

CHAPTER 9 – PACKAGING AND PACKAGING WASTE REVIEW

Packaging waste was highlighted as a key issue during the original Waste Management Plan's consultation process by both the public and other stakeholders (including the business sector). This Chapter has been updated, to meet the obligations set out in the EU Directive on Packaging and Packaging Waste and to build on the section on Packaging Waste within the Waste Strategy for Northern Ireland consultation document (October 2005).

INTRODUCTION

- 9.1 Whilst District Councils appreciate that they are not obligated under the Packaging Regulations, which aim to reduce packaging at source rather than dealing with it further down the Waste Hierarchy in terms of recycling, it is recognised that a large amount of the recyclable materials collected by arc21 Councils as Municipal Solid Waste is packaging waste.
- 9.2 Arc 21 Councils provide a wide range of facilities that enable the collection and reprocessing of packaging waste originating from households. These include, the collection of cans, glass, paper, plastics, wood, cardboard and other packaging materials through kerbside recycling schemes, bring sites and Household waste Recycling Centres. This is expanded upon throughout this Chapter and Chapter 5. Additionally, Councils do collect packaging material from commercial sources as part of their municipal waste service. The collection of commercial waste by Councils is addressed in paragraphs 5.20 – 5.24 and 5.135-5.137 of Chapter 5.
- 9.3 The revised targets for 2006 to 2008 allied to the new targets for 2009 and 2010 contained in the Packaging Regulations are likely to result in those obligated seeking to agree mutually beneficial arrangements with Councils to optimise recovery of packaging waste from the municipal waste stream.. Arc21, is open to approaches from those obligated to achieve such an objective. Presently arc21 have had preliminary discussions with VALPAK and NIPAK in this regard, as well as continuing engagement with WRAP to explore possible opportunities relating to packaging waste
- 9.4 Through its Education and Awareness Campaigns, arc21 Councils are addressing the reuse, recovery and recycling of packaging waste. Councils are also involved in a number of broader initiatives that does entail improving on or introducing more sustainable waste management practices and this would include packaging waste. Examples include "Full Circle "in Belfast and the STEM Project in the Ards and Down Council areas.

- 9.5 Arc 21 therefore believes that it is addressing the reuse, recycling and treatment of packaging waste and that this is implicit in the Waste Management Plan.
- 9.6 Packaging is defined in the regulations (The Producer Responsibility Obligations (Packaging Waste) Regulations (Northern Ireland) 1999) as;
- ‘...all products made of any materials of any nature to be used for the containment, protection, handling, delivery and preservation of goods...from the producer to the user or consumer...’
- 9.7 This definition of packaging applies where the product is one of the following;
- "Primary" or "Sales" packaging – this forms a sales unit for the user or final consumer. For example, a box containing soap powder.
 - "Secondary" or "Grouped" packaging: this contains a number of sales units.
 - "Tertiary" or "Transport" packaging: this is used to group secondary packaging together to aid handling and transportation, and prevent damage to the products. For example, the pallet and shrink wrap used to transport a number of large boxes containing boxes of soap powder. For the purposes of the Regulations, this does not include road, ship, rail or air containers
- 9.3 Packaging therefore clearly performs a well-established role in the economy, encompassing a range of functions. From the consumer perspective it is also used to convey essential information, and establish brand identity. Purchasing decisions therefore are affected to a greater or lesser degree by the appropriateness and attractiveness of a product's packaging.
- 9.4 There is however evidence that as economies grow and levels of consumer spending increase, higher quantities of waste are generated. The relationship between the gross domestic product (GDP) of an economy and the quantities of waste generated is well established. Much of the increase in wastes is associated with packaging, despite the work undertaken by the packaging industry in designing lighter and alternative packaging products, including re-useable systems.
- 9.5 It is widely recognised that there is too much packaging waste, with its consequential environmental impacts, and that action is needed to reduce, recover and recycle the quantities of such waste. This has resulted in policy measures being introduced at a European level, and transposed into national obligations, through legislation and the waste planning process, to encourage the recycling and recovery of packaging wastes.

Packaging Forums

9.6 In NI “The Packaging Waste Forum” was established in 2001 as a result of the proposal made in the three sub-regional Waste Management Plans that a working group be established to identify the preferred packaging waste management solutions for the longer term, particularly given legislative changes. A description of the forum and its role can be found in paragraph 9.94.

9.7 This chapter includes the following:

- A description of the principal packaging materials, and their typical applications
- An overview of the policy and legislative framework, and definition of the current statutory obligations;
- A summary of current reprocessing, recovery and export activities; future trends and anticipated requirements.
- A summary of the current reprocessing, recovery, and export activities, future trends and anticipated requirements.
- Critical factors in achieving targets and a summary of actions by key stakeholders.

PACKAGING MATERIALS

9.8 A range of materials, principally paper and cardboard, plastic, glass, metal and wood, are used in packaging applications. This diversity reflects their characteristics and qualities, with respect to different producer, product, transit and consumer or user requirements. These materials and their typical packaging applications are described briefly in Table 9.1.

Table 9.1: Summary of Packaging Materials and their Applications

Material	Typical application
Aluminium	Aluminium is used primarily for two main packaging products - drinks cans and foil packaging
Steel	Steel packaging falls into two broad categories: <ul style="list-style-type: none"> Household packaging. For example, paint tins, food and drink cans, and aerosol products. These are generally made from tinplated steel. Commercial and industrial packaging. For example, drums, steel strapping and baling wire. These are generally made from uncoated steel.
Paper & Cardboard	Paper and cardboard are widely used as packaging materials, principally cardboard because it is economic, lightweight, easy to use and store, and can be easily compressed: <ul style="list-style-type: none"> Corrugated - primarily transit packaging, but reaches households as packaging around e.g. electrical goods and flat packed furniture. Solid carton board - primarily consumer packaging (frozen food, cereals, shoe boxes etc).
Glass	Glass has a long history of use as packaging, as containers and bottles. It appears to enjoy an image of quality, which companies use to brand their products
Plastic	"Plastic" is a generic term, encompassing a wide range of plastics, including, for example: low-density polyethylene (LDPE), high-density polyethylene (HDPE), polypropylene (PP), polyvinylchloride (PVC), polystyrene (PS) and polyethylene terephthalate (PET). Each has specific packaging applications, reflecting their particular qualities, with around 60% of plastic packaging used for in food applications. For example, PET is widely used for soft/fizzy drink bottles. For frozen foods, PET, LDPE and HDPE are widely used, whereas for refrigerated foods PP, PS, or PVC are used. Extensive use is also made of plastics in medical applications.
Wood	Wood is used mainly for transporting packaged products. There are two distinct components: <ul style="list-style-type: none"> Pallets - representing two-thirds of the wood packaging sector. Cases and crates - representing one-third

POLICY AND LEGISLATIVE FRAMEWORK

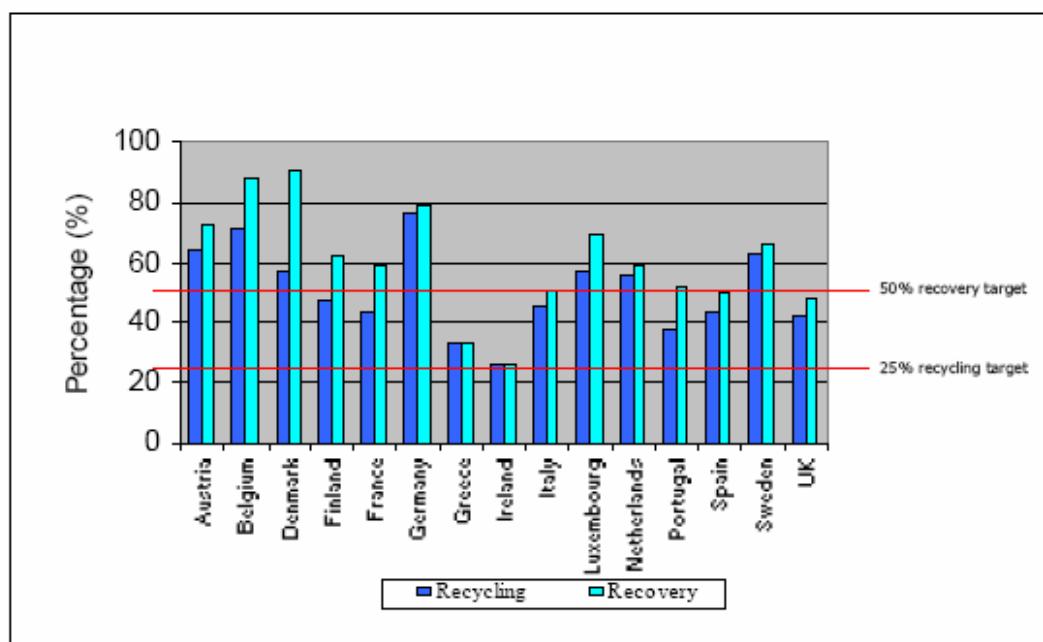
The EU Context

9.9 Packaging waste is an important focus of EU environmental and waste management policy where it is defined as a priority waste stream covered by EC Directive 94/62/EC on Packaging and Packaging Waste. The Directive aims to harmonise national packaging legislation with the twin objectives of preventing or reducing the environmental impacts associated with packaging and packaging waste. The importance of the Directive is emphasised by the requirement that waste management plans include a chapter on Packaging Wastes. The Directive also sets out specific community-wide targets for the recycling and recovery of packaging waste, which were to be reached by 2001. These required that:

- Between 50% (minimum) and 65% (maximum) by weight of packaging waste be recovered; and
- Between 25% (minimum) and 45% (maximum) be recycled, with a minimum of 15% by weight of each packaging material.

9.10 The relative recycling and recovery rates in 2001 for a number of Member States are given in Figure 9.1. The figure shows that in 2001 the UK recovery level was slightly below the minimum target level.

Figure 9.1: Recycling and Recovery Rates within the EU in 2001;



Source: EU report; Study on the implementation of Directive 94/62/EC on packaging and packaging waste and options to strengthen prevention and reuse of packaging.

9.11 The Packaging Directive was revised in 2004 by amending Directive 2004/12/EC. This increased the recycling targets for 2008 for the Member States to:

- 60% overall recovery of packaging waste; and
- 55% (minimum) and 80% (maximum) recycling of packaging waste.

9.12 The amended Directive also set the following material specific targets by weight: glass (60%), paper and board (60%), metals (50%), plastics (22.5%), and wood (15%). Higher recycling rates will mean increased UK collection of household waste packaging which will raise the cost to business.

9.13 The amended Directive still provides Member States with a degree of latitude in

terms of the measures that can be adopted to meet the obligations and provisions of the Directive. As a result, different Member States have established different systems to comply with the Directive requirements. It is a basic premise however, that those businesses involved within the packaging chain are responsible for packaging wastes, and the systems are designed on that basis.

The United Kingdom Approach

- 9.14 The Directive 94/62/EC on Packaging and Packaging Waste came into force in 1994. Since the original Directive was introduced there have been several amendments which have been transposed into UK law. The most recent amendments to have been introduced into the UK are as follows;

In Northern Ireland;

The Producer Responsibility Obligations (Packaging Waste) Regulations (Northern Ireland) 1999 and amendments

In England and Wales;

The Producer Responsibility Obligations (Packaging Waste) Regulations (England and Wales) 1997 and amendments

In Scotland:

The Producer Responsibility Obligations (Packaging Waste) Regulations (Scotland) 1997 and amendments

- 9.15 In implementing the Packaging Waste Directive, various approaches have been adopted by EU Member States. The UK has opted for a market-based approach, where the cost of recycling each material fluctuates in response to market conditions, and where the recycling and recovery obligations are shared between all parts of the packaging chain. The scheme was designed to operate seamlessly across the UK as a whole, with separate Regulations enacted in G B and NI placing statutory obligations on “producers” of packaging, i.e. those businesses involved in specific activities as part of the packaging chain.
- 9.16 In the UK, the concept of shared producer responsibility for packaging waste refers only to businesses which produce or use packaging, and is based on a narrower definition than in other EU Member States. Elsewhere the approach has been cross-sectoral to include local authorities as well as industry. It is recognised therefore that the UK approach essentially means that local authorities and consumers are only likely to be formally or contractually involved

when their input is needed by the packaging producers and compliance schemes to help them fulfill their obligations.

- 9.17 Under the current Regulations, a “producer” is defined as a legal entity who:
- Performs an “activity”
 - Supplies packaging to another stage in the packaging chain, or to the final user of the packaging
- 9.18 The principal “activities” referred to are:
- Manufacturing packaging raw materials
 - Converting materials into packaging
 - Packing and filling packaging
 - Selling packaging to the final consumer or user
- 9.19 There are also two further classes of producers, namely importers and secondary provider.
- 9.20 Obligated producers, as defined by the Regulations, can discharge their obligations either individually, or by joining an industry-led collective scheme, known as a **compliance scheme**. There are currently 22 national compliance schemes and a number of regional schemes.
- 9.21 A producer pursuing the individual route has to:
- Register with the relevant authority
 - Provide packaging data to the relevant authority
 - Carry out the necessary recycling and recovery
 - Provide a *certificate of compliance* to the relevant authority
- 9.22 A producer opting to join a compliance scheme has to:
- Join the scheme
 - Provide packaging data to the scheme
- 9.23 In principle, compliance schemes take legal responsibility on behalf of obligated businesses for meeting targets, and issue Packaging Recovery Notes (PRN's) to their members to demonstrate that their obligations have been met on their behalf.
- 9.24 The current Regulations state that monitoring of performance with respect to meeting the UK's statutory obligations is based on data returns from two key sources, as follows:

- Returns from producers (obligated producers) to the relevant authorities to define the tonnages of packaging waste to be recycled or recovered; and;
- Returns from re-processors and exporters to quantify the tonnages of packaging waste recycled or recovered.

9.25 The original 1994 Regulations also put into legislation the concept of **Producer Responsibility**. The principle aims to encourage businesses to take greater responsibility for the life cycle of their product, including the post-use phase, which historically has ended up in products being discarded as waste intended for disposal. Over time the responsibility is intended to create an incentive for producers to adapt the design of their products to the prerequisites of improved waste management practices, with greater emphasis on the potential for recycling or recovery of the constituent materials.

Northern Ireland Legislation

9.26 The UK's obligations were originally transposed into law in NI through the Producer Responsibility Obligations (Packaging Waste) Regulations (Northern Ireland) 1999. These obligations have been amended several times in recent years.

9.27 Under these Regulations the Environment and Heritage Service (EHS) are required to publish an annual compliance monitoring strategy which includes:

- Details of the monitoring carried out under Regulation 25
- The policy in relation to monitoring and enforcement of producer responsibility obligations; and
- An indication of the minimum number of businesses which it proposes to monitor in the course of that year.

9.28 This strategy is published at the end of April to enable an account to be taken of the number of producers who register by the April 7th registration deadline.

9.29 The EHS has developed the "Producer Responsibility Strategy 2005-06", which details how they intend to undertake a monitoring strategy over this period.

9.30 The Regulations state that businesses in NI are obligated if:

- they have an annual turnover of greater than £2 million per annum AND
- they handle more than 50 t of packaging annually AND
- they perform at least one of the activities specified below.

There are two broad categories of packaging waste generated by business:

1. **Primary packaging** such as milk bottles, food cans, egg boxes, etc. which consumers take away with the product they purchase; and
2. **Transit (secondary and tertiary) packaging** such as pallets, shrink wrapping, carton boxes, etc. which are used for the protection of products during transportation and distribution.

Transit packaging and the waste materials arising from it are managed by product manufacturers, suppliers and retailers as part of the supply and distribution chain, whilst primary packaging is discarded post consumer use as part of household waste or as commercial and industrial waste. These latter two streams are generally managed by private sector waste collectors or by District Councils as part of the municipal waste system.

9.31 Specifically under the current NI Regulations, an obligated company must:

- Register with the Department of Environment, or join a compliance scheme, which is registered with the Department;
- From 2000 recover specific tonnages of packaging waste (depending on the weight handled and the packaging activity performed);
- From 2001 give annual certification that their obligations have been met; and
- If they are retailers, inform consumers about their role in increasing recovery and recycling.

The current Regulations also prescribe percentage activity obligations by class of producer, as summarised in Table 9.2 below.

Table 9.2 Obligation Activities Prescribed by Class of Producer

Class of Packaging Producer	Activity Obligation
Manufacturer	6%
Converter	9%
Packer/Filler	37%
Seller	48%

9.32 The obligations to recover and recycle specific tonnages of packaging waste can then be calculated for individual businesses (producers) in the packaging chain as follows:

Recovery Obligation =	Tonnage of Packaging Handled	X	Percentage Activity Obligation	X	NI Recovery Target
Recycling Obligation =	Tonnage of Packaging Handled (by material)	X	Percentage Activity Obligation	X	NI Recycling Target

9.33 The recovery and recycling obligations for NI identified in “The Producer Responsibility Obligations (Packaging Waste) (Amendment) Regulations (Northern Ireland) 2004” are shown in Table 9.3.

Table 9.3 Packaging Recovery and Recycling Obligations 2004-2008 (%)

	2004	2005	2006	2007	2008 and subsequent years
Paper/Fibreboard	65	66	68	69	70
Glass	49	55	61	66	71
Aluminium	26	28	30.5	33	35.5
Steel	52.5	55	58	60	61.5
Plastic	21.5	22	22.5	23	23.5
Wood	18	19	20	20.5	21
Overall Recovery	63	65	67	69	70
Min Recycling	94	94	94	95	95

PACKAGING WASTE ARISING

9.34 Packaging waste in NI arises from two principal sources: the household waste stream, and from the commercial and industrial waste stream. The total packaging waste generated from these two sources can be estimated from available data.

9.35 Packaging waste arising from the commercial and industrial sector was reported in the Waste Arisings Survey Northern Ireland in 2001³, a study commissioned by EHS.

9.36 The most recent large scale study of the composition of household waste in NI commissioned by EHS was undertaken during 2000. The report indicated that packaging waste represents 22% of the household waste stream. Adopting that

assumption, the estimated total tonnage of packaging waste generated in NI in 2000¹ is approximately 412,000t.

- 9.37 A comparison between household and commercial and industrial waste streams in the three waste planning regions is given in Table 9.4 below.

Table 9.4 Household and Business in Packaging Waste 2000

Region	Total Packaging Waste (Tonnes)		
	Commercial & Industrial	Household	Total
North West	32,000	34,000	65,000
SWaMP	58,000	45,000	103,000
Arc 21	139,000	104,000	244,000
Total	229,000	183,000	412,000

- 9.38 Using the same data, the packaging waste can be further broken down by material, as set out in Table 9.5. The table shows that paper and cardboard represents the largest fraction at approximately 180,000 t (44%), followed by glass at 85,000 t (21%), plastics at 72,000 t (17%) and ferrous metals at 31,000 t (8%). Aluminium is estimated at about 5,000 t, which is about 1% of the total packaging waste stream.

Table 9.5 Packaging by material in 2000

Material	Commercial & Industrial (t)	Household (t)	Total Tonnage Assumed 2001
Paper & cardboard	124,000	57,000	181,000
Glass	19,000	66,000	85,000
Aluminium	1,000	4,000	5,000
Ferrous metals	12,000	19,000	31,000
Plastic	34,000	37,000	71,000
Wood	37,000	0	37,000
Other	2,000	0	2,000
Total	229,000	183,000	312,000

Recycling/Recovery Obligations in Northern Ireland

- 9.39 Data on the obligated quantities of packaging wastes for NI as a whole is determined by EHS, on the basis of the statutory returns made by companies under the NI Packaging Regulations. Specific information is held on a Public Register, which is maintained and updated by EHS.
- 9.40 A total of 373 companies were registered with EHS as of May 2004. Of these organisations, 74 were registered directly, and 299 were registered through

¹ The Northern Ireland Household Waste Characterisation Study 2000, NI200 and Kirk, McClure, Morton (January 2001)

³ Waste Arisings Survey Northern Ireland (1999-2000): A Summary Report EHS (2001)

Compliance Schemes. Twelve compliance schemes, as summarised in Table 9.6, are registered with the EHS.

Table 9.6 Compliance Scheme Details

Compliance Scheme	Number of registered companies*
BIFFPAK	19
CLEANAPACK LTD	6
COMPLIANCE LINK	8
COMPLYPAK LTD	4
MATERIALS RECOVERY LTD	32
NIPAK	49
ONYXPAK	13
PAPERPAK LTD	5
RECYCLE-PAK LTD	17
VALPAK LTD	107
WASTEPAK UK LTD	39
WESPAK	-
Total	299

*Companies registered by May 2004
Source: EHS

9.41 In May 2003 there were 346 companies registered with the EHS, of which 66 were registered directly and 280 were registered through a compliance scheme. In May 2004 this number had risen to 373 with 74 companies registered directly, and 299 registered through compliance schemes. The EHS aim to continue this growth trend and have targeted another 30 companies to join by March 2006.

9.42 The Packaging Waste Regulations set targets for overall recovery and recycling tonnages and tonnages for individual materials (Paragraph 9.30). The tonnages associated to the targets set in 2004 are shown in Table 9.7

Table 9.7 Northern Ireland Business Packaging Recovery Targets for 2004

Obligation	Tonnage
Recovery obligation	103,641
Recycling obligation	97,423
Paper & Card obligation	41,431
Glass obligation	20,489
Aluminium obligation	787
Steel obligation	3,456
Plastic obligation	7,224
Wood obligation	2,772
Number of obligated businesses	373

Source: Towards Resource Management A Consultation on Proposals for a New Waste Management Strategy. October 2005

9.43 The 2004 target for obligated businesses was to recover 63% of the packaging handled. Of this, 94% was to be achieved by recycling. There were also material specific recycling targets for each of the six main types of packaging material. The Consultation on Proposals for a New Waste Management Strategy for Northern Ireland² states that **all targets were met for 2004.**

Reprocessing/Recovery of Packaging Wastes

9.44 Details are also maintained of registered re-processors and exporters of packaging waste. As of July 2005 there were, in total, nine registered re-processors and seven registered exporters. These are summarised in Table 9.8 below, with reference to the specific packaging waste streams for which they are registered.

Table 9.8 Re-processors and Exporters

Packaging Waste Stream	Reprocessors	Exporters
Steel	-	Clearaway Disposal Ltd: East Twin Rd, Belfast Harbour Estate, Belfast T-Met Ltd: 2a Trench Rd, Hydepark Industrial Estate, Mallusk
Aluminium	-	Clearaway Disposal Ltd: East Twin Road, Belfast Harbour Estate, Belfast
Glass	Quinn Glass: Derrylin, Co. Fermanagh, BT92 9AU Kosmos Glass Recycling Ltd: Old Paint Cells, Titanic Quarter, Queens Rd, Belfast	-
Plastic	Cirrus: Esky Drive, Portadown Craigavon, BT63 5WD, Armagh James W Corry: 77 Clooney Rd, Campsie, Londonderry, BT47 3PA	James W Corry: 77 Clooney Rd, Campsie Londonderry, BT47 3PA Irish Polymers: Unit E11 Enkalon Industrial Estate, Antrim AllClear Environmental: 17 Derrybeg Lane, Newry, BT35 6JW
Paper & Cardboard	-	-

² Towards Resource Management A Consultation on Proposals for a New Waste Management Strategy. October 2005

Packaging Waste Stream	Reprocessors	Exporters
Wood	<p>Allclear Environmental: 17 Derrybeg Lane, Newry, BT35 6JW</p> <p>Spanboard Ltd: Sales & Distribution Hillmans Way Colrairie BT52 2ED</p> <p>Eglintont Timber: 20 Longfield Road, Longfield Industrial Estate West glinton, County L'Derry, BT47 3PY</p>	-

Note: Data relates to July 2005

Source: EHS: Accredited Re-processors database

9.45 The quantities of packaging wastes reported by the registered re-processors and exporters are summarised in Table 9.9 below. This demonstrates that a total of approximately 51,000 t of packaging were accounted for during 2000. This equates to nearly two thirds of the total packaging obligation (82,946 tonnes) generated by the companies obligated under the NI Packaging Regulations. However, it also demonstrates that re-processors and exporters registered with EHS only account for some 12% of the estimated total packaging wastes generated in NI.

Table 9.9 Packaging Wastes Reprocessed/Recovered by Registered Re-processors and Exporters

Packaging Waste Stream	Quantity Reported Reprocessed (t)	Quantity Reported Exported (t)	Total Accounted for (t)
Paper/Card	676	1,843	2,519
Plastic	4,790	0	4,790
Glass	30,843	0	30,843
Wood	4,256	0	4,256
Aluminium	0	5	5
Steel	0	7,216	7,216
Other	0	0	0
Energy Recovery	1,378	0	1,378
TOTAL	41,943	9,064	51,007

Note: 1. Data relates to the Year 2000.

2. Source: EHS

- 9.46 As the Packaging Waste Regulations have been implemented to operate across the UK, it is not possible, nor indeed necessary with respect to national obligations, to separate out data relevant within the UK. The primary shortfall is the non-availability of data recording quantities of packaging wastes that are transferred out of NI directly to re-processors in GB.
- 9.47 It is not therefore possible to assess how NI has performed in terms of meeting the stated obligations. However, the obligations imposed by the Packaging Waste Directive represent a UK-wide target. DEFRA announced in April 2004 that the UK recycled 58.2% of obligated packaging waste and recovered 64.9% of the 8,700,635 t of obligated packaging. Of the total packaging waste in the waste stream only 49.5% was recycled and 55.2% recovered, which represents a shortfall of over 2% in the minimum percentage of recovery to be achieved through recycling.

ASSESSMENT OF FUTURE TRENDS AND REQUIREMENTS

- 9.48 The principal factors that influence the future requirements for the recycling and recovery of packaging wastes are:
- Future trends in the quantity and nature of packaging wastes generated; and
 - Anticipated future obligations with respect to the recycling and recovery of packaging wastes.
- 9.49 These aspects are assessed briefly below.

Packaging Waste Trends

- 9.50 DEFRA has developed projections predicting the quantity and nature of packaging in the UK as a whole up to 2006. These are summarised in Table 9.10. The data predicts that the total amount of packaging will only increase slightly over that period, growing at a rate of 0.26% per annum. More significantly, the quantity of plastic packaging is predicted to increase at 3% per annum, while steel is predicted to decrease at 0.75% per annum. For the purposes of waste planning, and in the absence of specific NI data, packaging in NI has been assumed to follow similar trends as those predicted for the UK as a whole.

Table 9.10 Packaging growth

Material	2002	2006	Annual Growth Rates
Aluminium	122,000	122,000	0%
Steel	690,000	670,000	-0.75%
Glass	2,200,000	2,200,00	0%
Paper	3,725,000	3,725,000	0%
Plastics	1,740,000	1,960,000	3.0%
Wood	1,000,000	900,000	-2.8%
Other	40,000	40,000	0%
Total	9,517,000	9,617,000	0.26%

Source; DEFRA, Packaging Data Sheets

Anticipated Future Obligations

- 9.51 Packaging Waste Directive has been the subject of a series of consultations since it was first transposed into UK law. In July 2003 DEFRA produced a consultation paper on the proposed changes to the Packaging Waste Regulations. Over 100 responses were received from business across the UK. The respondents indicated some concern as to how the proposed new targets would be achieved without increased government assistance and the promotion of schemes such as “leased packaging”. Responses to arc21’s “Towards Resource Management” consultation urged the government to take tangible measures to address the proliferation of plastic bag usage. Introducing measures to address usage would be well received as a progressive and constructive step.
- 9.52 In an attempt to meet the new targets set, in October 2005 DEFRA confirmed changes to the UK producer responsibility regulations to make more companies responsible for packaging waste to be recycled. The amended regulations were still subject to parliamentary approval in December 2005, but should come into effect for the compliance year 2006. They also include higher UK recycling targets for packaging waste and changes to the way the government enforces producer responsibility each year.
- 9.53 The issues associated with increased targets, and actions for key stakeholders are considered later in this chapter.

KEY ISSUES TO INCREASE LEVELS OF RECOVERY AND RECYCLING

- 9.54 Key issues associated with increasing packaging waste recovery and recycling levels in NI were outlined by the EHS in 2002. They include five fundamental priorities, as follows:

- The extraction of high quality material, particularly from the household waste stream, as well as additional materials from the commercial and industrial waste stream ;
- The development of a spread of facilities and services to facilitate both the recycling and recovery of packaging wastes;
- The establishment of a presence in the market to secure suitable contracts for the supply of captured packaging waste materials to re-processors;
- The development of suitable and sustainable end-uses/markets locally for recycled materials;
- The development of a partnership approach between consumers, industry (including businesses and packaging waste producers), compliance schemes, re-processors and the waste management sector, and local authorities to the management of packaging waste.

- 9.55 The Waste Management Plan is focused on putting in place schemes for the separate collection of recyclables and compostables from household wastes up to 2005. All the Councils within arc21 are now implementing kerbside collections of dry recyclables uplifted separately from their municipal household waste. The situation is similar in the other Waste Management Regions in NI.
- 9.56 This is consistent with the requirement to increase the quantities of packaging waste recovered from the household and such schemes will contribute to the overall levels of packaging recovered and recycled in NI.
- 9.57 It is important to extract high quality materials with a particular emphasis on the household waste stream. This requires public awareness of the types of mixed dry recyclable waste to segregate, and the development of materials recovery facilities to further sort and segregate recyclable materials. In the arc21 Region, the 11 Districts have a contract with Bryson House Recycling. Bryson House uplift and /or process a variety of dry recyclables on behalf of the Councils. The wastes are sorted at the material recovery facility in Mallusk and are then sold for recycling to a variety of reprocessors in the UK and further afield.
- 9.58 The EHS has identified an outline strategy to increase the levels of Recovery and Recycling that is consistent with the approach used by the Scottish Environment Protection Agency (SEPA) and the Environment Agency (EA).
- 9.59 In the waste stream summaries produced by the EHS, the following approaches are provided to be included in the outline strategy.

- EHS to continue to enforce legislation with obligated companies and accredited reprocessors and exporters. EHS to benchmark performance of NI against that of other UK countries in partnership with EA and SEPA.
- EHS to work with trade bodies, government agencies and other stakeholders to raise awareness within the business community of packaging waste producer responsibility.
- Obligated companies to ensure full compliance with legislation and provision of accurate data.
- Accredited re-processors and exporters to re-invest income from PRNs and PERNs to develop and improve the recycling infrastructure in NI to maximise collection of packaging waste for recycling.
- The value of PRNs and PERNs are projected to stabilise/increase in response to increasing recovery targets and an increase in the number of obligated businesses. This will deliver more investment into the recycling sector.
- Increasing disposal costs will encourage waste prevention, reuse and recycling (progressive escalation of landfill tax to £35 per tonne).

9.60 There are additional factors identified by the EHS as being important to increasing the level of recycling and recovery in NI.

9.61 Responses received by the EHS during the consultation process for the WMP 2003⁴ indicate that the public are sceptical as to whether materials separated from the waste stream are actually recycled. Additionally, contracts for the supply of materials to the reprocessing market are sometimes difficult to secure, and in many cases will require Councils to pay companies to take materials.

9.62 The avoided cost of disposing these materials can be used as an indicator of the cost effectiveness of recycling schemes and the appropriate sum to pay traders and re-processors.

9.63 The implementation of separate bins and boxes for dry recyclables and organic wastes by the majority of Councils in NI since the 2003 consultation is likely to have had a positive impact on the public's perception of recycling. They can now see visible evidence of materials being uplifted separately and as they are now separating many of the materials themselves they are likely to feel a greater buy-in to the process. This in turn could encourage residents to separate out more of their wastes.

⁴ Overview of Public Consultation Process – Waste Management Strategy. Prepared by Enviro. January 2001

- 9.64 There is a role for community groups and NGO's to work in partnership with Councils to recover materials for recycling. There are potential benefits to Councils, for example, through the avoidance of landfill disposal costs, or a reduction in the burden on Council resources. However, although the majority of Councils have established links with community groups, at present the only organisation involved in receiving recycled materials in any sizeable quantity are the Salvation Army. The Army receive donations via textile banks located at bring sites throughout NI. Packaging recovery rates could benefit from the same partnerships.

MATERIAL SPECIFIC ISSUES

- 9.65 Issues related to each of the specific packaging materials are summarised briefly below.

Glass

- 9.66 The C&I sector generates relatively little waste glass packaging. Steps have already been initiated to increase the recovery of this material as the availability of mixed glass outlets becomes more prevalent and cost effective. However a substantial proportion of the increase of glass recovery needed to achieve the future targets in the UK is likely to be achieved through initiatives in the household sector.
- 9.67 In recent years household glass in NI has been collected through the bottle bank system. Councils have sought to increase the amount of glass they are collecting through increased provision of glass bottle banks at existing CA and bring sites and the opening of new bring sites. The Councils of arc 21 are in the process (2006) of implementing a joint contract with Glasson Recycling Ltd to uplift the glass from their CA and bring sites, and increase the provision of glass banks at existing and new sites.
- 9.68 Several Councils (i.e. Ballymena, Belfast, Carrickfergus, Castlereagh and Newtownabbey) currently collect glass through separate kerbside box schemes. All the other Councils collect glass at bottle banks as glass cannot be collected through their collections of commingled recyclables due to health and safety concerns regarding broken glass at the clean MRF.
- 9.69 Reprocessing capacity for glass is not currently considered an issue.

Steel

- 9.70 Currently the majority of steel packaging recovery in the UK is achieved from the C&I sector. This sector currently recycles or reuses a high percentage of the waste steel it generates. Therefore the scope for larges increases in recycling is limited.
- 9.71 Although compared to cardboard, glass or plastics the proportion of steel packaging waste is relatively low, and the quantity of steel packaging is predicted to decrease by 0.75% per annum (British Steel Association), it is relatively easy to sort and recover and has a role to play in meeting targets. The growth necessary to achieve targets need to come from the household sector. Since 2002 the provision of bring banks for cans has increased substantially with every Council having at least one CA or bring site where cans be disposed. In addition, steel cans are included as one of the dry recyclable materials now uplifted across NI.

Aluminium

- 9.72 The vast majority of aluminium packaging relates to beverage cans, with foil and aerosols accounting for additional tonnages. The vast majority of aluminium beverage cans end up in the household waste stream, a substantial proportion also appears in dustbins, both as street litter and in commercial premises such as airports and stations, it is how difficult to measure accurately the exact quantities disposed of in this way.
- 9.73 Aluminium has a positive financial value which could support its collection and recovery. There are also acknowledged environmental benefits associated with the recycling of aluminium.
- 9.74 Although it forms a small part of the waste stream by weight, high recovery levels should, in principle, be achievable.
- 9.75 Over 99 per cent of aluminium packaging is primary consumer packaging. This includes the highly visible drinks can or takeaway container, the foil which wraps chocolate and the lid on a pot of yogurt. Meeting the requirements for the new targets will therefore require a significant contribution from the household waste stream. Councils across NI have responded by including aluminium cans in the dry recyclable collections and increasing the provision of can banks at bring sites and CA sites.

Plastics

9.76 The flows of plastic packaging waste suggest that, at a national level, the commercial and industrial sector has sufficient capacity to recover the tonnages required to meet the requirements of the proposed targets. Current and future plastic targets, at a national level, should in principle be attainable within the existing infrastructure of collection, processing and reprocessing both within the UK and overseas.

9.77 There are several barriers that continue to hinder the recovery and recycling of plastics within NI and the UK as a whole.

1. **Collection Costs:** Commercial and, in particular, domestic plastic waste arisings are found in diverse locations in low volumes. The cost associated with collection from the point at which the waste arises and transportation to a recycling facility can often be prohibitive.

2. **Contamination of Waste Plastics:** Plastic waste for recycling has to be free of contamination. Household plastic waste is often mixed with other household waste such as paper, metals and food waste. For plastic to be suitable for recycling it needs to be sorted and cleaned prior to processing.

9.78 Councils across NI have increased the provision of plastic banks at both bring and CA sites to encourage a greater level of plastic recycling.

9.79 All the Councils in arc21 are now including plastic bottles in their kerbside collection of dry recyclables. However the recovery of plastic packaging from the household sector is not straightforward. This is due to the broad range of plastic types that need to be individually classified. It also tends to be relatively costly on a per tonne basis (often in excess of £200), due to the low density of the materials.

Paper/Cardboard

9.80 The majority of paper packaging recycling comes from the C&I sector because of the quality and volume available from businesses. In the UK there is a well-established infrastructure of paper merchants with effective packaging collection systems which currently recover the majority of cost-effective material from the C&I sector. To achieve further growth may require the capture of packaging waste from smaller premises with lower volumes than the obligated businesses.

- 9.81 Small and medium sized enterprises would be a good source for high quality paper materials. There is the potential for some of the Councils' CA sites to accept packaging waste from small businesses. Several of the Councils in the arc 21 Region are considering introducing a separate paper collection for commercial premises in late 2006 or early 2007.
- 9.82 Household paper packaging generally tends to arise in small volumes and be of low quality. This has implications on the overall market for these materials. Paper extracted from the household waste stream requires sorting to separate out non-packaging paper materials, even where it is collected in a separate dry recyclable bin or box. The provision of facilities at CA sites specifically for paper packaging waste would allow the public to participate directly, however clear instructions would have to be provided to explain what constitutes packaging paper. In addition, paper, cardboard and card are included as one of the dry recyclable materials now being uplifted for recycling by Councils across NI.
- 9.83 Reprocessing capacity for paper packaging material is now a global issue and it is generally considered that significant capacity exists for corrugated cardboard. Currently there is a mixed view on the market viability of household materials (cereal packets, etc). There is growing acceptance internationally that the growth of this material from the regulatory requirements in both the UK and other countries can only be absorbed if sufficient resources are directed at this route. This highlights the need for market development.

Wood

- 9.84 DEFRA estimates that each year up to 420,000 t of waste wood is produced by households, or deposited at CA sites in the UK. Packaging (pallets and crates) produce a further 670,000 t, and construction and demolition 750,000 t.
- 9.85 Currently the main issue for wood is one of collection and processing. The infrastructure of wood processors in the UK is growing slowly. All the Councils in arc21 collect or plan to collect wood at their CA sites. However, the main potential for wood recycling will be in the commercial and industrial sectors where it is primarily used in transit applications.

9.86 Table 9.11 summarises the above:

Table 9.11: Material details

Material	Issues	Re-processor locations	Observations
Glass	<p>Health and safety issues associated with handling and collection of glass in commingled dry recyclables collections.</p> <p>There has been investment in “Bring” schemes over recent years to accommodate collections of this material</p>	Local reprocessing capacity is available in NI	<p>There is currently concern about an over-supply of green glass</p> <p>Alternative uses are developing, e.g. use in the aggregates and construction industries</p>
Steel	<p>Door to door collections and the provisions of banks for collection of cans is increasing the recovery of steel from household waste stream.</p> <p>Magnetic extraction at transfer stations would increase the quantity further.</p>	There is no local re-processing capacity registered at present, but there is available re-processing capacity in the UK market. Steel is currently being shipped to several re-processors in England.	<p>Markets for extracted steel are available in the UK.</p> <p>Recycling leads to no loss of quality</p>
Aluminium	<p>High potential to increase rate of recovery; particularly from household waste stream, and from public places (e.g. streets and shopping centres). All arc21 Councils are implementing kerbside collections of this material.</p>	There is no local re-processing capacity, however aluminium traders are present in NI, and there is a high overall UK reprocessing capacity.	<p>Recycling does not lead to a loss of product quality.</p> <p>Markets for recycled products are not constrained.</p>
Plastic	<p>Wide diversity of different material types</p> <p>All arc21 Councils are implementing kerbside collections of plastic bottles from the household waste stream.</p>	<p>There is some limited local reprocessing capacity.</p> <p>There is a loss of quality in re-processing, therefore consumer acceptability is a constraint.</p>	<p>Large amount of work is needed to develop sustainable markets for recycled products made from plastic waste.</p> <p>Costs per t can be high.</p>
Paper/Card	Good existing recovery rates from commercial sector.	Local reprocessing capacity is limited, but improving.	Work is needed to develop sustainable

Material	Issues	Re-processor locations	Observations
	<p>Improving capacity to collect good/clean materials from the household waste stream.</p> <p>Extraction of large quantities of paper/card from small and medium sized businesses has potential.</p>	<p>Extracted paper and card needs to be sorted into clean, consistent quality fractions</p> <p>High quality paper and card has strong potential for establishment of contracts with materials traders and re-processors.</p>	<p>markets and alternative uses</p> <p>There is some loss of quality in reprocessing, therefore consumer acceptability is a constraint</p>
Wood	<p>Majority of potential for extraction of wood is in the commercial and industrial sector.</p> <p>All the arc21 Councils collect or are proposing to collect wood from the household waste stream.</p>	<p>Limited need for contracts for reprocessing wood extracted from the household waste stream</p>	<p>Recovered wood can be picked up from CA sites by the public.</p>

SUMMARY OF ACTIONS

9.87 Producer responsibility for packaging waste lies with the business sector, and primarily the larger businesses obligated under the current Packaging Regulations. This reflects the market-based approach adopted by the UK to meeting EU Directive obligations.

However, analysis of future trends conducted by DEFRA and the EA suggests that increasing levels of recycling and recovery of packaging wastes from the municipal waste stream are likely to be critical in meeting higher targets. The Councils in each of the three NI Regional Wastes Groups have already taken significant steps through the introduction of separate recycling collections and the increased number of CA and bring sites. It is clear however that other stakeholders also have a role to play a role in helping to meet the new targets.

- 9.88 The EHS has identified specific areas for action by different stakeholder groups. These are summarised below:

The Private Sector: Obligated businesses

- 9.89 The EHS Action Strategy identifies several key roles and responsibilities for businesses. There are also two key actions that private sector need to ensure that they comply with;
1. Registration with EHS and submissions of data on packaging waste as required.
 2. Recovery of specified tonnages of packaging waste, either directly or through compliance schemes. Certify that obligations have been met.
- 9.90 In addition, the private sector obligations include not only the current generation of statutory targets, both also the need to anticipate and plan for the higher targets that are likely to emerge from the current review of the Packaging Waste Directive.
- 9.91 As producers, obligated businesses who handle and supply packaging waste must undertake all their legal obligations. It is essential that these obligated businesses report their progress and waste flows to the EHS, enabling better tracking of packaging waste.
- 9.92 Smaller businesses also have a part to play even though there is not a statutory requirement. They should seek to maximise their recycling and recovery levels through the use of all available facilities and services. Businesses should be encouraged to consider packaging within the context of their supply chain management and initiatives appropriate to their organisation to encourage the concept of Producer Responsibility and packaging waste minimisation and re-use. Where economically feasible opportunities to encourage the use of recycled materials in their activities should also be sought to assist with the development of sustainable markets and end-uses for recycled materials.
- 9.93 It is recognised by the EHS and the DOE that the private sector has a key role to play in the recycling and reprocessing of packaging wastes through the provision of services and facilities. This role was acknowledged in the Regional Development Strategy for Northern Ireland 2025, entitled *Shaping Our Future* which states that there is a need to:

“provide an extensive network of recycling, recovery and secondary materials manufacturing facilities”

- 9.94 The range of facilities for the management of packaging wastes, including, for example, sorting, materials recovery, bulking and storage of materials, treatment and re-processing, has increased across NI in recent years. In the arc21 Region the contract with Bryson House is an example of local authorities working with the private sector to utilise material recovery facilities.
- 9.95 The need for, and location of, specific types of facilities for packaging wastes is evolving in NI. This has developed in response to market demand, which is in accordance with the concept of Producer Responsibility, associated statutory requirements and the UK’s market-based approach.

Central Government

- 9.96 To ensure that the new targets are met there is a responsibility on central government to provide adequate support to both the public and private sectors. This support can be in the form of guidelines, initiatives, support bodies or financial help to allow both the public and private sector to develop markets and infrastructure that will enable the levels of packaging waste recovered and recycled to be increased.

Guidelines

- 9.97 A series of guidelines have been published by both DEFRA and the EHS since the Packaging Waste Obligations were first introduced into the UK. These guidelines provided specific information and advice to enable businesses to understand what is required by the Obligations and provide practical advice on how the requirements can be achieved. Recent publications have included:
- Government Guidance notes for the Packaging (Essential Requirements) Regulations, 2004, DTI
 - Impacts of the Essential Requirements Regulations: A brief summary. 2004 DTI
 - The Producer Responsibility Obligations (Packaging Waste) Regulations 1997 (as amended)
 - The User's Guide 2nd Edition 2003, DEFRA
 - Producer Responsibility Packaging Waste Obligations: A summary. 2003 EHS

Initiatives

- 9.98 There are a wide range of packaging waste initiatives throughout the UK. In NI the EHS has set up the “**Wake up to Waste**” programme. The programme aims to raise the profile of waste management and engage the public and businesses in using resources more sustainably.
- 9.99 The campaign builds on the strategy set out in the NI Waste Management Strategy to support implementation of minimisation, recycling and recovery schemes at a local level. The campaign is complemented by a pioneering education programme '**Wake up to Waste for Schools**' currently being piloted in schools across NI (www.KidsAgainstWaste.org).
- 9.100 A business specific campaign has also been developed by the EHS. The “Wake up to Waste for Business” programme aims to provide information, practical advice and direction to businesses on how to reduce, reuse and recycle their waste, reduce costs and improve environmental performance. The associated website contains information and fact sheets on waste minimisation, recycling different materials and business sector advice.

Support Bodies

The Advisory Committee on Packaging

- 9.101 The Advisory Committee on Packaging (ACP) was created in 1996 to advise Government on the drafting of Regulations implementing parts of the Directive on Packaging and Packaging Waste. It was designed to give balanced representation to the four main industry sectors in the packaging chain (i.e. packaging raw material manufacturers, convertors, packer/fillers and sellers) and the main packaging materials.

The Packaging Waste Forum

- 9.102 The Packaging Waste Forum was established as the result of a specific initiative arising from the Waste Management Strategy for NI. It aims to address the challenge of increasing the recovery of packaging wastes from the municipal waste stream to meet future mandatory recycling and recovery targets. Its membership comprises a broad range of cross-sectoral representatives from local authorities, commerce and industry, packaging waste producers and the waste management sector.

Financial Support

- 9.103 Adequate levels of financial support need to be available across a range of stakeholders, such as local re-processors, small businesses, enterprises, the voluntary sector, and local authorities. The aim would be to specifically encourage and seed fund appropriate and innovative initiatives and increase the recycling and recovery of packaging wastes, particularly from the household waste stream
- 9.104 Support has been made available for Councils across the UK via a series of Government funds. For example, the Strategic Waste Fund in Scotland. This funding has been used by Councils to finance the provision of bins and boxes for separate recyclable uplifts and to both increase the number of bring and CA sites as well as the ranges of materials that they accept.
- 9.105 Government funding is not intended to replace revenue that should properly be generated by waste producers for recycling and recovery of packaging wastes in accordance with Producer Responsibility. Rather its purpose is initial support to encourage and seed fund appropriate and innovative approaches that have the potential to lead to more sustainable waste management practices.

Monitoring

- 9.106 The EHS are required under the Regulations to publish a compliance monitoring strategy each year. This strategy monitors the activities of registered business to ensure that they comply with the Packaging Waste Regulations. This strategy covers the policy and actions the EHS will take in the following areas:
- Accreditation of re-processors and exporters
 - Dealing with “Free Riders” (those companies who should have registered but have not done so)
 - Provision of guidance and advice
 - Funding
 - Enforcement

The current key targets include:

1. To undertake 200 audits of business under the Producer Responsibility Obligations (Packaging Waste) (Northern Ireland) Regulations 1999 and Amendments.

2. To undertake annual in-year inspection visits to all accredited re-processors and exporters.
3. To take forward enforcement action where appropriate under the Producer Responsibility Obligations (Packaging Waste) (Northern Ireland) Regulations 1999 & Amendments.
4. To undertake audits of five Compliance Schemes registered with the EHS
5. To increase the number of registered companies by 30 during the 2005 registration year.

Cross- Border Initiatives

- 9.107 The potential for cross-border co-operation and initiatives to support increased recycling and recovery of packaging wastes should be further explored by Government. It is considered, for example, that such measures would have the potential to assist with the development of sustainable markets for recycled materials, and the creation of economies of scale to support major reprocessing and secondary materials manufacturing facilities to the mutual benefit of both economies.

Local Government

- 9.108 The management of the municipal waste stream is the responsibility of the district councils. The Councils have long recognised the need to work with the business sector, including Compliance Schemes, to put in place the facilities, systems and services to recover and recycle packaging waste from the municipal waste stream to meet future targets.
- 9.109 The EHS has identified three key areas of responsibility for the District Councils to ensure that they recover sufficient packaging waste from the household stream:

1. Maximise collection of source separated packaging materials from households.

The Councils have taken significant steps in recent years in an attempt to maximise the collection of source separated packaging materials from households. Additional bins for the separate collection of dry recyclables have been implemented by each Council in the arc 21 Region. The variety of materials collected has increased greatly over just a few years, allowing householders to separate a larger volume and diversity of packaging waste.

2. Introduce separate collection service for packaging waste for local business and industry, and potentially allow trade waste access to civic amenity sites for recycling.

This action has yet to be introduced by any of the Councils within the arc 21 Region. However it has been acknowledged that this will be an important future requirement and several of the Councils have begun to develop proposals to implement a separate uplift of packaging wastes (such as cardboard) from commercial properties.

3. Increase provision of facilities for separate collection of packaging materials at bring sites and CA sites e.g. bottle banks.

The provision of facilities at both bring and CA sites has increased significantly in recent years across NI. Each Council within the arc 21 Region has added additional bring sites and/or material banks since 2002. The arc 21 Councils currently have a contract with Glassdon Recycling to uplift glass bottles deposited at these sites. Separate bins for clear, green and blue or brown bottles are provided at the majority of the sites. This increases the segregation that can be carried out at source.

- 9.110 It is important that funding for the recovery of packaging waste is channelled in such a way as to expand and support these MSW facilities. The number of compliance schemes operating in NI has increased each year since 2002 and the number of companies registered reached 299 in May 2005.
- 9.111 The current legislation does not directly involve district councils in the packaging chain. In France to discharge their obligation companies pay a financial contribution to private sector companies based on the number of sales unit packages involved. Manufacturers, importers and distributors of products destined for either domestic or catering use are obligated. These companies then redistribute the revenue collected among local authorities responsible for collecting household waste, and compensate them for having to collect and sort the waste. Local authorities then sell the waste to industrial firms. This scheme aims to have achieved 75% recovery of household waste by the end of 2002. arc21 Councils would welcome a change to this type of approach to allow funding to be directed towards the recovery of packaging waste from the household waste stream. Valpak, which helps over 3000 packaging companies meet their legal obligations to recycle packaging waste, has launched a major support programme for councils. Valpak assist with the development of recycling schemes, awareness campaigns and use producer responsibility revenue to support prices offered for collected material. It is believed that Valpak could take a positive approach to assist councils in meeting recycling targets.

9.112 In addition, since 2002 the District Councils have also undertaken the following activities:

- Raising awareness and providing information to the public.
- Working with industry and local businesses to encourage development of local recycling and recovery capacity, encompassing all businesses and activities.
- Working with industry and business, including Packaging Waste Compliance Schemes, to develop and implement systems for the recovery and recycling of packaging wastes to ensure that future legislative recycling and recovery targets are met.
- Acquiring data on packaging waste flows, to identify the quantities, nature and destination of packaging wastes, as part of the Councils' responsibilities for future waste management planning.

Cross Border Co-operation

9.113 Where it is of mutual benefit, the Councils generally support the concept of cross-border co-operation in terms of developing sustainable markets for recycled materials, viable recycling and recovery capacity. To date, there has been a little cross border co-operation between councils.

Non-Governmental Organisations and Community Groups

9.114 Non-governmental organisations and community groups have the opportunity to provide innovative local services to contribute to meeting the challenges. They can also encourage participation in, and support for, council and government initiatives, influence attitudes to waste, and hence have a key role in providing solutions for delivering more sustainable waste management practices. Co-operation between community groups and the district councils is increasing, with councils such as Belfast City and Ards Borough being involved in recent community recycling projects.

The Public

9.115 The general public has a critical role to play in increasing the level of packaging waste that is recovered and recycled. Consumers can influence the quantities and recyclables of product packaging by creating a demand for reduced packaging products through their purchasing decisions. Householders can play their part by segregating packaging materials from the waste stream.

Priority Actions for Recovery of Waste Packaging Materials

9.116 Despite the increase in resources that have been committed toward packaging waste in recent years there are still gaps in the information available information on the current recovery and recycling of packaging wastes in NI. The EHS and DOE believe that significant quantities are still unrecorded because they are delivered to reprocessors in GB. Table 9.12 shows the amount of packaging wastes arising that are estimated and the total amount accounted for from that year.

Table 9.12 Summary of Packaging Material Recovery 2002

Material	Estimated Total Quantity Arising 2001 (t)	Total accounted for tonnes 2002	Percentage Accounted For
Paper and Cardboard	181,000	2,519	1.4%
Plastic	71,000	4,790	6.7%
Glass	85,000	30,843	36.3%
Wood	37,000	4,256	11.5%
Aluminium	5,000	5	0.1%
Steel	31,000	7,216	23.3%

9.117 All parties businesses, district councils, and other as appropriate, need to work together to ensure that all packaging wastes recycled and recovered are recorded, and that the information is available in a non-commercially confidential format to monitor progress against targets.

Table 9.13 Packaging Material Actions and Priorities

Material	Municipal Waste Stream	Commerce & Industrial waste
Paper/ Cardboard	<p>Development of alternative markets for packaging waste recovered from the household stream.</p> <p>Increase collection of paper/cardboard through source separated household collections.</p> <p>Appropriate provision of facilities at selected CA sites to accept particular high quality packaging wastes from the public.</p>	<p>Commerce and industry to work with District Councils to develop facilities at selected CA sites to accept packaging wastes from SME's.</p> <p>Councils to offer separate paper/cardboard uplifts</p>
Aluminium	Expansion of bring facilities and increase collection through source separated household collections.	Commerce and industry to expand the existing infrastructure for collection and recovery, integrating where appropriate with the municipal waste stream at materials recovery facilities.
Plastic	Increase provision of banks at bring facilities at selected CA sites, and expansion of collection through source separated household collections.	Commerce and industry to expand the existing infrastructure for collection and processing and reprocessing.
Wood	Provision of skips at CA sites for the collection of wood.	Commerce and industry to expand the existing infrastructure for collection and recovery.
Glass	Increase provision of bring facilities	Commerce and industry to expand the existing infrastructure for collection and recovery.
Steel	Expansion of bring facilities, increase collection from household collection schemes, and magnetic recovery at materials recovery facilities, where these are developed.	Commerce and industry to expand the existing infrastructure for collection and recovery, integrating where appropriate with the municipal waste stream at materials recovery facilities.