an online auction where the seller is another consumer are not covered by consumer law, so you do not have a cooling-off period. Auction sites usually take no responsibility for the quality of the items for

49 <http://www.irishstatutebook.ie/eli/1980/act/16/enacted/en/html>

50 A Guide to the Sale of Goods and Supply of Services Act 1980, (National Consumer Agency, 1980), available at <http://pdst.ie/sites/default/files/NCA-Sale-of-goods%20booklet.pdf>

51 <http://www.consumerhelp.ie/second-hand#sthash.pzgidkzZ.dpuf>

sale, or accuracy of the listings. Always check the terms and conditions of the auction website before making a bid.⁵²

The EU Directive on Consumer Sales and Guarantees (1999/44/EC)⁵³ states that second-hand goods sold by a trader are also covered by a minimum 2-year guarantee. However, goods sold by private individuals on a non-professional basis are not covered. In some EU countries, in the case of second-hand goods, the buyer and seller can agree to a guarantee period of less than 2 years, but no shorter than 1 year. This should be made clear to you at the time of your purchase.⁵⁴

While a guarantee is a contract between the seller of the goods and the purchaser and cannot be transferred to a third party, a warranty is given to a product and remains valid even if the ownership of the product is transferred. If you have proof of purchase for an item you are selling for reuse, provide it to the buyer in case they have a problem with the product and want to use the warranty.⁵⁵ The provider of the warranty is responsible for their obligation for the entire validity of the warranty, regardless of who owns the product. However, the use of the product may not change substantially, for example from private use to professional use.

6.7.2 Ownership/liability

In B2B exchanges or transactions where an exchange of material takes place, ownership of the material is transferred to the person/organisation accepting the material. The person or organisation then becomes legally liable for the material should an issue ever arise, as long as the materials were as described and it had been happy to accept them as described.

In non-business exchanges, for example where items have been purchased for a domestic-type use, consumer rights will apply, as described in section 6.7.1.

Transactions facilitated by an online resource exchange will generally have agreements in place that they are neither liable for nor the owner of the materials, and are merely a passive conduit for ads offering items/materials for reuse. The donor of the materials is released from liability and the end user is the sole owner and has full liability. However, this is all on the basis that materials have been produced in line with all relevant laws; that sufficient information has been provided to the end user regarding the materials; and the end user has been given the opportunity to inspect, check and test the materials to ensure they are fit for purpose and will have no adverse effects on the environment and/or human health.

6.7.3 Product recalls

If a manufacturer or distributor becomes aware of a fault in a product or in a batch of products and if they think the product is unsafe, they are legally required to withdraw the product from sale. In addition, they may also request consumers to return the product to them for repair, replacement or refund. This is known as a “product recall”.⁵⁶

It must be noted that while awareness of a product recall should be extensive, it is not always possible to contact everyone who has bought or received the product, as there is a certain level of anonymity associated with the movement of many products during their life cycle.

The regulatory organisations responsible for monitoring different products are listed in Table 6.1.

⁵² <http://www.consumerhelp.ie/buying-online-from-an-individual-or-auctions>

⁵³ <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:31999L0044>

⁵⁴ http://europa.eu/youreurope/citizens/consumers/shopping/guarantees/index_en.htm

⁵⁵ It is important to check the terms and conditions of the warranty.

⁵⁶ <http://www.consumerhelp.ie/product-safety>

Table 6.1. Irish market surveillance organisations for assorted materials⁵⁶

Materials	Regulatory body
Toys, domestic, electrical Electronic and gas appliances Personal protective equipment used by consumers, e.g. bicycle helmets, sunglasses, swimming armbands Machinery use by consumers, e.g. lawnmowers, drills	Competition and Consumer Protection Commission
Personal protective equipment used in the workplace, for example, hard hats Machinery used in the workplace	Health and Safety Authority
Medical devices, cosmetics, pharmaceuticals	Health Products Regulatory Authority
Mobile phones	Commission for Communications Regulation
Food	Food Safety Authority of Ireland

If an item has been recalled by the original equipment manufacturer, these items should be returned to the manufacturer or nominated collection point and should not be reused or prepared for reuse. As part of the initial quality control check when an item is received by a reuse organisation, waste/resource exchange organisation items should be checked against the product recall registers maintained by the relevant market surveillance body outlined in Table 6.1. Individual sellers should also check these registers. Additionally, alerts should be set up initially to monitor newly announced product recalls and remain up to date with industry practice and issues.

EU legislation with regard to market surveillance relating to the marketing of products is set out in Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products and repealing Regulation (EEC) No 339/93, (EC, 2008b).⁵⁷

This Regulation lays down rules on the organisation and operation of accreditation of conformity assessment bodies performing conformity assessment activities; provides a framework for the market surveillance of products to ensure that those products fulfil requirements providing a high level of protection of public interests, such as health and safety in general, health and safety at the workplace, the protection of consumers, the environment and security; provides a framework for controls on products from third countries (i.e. countries outside the EU); and lays down the general principles of the “CE marking”.

6.8 VAT

The amount of VAT chargeable on second-hand goods is the same as when the item was new.

The VAT treatment of works of art, collectors’ items and antiques, and second-hand movable goods, is under a system known as the “margin scheme”. It operates by allowing dealers in certain second-hand goods, works of art, antiques and collectors’ items to pay VAT on the difference between the sale price and the purchase price of the goods. The choice of scheme is the decision of the dealers concerned. If the dealer chooses not to operate the margin scheme, then the normal VAT rules apply.⁵⁸

6.9 Collection Documents

A system of recording details of materials collected from your organisation should be implemented. A docket system, for example, could record details such as type of material, quantity of material, date, destination, haulier

⁵⁷ <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=URISERV%3A133248>

⁵⁸ <http://www.revenue.ie/en/tax/vat/leaflets/margin-scheme-second-hand-goods.html>

details (if relevant), signature of person collecting, etc. This information can be useful for numerous reasons such as traceability of material and corporate social responsibility.

6.10 Reporting

All organisations should maintain adequate records to allow them to evaluate their operations and identify any adjustments that may improve operations. This includes recording all invoices issued for goods/services provided to the organisation and for invoices issued by the organisation to its customers.

It is also important that an organisation is aware of any reporting requirements relevant to its organisation. The SourceIT software may be beneficial to organisations in meeting reporting requirements.⁵⁹

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7 If I Want Materials

If you are looking to source materials and are considering sourcing them via a waste/resource exchange, there are some issues you need to consider, which are outlined in the following sections.

7.1 Identify Materials and Requirements

In order to source materials, it is important to specify the materials/items you are looking for.

- What material/item is required?
- Are there alternative materials/items you could use that you may be able to source?
- Are you looking for post-manufacturing or post-consumer materials?
- Are there any particular specifications for the materials you require, e.g. grade, length, height, etc.?
- What quantity of materials do you want?
- How frequently do you want the materials, i.e. is it a one-off or will you want the material weekly/monthly?
- Is there scope to repair/prepare for reuse?
- What storage capacity do you have?
- Is there sufficient storage capacity for a frequent influx of material?
- Are you willing to pay for materials?
- Who has responsibility for delivery/collection?

7.2 Identify Potential Sources

The main potential sources of materials can be broadly grouped as follows:

- householders looking to dispose of items in a cost-saving and/or environmentally friendly manner;
- businesses/industries with material such as offcuts, post-manufacturing material, post-consumer material and packaging materials to pass on for reuse in a manner that is socially conscious, cost-effective, environmentally friendly or a combination of these.

Businesses interested in B2B exchanges can find potential sources through the following routes:

- specific B2B exchanges such as SMILE and FoodCloud;
- research into businesses or organisations that may potentially generate materials of interest;
- identification of industry associations and representative bodies which may be able to create a connection with potential sources;
- technical assistance may be required for more complex exchanges.

Organisations looking for domestic-type waste should engage with the following:

- Specific householder-type exchanges such as FreeTrade, second-hand shops, charities, reuse hubs, etc.
- RWMOs and local authorities to ascertain if they can provide materials which can be reused. In particular, there may be civic amenity sites and recycling centres that have dedicated reuse points or waste which could undergo “preparation for reuse” operations.
- It is also important to engage with the general public who may have items they no longer need and who would be conscious of being environmentally friendly.

Chapter 3 of the guide outlines some further potential sources of items wanted.

SourceIT is a new mapping tool 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. The tool aims to allow for more efficient, co-ordinated and environmentally friendly identification and collection of resources.⁶⁰

7.3 Is It a Waste, a By-product or Suitable for Reuse?

Similar to section 6.3, it is important to establish whether or not the material/items are classified as a waste. This will impact on the ability to transfer and store materials, as authorisations may be required.

Chapter 2 of this guide provides detailed information on how to establish if a material is a waste, a by-product or suitable for reuse/waste/resource exchange.

7.4 Acceptance Criteria

Establish the criteria for acceptance of material for your organisation. Identify what will be accepted in relation to the condition and the quality of the item; whether or not it is in keeping with what your organisation offers; whether or not the level of work to be done to the material before offering it for reuse is reasonable.

Once the acceptance criteria have been identified, a clearly defined acceptance protocol including descriptions, specifications and graphics/photographs should be prepared as part of the standard operating procedures to ensure that any staff who may be responsible for accepting material are fully aware of what is acceptable. It is also useful to have full details on what is not accepted in order to eliminate any misperceptions.

If your acceptance criteria have not been specified, it increases the risk of accepting materials that might be of no use and ultimately have to be disposed of, at a cost to your organisation.

7.5 Storage and Logistics

This section is especially relevant if you are looking to access larger volumes of products/materials/items to be passed on for reuse, e.g. in B2B exchanges. The method of storage is dependent on the product/material/item but there are some basic principles to ensure that the integrity of the product/material/item is not at risk:

- Allow sufficient storage space.
- Ensure the storage area is clean and dry, preferably indoors.
- If indoor storage is not available, store in a contained covered area to avoid potential damage.
- If storing a number of different products/materials/items, separate by type/category and/or by checking, cleaning, and repair requirements.
- Items may need to be tied, bagged or boxed to ensure that no parts/materials are lost.
- Keep separate from other items to avoid potential contamination or mixing of materials.
- Where necessary, label the item for ease of identification; this may also include identification such as a product data sheet, MSDS, etc.
- Where applicable, weigh the product/material/item and label it with the weight.
- Where items are perishable or have a use by date, label the items with the relevant date.
- Minimise the handling of the product/material/item to prevent contamination or damage and cost.

In terms of transport, you will need to consider the following:

- Will the supplier of the materials/items deliver and, if not, do you have access to transport to collect materials?

⁶⁰ www.sourceit.ie

- Is the driving distance required to collect the materials reasonable or is it unreasonable with respect to the materials/items?
- The turnaround time of exchange is a critical factor. If the time lapses, then the item or materials may be gone.

The logistics in place will depend on the type of transaction and the materials being handled.

- If it is necessary to establish that the material meets your acceptance criteria, you will need to assess the material before the exchange. This should be discussed with the relevant party.
- If testing is required, you will need to have the appropriate equipment to test that the material meets your acceptance criteria.
- Where appropriate, ask for relevant MSDS information.
- Discuss if more than one pick-up/delivery is required.
- If meeting someone to carry out a transaction, ensure it is in a safe and public place.
- Inform a next of kin or other responsible person of whom you are meeting as a safety measure.
- Ensure the product/material/item is sufficiently packaged so it remains intact and damage-free in transit.
- Before confirming the transaction, arrange which party is responsible for the collection or delivery of the items.
- Ensure the vehicle used for transporting the material is suitable for the carriage of the products and that it is clean so as to avoid contamination.
- Establish any associated cost or fee with collection/delivery, i.e. postage, courier, delivery fee, etc. and confirm who is responsible for said costs.
- If collecting an item from another individual's home or premises, either ask a trusted person to accompany you or inform them that the transaction is taking place and give them the other party's details.
- If several collections are to be made, plan your collection schedule in advance, considering all aspects of the collections.
- Delivery routes should be optimised to create efficiencies. Route optimisation software and onboard computer software can bring great advantages to transport such as optimised scheduling and routing, greater number of collections per journey, reduced fuel use, costs, time and administrative effort.
- Ensure any specialised equipment is in place in order to make the delivery, such as loading trolley.
- Agree the delivery day and indicative time with the customer.
- If collecting, confirm with the customer that there is sufficient access for your vehicle, in terms of height and width conditions, etc. A specific vehicle may be required if access is limited.
- Handle items with care when bringing them into the premises.
- Agree in advance where the item will be left in the premises, e.g. inside the entrance or upstairs, etc.
- Ensure you are provided with a docket including details of the material and the time and date of collection/delivery, a receipt (if applicable) and job number (if applicable).

7.6 Ownership/Liability

In B2B exchanges or transactions where an exchange of material takes place, ownership of the material is transferred to the person/organisation accepting the material. The person or organisation then becomes legally liable for the material should an issue ever arise, as long as the materials were as described and it had been happy to accept them as described. A transfer of ownership agreement detailing the specifics of the exchange should be drawn up.

In non-business exchanges, for example where items have been purchased for domestic use, consumer rights will apply, as described in section 6.7.

Transactions facilitated by an online resource exchange will generally have agreements in place that they are neither liable for nor the owner of the materials, and are merely a passive conduit for ads offering items/materials

for reuse. The donor of the materials is released from liability and the end user is the sole owner and has full liability. However, this is all on the basis that materials have been produced in line with all relevant laws; that sufficient information has been provided to the end user regarding the materials; and the end user has been given the opportunity to inspect, check and test the materials to ensure they are fit for purpose and will have no adverse effects on the environment and/or human health.

7.7 Consumer Rights

If you buy something from an individual, either directly or through a website, consumer rights legislation does not apply. Items sold in an online auction where the seller is another consumer are not covered by consumer law, so you do not have a cooling-off period. Auction sites usually take no responsibility for the quality of the items for sale, or accuracy of the listings. Always check the terms and conditions of the auction website before making a bid.

When buying an item for reuse from an organisation that is selling it as part of its business, consumer protection and trading standards apply as for a new item. However, this will depend on what was paid for the item. Any item you buy, including an item for reuse, must be fit for the purpose it has been sold for. It must also be as described and the quality must be of an expected level, given the price paid for it.

Items for reuse are “sold as seen”, so there may be some fault(s) or imperfection(s). It is important to examine the item carefully and ask the seller to point out any damage or imperfections. Make sure the item does what it is expected to do. If the item turns out to be faulty, you have the right to return it to the shop where you bought it and ask for a replacement, a repair or a refund.

The EU Directive on Consumer Sales and Guarantees (1999/44/EC) states that second-hand goods that you buy from a trader are also covered by the minimum 2-year guarantee. However, goods bought from private individuals on a non-professional basis are not covered. In some EU countries, in the case of second-hand goods, the buyer and seller can agree to a guarantee period of less than 2 years, but no shorter than 1 year. This should be made clear to you at the time of your purchase.

References

- Blume, H., 1995. *The Charity Shops Handbook*. Charities Advisory Trust, London.
- Chertow, M.R., 2000. Industrial symbiosis: literature and taxonomy. *Annual Review of Energy and the Environment* 25: 313–337. DOI: 10.1146/annurev.energy.25.1.313.
- DECLG (Department of the Environment, Community and Local Government), 2011. European Communities (Waste Directive) Regulations 2011, S.I. No. 126 of 2011.
- DECLG, (Department of the Environment, Community and Local Government), 2012. *A Resource Opportunity: Waste Management Policy in Ireland*. Available online: https://www.epa.ie/pubs/reports/waste/plans/Resource_Opportunity2012.pdf
- DECLG (Department of the Environment, Community and Local Government), 2014. European Union (Waste Electrical and Electronic Equipment) Regulations 2014, S.I. No. 149 of 2014.
- DJEI (Department of Jobs, Enterprise and Innovation), 1995. Industrial Research and Standards (Fire Safety) (Domestic Furniture) Order, 1995, S.I. No. 316 of 1995.
- Dublin City Council, Limerick City and County Council and Tipperary County Council, 2014. *Regional Waste Management Plans – Strategic Environmental Assessment Screening Statement*. Available online: <http://www.meath.ie/CountyCouncil/Publications/EnvironmentPublications/WasteManagement/File,58459,en.pdf>
- EC (European Commission), 1999. Directive 1999/44/EC of the European Parliament and of the Council of 25 May 1999 on certain aspects of the sale of consumer goods and associated guarantees. OJ L 171, 07.07.1999, p. 12–16.
- EC (European Commission), 2001. Directive 2001/95/EC of the European Parliament and of the Council of 3 December 2001 on general product safety. OJ L 11, 15.01.2002, p. 4–17.
- EC (European Commission), 2008a. Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives. OJ L 312, 22.11.2008, p. 3–30.
- EC (European Commission), 2008b. Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products and repealing Regulation (EEC) No 339/93. Available online: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:218:0030:0047:en:PDF>
- EC (European Commission), 2011. *Attitudes of Europeans towards Resource Efficiency – Analytical Report*. Available online: http://ec.europa.eu/public_opinion/flash/fl_316_en.pdf
- EC (European Commission), 2012a. *Guidance on the Interpretations of Key Provisions of Directive 2008/98/EC on Waste*. Available online: http://ec.europa.eu/environment/waste/framework/pdf/guidance_doc.pdf
- EC (European Commission), 2012b. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions “Closing the loop – an EU action plan for the circular economy”. Available online: http://ec.europa.eu/environment/circular-economy/index_en.htm
- EC (European Commission), 2012c. Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE) (recast). OJ L 197, 24.07.2012, p. 38–71.
- EC (European Commission), 2016. *The “Blue Guide” on the Implementation of EU Product Rules 2016*. Available online: http://ec.europa.eu/growth/tools-databases/newsroom/cf/itemdetail.cfm?item_id=7326&lang=en&title='Blue-Guide'-on-the-implementation-of-EU-product-rules
- EPA (Environmental Protection Agency), 2014. *Towards a Resource Efficient Ireland: A National Strategy to 2020*. EPA, Johnstown Castle, Ireland.
- HSA (Health and Safety Authority), 2005. Safety, Health and Welfare at Work Act, 2005.
- Irish Statute Book, 1980. Sale of Goods and Supply of Services Act, 1980.
- Irish Statute Book, 1988. Data Protection Act, 1988.

Irish Statute Book, 2003. Data Protection (Amendment) Act, 2003.

Irish Statute Book, 2011. European Communities (Electronic Communications Networks and Services) (Privacy and Electronic Communications) Regulations 2011, S.I. No. 336 of 2011.

National Consumer Agency, 1980. *A Guide to the Sale of Goods and Supply of Services Act 1980*. National Consumer Agency, Dublin, Ireland. Available online: <http://pdst.ie/sites/default/files/NCA-Sale-of-goods%20booklet.pdf>

rx3, 2013. *All Island Bulky Waste Reuse Best Practice Management Feasibility Study*. Available online: http://www.rx3.ie/MDGUploadedFiles/file/rx3publications/Bulky_Waste_Reuse_Study_website.pdf (URL valid at time of writing).

SMILE (Saving Money through Industry Links and Exchanges). Frequently asked questions. Available online: <http://www.smileexchange.ie/assets/img/uploads/SMILE%20and%20Waste%20FAQ's.pdf>

Southern Waste Region, 2015. *Southern Region Waste Management Plan 2015–2021*. Available online: <http://southernwasteregion.ie/content/southern-region-waste-management-plan-2015-2021-associated-reports>

WRAP (Waste and Resources Action Programme), 2011. *A Methodology for Quantifying the Environmental and Economic Impacts of Reuse*. Available online: <http://www.wrap.org.uk/sites/files/wrap/Final%20Reuse%20Method.pdf>

Online Resources

<https://www.charitiesregulatoryauthority.ie/website/cra/craweb.nsf/page/publicregister-reg-of-charities-en>

http://www.citizensinformation.ie/en/consumer_affairs/consumer_protection/product_safety_and_labelling/safety_of_electrical_and_gas_products_and_furniture.html

<http://www.consumerhelp.ie/buying-online-from-an-individual-or-auctions>

<http://www.consumerhelp.ie/product-safety>

<http://www.consumerhelp.ie/second-hand#sthash.pzgidkzZ.dpuf>

<http://crni.ie/>

<http://www.curwmo.ie>

<https://www.dataprotection.ie/ViewDoc.asp?fn=%2Fdocuments%2Fresponsibilities%2FOrganisationsHome%2Ehtm&CatID=3&m=y>

<http://www.dublincity.ie/main-menu-services-water-waste-and-environment-waste-and-recycling/national-tfs-office>

https://ec.europa.eu/growth/single-market/ce-marking_en

http://ec.europa.eu/environment/basics/natural-capital/index_en.htm

http://ec.europa.eu/environment/resource_efficiency/

http://ec.europa.eu/growth/single-market/goods/new-legislative-framework/index_en.htm

http://ec.europa.eu/growth/single-market/ce-marking/manufacturers/directives/index_en.htm

http://europa.eu/youreurope/citizens/consumers/shopping/guarantees/index_en.htm

<http://echa.europa.eu/regulations/reach>

<http://www.emwr.ie>

http://www.epa.ie/licensing/licques/#.VxuB7HION_I

<http://www.epa.ie/pubs/advice/process/New%20Licence%20Permit%20COR%20Tree%20-%20Local%20AuthorityV15.pdf>

<http://www.epa.ie/waste/nwpp/#.Vx4533IOMf8>

<https://food.cloud/faq-2016/>

<https://www.google.com/webmasters/tools/mobile-friendly/>

http://www.hsa.ie/eng/Small_Business/Getting_Started/

http://iaspub.epa.gov/sor_internet/registry/termreg/searchandretrieve/termsandacronyms/search.do?search=&term=exchange&matchCriteria=Contains&checkedAcronym=true&checkedTerm=true&hasDefinitions=false#formTop

<https://www.icsa.ie/>

<http://www.investopedia.com/terms/k/kpi.asp>

<http://www.macmillandictionary.com/dictionary/british/repurpose>

<http://www.oxforddictionaries.com/definition/english/ecotown>

<http://www.oxforddictionaries.com/definition/english/third-sector>

<http://www.oxforddictionaries.com/definition/english/upcycle>

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

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

<http://www.nwcpo.ie/permitsearch.aspx>

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

<http://www.revenue.ie/en/tax/vat/leaflets/margin-scheme-second-hand-goods.html>

<http://www.rreuse.org/approved-reuse-centres-and-networks-principles/>

<http://searchcrm.techtarget.com/definition/business-metric>

<http://www.socialenterprise.ie/default.aspx?m=23&mi=215>

<http://www.sourceit.ie>

<http://www.southernwasteregion.ie>

http://www.weeeregister.ie/uploads/news/FAQS_for_Preparing_for_resue_of_WEEE_Organisations.pdf

https://en.wikipedia.org/wiki/Eco-industrial_park

<http://www.wrap.org.uk/content/wrap-and-circular-economy>

Abbreviations

B2B	Business-to-business
B2C	Business-to-consumer
CA	Civic amenity
CRA	Charities Regulatory Authority
CRNI	Community Reuse Network Ireland
CRO	Companies Registration Office
CSR	Corporate social responsibility
DCCAE	Department of Communications, Climate Action and Environment
EEE	Electrical and electronic equipment
EPA	Environmental Protection Agency
EU	European Union
FAQs	Frequently asked questions
FRN	Furniture Reuse Network
FSAI	Food Safety Authority of Ireland
FTI	FreeTrade Ireland
GPSD	General Product Safety Directive
HSA	Health and Safety Authority
ICSA	Irish Charity Shops Association
IPPC	Integrated Pollution Prevention and Control
KPI	Key performance indicator
LA	Local authority
LEO	Local enterprise office
MSDS	Material safety data sheet
NGO	Non-governmental organisation
NLF	New Legislative Framework
NWCPO	National Waste Collection Permit Office
NWPP	National Waste Prevention Programme
PRSI	Pay-related social insurance
QC	Quality control
RC	Recycling centre
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals (Regulation)
RWMO	Regional Waste Management Office
RWMP	Regional waste management plan
SEO	Search engine optimisation
SME	Small and medium-sized enterprise
SMILE	Saving Money through Industry Links and Exchanges
SOP	Standard operating procedure
TFS	Transfrontier shipment
WEEE	Waste electrical and electronic equipment
WFD	Waste Framework Directive

Glossary

Approved preparing for reuse of WEEE organisation	Means a preparing for reuse of electrical and electronic equipment organisation approved and registered by the national registration body for the purposes of Regulation 17(3) ⁶¹
Business metric	A quantifiable measure businesses use to track, monitor and assess the success or failure of various business processes. The main goal of measuring business metrics is to track cost management, but the overall point of employing them is to communicate a company's progression towards certain long- and short-term objectives ⁶²
By-product	A substance or object, resulting from a production process, the primary aim of which is not the production of that item, may be regarded as not being waste referred to in point (1) of Article 3 of the Waste Framework Directive but as being a by-product only if the following conditions are met: (a) further use of the substance or object is certain; (b) the substance or object can be used directly without any further processing other than normal industrial practice; (c) the substance or object is produced as an integral part of a production process; and (d) further use is lawful, i.e. the substance or object fulfils all relevant product, environmental and health protection requirements for the specific use and will not lead to overall adverse environmental or human health impacts ⁶³
Circular economy	An alternative to a traditional linear economy (make, use, dispose) in which we keep resources in use for as long as possible, extract the maximum value from them while in use, then recover and regenerate products and materials at the end of each service life ⁶⁴
Eco-industrial park (EIP)	An industrial park in which businesses co-operate with each other and with the local community in an attempt to reduce waste and pollution, efficiently share resources (such as information, materials, water, energy, infrastructure and natural resources) and help achieve sustainable development, with the intention of increasing economic gains and improving environmental quality. An EIP may also be planned, designed and built in such a way that it makes it easier for businesses to co-operate and that results in a more financially sound, environmentally friendly project for the developer ⁶⁵
Ecotown	A new town designed to facilitate a lifestyle that has as little impact on the environment as possible ⁶⁶

61 S.I. No. 149 of 2014, European Union (Waste Electrical and Electronic Equipment) Regulations 2014

62 <http://searchcrm.techtarget.com/definition/business-metric>

63 EU Waste Framework Directive (2008/98/EC), available at <http://ec.europa.eu/environment/waste/framework/>

64 <http://www.wrap.org.uk/content/wrap-and-circular-economy>

65 https://en.wikipedia.org/wiki/Eco-industrial_park

66 <http://www.oxforddictionaries.com/definition/english/ecotown>

Electrical and electronic equipment (EEE)	Equipment which is dependent on electric currents or electromagnetic fields in order to work properly and equipment for the generation, transfer and measurement of such currents and fields and designed for use with a voltage rating not exceeding 1000 volts for alternating current and 1500 volts for direct current ⁶⁷
End of waste	This status is where certain specified waste shall cease to be waste within the meaning of point (1) of Article 3 when it has undergone a recovery, including recycling, operation and complies with specific criteria to be developed in accordance with the following conditions: (a) the substance or object is commonly used for specific purposes; (b) a market or demand exists for such a substance or object; (c) the substance or object fulfils the technical requirements for the specific purposes and meets the existing legislation and standards applicable to products; and (d) 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. ⁶⁸ If something is done to a waste so that it is completely recovered and turned into something useful, it may no longer be a waste legally. The “something” done to it would be a recovery operation of some sort, for example recycling. Once recovery is complete so that a new useful product is created, and if specific conditions are met, it can be declared “end of waste”. The material is a waste until the recovery operation has been completed. It is up to the donating exchanger and the relevant authorities (local authorities or the EPA) to determine when the recovery operation has been completed ⁶⁹
Industrial symbiosis	The part of industrial ecology that engages traditionally separate industries in a collective approach to competitive advantage involving physical exchange of materials, energy, water and by-products. The keys to industrial symbiosis are collaboration and the synergistic possibilities offered by geographic proximity (Chertow, 2000) ⁷⁰
Key performance indicator (KPI)	A set of quantifiable measures that a company uses to gauge its performance over time. These metrics are used to determine a company’s progress in achieving its strategic and operational goals, and also to compare a company’s finances and performance against other businesses within its industry ⁷¹

67 Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE) (recast), available at <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32012L0019&from=EN>

68 EU Waste Framework Directive (2008/98/EC), available at <http://ec.europa.eu/environment/waste/framework/>

69 SMILE – Frequently Asked Questions, available at <http://www.smileexchange.ie/faq>

70 Industrial Symbiosis: Literature and Taxonomy, *Annual Review of Energy and the Environment*, Vol. 25: 313–337 (Volume publication date November 2000), DOI: 10.1146/annurev.energy.25.1.313, available at <http://www.annualreviews.org/doi/abs/10.1146/annurev.energy.25.1.313>

71 <http://www.investopedia.com/terms/k/kpi.asp>

Natural capital	The basic building blocks of our society, the healthy soils that give us food, the raw materials we need for buildings and clothes, the fresh water we drink and the clean air we breathe. These are the things we depend on in nature for our very existence ⁷²
Preparing for reuse	Checking, cleaning or repairing recovery operations, by which products or components of products that have become waste are prepared so that they will be reused without any other pre-processing
Prevention	Measures taken before a substance, material or product has become waste, that reduce: (a) the quantity of waste, including through the reuse of products or the extension of the life span of products; (b) the adverse impacts of the generated waste on the environment and human health; or (c) the content of harmful substances in materials and products ⁷³
Producer	Any natural or legal person who, irrespective of the selling technique used, including distance communication within the meaning of Directive 97/7/EC of the European Parliament and of the Council of 20 May 1997 on the protection of consumers in respect of distance contracts: (i) is established in a Member State and manufactures EEE under his or her own name or trademark, or has EEE designed or manufactured and markets it under his or her name or trademark within the territory of that Member State; (ii) is established in a Member State and resells within the territory of that Member State, under his or her own name or trademark, equipment produced by other suppliers, a reseller not being regarded as the “producer” if the brand of the producer appears on the equipment, as provided for in sub-regulation (i); (iii) is established in a Member State and places on the market of that Member State, on a professional basis, EEE from a third country or from another Member State; or (iv) sells EEE by means of distance communication directly to private households or to users other than private households in a Member State, and is established in another Member State or in a third country. Whoever exclusively provides financing under or pursuant to any finance agreement shall not be deemed a “producer” unless he or she also acts as a producer within the meaning of sub-regulations (i) to (iv) ⁷⁴
REACH	An EU regulation, adopted to improve the protection of human health and the environment from the risks that can be posed by chemicals, while enhancing the competitiveness of the EU chemicals industry. It also promotes alternative methods for the hazard assessment of substances in order to reduce the number of tests on animals ⁷⁵
Recovery	Any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy ⁷⁶

⁷² http://ec.europa.eu/environment/basics/natural-capital/index_en.htm

⁷³ EU Waste Framework Directive (2008/98/EC), available at <http://ec.europa.eu/environment/waste/framework/>

⁷⁴ S.I. No. 149 of 2014, European Union (Waste Electrical and Electronic Equipment) Regulations 2014

⁷⁵ <http://echa.europa.eu/regulations/reach>

⁷⁶ EU Waste Framework Directive (2008/98/EC), available at <http://ec.europa.eu/environment/waste/framework/>

Recycling	Any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. It includes the reprocessing of organic material but does not include energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations ⁷⁷
Repurposing	To reuse something for a purpose different from the one that was originally intended ⁷⁸
Resource efficiency	Using the Earth's limited resources in a sustainable manner while minimising impacts on the environment. It allows us to create more with less and to deliver greater value with less input ⁷⁹
Resource exchange	The exchanging of resources, such as surplus raw materials, surplus finished stock, by-products, packaging, waste and unwanted items, between different parties, such as businesses or householders, in order to save money, reduce waste going to landfill and develop new opportunities ⁸⁰
Reuse	Any operation by which products or components that are not waste are used again for the same purpose for which they are conceived. ⁸¹ "Reuse" is a means of waste prevention; it is not a waste-management operation. For example, if a person takes over a material, e.g. piece of clothing, directly from the current owner with the intention of reusing it (even if some repairing is necessary) for the same purpose, this comprises evidence that the material is not a waste ⁸²
Social costs	The total costs of an activity to society. As such, the social cost excludes taxes and transfers which move money from one part of the economy to another, but do not add to or remove from the overall balance ⁸³

77 EU Waste Framework Directive (2008/98/EC), available at <http://ec.europa.eu/environment/waste/framework/>

78 Repurpose definition, available at <http://www.macmillandictionary.com/dictionary/british/repurpose>

79 http://ec.europa.eu/environment/resource_efficiency/

80 SMILE Frequently Asked Questions, available at <http://www.smileexchange.ie/faq>

81 EU Waste Framework Directive (2008/98/EC), available at <http://ec.europa.eu/environment/waste/framework/>

82 *Guidance on the Interpretations of Key Provisions of Directive 2008/98/EC on Waste*, available at http://ec.europa.eu/environment/waste/framework/pdf/guidance_doc.pdf

83 *A Methodology for Quantifying the Environmental and Economic Impacts of Reuse*, available at <http://www.wrap.org.uk/sites/files/wrap/Final%20Reuse%20Method.pdf>

84 About Social Enterprise, available at <http://www.socialenterprise.ie/default.aspx?m=23&mi=215>

Social enterprise	A business model that puts people and community first, ahead of private or personal gain, while operating in a commercially viable and sustainable way. Social enterprises are organisations or businesses set up to tackle social, economic or environmental issues. Driven primarily by social and/or environmental motives, they engage in trading or commercial activities to pursue these objectives and produce social and community gain. Profits or surpluses generated by the enterprise are reinvested to further their social objectives. Ownership of the enterprise is within a community, or among people with a shared interest. Social enterprises have a strong job creation focus to help local people and communities. Social enterprises are committed to social justice and social inclusion ⁸⁴
Third sector	The part of an economy or society comprising non-governmental and non-profit-making organisations or associations, including charities, voluntary and community groups, co-operatives, etc. ⁸⁵
Traceability	The ability to verify and account for the history, origin, location, journey, movement or application of an item by means of documentation, records or identification, for example with food products (supply chain), etc. ⁸⁶
Waste electrical and electronic equipment (WEEE)	Electrical or electronic equipment which is waste within the meaning of Article 3(1) of Directive 2008/98/EC, including all components, sub-assemblies and consumables which are part of the product at the time of discarding ⁸⁷
Upcycling	The reuse of discarded objects or materials in such a way as to create a product of higher quality or value than the original ⁸⁸
Waste	Any substance or object which the holder discards or intends or is required to discard ⁸⁹

⁸⁵ <http://www.oxforddictionaries.com/definition/english/third-sector>

⁸⁶ *Cambridge Online Dictionary*.

⁸⁷ Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE) (recast), available at <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32012L0019&from=EN>

⁸⁸ <http://www.oxforddictionaries.com/definition/english/upcycle>

⁸⁹ EU Waste Framework Directive (2008/98/EC), available at <http://ec.europa.eu/environment/waste/framework/>

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 comhlionta comhshaoil a chur i bhfeidhm chun torthaí maithe comhshaoil a sholáthar agus chun díriú orthu siúd nach gcloíonn leis na córais sin.

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

Tacaíocht: Bimid 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 tionsclaíocha*);
- áiseanna móra stórála peitril;
- 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 húdaráis áitiúla agus le gníomhaireachtaí eile chun dul i ngleic le coireanna comhshaoil trí chomhordú a dhéanamh ar líonra forfheidhmiúcháin náisiúnta, trí dhíriú 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 ídionn 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 screamhuisc; leibhéil 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 shainaitheint, 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. mórfhleananna forbartha*).

Cosaint Raideolaíoch

- Monatóireacht a dhéanamh ar leibhéil 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 chinnnteoireacht 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 chosaint agus a bhainistiú.

Múscailt Feasachta agus Athrú Iompraíochta

- Feasacht chomhshaoil 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 lánaimseartha, 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
- Oifig um Chosaint Radaíochta agus Monatóireachta Comhshaoil
- 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.

Authors: Louise Connolly, Brian McIntyre, Serena Byrne, Brenda McEvoy and Louise Campion

Identifying Pressures

Europe is moving from a linear economy (“take – make – dispose” model) towards a circular economy where resources are kept in use for as long as possible. This research project conducted a review of national and international waste/resource exchange systems and surveyed business to business and waste/resource exchanges. The study identified a number of barriers to waste/resource exchanges many of which are addressed in this Good Practice Guide, arising from the research.

Informing Policy

The European Commission Circular Economy Action Plan prioritises a number of supporting areas such as industrial symbiosis, waste/resource exchange, reuse, repair and secondary raw materials. National policy documents ‘A Resource Opportunity’ and the EPA national waste prevention programme ‘Towards a Resource Efficient Ireland’ are aligned to the European Circular Economy strategy. The research project recommended the simplification of legislation and reduction of red tape, support on access to materials, promotion and awareness of existing supports, review of funding structures to facilitate long-term strategy and planning, use of instruments/incentives/tools/templates to encourage reuse and waste resource exchange, a sectoral approach to business to business (B2B) waste/resource exchange and engagement with industry representative bodies and awareness support to B2B raw material selection/consideration. These recommendations are targeted at government, public bodies and waste/resource exchange organisations with the aim of supporting increased participation in waste/resource exchange in Ireland.

Developing Solutions

The research outputs include this waste/resource exchange Good Practice Guide and four factsheets. This guide offers practical advice to potential and existing developers of waste/resource exchange systems, on getting started, understanding the main considerations/barriers and how to address them to create/manage a successful resource exchange organisation and improve already established systems. Two of the factsheets are targeted at those engaging with waste/resource exchanges, such as householders, business and industry, to ensure that their dealings are informed and conducted in line with industry good practice. The remaining two factsheets provide summarised guidance to both online and non-online waste/resource exchanges.