

The Producer Responsibility Principle of the WEEE Directive

Final Report

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1. Executive summary

1.1. Background and objective

The Directive 2002/96/EC on waste electrical and electronic equipment (WEEE) addresses a particularly complex waste flow in terms of variety of products, association of different materials and components, contents in hazardous substances and growth pattern. It is based on the principle of producer responsibility to create the link between the production phase and the waste phase of a product and concerns various actors involved in the life cycle of electrical and electronic equipment (EEE), such as producers, distributors, consumers and operators of treatment plants.

A review of the Directive is scheduled for 2008. To inform this review the Commission has contracted this study that focuses on the Producer Responsibility Principle of the WEEE Directive and its implementation in the Member States.

It is conducted with the following objectives:

- to provide a thorough evaluation of the operation of the Directive's provisions relating to producer responsibility obligation for WEEE;
- to consider options to improve the operation of those obligation in the EU; and
- to consider the impacts, efficacy and efficiency of the Directive from an environmental and economic and, as far as possible, social perspective.

1.2. The Producer Responsibility Principle

The Producer Responsibility Principle as a policy principle can be summarised as "concept that manufacturers and importers of products bear a degree of responsibility for the environmental impacts of their products throughout the products' life-cycles, including upstream impacts inherent in the selection of materials for the products, impacts from manufacturers' production process itself, and downstream impacts from the use and disposal of the products. Producers accept their responsibility when they design their products to minimize the life-cycle environmental impacts and when they accept legal, physical or economic responsibility for the environmental impacts that cannot be eliminated by design" [Davis, Gary 1994].

The WEEE Directive put the principle in concrete terms and allocates responsibility to producers and other stakeholders involved in the lifecycle of electric and electronic products. Recitals 12 and 20 of the Directive clearly indicate the link between producer responsibility principle and upstream design changes, while Article 8 articulates the rationale behind the principle with the allocation of **individual producer responsibility** (IPR) for the management of new WEEE (those put on the market after 13 August 2005).

1.3. Implementation of the Directive in the Member States

A qualitative analysis of the transposition outcome and current arrangements in the Member States for the implementation of the producer responsibility provisions has been performed and an analysis of the impacts of the interaction between these arrangements on business selling in or onto the internal market. Based on this analysis problems have been identified for the operation of the producer responsibility obligations. Essential findings are:

Producer Definition

What has emerged as a significant issue in the transposition process is how MS have interpreted importers and exporters under Article 3(i) sub-point (iii). That is, whether import/and export is defined on the national level (**'National Approach'**), or whether it refers only to the trade with countries outside of EU and not intra-community trade (**'European Approach'**).

22 MS obligate the first importer of EEE products into the national state as producer in the absence of a manufacturer. "European" approaches are defined in the legal text of three MS (Finland, Spain and the UK). However, in practice the situation might differ from the "European" approach of the legal text, e.g. in Finland foreign producers are not able to register directly to the national register.

With the national approach there can be some unfavourable consequences. There is for example the potential that multiple producers exist for the same product when traded on intra-community level. Additionally, there is a potential conflict with incentives for product and product system improvements and questions may arise with respect to how a wholesaler or distributor can meet the obligations of a designated producer as outlined in the WEEE Directive. While in order to facilitate Individual Producer Responsibility for EEE producer identification was deemed essential, identifying wholesalers as producers may not be useful in providing incentives for product and product system improvements in the first place due to their lack of involvement in and control over product design.

Allocation of Responsibility for Collection of WEEE from Private Households

Regarding physical responsibility, the Directive does not explicitly identify who should be responsible for setting up the infrastructure as stipulated in Article 5 (2) (a). It puts the onus on distributors to accept WEEE from consumers on a one-to-one basis when selling new products, although Member State can deviate from this requirement if they can show that an alternative procedure is just as convenient for consumers (Article 5 (2) (b) (c)).

Concerning financial responsibility, Article 8 (1) indicates that producers are financially responsible for “at least” the collection from collection points onwards, leaving a room for extending the producer responsibility to finance collection from households.

The provisions of the WEEE Directive provide some room for Member States regarding the collection from households. In their national legal texts, Member States take a variety of approaches when allocating responsibility which are summarised in the table below.

Table 1: Allocation of Responsibility for Collection of WEEE from private households in National Legal Text: EU 27

Member State	Physical Responsibility	Financial Responsibility
Austria	D/M/P	D/P
Belgium (Brussels)	D/M	D
Bulgaria	P	P
Cyprus	P	P
Czech R.	D/P	D/P
Denmark	M	M
Estonia	D/P	D/P
Finland	D ¹ /P	P
France	D/M/P	D/P
Germany	M	M
Greece	P	P
Hungary	P	P
Ireland	D/M	D//P
Italy	D/M	D/M
Latvia	P	P
Lithuania ²	D/M/P	P
Luxembourg	D/M	D/M
Malta	D/P	D/P
Netherlands	D/M	D/M
Poland	D	D
Portugal	D/M/P	D/P
Romania	M	M
Slovakia	D/P	D/P
Slovenia	D/M	D/M
Spain	D/M	P
Sweden	P	P
UK	D/P	D/P

D = Distributor, M = Municipality, P = Producer (definition varies between national and European approach)

¹ In the Waste Act Section 18h(2) it is stated that sellers of EEE shall accept WEEE from private households if replaced by purchasing a similar product, or shall direct the purchaser to another reception point

² Based on the legal text as well as other policy documents, see Section 7.4.2.2.

An implication of the involvement of municipalities in the collection of WEEE from households is that it may create a disturbance to a level playing field for producers that choose to set up their own compliance schemes. This is because they may not have access to collection sites that is potentially subsidised by municipalities. Industry has argued that collection costs have little or no connection to eco-design incentive and therefore producers should never be given the obligation to finance such activities. Their aspiration is reflected in the WEEE Directive text within the opening lines of Recital 20, where financial responsibility of producers is suggested to begin from collection point onwards and not the collection from households. However, when considering the polluter pays principle, it may not be appropriate that general tax payers, rather than consumers of EEE, finance the collection of WEEE from private households.

Allocation of Responsibility for Collection, Treatment, Recovery, Recycling and Disposal of WEEE from Private Households deposited at collection points

Article 5(4), Article 6(1) and Article 8(1) combined refer to allocation of responsibility for the collection, treatment, recovery, recycling and disposal of WEEE deposited at collection sites. Member States are unanimous in their assignment of responsibility to producers for this obligation and there are no deviations on this issue.

Financial Mechanism: WEEE from Private Households

In terms of allocation of financial responsibility for WEEE from households, Article 8(2) and (3) of the WEEE Directive distinguishes between historical and new WEEE. The distinction between the financial mechanism to be applied for new WEEE and historic WEEE is that producers bear individual financial responsibility for new WEEE. Meanwhile, as producers could not influence the design of products placed on the market before the directive came into force, the WEEE Directive assigns collective responsibility for this historic WEEE on all producers on the market when the costs to manage it will arise.

Article 8 has been attributed to having significant importance for the producer responsibility principle with respect to establishing incentives for producers to design products for improved end-of-life management. This is because of the individual legal and financial responsibility placed on producers to finance the management of waste from “his own” products – individual financial producer responsibility.

Looking at the national transposition of outcome of the above table we can distinguish 3 distinct patterns regarding how Member States interpret Article 8(2) with respect to individual financial responsibility for new WEEE:

<p>Pattern 1: Financing the management of waste from their own products for new WEEE</p> <p>In the countries listed below the legal text clearly distinguishes that producers are required to finance the waste from their own products placed on the market after 13 August 2005.</p>	<p>Belgium (Brussels, Flanders) Cyprus Czech Republic Estonia³ Luxembourg Malta Netherlands Romania Slovakia</p>
<p>Pattern 2: Variations of 8(2) or Ambiguous Interpretation</p> <p>The following countries, in our opinion, have not formulated their legal text in such a way that an explicit individual financial responsibility is assigned. That is, in many cases producers responsibilities for products placed on the market after 13 August 2005 are mentioned in the plural form which makes for an ambiguous interpretation that producers in general are responsible for financing waste from their products.</p> <p>We find other variations of Article 8(2), such as in the case of Germany and Austria, where producers are given the choice to decide of whether or not they are individually or collectively responsible financially for products placed on the market after 13 August 2006. Additionally, in the case of Ireland, producers that are members of an “approved body” are exempt from Article 16 on financing WEEE from private households which clearly assigns an individual financial responsibility for new WEEE.</p>	<p>Austria Belgium (Walloon) Germany Hungary Ireland Italy Lithuania Poland Portugal Spain Sweden</p>
<p>Pattern 3: Individual Financial Responsibility for New WEEE missed</p> <p>MS have transposed Article 8(2) in such a way that for new WEEE the provision that producers should be individually responsible for the waste from their own products appears to be ignored. In many of the countries listed, allocation of financial responsibility for new WEEE is to be determined by a current market-share when costs are incurred, as in the historical WEEE financing mechanism.</p>	<p>Bulgaria Denmark Finland France Greece Latvia Slovenia UK</p>

Financial Guarantee: WEEE from Private Households

As the WEEE Directive stipulates individual financial responsibility for new WEEE, producers are required to finance the costs of waste management of their own products. Although producers can choose to fulfil their obligations collectively, they are not forced to finance the cost of other producer’s WEEE. Since it cannot be assumed that all producers that are on the market today will remain active on the market when their products are collected as WEEE, a financial guarantee is required so that these costs will not fall on society or other producers.

Most Member States interpret membership in a collective compliance scheme to be an appropriate guarantee for new WEEE obligations. At the same time, producers that wish to comply individually must either have a blocked bank account or recycling insurance to satisfy the guarantee requirement. In Germany and Italy and possibly Sweden a financial guarantee is required by all compliers. However in Germany the guarantee can be based on a collective

³ In the Estonian Waste Act, Producers are also responsible for the management of WEEE from their own products for historical WEEE.

guarantee, which means that producers will be responsible for other producers' products in the event that one member exits the market.

The current transposition of many of the MS requires a producer that chooses to set up an own brand or limited brand compliance system to take out recycling insurance or create a blocked bank account as a financial guarantee. Both of these options are presumed to be significantly more costly than joining a collectively-organised compliance scheme.⁴ Meanwhile, producers joining a collective scheme are exempt from their duty of setting aside a financial guarantee in many MS. This would mean more financial burden for producers choosing to set up an individual system or limited brand compliance scheme. Many producers have cited the fact that the added costs of providing a financial guarantee is one of many limiting factors hindering the development of individual or limited brand compliance schemes.

Distance Sellers

In order to avoid that traditional distribution channels have a disproportionate economic burden compared with distance or electronic selling channels, Recital 9 outlines that provisions of the WEEE Directive should equally apply to products and producers irrespective of the selling technique used. The inclusion of distance sellers can be found in the legal text in the Directive specifically in Articles 3(i) on the definition of producers, Article 8(4) concerning financial mechanism and Article 12(1) on information and reporting.

A study commissioned by the Nordic Council of Ministers identified two main patterns or approaches that Member States take when handling the registration of distance sellers selling products to end-users in other EU states. These are as follows:

- Approach 1: Registration of distance sellers in the **sellers'** Member State
where companies selling EEE by distance to end users in other Member States must register in their home Member State and report the number of products placed on the market in each Member State where products are sold
- Approach 2: Registration of distance sellers in the **end users'** Member State where companies selling EEE by distance to register and report the number of products placed on the market in the Member State where the end users are located.

⁴ In Germany, where there is a legal requirement to provide a financial guarantee regardless of the compliance approach taken, a number of insurance type solutions have emerged that have been developed by industry associations to meet this demand. According to the German producers we interviewed, the size of such insurance is very low. However, these guarantees can only be triggered when the last producer exits the market for a particular product category, making the risks of such an event occurring quite low. One might question the added value of such a guarantee, especially when the primary cost driver for this type of guarantee is related to the administrative coordination associated with the operation of the solution. Moreover, for producers that are placing small volumes of EEE on the market each year, it is often more economical to use a blocked bank account or an annual bank guarantee to manage the liability, as the fixed administration fee makes up the majority of the fee

The results received from national registers indicate that

- 10 Member States apply Approach 1 exclusively,
- 7 Member States exclusively apply Approach 2
- 2 Member States have chosen to combine Approaches 1 and 2,
- 2 MS report that cross-border distance sellers are not required to register.

When particular combinations of approaches are applied distance seller might be **obligated to register in both** Member States where selling from and selling to, or a distance seller **will not be obligated to register** neither in its home Member State nor in the Member State where the end-user is located. These two scenarios are clearly unacceptable outcomes of the lack of a harmonised approach in addressing obligations of cross-border distance sellers.

Allocation of Responsibility of WEEE other than WEEE from Private Households

For historical non-household WEEE, producers are responsible when they supply new products on an old-for-new basis. Producers are responsible for the financing of the costs of collection, treatment, recovery and environmentally sound disposal of WEEE from users other than private households for products placed on the market after 13 August 2005. Producers are also provided the option in Article 9(2) to conclude contracts with end users stipulating other financing methods for new WEEE.

Except for Germany, France and the Netherlands, all MS determined that for historical WEEE, producers are responsible to accept WEEE from end users when purchasing new products. If end users of historical WEEE are not purchasing new equipment the responsibility rests with the end user. However in Germany, France and the Netherlands the end user is responsible for financing all B2B historical WEEE.

For products placed on the market after 13 August 2006⁵, producers have the general obligation in all MS to finance the WEEE from users other than from private households. However, according to Article 9 (2) producers and users other than private households may conclude contracts with end-users stipulating other financing methods.

According to Article 8 of the WEEE Directive, a financial guarantee is required to ensure the financing of WEEE placed on the market after 13 August 2005. There is no explicit mention of the requirement for a guarantee for WEEE from users other than private household. However certain some MS have extended the requirement for a financial guarantee for B2B products in addition to WEEE from private households. Due to the differences of the requirements given in relation to B2B and B2C (B2C/B2B split), several issues have been arisen that may impact the implementation practices. They are of special relevance to the

⁵ Dates may vary in certain MS.

so-called dual use products⁶ – products used by both private households and institutional users.

Labelling of EEE – Producer Identification

There are two references in the WEEE Directive, requiring producers to mark their products in order to identify the responsible producer. The first reference is in Article 8(2), where financial obligations for new WEEE are laid down (*'...and that producers clearly mark their products in accordance with Article 11(2)'* (Article 8(2) second paragraph)). From this reference to Article 8(2) it is clear that producer identification is deemed crucial by the legislators in order to facilitate the requirement that producers are responsible to finance the management of WEEE from their own products.

The second and primary requirement is found in Article 11: Information for treatment facilities. Member States shall ensure that any producer of an electrical or electronic appliance put on the market after 13 August 2005 is clearly identifiable by a mark on the appliance. Furthermore, in order to enable the date upon which the appliance was put on the market to be determined unequivocally, a mark on the appliance shall specify that the latter was put on the market after 13 August 2005.

Our analysis of the outcome of Member State transposition on marking for producer identification, points to the finding that 15 out of the 27 apply a national approach to the requirement for the producer to mark products so they can be identified. Austria, Finland, Germany, Spain and the UK take a European approach⁷.

However, important to note is that many Member States clearly refer to either the forthcoming European standard or even refer to EN 50419 or the national equivalent as the standard to be followed by the producer for product identification. Given that in the standard the definition of producer with respect to importing and exporting is defined on the European level, i.e. into a Member State, it is quite possible that this takes precedent over the national definition of producer most often found in the national text.

Problems arise depending on how Member States have interpreted the definition of producer. When the national definition of producer is applied, the identified producer in many circumstances will be the local actor that brings EEE on to the national market. In countries where a manufacturer has no legal operations this is either the wholesaler, distributor or in some circumstances retailers. Accordingly, these actors identified as the producer on the national level are required to mark these products to distinguish themselves as the producers.

⁶ Dual-use products include products such as mobile phones, laptop computers, desktop PC, but may also include refrigerators and stoves that are often found both in work offices and homes.

⁷ Certain Member States have mandated additional marking requirements on products that go beyond requirements of the WEEE Directive and EN 50419:2006. For example, Bulgaria requires that the registration number appear on the product, while Estonia requires that the producers' telephone number, address and registration number are marked on the product. Additionally, Poland requires that producers report the weight of the product in the user manual.

This would ultimately require a re-labelling of the product if the national producers' identity was not printed on the product during the manufacturing process.

In reality, however, this is not common practice within the EEE industry. When speaking with manufacturers and wholesalers during interviews, we have not been made aware of any actors that are re-labelling products. Similarly the brand manufacturers that we spoke with had not mentioned that they had received any requests from customers (distributors, wholesalers or retailers) to re-label their products.

Labelling of EEE - Separate Collection

The requirement of Article 10.3 of the Directive to label products with the crossed out wheeled-bin does not seem to have caused any real concern from actors and does not seem to interfere with the producer responsibility principle as we see it. As found in the transposition of the Directive in national laws, most countries have required producers to label both B2C and B2B EEE with the symbol, even though the measure is seen to be needed due to "a view to minimising the disposal of WEEE as unsorted municipal waste".

Information to consumers

Article 10(1), (2) and (4) of the WEEE Directive requires that certain information should be given to the consumers like the requirement not to dispose of WEEE as unsorted municipal waste and to collect such WEEE separately, the return and collection systems available to them or the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment.

What we see in the outcome is that most MS have assigned responsibility to producers (either solely or in combination with retailers) to ensure the information found in Article 10 of the WEEE Directive is provided to users of EEE from private households. Some MS have assigned this responsibility to the compliance scheme, while 2 MS assigned all or partial responsibility to municipalities.

Producer Registration & Reporting

Article 12 of the WEEE Directive provides requirements about the producer registers and reporting. It requires to MS to draw up national registers and to collect information on the amount of EEE put on the market as well as collected, reused, recycled and recovered within the Member State including exports.

By far the largest concern raised by industry stakeholders is the lack of harmonisation between the administrative functions of the national producer registers. Actors claim that they must adhere to up to 27 varying requirements for reporting.

Reporting Periods (frequency of reporting)

Reporting of products put on the market varies from monthly, quarterly bi-annually to annual reporting periods. Reporting should be frequent enough to deter unscrupulous producers that, for example, may be able to avoid reporting if only present on the market for peak sales periods. Chosen reporting periods may also affect producers in divergent ways due to certain seasonal variations in sales for certain products which might affect when products are most often returned as WEEE.

Criteria to distinguish B2C vs. B2B EEE which will end up as WEEE

Member States have interpreted the Directives' definition of WEEE from private households quite differently, and as a result, varying criteria exist. This lack of a harmonised definition requires producers to ensure that for each Member State the chosen criteria must be determined, leading to potentially unnecessary administrative work to avoid the problems associated with dual-use products (see section 6.8.4)

Definition of "put on the market"

Differences or ambiguities may cause confusion among producers on what sales should be reported in a Member State given that known subsequent intra-community trade will happen. In most Member States, it is when a financial transaction raising VAT occurs that theoretically products are "put on the national market" and sales are required to be reported by the producer who placed those products on the market. Depending on whether the national register allows foreign producers located in another Member State to register or not, the producer may be one of several actors, manufacturer, distributor/wholesaler or even retailer. However, discussions with producers reveals that most manufacturers and large wholesalers/distributors will not report sales on the national market to the register if they know that the client (which may be the legal producer in the Member State) will subsequently ship those products to another market. This makes sense from a producers' perspective, as any sales reported to the national register will be used to calculate its market share.

Reporting Formats

Again due to the diversity of reporting formats industry has complained about the increased administrative burden placed on them to report data to national registers. When reporting the number of products placed on the market, national registers require divergent reporting with respect to the categories of equipment that sales must be reported in. This causes increased administrative burden and cost, at least when initially setting up internal systems to deal varying reporting formats.

Lack of common definition of weight

Similar to the above arguments, there is a great deal of divergence between Member States application of the definition of weight causing unnecessary administrative burden. In certain cases, the definition applied in Member States makes it impossible for producers to be able to gather the data from “bill of materials” to accurately report the weight of the product. In this circumstance, when a new product is launched in the market, the producer must physically weigh the product and relevant components in order to fulfil the weight definition. Again, a common definition would reduce this burden considerably and allow rationalisation of the enterprise resource planning software and develop a standard applicable for all products and Member States.

Who can register/report as producer

In most countries it is only legal entities that are based in the Member State where products are placed on the market that are entitled to register as the legally obligated producer. In certain countries, namely Ireland and Austria, an importer (intra community trader) that has placed products on the market can not have his/her legal obligations released, even when the brand-owner of the products is located within the Member State. This creates a situation in certain Member States, where brand manufacturers are not located due to market size, etc., the first importer is most often the producer.

Distance sellers that are based in Member States where they must register in countries where they sell products to end users and sell to end users in countries that only allow nationally based actors to be producers, cannot meet their producer responsibility obligations, and are therefore unwilling free-riders.

Harmonisation efforts

National registers established the European WEEE Registers Network (EWRN). So far the group has been concentrating on establishing contact with all functioning registers and are beginning to address options for registers to harmonise/apply consistent practices on the approach to address a number of key issues.

1.4. Case studies on the implementation of the Directive

As seen the transposition of the WEEE Directive in the national laws differs considerably among the Member States. Some parts of the transposition analysis also revealed the differences in approaches taken by MS to implement the Directive. Moreover, there are differences in what is happening in practice compared to what the legal text suggests.

Bearing these variations in mind, the implementation of WEEE Directive in selected Member States has been reviewed in depth. The Member States selected represent different patterns of compliance approaches taken by the MS to implement the Directive related primarily to WEEE from households.

Ireland

The Irish implementation of the WEEE Directive, both in terms of the transposition into national law and implementation in practice has been rather successful with respect of meeting the required deadlines and applicable targets of the WEEE Directive. This is especially true considering that there was no pre-existing legislation or comprehensive collection and treatment infrastructure in place before the introduction of the WEEE Directive. The 4 kg/person/year collection target has been surpassed prior to the 31 December 2008 deadline that granted to Ireland due to its lack of recycling infrastructure.

In Ireland, retailers have been allocated a considerably large role in the EPR system through specific provisions in the legal text. Under the definition of producer, retailers are listed as obligated producers if they sell products from producers who are deemed as not to have registered. Moreover, they are not allowed to sell products from entities not registered as producers. This provides a mechanism in which retailers would play an important role in monitoring the registration of producers, and thus would avoid the reduction of free-rider problems.

In addition to the obligation to an in-store take back WEEE on a 1:1 basis retailers have an obligation to take-back WEEE on a 1:1 basis when delivering a product to a household. The fact that retailers are compensated by compliance schemes for their additional responsibilities by being able to retain 20% of the visible fee that is shown to the household purchases of EEE, might help in complying with the responsibility.

The agreement between the 2 compliance schemes, ERP and WEEE Ireland on the geographical allocation of counties in which each is responsible for collection of WEEE from private households appears to be functioning quite well. With the supervision of the Department of Environment, Heritage and Local Government, the groups have been able to agree on the division of geographical responsibilities as well as adjustments to reflect the changing market share obligations of each scheme.

Article 16 makes a clear distinction between the financing mechanism for new and historic WEEE, where for products placed on the market after 13 August 2005 producer are responsible for the financing of waste from their own products. However, under Article 30, producers who are members of an approved body (compliance scheme) are exempt from Article 16 among other, which may seriously undermine the intention of Article 8(2) of the WEEE Directive, namely individual producer responsibility for new WEEE.

Germany

The German system can be characterised by its competition-oriented compliance approach, driven from the government strong preference to competition over monopolistic compliance schemes. It allocates pickup obligations to producers based on an algorithmic calculation method, coordinated centrally by the EAR Foundation.

When discussing the implications of the implementation of the WEEE Directive in Germany to the producer responsibility principle a number of interesting issues can be highlighted. Regarding the organisation of the national register and clearing house function, it is clear that the German authorities were intent on avoiding any one producer compliance organisation from forming to meet the producer responsibility obligations of producers. The role of the clearing house to allocate WEEE pick-up requests from municipalities to producers based on their current market share is clearly mandated in the national transposition.

Municipalities have been obligated as the main actors responsible for the collection of WEEE from private households and this responsibility is clearly defined in the legal text. Producers are required to finance the provision of the containers and collection, treatment and recycling when assigned a pick-up by the EAR. The functioning of the allocation mechanism has been met with mixed response by producers and municipalities as discussed in Section 7.3.. There have been some recommendations put forth to address these issues although no formal process to resolve them has begun.

Municipalities have been given the primary responsibility to provide information to consumers of their obligation not to dispose of WEEE with unsorted domestic waste as well as location of the options available to households to return WEEE. Municipalities are also responsible to inform consumers of EEE of their role in the reuse, recycling and other forms of recovery, including the impacts on the environment and human health from the disposal of WEEE. Producers are responsible for the above information provision “accordingly”. Retailers have not been obligated to provide collection on a 1:1 basis, although they can offer collection on a voluntary basis.

Unlike many MS a financial guarantee is required from all producers and no exemption is provided to producers that are members of recycling consortia. Producers that choose to finance their new WEEE obligations based on their share of the total quantity of EEE per type of equipment placed on the market, are able to provide a guarantee in the form of participation in an appropriate system to fund WEEE. In practice, several guarantee solutions are available on the market today. A closer look reveals that the guarantee can only be triggered when the last remaining producer exits the market in a particular product group. Since the risk is quite low of this taking place the premiums charged are also quite low.

In terms of producer responsibility for new WEEE, the ElektroG provides producers a choice to either finance the WEEE from their own products (though sampling or sorting) or to calculate this obligation based on market share in the

same way as historical WEEE. Providing a choice of having a responsibility either individually or collectively for new WEEE varies from the intention of Article 8(2) of the WEEE Directive. The EAR allows producers to deduct any individually collected WEEE from their allocated share of WEEE collected from municipal collection sites.

Lithuania

The approach taken in Lithuania is a representation of the other end of the spectrum within the competing collective system, where management of WEEE is left in the hands of free market. This is to an extent realised via a number of private collectors and service companies having contract with the so-called producer organisation. However, as of spring 2007, there exists only one entity, called “InfoBalt EPA” that has the license to fulfil producers’ responsibility on their behalf.

As mentioned earlier, Lithuania is selected as a representative of a case where compete collective systems work without a strong involvement of coordinating bodies/government authorities. As found in many of the systems that take this approach, the Lithuanian system determines the amount of historical WEEE that producers need to collect and recycle based on the new EEE put on the market each year. In other words, the amount of products that producers must collect does not depend on what is actually coming back to the collection points. It is up to producers or their compliance scheme to achieve the required collection and recycling.

This means on one hand that producers or compliance schemes must compete to collect WEEE that is assigned to them, which would encourage these entities to meet their collection quotas in the least expensive way. On the other hand, the approach may create a situation where it is unlikely that remote areas would be serviced, especially if not mandated by the authorities. Moreover, there is a disincentive for producers and compliance schemes to collect more than their required quotas as any excess would have to be financed by producers, unless the over capacity could be banked by the scheme or sold to other compliance schemes.

By looking into the situation in Lithuania in depth, it turned out that there is only one licensed scheme – InfoBalt EPA – operating in Lithuania at the moment, while the rest of the entities that we considered in the beginning were compliance scheme turned out to be recyclers. Although the recyclers may have direct contract with producers to collect their share of historical WEEE and may compete with InfoBalt EPA on this issue, the research team did not have possibilities to obtain concrete insights on the issue.

However, the situation surrounding the collection of WEEE from households – possibilities for collectors and service companies establishing direct contract with waste generators – tend to suggest the emergence of a fierce competition among the waste collectors/service companies to collect WEEE. This may lead to a situation similar to what has been experienced in the area of municipal waste collection in, for instance, Poland. In Poland, the strong drive towards

free market economy affected municipal waste collection system as well. Municipalities must provide a license to collect waste to entities provided that these entities fulfil certain criteria prescribed in relevant legislation. This created a situation where a number of waste collection companies operate on the same road without any coordination, obtaining contracts with individual households through fierce price competition.

Sweden

Sweden has been selected as an exemplary case representing the situation where a single national collective system for compliance with producer responsibility requirements is the dominant model. Although there are some producers that have developed alternative solutions mainly for WEEE from businesses (although this WEEE is actually B2C according to the interpretation of the EE-Register), most obligated producers fulfil their obligation by being members of EI-Kretsen.

In terms of WEEE collection, the EI-Retur System has achieved the highest rates of collection reported in Europe, with a total of 15.8 kg/capita/year in 2006. EI-Kretsen attributes this success to the level of cooperation between its partners, the municipalities and contractors and the willingness of the public to participate in the separate collection of WEEE. Although there are increased obligations for producers with respect to the allocation of responsibility for collection of WEEE in the new WEEE Ordinance, there has been essentially no change in the allocation of responsibilities in the practical sense. The original agreement between EI-Kretsen and the municipalities was extended until 2010, where producers agree to finance the provision of and collection of WEEE containers at municipal collection sites and municipalities provide the space for storage and acceptance of WEEE from private households.

The need for coordination by a central authority, i.e. in terms of allocation of collection sites for WEEE from household, is limited by the fact that EI-Kretsen is the only compliance scheme operating and it has exclusive access to municipal collection sites. Since at the present time, no other compliance schemes are in operation, there is no need to verify that each scheme is handling the required amount of historical WEEE reflecting the market share of the respective members. This simplifies both the coordination of the collection of WEEE in practice as well (in terms of container provision and pickup scheduling, etc) and the monitoring of producer compliance by the authorities. However, the emergency of the new system may alter the situation.

In the Swedish Ordinance, distributors are not obligated to offer collection of WEEE on a 1:1 basis when supplying new products as collection rates had already exceeded the WEEE Directive targets (without the participation of distributors) at the time of transposition. However, on the Swedish market a new compliance solution is emerging that will most likely use the existing nation-wide network of 2-3 large retailers for its collection network. If approved by the Swedish EPA as a suitable system then there will be an added complexity to WEEE

management system in Sweden, most likely requiring the need for a clearing house mechanism.

The Swedish EPA has recently circulated a draft guidance document on what constitutes a suitable financial guarantee under the Ordinance. In addition to stipulating the condition of a recycling insurance, a blocked bank account or an annual bank guarantee, the guidance gives specific criteria for guarantees as membership in collective financing systems. The requirements of this type of guarantee appear to be formulated in such a way that will ensure a level playing field with the other forms of suitable guarantees under the ordinance.

With respect to the formulation of financial responsibilities for WEEE from private households, the Swedish Ordinance clearly defines that for historical WEEE all actors on the market are responsible proportionally at the time when the costs to manage historical WEEE. However, for new WEEE, producers in general seem to be allocated the financial responsibility for their products. There is no explicit mention that each producer is responsible for financing the waste from their own products.

1.5. Options for an amendment of the WEEE Directive

The development of options for an amendment of the WEEE Directive starts at a point where only short term experiences from the implementation of the Producer Responsibility Principle (PRP) of the WEEE Directive are available. Experiences which are available are mostly related to the situation with historical waste and not with new waste.

What is particularly missing are actual experiences of EPR systems where financing models are based on IPR, whether these are collectively organised or represent individual producer efforts and the creativity of the involved players in developing approaches on how to deal best with new WEEE. The WEEE Directive provides the necessary framework (Article 8) and in several aspects the details will be completed by the involved stakeholders and especially by the producers and compliance schemes.

To give the system of which the WEEE Directive sets the starting point the necessary room for its development a framework is required that supports the further development of the PRP in the area of EEE and WEEE and its further transposition into practice by the involved parties. In contrast to this the analysis of the implementation of the WEEE Directive in the Member States showed that the current situation is characterised by heterogeneity and burdens or disincentives for activities of the involved parties and especially the (responsible) producers to develop optimised solutions.

1.5.1. Designing EPR legislation & programs that increase producer incentives for better product design

EPR programs for EEE manifested as take back and recycling systems should strive to achieve the multiple goals of (1) promoting design improvements of products and (2) high utilization of products material quality through effective collection and reuse or recycling.⁸

While collection targets and recycling targets are key aspects of EPR program design, in this section we focus on the **financial model** as the key incentive to promote design change of products and discuss how variations of the design of the model influence the incentive. Different possibilities exist to **implement individual financial responsibility within collectively organised systems**. We also set up four organizational system alternatives as examples to discuss how different organizational structure may also impact the operational complexities. Under different financial models it is possible to achieve individual financial responsibility both within collectively organized compliance systems and schemes operated by individual producers.

The products covered under the systems discussed in this section include WEEE from private households, including dual-use products in businesses.

Individual financial responsibility can be implemented in EPR programs that are organised in varying ways. Among them, four systems⁹ consisting of collectively organised compliance schemes are provided as examples.

System Design 1: This system design is characterized as having a single compliance organisation or Producer Responsibility Organisation (PRO) that manages the take back and recycling obligations of producers. All active producers are members in the scheme and all collection and recycling infrastructure is coordinated by the scheme. In this case no individual producer collection are recognized towards meeting compliance obligations.

System Design 2: Similar to System Design 1, this system design is characterized as having a single compliance organisation or Producer Responsibility Organisation (PRO) that manages the take back and recycling obligations of producers. Individual producer collection efforts (own-brand or mixed brand) are counted towards its general obligations under the PRO.

System Design 3: Multiple compliance schemes or PROs operating on a national market (no individual producer collection efforts (own-brand or mixed

⁸ Lindhqvist, Thomas, & van Rossem, Chris. (2005). Evaluation Tool for EPR Programs. Report prepared for Environment Canada and the Recycling Council of Ontario. [On Line]. Available:

<http://www.rco.on.ca/intro/upcoming/conf05/ThomasLindhqvist.pdf>. Goal 2 can be divided into the 3 sub-goals of a). effective collection, b). environmentally sound treatment of collected products and c). high utilisation of products and materials in the form of re-use and recycling.

⁹ The four systems presented here are generic in nature and are by no means exhaustive list of all possible combinations. It should be recognized that in all of these system designs, it should be possible for producers that wish to set up their own individual collection systems for either their own new WEEE as well as a representative share of historical WEEE to do so. However, due to our focus on illustrating that IPR is possible to design within collective systems, we do not discuss systems managed by producers independently here.

brand) can be used towards meeting compliance obligations). Producers or their compliance schemes develop collection infrastructure by either contracting directly with municipal collection sites and/or retailers. Allocation of this infrastructure may be done in several ways. This could include allocation of regional areas to compliance schemes, or through the use of an algorithm based formula to assign collection of WEEE from designated collection sites. Managing the allocation process could be the role of a national clearing house or negotiated between the existing compliance systems or negotiated with national authorities, or a combination of the above.

System Design 4: Multiple compliance schemes or PROs operating on a national market and individual producer collection efforts (own-brand or mixed brand) are recognized and are running in parallel.

Financing Models

The five models applied¹⁰ show examples of structuring the financial mechanism used to allocate costs to producers for the management of WEEE. Each model premise is described with its potential impact on new product design incentive. Also presented are the operational requirements needed with respect to new and historical WEEE.

¹⁰ Just as the operational systems, the examples provided here are not exhaustive list of possible models used for EPR programs.

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Table 2: Combination of systems and financing model: possibility of creating design incentives and complexity

		System 1 Single PRO	System 2 - Single PRO & Individual systems (own-brand or mixed in parallel)	System 3 Multiple PRO	System 4 Multiple Pro & Individual systems (own-brand or mixed in parallel)
Financing Model A: PAYG (historical and new) Current waste management costs within a product category or treatment category are divided among producers proportion- ate to their market-share (by weight placed on the market)	Design incen- tives	low	low	low	low
	Coordination between systems	no	low	medium	medium
	Required distinction within product groups	none	none	none	none
Financing Model B1: Return- share (historical and new); Current waste management costs of producers divided among producers proportion- ate to the weight or number of their own-branded products returned	Design incen- tives	medium	medium	medium	Medium
	Coordination between systems	no	low	medium	medium
	Required distinction within product groups	brand	brand	brand	brand
Financing Model B2: Return- share (historical and new); Current waste management costs of producers divided among producers proportion- ate to the weight or number of their own-branded products returned. For both new and historic WEEE costs are differentiated based weight returned and for new WEEE on inherent properties of returned products.	Design incen- tives	high	high	high	high
	Coordination between systems	no	low	medium	medium
	Required distinction within product groups	-brand - properties - historic & new	-brand -properties - historic & new	-brand - properties - historic & new	-brand -properties - historic & new
Financing Model C1: (PAYG: historical, Return-share (new))	Design incen- tives	medium	medium	medium	medium
	Coordination between systems	no	low	medium	medium
	Required distinction within product groups	-Brand - historic & new	-Brand - historic & new	- brand - historic & new	- brand - historic & new
Financing Model C2: PAYG (historical, Return-share new)	Design incen- tives	high	high	high	high
	Coordination between systems	no	low	high	high
	Required distinction within product groups	-brand - properties - historic & new	-brand -properties - historic & new	-brand - properties - historic & new	-brand - properties - historic & new

The alternatives are, in light of on-going efforts of producers, highly feasible.

In terms of providing incentives for design change Financing Model B2 and C2 has the potential to provide the greatest incentives for producers to redesign products for improved end-of-life management. At the same time it is the most complex to operate.

Given that sorting or sampling of WEEE is required to determine the relative share of new and historic WEEE as well as return-share is needed, it would be less complex to implement in Systems 1 or 2. Since there is only one PRO that is in operation in these models, WEEE collection is handled by one system. Therefore all sorting or sampling at collection sites to determine brand-share of new WEEE is less complex to manage.

In Systems 3 and 4, WEEE sorting and/or sampling must be done for each PRO since mixed brands are collected at collection sites operated by the numerous PRO's. Information sharing between the systems would be necessary to determine the return-share of each producer's new WEEE. This is more administratively complex. Alternatively a national clearing house could take a representative sample of the entire country and assign return-share proxies to each producer. Each system would be responsible for managing the WEEE of its total membership.

1.5.2. Options for an amendment of the WEEE Directive

Based on the analysis of the implementation of the WEEE Directive in the Member States and taking into account positions of stakeholders options for the future development of the legal framework for WEEE have been identified. The basic elements are described in the section below.

Article 8.2 of the WEEE Directive provides that for "new WEEE" producers can chose whether they want to fulfil their responsibilities individually or collectively. According to our analysis and the statements of the stakeholders the provisions of the Directive are sufficient to ensure that a producer can choose to join a collective system or to run his own system. Whichever way he chooses, for "new WEEE" every producer should be required to pay only for the costs of recovery of his own products. Ensuring proper implementation of the existing provision of Article 8.2 provides an adequate framework for the development of potential individual approaches. No amendment of the Directive is proposed here but as shown in the analysis of the implementation there is a strong need to ensure full implementation of the provisions.

Financial guarantees: Presently no harmonised situation is in place regarding the financial guarantees for the future recovery of WEEE. Basically the level of security for financing of future waste shall be same for individual and collective systems.

Costs for collection: In a number of Member States a producer that runs an individual system does not have the same advantages of publicly financed collection as collective systems (involvement of municipal collection points). A level playing field and a harmonised implementation of financial and physical responsibilities is the basic element of this option.

Harmonised definitions: Definitions that have relevance for EEE (like the term “producer” or “put on the market”) shall be harmonised in the Directives. The basis for this harmonisation can be the outcome from the legislative process based on Commission Proposal on a common framework for the marketing of products¹¹ where definitions for different kind of economic operators are given in Title II Chapter 1 Article 6.

Harmonised standards: Registration procedures in the Member States shall be harmonised in a way that the same set of information is requested and the same definitions apply. The requirements shall be elaborated and published in the form of a European Standard and comprise at least the following elements:

- registration procedures and forms
- reporting
- application of the distinction between b2b and b2c
- definition of weight
- reporting by distance sellers

The WEEE Directive then shall require the application of this standard in all MS.

European Clearing House Mechanism: The Producer Responsibility Principle of the Directive connects the product/the production phase with the End of Life (EoL) phase. While products and producers are not constricted by national territories as waste related legislation and enforcement practices are, a need for certain supra-national approaches evolve e.g. regarding coordination of national activities, cross-border payments and waste flows and uniform enforcement of certain requirements in the EU. However, supra-national institutions with such a profile do not yet exist and the legal situation of the European Union does not make it likely that this could be established in a short term perspective.

The development of options takes this into account by proposing a network of national institutions (for supra-national communication and coordination). European clearing house mechanisms and communication between national Clearing Houses is performed in this option by the nationally located institutions.

This supra-national element of the implementation of the WEEE Directive can be combined with other elements that are not restricted to national borders like for example European Standards regarding technical and organisational requirements (see above option on harmonised definitions).

European register and clearing house: In contrast to the option “European Clearing House Mechanism” producers can register at and report in this op-

¹¹ 2007/0030 (COD); COM(2007) 53 final, Brussels, 14.2.2007

tion to a central European institution. National enforcement of waste related questions still exist.

1.6. Impact assessment

The Impact assessment identified and assessed the potential measures for improving the operation of the producer responsibility obligations under the WEEE Directive that were outlined in Section above. The measures are organised into two broad groups:

- **harmonised definitions and approaches** - addressing areas of variation in the national implementation of the WEEE Directive, which mean that the principle of producer responsibility is not effectively applied and/or that unnecessary administrative burdens are placed on the EEE industry sector; and
- **a supra-national approach** - addressing the issue of cross-border trade within the EU and the associated difficulties with ensuring the correct application of producer responsibility obligations.

The measures, which are assessed individually according to the Commission's impact assessment guidelines. Then these measures are grouped into Scenarios (as defined in the Project Specification) to illustrate the impacts of groups of measures.

1.6.1. Harmonised definitions and approaches - Potential Measures

Five measures have been considered in this Report:

- **Measure 1:** the 'do nothing' measure, which essentially provides the baseline against which the other measures can be assessed.
- **Measure 2:** harmonise the requirement for financial guarantees so that membership of a collective scheme is **not** considered to be a financial guarantee and each individual producer pays a guarantee.
- **Measure 3:** harmonise the requirements for financial responsibility so that all producers have to pay for the collection of WEEE by municipalities.
- **Measure 4:** harmonise the definitions of 'producer' and 'put on the market', key terms according to the 'Common framework for the marketing of products',
- **Measure 5:** develop European standards (through CEN) to harmonise the procedures for registration and reporting, including reporting periods, the application of the distinction between B2C and B2B WEEE, the definition of weight and reporting by distance sellers.

Table 3 sets out the actions required by the key stakeholders under each of the different measures. Note that each measure is assumed to be independent of the others.

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Table 3: Actions Required by Stakeholders

Stakeholder	Measure 1 (Baseline)	Measure 2 (Harmonise Financial Guarantees)	Measure 3 (Harmonise Costs of Collection)	Measure 4 (Harmonise Definitions to Common Framework)	Measure 5 (Harmonise Definitions by Standards)
Producers Guarantees	Membership of a collective scheme is considered to be a financial guarantee in 18 MS; other arrangements are in place in the remaining 9 MS	Each producer has to pay a financial guarantee regardless of membership of a collective scheme	Membership of a collective scheme is considered to be a financial guarantee in 18 MS, other arrangements are in place in the remaining 9 MS		
Financial responsibility for B2C collection costs	Producers and/or distributors pay costs of B2C collection in 19 MS		Producers pay costs of B2C collection in 27 MS, except where taken back to distributors	Producers and/or distributors pay costs of B2C collection in 19 MS	
Importers	Companies importing into individual MS are generally considered to the 'producer' for the purpose of the national WEEE legislation			Only companies importing products into the Community are considered to be the 'producer'	Companies importing into individual MS are generally considered to the 'producer' for the purpose of the national WEEE legislation
Reporting	Different reporting requirements exist in each MS, requiring producers to be familiar with a number of sets of requirements and to prepare different 'types' of report for each MS				Stakeholders should participate in the development of CEN standards A single 'type' of report is required by all MS, but must be submitted to each MS individually
Authorities Financial responsibility for B2C collection costs	MS pay costs of B2C collection in 7 MS		MS may have physical responsibility for WEEE collection but not financial responsibility	MS pay costs of B2C collection in 7 MS	
Reporting	Current actions not affected				Stakeholders should participate in the development of CEN standards

1.6.2. Supra-national Approach - Potential Measures

Three measures are considered in this Report:

- **Measure 1:** the 'do nothing' measure, which essentially provides the baseline against which the other measures can be assessed.
- **Measure 6:** creation of a European Clearing House for WEEE producer responsibility. This specifically refers to a formalised (electronic) network of national institutions across the EU-27, which will allow for supra-national communication about the registration of producers and the amount of EEE put on the market.
- **Measure 7:** a variation of the European Clearing House system, in which a European producer can register with a national register in a single Member State, with the registration, reporting and fees reflecting its activities across all other Member States. In this system, a supra-national communication system will be required for:
 - exchange of information about the registration of producers and the amount of EEE put on the market; and
 - the transfer of money and/or obligations related to cross-border transfers of products or WEEE.
- **Measure 8:** establishment of a harmonised EU register of producers, which will serve mainly as a framework for information exchange and transfer of obligations. Under this Measure:
 - the registration of producers and the allocation of responsibilities to producers will be undertaken at the EU level, rather than at a national level as under Measures 1, 6 and 7;
 - data relating to the amounts of EEE placed on the market will be collected at EU level, with the data then differentiated by Member State;
 - national organisations will be responsible for money transfers relating to cross border transfers of products or WEEE and there will be communication between the EU Register and national institutions relating to the registration of producers and the amount of EEE placed on the market in each Member State; and
 - reporting on collection, recycling and recovery targets will be at the Member State level.

In practice, Measure 8 is likely to require the establishment of a physical structure at a given geographical location, while Measures 6 and 7 require only the establishment of an electronic network. However, it is possible that both approaches could be put in place simultaneously.

Table 4 sets out the actions required by different stakeholders under each measure.

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Table 4: Actions Required by Stakeholders

Stakeholder	Measure 1 (Baseline - National Approach)	Measure 6 (EU Network of MS)	Measure 7 (EU Registration at one MS)	Measure 8 (EU Register/Institution)
<i>Producers Registration</i>	Each 'producer' must register in each MS where it sells EEE		Each producer registers with one MS and is deemed to meet requirements for all MS	Each producer registers at EU level (and the data is then sent to the individual MS)
<i>Importers</i>	Importers, distance sellers and/or distributors are likely to be obligated as 'producers'		Importers and distance sellers (acting within EU) and/or distributors are unlikely to be obligated as 'producers'. General issues relating to distance selling and movement of second-hand goods are also likely to be addressed (and possibly eliminated) by these measures	
<i>Guarantees</i>	Financial guarantees are paid in each MS where products are 'placed on the market'		Financial guarantees are paid in one MS only	Financial guarantees are paid at EU level
<i>Sales Data</i>	National sales data are reported to each MS individually		Sales data for all MS are reported to one MS only and can be requested from this MS by other MS	Sales data for all MS are reported at EU level (and the data is then differentiated according to MS)
<i>Other data collection</i>	Data on collection, recycling and recovery are reported to each MS individually		Data on collection, recycling and recovery for all MS are reported to one MS only	Data on collection, recycling and recovery are reported to each MS individually
<i>Authorities (MS) Reporting</i>	All 'producers' buying and/or selling EEE in a given MS report directly to national authorities or institutions		Only producers manufacturing EEE in a given MS will report to the national register in that MS	All 'producers' buying and/or selling EEE report directly to the EU Register
<i>Money Transfer</i>	Money transfer relating to cross border transfers of products or WEEE is not currently possible	Money transfer relating to cross border transfers of products or WEEE could be undertaken between national institutions (mechanism yet to be developed) MS which import EEE (or WEEE) after it has been placed on the market in another MS can request information and money to finance WEEE from the exporting MS MS which export EEE (or WEEE) after it has been placed on the market must respond to requests for information and money from the importing MS	Money transfer relating to cross border transfers of products or WEEE will be undertaken between national institutions Exporting MS are required to transfer producer and sales information and money to finance WEEE to all other Member States	Money transfer relating to cross border transfers of products or WEEE will be undertaken between national institutions
<i>Enforcement</i>	Registered companies are within Member State's legal jurisdiction - MS must enforce national WEEE requirements		Registered producers may be outside Member State's legal jurisdiction - each MS must enforce WEEE requirements on behalf of other MS	Each MS must enforce WEEE requirements on behalf of the European Institution (as it communicates this to them)
<i>Funding</i>	Member States currently incur their own costs	The Commission will have to facilitate (and fund paid from registration fees by producers?) the development of a network of national administrations	Member States will continue to incur their own costs for running the system	The Commission will have to facilitate (and fund paid from registration fees by producers?) the development of a centralised institution

1.6.3. Impact of Individual Measures

Table 5 provides a summary of the impacts discussed in the previous Sections. The combined values of '+' and '-' cannot be taken to represent an actual economic value of the Measure, but reflect the relative merits of different options.

Table 5 Summary of the Impact of Measures

Measure	Businesses (general)	SMEs	Competent Authorities	European Commission	Consumers	International Stakeholders	Environment	Total
1: Baseline	0	0	0	0	0	0	0	0
2: Financial Guarantees	-€8.5 b to -€39.8 b		-€52 m	0	N/V	0	N/V	-€8.5 b to -€39.8 b
	-14	-3	-3	0	-5	0	+1	-16
3: Financing B2C Collection	-€448 m to -€1.4 b		+€448 m to +€1.4 b	0	0	0	0	0
	0	0	+2	0	0	0	0	+2
4: Harmonised Definitions	N/V	N/V	N/V	0	0	N/V	N/V	N/V
	+14	+4	+1	0	0	+1	+2	+22
5: Harmonised Standards	N/V	N/V	N/V	0	0	N/V	0	N/V
	+20	+5	0	0	+1	+1	0	+21
6: Formal Network	N/V	N/V	-€17 m	-€0.4 m to -€0.8 m	N/V	N/V	N/V	-€17 m to -€18 m
	0	0	-2	-2	-1	-1	-2	-7
7: Network + Single Registration	+€226 m to +€276 m		+€128 m to +€150 m	-€16 m to -€66 m	N/V	N/V	N/V	+€289 m to +€410 m
	+17	+4	+1	-2	+2	-1	+2	+17
8: EU Register	+€226 m to +€276 m		N/V	N/V	N/V	N/V	N/V	N/V
	+16	+4	-1	-4	+2	+2	+2	+15

Note: values in italics are not included in totals to avoid double counting

1.6.4. Analysis of Scenarios

This Impact Assessment has examined a number of measures which are intended to improve the operation of the producer responsibility obligations under the WEEE Directive.

These measures have been grouped into the following scenarios, based on the requirements of the Specification:

- Scenario 1: Maintenance of the Status Quo - baseline scenario;
- Scenario 1A: Improvements in National Implementation - Harmonised Definitions and Procedures;
- Scenario 1B: Improvements in National Implementation - Harmonised Approaches;
- Scenario 2: Creation of a European Clearing House; and
- Scenario 3: Establishment of a Harmonised Framework.

Table 6 shows how the measures discussed above are combined into these Scenarios. Indicative costs of the scenarios are provided; however, care should be given to avoid double-counting of impacts. For example, Measures 7 and 8, which include single registration, will achieve many of the benefits obtained from Measures 4 and 5 relating to harmonisation. Therefore, the scenarios which combine these Measures could double-count some of the benefits associated with reduced administrative requirements.

Table 6: Combination of Measures for Each Scenario

Measure	Scenario 1 (Status Quo)	Scenario 1A (Harmonised Definitions and Procedures)	Scenario 1B (Harmonised Approaches)	Scenario 2 (Creation of a European Clearing House)	Scenario 3 (Establishment of a Harmonised Framework)
Summary of Impacts	Status quo	Major benefits for businesses, some benefits for other stakeholders. Few costs.	Major benefits for businesses but also costs, which may be passed on to consumers. Some costs and benefits for public authorities. Some environmental benefits	Significant benefits for businesses with potential savings for consumers. Major costs incurred by public authorities. Some environmental benefits	Significant benefits for businesses with potential savings for consumers. Significant costs incurred by public authorities. Some environmental benefits
Indicative costs/benefits	0	Benefits likely to be 100s of million € due to reduced administrative burden	The cost of individual guarantees would exceed the benefits obtained from other Measures. The costs of collective guarantees would exceed the benefits to a lesser extent.	Benefits likely to be 100s of million € due to reduced administrative burden	Benefits likely to be 100s of million € due to reduced administrative burden but may be exceeded by unquantified costs.

The Scenarios have been compared against the problems and issues identified relating to the implementation of the producer responsibility obligations under the WEEE Directive in order to determine which one provides the most benefits to all stakeholders.

Scenarios 1a and 1b may appear to be easiest to implement, compared with Scenarios 2 and 3. These Scenarios do not address:

- cross-border trade within the EU (second-hand goods and distance selling);
- duplicated actions and free-riders;
- the obligation of actors to fulfil the administrative/financial responsibility of the producer (e.g. improve product design (as foreseen by the Directive));
- an unnecessary administrative burden placed on the EEE industry sector; and
- co-ordination of national activities (including cross-border payments and waste flows) and uniform enforcement.

By incorporating some of the measures required under Scenarios 1a and 1b, Scenarios 2 and 3 both meet all the aims of improving the Directive. However, while Measure 8 is likely to deliver significant benefits - particularly in terms of harmonising the internal market, enforcement and reducing administrative burden - the costs of Measure 8 (under Scenario 3) are likely to be significantly greater than those for Measures 6 or 7 (under Scenario 2). On this basis, Scenario 2 is considered as the option most likely to deliver the aims of improving producer responsibility obligations under WEEE. In addition, while Measure 6 may be potentially easy to set-up and operate compared with Measure 7, the benefits of Measure 7 are considered to be significant enough to merit further consideration as the more appropriate option.

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Table 7: Benefits of the Scenarios

Aims of Improving Directive	Actions to improve operation of producer responsibility obligations under WEEE														
	Sc 1	Scenario 1A		Scenario 1B				Scenario 2				Scenario 3			
	Measure 1	Measure 4	Measure 5	Measure 2	Measure 3	Measure 4	Measure 5	Measure 4	Measure 5	Measure 6	Measure 7	Measure 4	Measure 5	Measure 6	Measure 8
Ensure that the principle of producer responsibility is effectively applied	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Addresses areas of variation in the national implementation of the WEEE Directive	0	✓	✓	✓	✓	✓	✓	✓	✓	x	x	✓	✓	x	✓
Addressing issue of cross-border trade within the EU (second-hand goods and distance selling)	0	x	x	x	x	x	x	x	x	✓	✓	x	x	✓	✓
Avoids duplicated actions and free-riders	0	x	x	x	x	x	x	x	x	✓	✓	x	x	✓	✓
Clarifies the obligation of actors to fulfil the administrative/financial responsibility of the producer (e.g. improve product design (as foreseen by the Directive))	0	✓	x	✓	x	✓	x	✓	x	x	x	✓	x	x	x/✓
Avoid variation in costs incurred by actors in different countries	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Removes unnecessary administrative burden placed on the EEE industry sector	0	✓	✓	x	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ensure co-ordination of national activities (including cross-border payments and waste flows) and uniform enforcement	0	✓	✓	x	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

1.7. Summary of results

Regarding a revised WEEE Directive the following recommendations can be concluded from the findings of the study:

IPR/Product design

It is proposed to maintain the choice for producer to fulfil responsibility individually or by joining a collective scheme as it is presently given in **Article 8(2)** of the Directive. However, it is seen as crucial to ensure proper implementation in all MS.

Harmonisation of the implementation

The **definitions like “producer”, “manufacturer”, “importer” and “put on the market”** in the implementations in the Member States shall harmonised taking into account the “Common Framework for the Marketing of Products”.

Approaches for **registering and reporting** shall be harmonised by supporting current harmonisation activities of national registers, initiate a European Standardisation process for reporting and registration and by making the application of the standard mandatory.

Level playing field

The analysis of impacts of measure 2 where each individual producer pays a **financial guarantee** showed relatively high costs for producers. At the same time potential benefits for administrations and the environment can not be quantified but are expected to be limited. However, it would have a positive impact on competition within the internal market.

Harmonising the requirements for financial responsibilities so that all producers have to pay for the **collection of WEEE** (not only those that set up an own system) leads to economic effects where additional costs for producers are levelled by cost savings for municipalities. The improvement in competition in the internal market and removing barriers for those companies that wish to set up their own schemes could result in a slightly positive impact.

Supra national approach

It is proposed to establish a European network of national registers that includes a formalised basis for the exchange of information and where European producer can register with a national register in a single Member State, with the registration, reporting and fees reflecting its activities across all other Member States.

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List of abbreviations

ACR	Association of Cities and Regions for Recycling and Sustainable Resource management
AEA	American Electronics Association
B2B	Businesss to Business
B2C	Business to Consumer
BITKOM	Bundersverband Informationswirtschaft Telekommunikation und neue Medien e.V.
CAS	Civic Amenity Sites
CECED	Conseil Européen de la Construction d'appareils Domestiques
EEE	Electrical and Electronic Equipment
EAR	Stiftung Electro-Altgeräte Register (German Register)
EICTA	European Information & Communications Technology Industry Association
ELC	European Lamp Companies Federation
EPR	Extended Producer Responsibility
IPR	Individual producer responsibility
JBCE	Japan Business Council in Europe
IFRIC	International Financial Reporting Interpretations Committee
MS	Member States (of the European Union)
PAYG	Pay As You Go – financing scheme
SME	Small and Medium-sized Enterprises
WEEE	Waste Electrical and Electronic Equipment

3. Background and objective

The Directive 2002/96/EC on waste electrical and electronic equipment (WEEE) addresses a particularly complex waste flow in terms of variety of products, association of different materials and components, contents in hazardous substances and growth pattern. It is based on the principle of producer responsibility to create the link between the production phase and the waste phase of a product and concerns various actors involved in the life cycle of electrical and electronic equipment (EEE), such as producers, distributors, consumers and operators of treatment plants.

Since the entry into force of the Directive 2002/96/EC on waste electrical and electronic equipment (WEEE) on 13 February 2003, Member States (MS) of the European Union have been transposed and implemented the Directive within their jurisdictions.

A review of the Directive is scheduled for 2008. According to Article 17(5) of the WEEE Directive, the European Commission shall report on the experience of the application of the Directive, "in particular as regards separate collection, treatment, recovery, and financing systems. Furthermore the report shall be based on the development of the state of technology, experience gained, environmental requirements, and the functioning of the internal market." In addition, Article 17(5) of the Directive requires that the report "shall, as appropriate, be accompanied by proposals for revision of the relevant provisions of this Directive". The scheduled review should also assess the improvement potential of the Directive from a "Better Regulation" perspective.

To inform the review in 2008, the Commission has contracted three studies. This study focuses on the Producer Responsibility Principle of the WEEE Directive and the responsibilities allocated to producers with respect to the management of end-of-life electronics.

It is conducted with the following objectives:

- to provide a thorough evaluation of the operation of the Directive's provisions relating to producer responsibility obligation for WEEE;
- To consider options to improve the operation of those obligation in the EU; and
- To consider the impacts, efficacy and efficiency of the Directive from an environmental and economic and, as far as possible, social perspective.

4. The Producer Responsibility Principle¹²

4.1. Development of Extended Producer Responsibility (EPR)¹³

The term “extended producer responsibility”, as well as its concept as a preventative environmental protection strategy was first used and defined by Lindhqvist in a report for the Swedish Ministry of the Environmental and Natural Resources in 1990.^{14,15} The English translation of the definition reads as follows.¹⁶

Extended Producer Responsibility is an environmental protection strategy to reach an environmental objective of a decreased total environmental impact from a product, by making the manufacturer of the product responsible for the entire life-cycle of the product and especially for the take-back, recycling and final disposal of the product. The Extended Producer Responsibility is implemented through administrative, economic and informative instruments. The composition of these instruments determines the precise form of the Extended Producer Responsibility.

The emergence of the concept reflected several general trends in environmental policy making. These trends are the prioritisation of *preventative* measures over end-of-pipe approaches, enhancement of *life cycle thinking* and a shift from the so-called command-and-control approach to a *non-prescriptive, goal-oriented* approach. It aims to incorporate *incentive mechanisms* for industries to continuously improve their products and processes.

These features relate to another fundamental element of the concept: making producers the primary actor responsible for the entire life cycle of their products. A principal rationale for allocating responsibility to producers is their capacity to make changes *at source* in order to reduce the environmental impacts of their product throughout its life cycle. It is essentially the producers that decide the features of the products they manufacture at the design phase of the products.

¹² The content of this section is primarily taken from: Tojo, Naoko. (2004). *Extended Producer Responsibility as a Driver for Design Change – Utopia or Reality?*. IIIIEE Dissertation 2004:2. Lund: IIIIEE, Lund University and van Rossem, Chris, Tojo, Naoko and Lindhqvist, Thomas. (2006). *Lost in Transposition? A study of the Implementation of Individual Producer Responsibility in the WEEE Directive*. Report commissioned by Greenpeace International, Friends of the Earth Europe and the European Environmental Bureau (EEB).

¹³ In this document, the terms producer responsibility and extended producer responsibility (EPR) mean the same thing and are used interchangeably.

¹⁴ Lindhqvist, Thomas, & Lidrgren, Karl. (1990). *Model for Extended Producer Responsibility*. In Ministry of the Environment, *From the Cradle to the Grave – six studies of the environmental impacts of products*. 7-44. Stockholm: Ministry of the Environment. (DS1991:9).

¹⁵ Elements of the concept could be identified in some policy instruments that were formulated before the birth of the terminology and its definition. Examples include management of packaging and packaging waste in Germany and the Netherlands, deposit-refund systems for beverage containers in Sweden, some states in the United States and the like. However, people engaged in the development of these instruments did not perceive EPR as a guiding concept for these policy instruments at that time.

¹⁶ Lindhqvist, Thomas. (1992). *Extended Producer Responsibility*. In T. Lindhqvist, *Extended Producer Responsibility as a Strategy to Promote Cleaner Products*. 1-5. Lund: Department of Industrial Environmental Economics, Lund University.

Assigning responsibility primarily to one actor would avoid the situation where everyone's responsibility becomes no one's responsibility.¹⁷ Moreover, in the policymaking and enforcement process it is practically easier to address producers who are relatively easy to identify than, for example, consumers.

The concept supplements the polluter pays principle, which essentially requires polluters to pay for the pollution they generate. Polluter pays principle has been applied mainly for the pollution related to production process.¹⁸ When considering the environmental impacts of the waste phase of products' life, it becomes unclear who are the generators of pollution (waste): is it the producers, distributors or consumers?¹⁹ Instead of stretching the word "polluter" in the polluter pays principle, EPR explains the allocation of responsibility on producers with their capacity to prevent problems at source, even when the largest source of pollution in the entire life cycle does not come from the production process.²⁰ In addition, the current implementation of EPR programs often charge all or part of the costs associated with end-of-life management of products to the beneficiaries of products – and generators of waste from products – that is users.²¹ This is in line with the polluter pays principle.

The concept has, until now, primarily been incorporated in measures relating to the end-of-life management of products. Meanwhile, the understanding of what EPR encompasses varies, mainly 1) on its purpose and 2) on life cycle phases of products to which the responsibility of the producers are extended. Some understand it as a concept that primarily helps improve the situation surrounding waste management.^{22,23} This understanding reflects the application of the concept to date. Others find that the concept has wider purpose and consider it as one that guides environmental improvement of products and systems surrounding the products throughout their life cycle.^{24,25,26} Some consider that the extension of the responsibility of the producers under the concept is limited to

¹⁷ Lindhqvist, Thomas, & Lifset, Reid. (1997). What's in a Name: Producer or Product Responsibility? *Journal of Industrial Ecology*, 1,2, 6-7.

¹⁸ Davis, Gary. (1998). Is There a Broad Principle of EPR? In K. Jönsson & T. Lindhqvist (eds.), *Extended Producer Responsibility as a Policy Instrument – what is the Knowledge in the Scientific Community?* (29-36). AFR-Report 212. Stockholm: Swedish Environmental Protection Agency.

¹⁹ Ibid. supra note 18.

²⁰ Ibid. supra note 18.

²¹ EPR programs for packaging, cars, batteries and EEE charge part or all of cost of end-of-life management of products to users by way of, among others, advance visible disposal fee system, cost internalisation, end-user pays system and the like. See, for example, Tojo, Naoko, Lindhqvist, Thomas, & Davis, Gary. (2003). *EPR Programme Implementation: Institutional and Structural Factors*. In OECD, *Proceedings of OECD Seminar on Extended Producer Responsibility: EPR Programme Implementation and Assessment. Part II: Assessing EPR Policies and Programmes*, 13-14 December 2001, OECD (226-275). Paris: OECD (ENV/EPOC/WPNEP(2003)10/PART2/FINAL)

²² VROM. (1998). *Waste in the Netherlands, Producer responsibility*. Den Haag: VROM.

²³ Shiota, Yukio. (1999). *EPR and Waste Minimization Policy: Japan's perspective*. In OECD, *OECD Joint Workshop on Extended Producer Responsibility and Waste Minimisation Policy in Support of Environmental Sustainability. Part II: Waste Minimisation through Prevention. 4-7 May 1999, Paris*. (149-162). Paris: OECD (ENV/EPOC/PPC(99)11/FINAL/PART2).

²⁴ Lifset, Reid. (1993). *Take it Back: Extended Producer Responsibility as a Form of Incentive-based Environmental Policy*. *The Journal of Resource Management And Technology*, 21,4, 163-175.

²⁵ Ibid. supra note 20.

²⁶ Lindhqvist, Thomas. (2000). *Extended Producer Responsibility in Cleaner Production*. IIIIEE Dissertations 2000:2. Lund: IIIIEE, Lund University.

the post-consumer phase of products' life.^{27,28} Others suggest that the extension is not limited to end-of-life management of products, but to various parts of the products' entire life cycle.^{29,30}

4.2. EPR as a policy principle

Another important development in the understanding of the concept is the positioning of EPR within the ladder of governmental policy making. Rather than one of the policy instruments manifesting itself as a take-back scheme, deposit refund system and the like, EPR is increasingly recognised as a policy principle underlying a range of preventative environmental policies.³¹ Davis was the person who introduced EPR as "an emerging principle for a new generation of pollution prevention policies that focus on product system instead of production facilities".³² He continued with the following definition of EPR:

*Extended Producer Responsibility is the concept that manufacturers and importers of products bear a degree of responsibility for the environmental impacts of their products throughout the products' life-cycles, including upstream impacts inherent in the selection of materials for the products, impacts from manufacturers' production process itself, and downstream impacts from the use and disposal of the products. Producers accept their responsibility when they design their products to minimize the life-cycle environmental impacts and when they accept legal, physical or economic responsibility for the environmental impacts that cannot be eliminated by design.*³³

Lindhqvist in 2000 replaced his original definition of EPR stressing that EPR is a policy principle to promote total life-cycle environmental improvements of products.³⁴

4.3. Application of the Producer Responsibility Principle in EU Policy

Three EU Directives addressing specific waste streams - the Directive 2000/53/EC on End-of-life Vehicles,³⁵ the WEEE Directive and the Directive 2006/66/EC on batteries and accumulators³⁶ – are based on the principle of

²⁷ Ibid. supra note 23.

²⁸ OECD. (2001). *Extended Producer Responsibility. A Guidance Manual for Governments*. Paris: OECD.

²⁹ Ibid. supra note 20 and 26.

³⁰ Detailed description on the development of the concept of EPR and definitions given by different people and organisations can be found in Lindhqvist (2000), see supra note no. 26.

³¹ More discussion on the development of EPR concept as a policy principle can be found in Tojo, Naoko, Lindhqvist, Thomas, & Dalhammar, Carl. (2006). *Extended Producer Responsibility as a driver for product chain improvement*. In D. Scheer & F. Rubik (eds). *Governance of Integrated Product Policy*. (224-242). Sheffield: Greenleaf Publishing Ltd.

³² Davis, Gary. (1994). *Extended Producer Responsibility: A New Principle for a New Generation of Pollution Prevention*. In C. A. Wilt, & G. A. Davis, In *Proceedings of the Extended Producer Responsibility Symposium*. 14-15 November 1994, Washington, D.C. (1-14). Knoxville, TN: Center for Clean Products and Clean Technologies, The University of Tennessee.

³³ Ibid, supra note, 32.

³⁴ Ibid. supra note. 26.

³⁵ Directive 2000/53/EC of the European Parliament and of the Council of 18 September 2000 on end-of life vehicles. OJ L269 21/10/2000 p.0034 –0043.

³⁶ Directive 2006/66/EC of the European Parliament and of the Council of 6 September 2006 on batteries and accumulators and waste batteries and accumulators and repealing Directive 91/157/EEC. OJ L 266 26/09/2006 p.1 –14.

producer responsibility. Although the Packaging Directive 94/62/EC as amended by Directive 2004/12/EC is not formally based on the EPR principle, most Member States have implemented it in ways that at least partially include aspects of EPR.

Looking at the recitals of the respective Directives listed above, it is clear that the application of producer responsibility in the EU Environmental Policy has become more concrete. For instance, in the Packaging Directive, EPR is only a suggested measure in recital (10) while in the Directive on End-of-life Vehicles, recitals (7)³⁷ & (22)³⁸ refer primarily to the requirement that producers fund systems to manage discarded cars.

4.4. The Producer Responsibility Principle and the WEEE Directive

The WEEE Directive places even more concrete responsibilities on producers and addresses more clearly on the issues of upstream changes to be addressed in the Directive. Recitals (12) and (20) in the WEEE Directive, as cited below, indicates the link between the producer responsibility and upstream changes.

Recital (12) - The establishment, by this Directive, of producer responsibility is one of the means of encouraging the design and production of electrical and electronic equipment which take into full account and facilitate their repair, possible upgrading, reuse, disassembly and recycling.

Recital (20) - In order to give maximum effect to the concept of producer responsibility, each producer should be responsible for financing the management of the waste from his own products. The producer should be able to choose to fulfil this obligation either individually or by joining a collective scheme. Each producer should, when placing a product on the market, provide a financial guarantee to prevent costs for the management of WEEE from orphan products from falling on society or the remaining producers.

....

The recitals in the WEEE Directives are translated into allocation of concrete responsibility on producers. A most notable example reflecting the rationales behind the producer responsibility principle is the allocation of individual financial responsibility for the management of new WEEE (those put on the market after 13 August 2005).

4.5. Producer Responsibility Principle and individual producer responsibility

Concerning the implementation mechanisms of EPR-based programs, a notable distinction could be made with regard to the degree of co-operation among the producers in fulfilling their responsibility. This distinction is often referred to as

³⁷ Recital (7) ... MS should ensure that producers meet all, or a significant part of, the costs of the implementation of these measures;

³⁸ Recital (22) Producers should ensure that vehicles are designed and manufactured to allow the quantified targets for reuse, recycling and recovery to be achieved. To do this the Commission will promote the preparation of European standards and will take other necessary measures to amend the pertinent European vehicle type-approval legislation.

individual versus collective responsibility. In essence, if a producer takes responsibility for the end-of-life management of their own products (*individual responsibility*) or producers in the same product group together fulfil their responsibility for the end-of-life management of their products regardless of the brand (*collective responsibility*). The significance of this issue was manifested, among other things, in the lengthy discussions during the development of the WEEE Directive.

The distinction touches upon a fundamental question surrounding EPR: in which manner should producers fulfil their responsibility in order to create incentives for design change? Industries, government and experts generally assume that an EPR program based on individual responsibility would promote design change more than one based on collective responsibility.³⁹ If producers need to take care of discarded products similar to their own irrespective of brand, there are little or no incentives to spend extra resources enhancing their product design to reduce environmental impacts from end-of-life. If the responsibilities were distributed among the brands without considering the difference of the environmental properties of the products, producers who work harder to reduce environmental impacts from their products would end up subsidising the producers who did not make such efforts.

On the other hand, there is also an assumption that the implementation of a program based on individual responsibility would face more challenges than based on collective responsibility, especially in the case of durable, complex products. The perceived challenges include duplicated infrastructure for end-of-life management and increased transport, threat to the job of existing recyclers, difficulties of differentiating the end-of-life cost of complex, durable products such as cars and EEE, special care necessary for orphaned and historical products, difficulties of identifying all the free riders and higher transaction costs.

The perceptions of these difficulties have raised scepticism in the feasibility of individual implementation in practice, despite the general acknowledgement on the superiority of individual responsibility in theory with regard to promoting design change. The discussion of the issue has been complicated by the lack of clarity in what an individual responsibility means in practice.

One of the first attempts to clarify and systematise the practical meaning of individual responsibility was made by Tojo (2004). Based on the examination of existing EPR programs and from the viewpoint of providing incentives for design change, she suggests that individual physical and financial responsibility means the following. *A producer bears an individual financial responsibility when he/she initially pays for the end-of-life management of his/her own products. A producer bears an individual physical responsibility when 1) the distinction of*

³⁹ See, for example, Join Press Statement. (2002). Joint Press Statement of Industry, Consumer and Environmental Organisations on Producer Responsibility in the Waste Electrical and Electronic Equipment (WEEE) Directive. Ferrigno, Roberto. (2003). Producer responsibility for electrical waste. Devolved Government, Summer 2003 (150-152). [Online]. Available: www.publicservice.co.uk/pdf/devolved/summer2003/dg5%20roberto%20ferrigno%20atl.pdf [18 August 2004], Lindhqvist, Thomas, & Lifset, Reid. (2003). Can we take the concept of individual responsibility from theory to practice? *Journal of Industrial Ecology*, 7, 2, 3-6. and Electrolux. (2004). The WEEE Directive. [Online]. Available: ir.electrolux.com/html/environmentalreport2002/index_8.phtml?header=print [18 June 2004]

the products are made at minimum by *brand*, and 2) the producer has the *control over the fate of their discarded products*. The understanding indicates, among others, that implementation of individual responsibility does not necessitate the physically separate collection and treatment infrastructure.⁴⁰ This is further discussed in Section 6.4 under the financial mechanism for WEEE from private households.

⁴⁰ Tojo, Naoko. (2004). *Extended Producer Responsibility as a Driver for Design Change – Utopia or Reality?*. IIIIEE Dissertation 2004:2. Lund: IIIIEE, Lund University.

5. Implementation of the WEEE Directive

5.1. Objectives of this section

This section aims to present

- A qualitative analysis of the current arrangements in the Member States for the implementation of the producer responsibility provisions;
- An analysis of the impacts of the interaction between these arrangements on business selling in or onto the internal market; and
- Identified problems for the operation of the producer responsibility obligations.

5.2. Research methodology and approach

Substantial parts of Task 1 consisted of information collection, which is to be conducted through the combination of *literature review and text analysis* of existing written materials, a *survey* in the form of verification of filled-in data, and *in-depth interviews*. Information collected was subsequently analysed and critically reviewed.

We first developed an inventory detailing how each MS has transposed producer responsibility provisions into national legal text. The inventory was based primarily on the *analysis of each Member State's legal text* whose English translation is available. The list of the national laws reviewed in this study is summarised in section 11.1 in the appendix. In the case of Lithuania, the relevant Lithuanian law was reviewed with the help of a Lithuanian colleague. Otherwise, when legal text is not available, secondary sources have been used to cover the gaps as much as possible.

In addition, the functioning of the National Register has been investigated in depth. We started by evaluating their functions based on data from secondary sources. We subsequently sent our evaluation outcome on 13 March 2007 to the National Registers in each MS and asked for verification of the data presented and provision of some additional information. The intention was to avoid administrative “fatigue” on behalf of the National Registers, given that the other project on the review of the WEEE Directive

In order to understand how the various aspects of the Directive and current functioning of National Registers (as listed above) impact stakeholders as well as to identify problems that have been raised, a number of them have been contacted and their views presented in existing written materials were reviewed.

An *interview-guide* was developed for producers (available at Appendix 11.4). 5 industry associations (JBCE,⁴¹ EICTA,⁴² BIKTOM,⁴³ Orgalime,⁴⁴ CECED⁴⁵)

⁴¹ Japan Business Council in Europe. For more information, see www.jbce.org.

distributed the interview-guide to their members. Except for the JBCE, the interview guide was presented at the member meetings of these associations. Industry associations also provide the study team with their position papers, guidance documents for their members and the like. In addition, a one-day meeting was held with the representatives of European Lamp Companies Federation (ELC).⁴⁶

In-depth interviews were conducted with in total of 33 people representing 12 producers, 3 National Registers, 6 government officials, 2 environmental consultants, 2 municipal organisations, 4 WEEE compliance schemes, 1 retailer, 1 wholesaler, 1 retailer organisation, 1 insurance company, 1 industry association, 1 municipal waste management company.⁴⁷ The list of interviewees, their affiliation and the timing of the interviews are available in Appendix 11.3. Interviews with some of the producers are follow-up activities of the questions presented in the interview-guide.

In addition to the meetings with the industry associations mentioned above, a one day meeting was conducted with European Recycling Platform (ERP). The purpose of the meeting was to get a better understanding of the European Recycling Platform's views on the way in which practical implementation of Individual Producer Responsibility in the WEEE Directive could be operationalised.

The real life situation of compliance schemes or EPR programmes may vary considerably from the obligations as outlined in the legal texts. In order to understand the concrete approaches, the implementation practices of 4 Member States, namely Germany, Ireland, Lithuania and Sweden are studied in depth. They are selected taking into consideration on issues such as whether they have one national collective scheme or multiple competing schemes, whether they had EPR programs for EEE prior to the WEEE Directive, new or old MS, geographical representation, size of the country and the like. Where different similar cases would have been possible access to information was also considered when selecting the case countries.⁴⁸ A comprehensive review of compliance approaches and schemes developed by producers and/or national authorities to meet the legal requirements of MS national text were undertaken. Through the review we aimed to 1) compare the obligations put forth in the MS legal text to the actual implementation of compliance schemes and approaches, highlighting any deviations thus building on the inventory and 2) provide a detailed overview of the generic arrangements (national collective schemes or competing multiple collective schemes within MS) with respect to implementa-

⁴² European Information & Communications Technology Industry Association. For more information, see www.eicta.com.

⁴³ German Association for Information Technology, Telecommunications and New Media e.V. For more information, see www.bitkom.org.

⁴⁴ European Engineering Industries Association. For more information, see www.orgalime.org.

⁴⁵ Conseil Européen de la Construction d'appareils Domestiques, or European Committee of Domestic Equipment Manufacturers. For more information, see www.ceced.org.

⁴⁶ For more information, see www.elcfed.org/index.php?mode=0

⁴⁷ In addition, the contractors sought to obtain views of distant sellers. However, it did not work out as the contacted sellers did not respond despite various efforts.

⁴⁸ Investigation in Lithuania was supported greatly by a Lithuania speaking colleague of the project team in Lund.

tion used in the EU Member States.⁴⁹ In doing so we sought to fill information gaps that may exist regarding the legal text and what is happening in reality, and how actual deviation may influence the achievement of the goals of the WEEE Directive.

Based on the analysis of task 1, possible options for the future development of the WEEE Directive have been developed. In order to take the views of the involved parties into account several stakeholder discussions have been performed.

5.3. Scope & Limitations

Concerning the review of the transposition of the producer responsibility provisions in Member States, the following items have been investigated in particular.

- The definition of producer, in particular the understanding of Article 3 (i), (iii) (“national approach” versus “European approach”)
- Inclusion of distant sellers in the definition of the producers and its relation to national register and reporting
- The allocation of responsibilities/obligations for various activities that constitute the WEEE management, in particular collection from private households, how and if the distinction is made between obligations related to historical vs. new or future WEEE and financial mechanisms
- Type of Financial Guarantee required of producers for new or future WEEE for all compliance approaches

As mentioned in Section 5.2, the national legislation we reviewed was primarily those translated into English, officially or unofficially, as listed in the Appendix 11.2. Many of the Member States have recently established/are still in the process of establishing implementing measures either by revision of existing legislation or introduction of new legislation, and these are often not yet translated to English. We sought to find out about the relevant parts of these laws to the extent possible with the help of native speakers, but it was not possible to grasp all.

Regarding the functioning of registers, the study focused on the following issues.

- criteria for producers’ registration and its relation to the definition of producer: who can register and who cannot, requirements on distance sellers, possibility for producers registered in any EU Member State to register
- reporting obligations/formats, including possibility for compliance schemes to report on behalf of producers
- role of the register: i.e. clearinghouse function for allocating historical and new WEEE obligations, controlling free-riders, confirming financial guarantee, etc.
- fees for registration and number of registrations to date

⁴⁹ Collectively organised compliance systems refer to the situation where producers organise compliance systems collectively, that is, they join to build or contract collection and recycling infrastructure. In certain MS there may be a single collectively organised compliance scheme or multiple competing collectively organised compliance schemes.

- criteria for reporting B2B and B2C products
- criteria for defining weight of product put on the market
- costs of establishing & administering the National Registers, Clearing-house functions.

Our initial evaluation of the functions was sent to the respective National Register in mid March for their verification and additional inputs. After two reminders, and as of 29 June we have received responses from 21 Member States. The analysis presented in this report is thus based on the responses from these countries and selected secondary sources.

The analysis of the impacts on business and other actors as well as identification of problems is based on the information we received via interviews, meetings and found in written materials listed in the references.

As mentioned in Section 5.2, the implementation of the WEEE Directive in four Member States – Germany, Ireland, Lithuania and Sweden are studied in depth as exemplary cases. Since the issues covered in this report concern mainly WEEE from private households, the review of implementation mechanisms is focused on WEEE from private households.

6. Member State Transposition of the WEEE Directive

Although the deadline to transpose the WEEE Directive into national laws was set for 13 August 2004, most MS neglected to meet this date.⁵⁰ However, as of April 2007, all but one Member State managed to transpose the Directive into their national legislation and officially notify the Commission. A list of the national laws of Member States which transpose the WEEE Directive in their national legal framework, which we managed to identify at the time of the study, is included in Appendix 11.1.

In this Chapter, the transposition of the producer responsibility provisions in the WEEE Directive in EU27 Member States are presented and analysed. The provisions we reviewed concern the following inter-related issues and constitute sub-sections of this Chapter.

- Definition of producers
- Allocation of responsibility for collection of WEEE from private households
- Allocation of responsibility for collection, treatment, recovery, recycling and disposal of WEEE from private households deposited at collection points
- Financial mechanisms for WEEE from private households
- Financial guarantee for WEEE from private households
- Visible fee for historical WEEE from private households
- Distance sellers
- Allocation of responsibility for WEEE other than WEEE from private households
- Labelling of EEE – Producer identification
- Labelling of EEE – Separate collection
- Information to consumers
- Producer Registration & Reporting

For each sub-section, we first introduce the relevant articles of the WEEE Directive, followed by the presentation of the transposition outcome. In some sections, implementation of some member states is also included. We subsequently discuss, under the sub-section “implication of the transposition outcome”, how the transposition might impact various stakeholders, especially producers, and problems identified in relation to the respective provisions.

As mentioned in Section 5.3, not all the updated national legislation is available in English. The texts used to analyse the transposition of the respective producer responsibility provisions in the MS are those presented in Appendix 11.2, unless otherwise mentioned.

⁵⁰ As of July 2005, France, Italy, UK, Estonia, Malta and Poland had failed to transpose both the WEEE Directive and its 2003 amendment. all three Directives. Finland had not yet transposed the two Directives in the province of Åland. Greece had transposed the WEEE Directive but not its 2003 amendment. Ends Environment Daily (2005). Commission starts summer infringements surge, Issue 1918, 11 July 2005.

6.1. Definition of Producer

6.1.1. WEEE Directive Text

Article 3(i) of the WEEE Directive defines producer, the primary actor subject to the principle of producer responsibility, as follows:

Article 3
(i) 'producer' means any person who, irrespective of the selling technique used, including by means of distance communication in accordance with 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) manufactures and sells electrical and electronic equipment under his own brand,
(ii) resells under his own brand 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 subpoint (i), or
(iii) imports or exports electrical and electronic equipment on a professional basis into a Member State.
Whoever exclusively provides financing under or pursuant to any finance agreement shall not be deemed a 'producer' unless he also acts as a producer within the meaning of subpoints (i) to (iii);

6.1.2. Transposition Outcome

What has emerged as a significant issue in the transposition process is how MS have interpreted importers and exporters under Article 3(i) sub-point (iii). That is, whether import/and export is defined on the national level, or whether it refers only to the trade with countries outside of EU and not intra-community trade.

In the first case, being dubbed the '**National Approach**' to producer identification,⁵¹ in the absence of a manufacturer any legal actor that brings products onto the national market, either from countries within or outside of the EU, would be deemed the producer. Meanwhile, the Commission has argued that the Article 3(1) sub-point (iii) refers to imports from outside EU and not intra-community trade. Under this so-called '**European Approach**', once inside the internal market the terms importing and exporting are no longer applicable, and instead it is more appropriate to speak about intra-community trade.

Table 8 summarises the approaches taken in the EU 27 Member States, as found in the legal text available in English. As found in the table, most MS have defined import/export on the national level. In most cases MS have merely replaced the text "Member State" with their own country name, effectively, obligating the first importer of EEE products into the national state as producer in the absence of a manufacturer. Commission Services, on the other hand, has

⁵¹ CECEP PP 04-06, 13 July 2004: Raising a red flag over flawed WEEE Directive: Q&A on why CECEP is raising a red flag over how the WEEE Directives' producer responsibility principle is supposed to be put in practice.

communicated their interpretation – European Approach – to Member States on a number of occasions.⁵²

Table 8: Interpretation of importers and exporters found in the definition of producers in the legal text of Member States⁵³

Country	Legal clauses defining producers	Approaches
Austria	13(1) of Waste Management Act	National
Belgium (Brussels)	1(3)	National
Belgium (Flanders)	Part 1 Def.	National
Bulgaria	No definition found in the legal text reviewed	
Cyprus	2(1)	National
Czech R.	37g. (e)	National
Denmark	9i(2), Act no. 385 of 25 May 2005	National
Estonia	1(5), Government Regulation 376-2004	National
Finland	3(9), Government Decree 852/2004	European
France	3(1)	National
Germany	3(11)	National
Greece	3(15)	Ambiguous ⁵⁴
Hungary	2(d-f)	Ambiguous ⁵⁵
Ireland	3(3)	National
Italy	3. (1)m	National
Latvia	20 ² (1), Waste Management Act	National
Lithuania	2(18), (19), (32) Law on Waste Management	National
Luxembourg	3(i)	National
Malta	3(1)	National
Netherlands	1, Section 1(j)	National
Poland	3(13)	National
Portugal	3(d)	National
Romania	3(i)	National
Slovakia	54a(10)	National
Slovenia	3(20)	National
Spain	2 (c)	European
Sweden	3	National
UK	2 (1)	European

Although in Finland, Spain and the UK, the producer definition with respect to importer and exporters is in line with the European Approach, foreign producers are not able to register directly to the national register in Finland, effectively putting onus on Finnish importers to register as the obligated producer, in the absence of a local manufacturer or brand owner. Similarly, in Germany produc-

⁵² PRODI(2004)A/4700. Letter to Mr. Luigi Meli, Director General CECEC from Mr. Romano Prodi, President of the European Commission. 26 07 2004

⁵³ The articles, sections and numbers referred to in this table are from the national legislation listed in Appendix 11.2. When more than two legal texts are analysed, the relevant law is specified.

⁵⁴ With respect to importers and exporters in the definition of producer, The Greek legal text simply states "imports or exports electrical and electronic equipment on a professional basis" without stating whether this is on to the national or European market.

⁵⁵ Definition of import and export used seem to support European approach, however all provisions on producer responsibility refer to manufacturers (definition of manufacturer includes distributors and does not refer to importers and exporters) Import: electric equipment is transported on the area of Republic of Hungary for commercial purpose through the customs border of the European Community; Export: electric equipment is transported out for commercial or other purpose through the customs border of the European Community;

ers are required to report what is placed on the German Market for the first time, regardless if it was placed on the European market in another MS.

Another important issue related to the definition of producers is if distance sellers and exporters are included in the definition. This is related mostly with the registration and reporting and is discussed in Section 6.7.

6.1.3. Implications of the transposition outcome

6.1.3.1. Views of the stakeholders

EICTA, AEA⁵⁶ and JBCE note that there is considerable uncertainty caused by the implementation of the WEEE Directive in national legislation and the obligations on a producer to register.⁵⁷ Most concerns expressed in the paper centre around the impact of Member States not allowing a company willing to take on the producer obligations to register without having a legal presence. They point out that this creates problems for larger companies and more importantly for SME's that wish to fulfil the legal obligations for their distributors in countries where they have no legal presence. For SMEs it may be particularly costly to set up legal entities in the Member States where they sell their products. In addition, if the local producer (the SME's customer) would register, the costs can be largely disproportional to the turnover or profit.

The group of industry associations calls for any producer legally established within EU to be able to register at all national producer registers. They call on the Commission to investigate on which legal basis certain Member States allow companies from abroad to fulfil the producer obligations in their national territory. They do not necessarily call for a change to the producer definition.

CECED, in its 'red flag' initiative, mentioned that there are two key problems with the definition:⁵⁸

- The word producer is not specific enough to designate the responsibilities and obligations given by the directive to the concerned economic operators and;
- The definition does not exclude multiple producers for one and the same product.

CECED pointed out quite early, before Member States had transposed the Directive, the potential problems that might arise when the national definition of producer is applied in Member States and called on the Commission to provide clarification on the issue. In its 2004 Q&A on why CECED is raising a red flag, the association's vision on who the legally responsible party should be clarified as follows: "Whoever, after 13 August 2005, puts a product on the European single market, as manufacturer, importer into the European Community territory

⁵⁶ American Electronics Association (AEA, now AeA), founded in 1943, is "a nationwide non-profit trade association that represents all segments of the technology industry". For more information, see www.aeanet.org/.

⁵⁷ EICTA, AEA, JBCE. (2006). Input for Information Gathering Exercise for review of Directive 2002/96/EC. Brussels, 11 August 2006.

⁵⁸ Ibid supra note. 51.

or reseller under own brand, is the legally responsible party.” They claimed the national approach should apply for historical WEEE.

ELC (European Lamp Companies Federation) has proposed an alternative definition of producer which they believe would ensure that European producers have legal designation of producer in each Member State, as found below:

‘Producer’ means any person, established in the EU who, irrespective of the selling technique used, including by means of distance communication in accordance with 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 (1):

- (i) Sells for the first time electrical and electronic equipment in the EU,*
- (ii) Resells under his own brand electrical and electronic equipment supplied by other manufacturers, a reseller not being regarded as the ‘producer’ if the brand of the producer appears on the equipment, as provided for in sub point (i), or*
- iii) Resells in the Member State, where it has an establishment, electrical and electronic equipment, upon acquisition from a producer, which has not fulfilled its legal obligations in the Member State where the reselling takes place.*
- iv) Buys for own use as a professional end user, electrical and electronic equipment, from a producer, which has not fulfilled its legal obligations, in the Member State where the electrical and electronic equipment is used, or from a supplier outside the EU.*

ELC argues that the alternative definition would make it legally possible for European lamp producers to register and take responsibility for their products placed on the market in each MS. They claim that the definition also ensures that if a European producer does not exercise its responsibility in a MS, a national retailer or direct importer from another MS or outside of the EU would become legally responsible in his absence. This, in their view would encourage producers to fulfil their responsibility in each MS in order to avoid putting burden on their customers – i.e. retailers and direct importers.

6.1.3.2. Analysis by the project team

Since MS have legal jurisdiction within their own borders, establishing a national approach has the advantage of facilitating Member States to identify a legal actor within their national territory that can be held liable for WEEE financing obligations. In fact, the Commission, in addition to their position mentioned above, has also acknowledged that it should be possible for Member States to impose national obligations on natural or legal persons who are placing products on the national market for the first time, irrespective of whether these products are from third countries or other Member States.⁵⁹

However, with the national approach taken by the majority of MS, there can be some unfavourable consequences which can be summed up in the following ways:

⁵⁹ BARROSO (2005) A/5856. Letter to Mr. Xavier Durieu Secretary General EuroCommerce from Mr. José Manuel Barroso, President of the European Commission, 28 11 2005.

Potential multiple producers for the same product when traded on intra-community level and increase in administrative burden

Potential conflicts with incentives for product and product system improvements and implementation of Individual Producer Responsibility

1. Potential multiple producers for the same product when traded on intra-community level and increase in administrative burden

Since MS define imports on the national level, the first importer is considered the producer if there is no manufacturer of that brand on the national market. Therefore, when products are subsequently shipped to another MS for distribution through intra-Community trading, there exists a potential that the same products will have one producer in one MS and one producer in the other MS. This is illustrated in the box below given a hypothetical example of intra-community trading between companies in Sweden and Germany. For this particular shipment of EEE products, there would be a producer identified in Germany – i.e. the brand manufacturer who sold them on the German Market – as well as the Swedish wholesaler or reseller placing the products on the Swedish market, who would be also identified as producers in the Swedish market.

There are a number of obligations the actors identified as producers must fulfil, and there exists a potential that these obligations may be create extra administrative burdens due to the definition of importer and exporters. These obligations include producer registration and reporting (Section 6.12), financial provisions and guarantees (Section 6.4 and 6.5) and product re-labelling to identify the obligated producer (Section 6.9), and will be discussed further in respective sections.

2. Potential Conflicts with incentives for Product and Product System Improvements and implementation of Individual Producer Responsibility

When a ‘manufacturer’ or brand-owner is absent in a MS that is applying the national definition approach, the legally obligated party designated as the producer will be the actor who brings EEE onto the national market for the first time. Given that this actor could be both a manufacturer or brand owner as well as a ‘wholesaler or ‘distributor’ (through parallel imports), questions may arise with respect to how a wholesaler or distributor can meet the obligations of a designated producer as outlined in the WEEE Directive.

Producers are obligated under Article 4 of the WEEE Directive to ensure certain design characteristics are met for the products they place on the market. In addition to encouraging the design and production of EEE that facilitates dismantling and recovery, and in particular reuse and recycling, producers must also ensure that the deliberate design of products that inhibits reuse is avoided. One might question a wholesaler’s influence over the design of products and the effectiveness of applying responsibility for such activities to these actors.

While in order to facilitate Individual Producer Responsibility for EEE placed on the market after 13 August 2005, producer identification was deemed essential to be in place to be able to allocate costs to producers for their own waste. However, identifying wholesalers as producers may not be useful in providing incentives for product and product system improvements in the first place.

6.2. Allocation of Responsibility for Collection of WEEE from Private Households

6.2.1. WEEE Directive Text

Separate collection of WEEE from the rest of the waste stream is a prerequisite for the improvement of WEEE management. The WEEE Directive distinguishes separate collection of WEEE from private households and those from non-households. Among the provisions related to collection of WEEE from households, the following excerpt highlights those relevant to the discussion in this section.

Article 5 Separate Collection

2. For WEEE from private households, Member States shall ensure that by the 13 August 2005:

(a) systems are set up allowing final holders and distributors to return such waste at least free of charge. Member States shall ensure the availability and accessibility of the necessary collection facilities, taking into account in particular the population density;

(b) when supplying a new product, distributors shall be responsible for ensuring that such waste can be returned to the distributor at least free of charge on a one-to-one basis as long as the equipment is of equivalent type and has fulfilled the same functions as the supplied equipment. Member States may depart from this provision provided they ensure that returning the WEEE is not thereby made more difficult for the final holder and provided that these systems remain free of charge for the final holder. Member States making use of this provision shall inform the Commission thereof;

(c) without prejudice to the provisions of (a) and (b), producers are allowed to set up and operate individual and/or collective take-back systems for WEEE from private households provided that these are in line with the objectives of this Directive;

(d) having regard to national and Community health and safety standards, WEEE that presents a health and safety risk to personnel because of contamination may be refused for return under (a) and (b). Member States shall make specific arrangements for such WEEE.

Member States may provide for specific arrangements for the return of WEEE as under (a) and (b) if the equipment does not contain the essential components or if the equipment contains waste other than WEEE.

5. Without prejudice to paragraph 1, Member States shall ensure that by 31 December 2006 at the latest a rate of separate collection of at least four kilograms on average per inhabitant per year of WEEE from private households is achieved.

Article 8 Financing in respect of WEEE from private households

1. Member States shall ensure that, by 13 August 2005, producers provide at least for the financing of the collection, treatment, recovery and environmentally sound disposal of WEEE from WEEE from private households deposited at collection facilities, set up under Article 5(2).

6.2.2. Transposition Outcome

The provisions of the WEEE Directive quoted above in several ways provide some room for Member States to decide to organise collection from households.

Regarding physical responsibility, the Directive does not explicitly identify who should be responsible for setting up the infrastructure as stipulated in Article 5 (2) (a). It puts the onus on distributors to accept WEEE from consumers on a one-to-one basis when selling new products, although Member State can deviate from this requirement if they can show that an alternative procedure is just as convenient for consumers (Article 5 (2) (b) (c)).

Concerning financial responsibility, Article 8 (1) indicates that producers are financially responsible for “at least” the collection from collection points onwards, leaving a room for extending the producer responsibility to finance collection from households.

This leads to the situation in which Member States take a variety of ways in allocating responsibility for collection from households. The diverse legal solutions taken by Member States are summarised in the following table. If alternatives are given to actors that would relieve them from their responsibility, the actors concerned are not listed as obligated party. When physical responsibility is given to actors and no other actors are explicitly mentioned as having financial responsibility, the actors having physical responsibility are listed as those having financial responsibility.

It should be noted that what respective national laws say do not necessarily correspond to what is happening in practice. An example includes Sweden, which is discussed further in Section 7.6.

The Producer Responsibility Principle of the WEEE Directive
6. Member State Transposition of the WEE Directive

Table 9: Allocation of Responsibility for Collection of WEEE from private households in National Legal Text: EU 27⁶⁰

Member State	Physical Responsibility	Legal clause	Financial Responsibility	Legal clause
Austria	D/M/P	3(13), 5, 6	D/P	19
Belgium (Brussels)	D/M	3 (1)	D	3 (2)
Bulgaria	P	11	P	11
Cyprus	P	5.(2)a.	P	5.(2)a
Czech R.	D/P	37k (1) (3)	D/P	37k (1) (3)
Denmark	M	6(1), 6(2), 6(3), 6(8), Statutory Order No. 664	M	6(1), 6(2), 6(3), 6(6), Statutory Order No. 664
Estonia	D/P	26 ² , 6(1), Government Regulation 376-2004	D/P	26 ² , 6(1), Government Regulation 376-2004
Finland	D ⁶¹ /P	6(2), 18h(2) of Waste Act	P	6(2)
France	D/M/P	8.II. & 8.III	D/P	8.II. & 8.III
Germany	M	9(4)	M	9(4)
Greece	P	9(B)	P	9(B)
Hungary	P	3	P	3
Ireland	D/M	14, 15, 19	D//P	3(3), 14, 16
Italy	D/M	6	D/M	6
Latvia	P	20 ⁴ , Waste Management Act	P	20 ⁴ Waste Management Act
Lithuania ⁶²	D/M/P	34 ⁽²⁾ , 34 ⁽⁴⁾ , Law on Waste Management	P	34 ⁽⁶⁾ , Law on Waste Management
Luxembourg	D/M	6	D/M	6
Malta	D/P	6(2)	D/P	6(2)
Netherlands	D/M	2, Section 3 & Section 4	D/M	2, Section 3 & Section 4
Poland	D	42(2)	D	Article 42(2)
Portugal	D/M/P	9(4)	D/P	9(5), 9(6), 23
Romania	M	5(1)	M	5(1)
Slovakia	D/P	54c (2), 54 b (1)(e)	D/P	54c(2). 54 b (1) (e)
Slovenia	D/M	7, 8	D/M	7, 8
Spain	D/M	4(2) & 4(3)	P	7(2)
Sweden	P	12, 13, 16	P	15
UK	D/P	31	D/P	31

D = Distributor M = Municipality P = Producer (definition varies between national and European approach, as discussed in Section 6.1.2)

⁶⁰ The articles, sections and numbers referred to in this table are from the national legislation listed in Appendix 11.2. When more than two legal texts are analysed, the relevant law is specified.

⁶¹ In the Waste Act Section 18h(2) it is stated that sellers of EEE shall accept WEEE from private households if replaced by purchasing a similar product, or shall direct the purchaser to another reception point

⁶² Based on the legal text as well as other policy documents, see Section 7.4.2.2.

There has been growing concern from municipalities over the increased financial obligations placed on them as a result of the WEEE Directive. This study provides a few examples in which municipalities are requiring producers to pay for infrastructure or labour costs.⁶³

Austria⁶⁴

In Austria there are two financing options available to municipalities, depending on whether a direct contract is signed between the municipality and a compliance scheme or not.

For municipal collection sites that contract with the collective compliance schemes there is an agreed upon total sum available (paid by producers) of 2.7 million Euro per year that has been allocated on a Euro/tonne basis to each collection category. This is represented in the following table Table 10: Variable fees paid to municipal collection centres based on amount collected (municipalities with contract with compliance schemes) : Austria. The amount of fee has been calculated based on 2 levels of WEEE collection rates per capita (4.5 kg/capita up to July 2006 and 6.0 kg/capita from August 2006 onwards).

Table 10: Variable fees paid to municipal collection centres based on amount collected (municipalities with contract with compliance schemes) : Austria⁶⁵

	Large Appliances €/tonne	Refrigeration €/tonne	TV & Monitors €/tonne	Small Appliances €/tonne	Lamps €/tonne	Average €/tonne
Up to July 2006 [4.5.kg/cap.]	35	96	135	70	531	75
From August 2006 [6.0 kg/cap.]	40	55	85	52	430	57
Total Mio. €/yr	0.56	0.63	0.83	0.54	0.18	

Municipalities that do not sign a contract with one or all of the competing collective compliance schemes for the collection of WEEE at their sites are entitled to a lump sum per site that is based on the type of equipment collected and the size of the collection centre. The size of the sum is found in the following table. A collection centre that has any remaining WEEE not allocated to a compliance scheme is entitled to a percentage of the lump sum.

Municipalities can arrange this by contacting the WEEE Coordination Body, the entity served as a clearing house in Austria. The clearing house also allocates the pickup and treatment duty of the WEEE collected by municipalities without a

⁶³ To date, there is no comprehensive picture of how the allocation of costs to actors for the costs associated with operating municipal collection sites. There is however a planned study coordinated by the Association of Cities and Regions (ACR+) that is scheduled for mid-April to mid-May 2007, that will be investigating this topic through a questionnaire to municipalities in Europe. Contact has been made with the coordinator of the working group that will be administering the questionnaire, and in the best case scenario the results will be shared with the contractor (T2) when available. Unfortunately, in recent communication with the project coordinator we have learned that the results will not be available until the end of July 2007 and therefore will not be able to be communicated in this report.

⁶⁴ The information regarding the case of Austria is based on 2006 data. LAVU (2006) Financial Aspects of WEEE-Management in Upper Austria: Presentation by D.I. Christian Ehrenguber: submission to WEEE Info gathering exercise, September 18, 2006.

⁶⁵ Ibid. supra note 64.

contract on a compliance scheme with the largest outstanding obligation at the time of request for pickup.

Table 11: Lump sum payments to municipal collection sites without contractual agreements with compliance schemes: Austria⁶⁶

	Large Appliances €/WCC per year	Refrigeration €/WCC per year	TV & Monitors €/WCC per year	Small Appliances €/WCC per year	Lamps €/WCC per year	Total €/WCC per year
Large WCC (300 in Austria)	710	710	825	420	435	3 100
Small WCC (1200 in Austria)	157	157	312	180	173	980
Minimum Quantity (tonnes)	4	3.5	1.5	1.5	0.5	

WCC: Waste Collection Centre

As of 2006, approximately 92.5% of all WEEE collected by municipal collection centres is collected under contract with the compliance schemes, with the remaining 7.5% collected without contracts.

Belgium (Flanders)

The Association of Flemish Cities and Municipalities has developed a model that has been approved by the Flemish Minister of Environment. In the future, municipalities should receive financing from industrial sectors covered by producer responsibility programs on a per waste stream basis. For WEEE, the outcome of the model suggests compensation to be paid at **0.22 Euro per inhabitant per year** and **45 Euro per tonne collected** (based on a first simulation)⁶⁷. This is only for the management of WEEE at the municipal civic amenity sites and does not include the costs of transportation, treatment, recovery, recycling and final disposal of WEEE.

France

Discussions started in early 2005 between compliance systems and the Association of French Mayors to come to an agreement on financial support for municipalities for collection of WEEE⁶⁸. In March 2005 it was reported that municipalities had initially demanded 750 Euro per tonne collected. However, in July 2006, the Association announced that they had come to an agreement with producers that would compensate municipalities up to 20 million Euro per year. This was based on an estimated 123,000 tonnes collected by municipalities (with the population of 62 886 117 in 2006 = approximately 2 kg/capita/year), which means approximately 150 Euro per tonne on the average. The breakdown of the financial compensation to municipalities agreed upon between the municipalities and producers is found in the following table.

⁶⁶ Ibid. supra note 64.

⁶⁷ Delatter, Christof (2007, March 6) email correspondence

⁶⁸ Perchards WEEE Information Service (2007) Country Report: France

Table 12: Breakdown of financial compensation to municipalities for collection of WEEE: France

Technical Support		Conditions	Unit	Euro paid
All Areas	Fixed pay- ment	Open collection point ⁶⁹ Minimum collection 1.5 kg/cap./yr One Point for 15,000 inhabitants (50% paid if residual population >5000	Per year	1560
	Variable	> 8 handling units	Per tonne	20
		> 24 handling units	Per tonne	40
		> 2000 handling units or > 100 ton	Per tonne	65
Deviations for specific areas	Fixed pay- ment: Rural Population < 70/km ²	Open collection point Minimum collection: 1.5 kg/capita/yr One point for 12000 inhabitants (50% paid if residual population >5000	Per year	1560
		>24 handling units	Per tonne	50-56
	Variable: Urban popula- tion >700 km ²	>2000 handling units or 100 ton	Per tonne	75-81
Communication Support Euro per capita		Year 1: 0.20 Euro/capita , Year 2: 0.15 Euro/capita, Year 3: 0.075 Euro/capita		

Table 13 summarises the compensation producers pay to the municipalities for collection of WEEE in Finland, Spain and Portugal.

Table 13: Fees paid to municipalities for collection of WEEE in other Member States

Member State	Amount paid to Municipalities for collection of WEEE in Euro/tonne collected
Finland ⁷⁰	Average 50 Euro/tonne
Spain ⁷¹	80 Euro/tonne
Portugal ⁷²	26 Euro/tonne

6.2.3. Implications of the transposition outcome

6.2.3.1. Views of the stakeholders

Association of Cities and Regions for Recycling and sustainable Resource management (ACR+)

“WEEE-PIN (Waste Electric and Electronic Equipment Public Interest Network) was created within ACR+ (Association of Cities and Regions for Recycling and sustainable Resource management) and represents local and regional public authorities on WEEE issues at European level.”⁷³

⁶⁹ They must collect the four collection product groups (excluding lamps) according to which the WEEE are separated in the collection systems in France.

⁷⁰ Hämäläinen, Timo (2007, March 9) Telephone interview.

⁷¹ Raiteri, Umberto (2007). Collection and Take back Systems in Europe – Experiences in operating the first Pan-European scheme. Presentation at E-Waste Conference, 3-4 May, 2007, Brussels.

⁷² Ibid. supra note 71.

⁷³ <http://www.acrplus.org/WEEE-PIN>

“WEEE-PIN aims to involve local authorities in the revision process of the” WEEE Directive “and make their voices heard in the debates.” The group claims “the local and regional authorities have lots of expertise in the collection and recycling of waste, but they are suffering today from an insufficient application of producer responsibility and from the confusing and inconsistent way the European WEEE Directive has been implemented throughout Europe”⁷⁴.

Council of European Municipalities and Regions (CEMR)

CEMR notes that in many Member States government and industry have relied on the knowledge and experience of local authorities when implementing the national WEEE laws. This on the one hand has resulted in legislation and collection systems that in certain MS are quite favourable to municipalities. However, in other cases industry heavily relies on local authorities when they realise that setting up systems is expensive. When producers contract municipalities for their services this relationship can function quite well, they say. However, when responsibilities are not clearly defined in the legal text, then the costs that according to the Directive should be borne by producers, end up with the local authorities.⁷⁵ This they say is not acceptable as in accordance with Article 8(1) of the Directive, the producer financial responsibility encompasses the whole recycling chain of the concerned waste products, i.e. when the product is discarded by the consumer, which generally happens at the household.

⁷⁴ Ibid. supra note 73.

⁷⁵ Council of European Municipalities and Regions (2006). Review of Directive 2002/96/EC on Waste electrical and electronic equipment (WEEE) Comments from CMER. Submission to the Information Gathering Exercise

CECED

In its January 2004 FAQ on “Frequently asked questions about the household appliance industry’s appraisal of Directive 2002/96/EC on WEEE”, CECED clearly articulates its position on the allocation of responsibility for the collection of WEEE. CECED recognised that the likelihood of certain Member States assigning responsibility solely to producers remained high. CECED pointed out that if producers have to pay household collection, the impact on prices would be considerable.

According to CECED, to make producers finance the collection of waste equipment directly from private households would be objectionable on legal, environmental and economic grounds.⁷⁶

- From a legal perspective, it is claimed that producers should not be required to pay for an activity that someone else is performing (public authorities) especially if they would have no control over the costs incurred by municipalities, who will in the majority of cases continue physically to collect WEEE.
- Secondly, CECED notes that the main objective of introducing producer responsibility is to create an incentive for producers to reduce environmental impact of their products through better design. Making producers fund the collection of WEEE, they say, cannot yield any environmental benefit, since eco-design cannot impact the costs of collection.
- Thirdly, they say that by making producers responsible for collection risks penalising established market players, as municipalities will seek them out for financing rather than identifying all producers and demanding payment.

6.2.3.2. Analysis by the project team

As found, the solutions taken in MS vary significantly. The ambiguity of the Directive text with respect to Article 8 wording of “at least”, as well as the wording of Article 5, creates considerable leeway for MS to assign responsibility to actors already involved in the collection of WEEE from private households. Furthermore, the directive does not provide clear indication as to whether the distributors’ obligation to receive WEEE 1:1 is merely a physical responsibility, or whether they need to cover the cost associated with it. This also provides rooms for various solutions to emerge.

From a national perspective, the way in which Member States allocate responsibility for the collection of WEEE from private households appear to impact all producers equally. This means that prices of products will not be disproportionate to one another within a MS. However, the same may not be said when comparing prices of products in MS where the financial responsibility for collection has been placed on producers to prices of products, with the prices of products in MS where collection is financed by general tax payers or other actors.

⁷⁶ CECED (2004). Frequently Asked Questions about the household appliance industry’s appraisal of Directive 2002/96/EC on WEEE. Available[on-line] http://www.ceced.eudata.be/energy/PP_04-02_FAQ_WEEE.pdf

Another implication of the involvement of municipalities in the collection of WEEE from households is that it may create a disturbance to a level playing field for producers that choose to set up their own independent compliance schemes. This is because they may not have access to collection sites that is potentially subsidised by municipalities.

Industry has argued that collection costs have little or no connection to eco-design incentive and therefore producers should never be given the obligation to finance such activities. Their aspiration is reflected in the WEEE Directive text within the opening lines of Recital 20⁷⁷, where financial responsibility of producers is suggested to begin from collection point onwards and not the collection from households. However, when considering the polluter pays principle, it may not be appropriate that general tax payers, rather than consumers of WEEE, finance the collection of WEEE from private households.

6.3. Allocation of Responsibility for Collection, Treatment, Recovery, Recycling and Disposal of WEEE from Private Households deposited at collection points

6.3.1. WEEE Directive Text

Article 5(4), Article 6(1) and Article 8(1) combined refer to allocation of responsibility for the collection, treatment, recovery, recycling and disposal of WEEE deposited at collection sites.

Article 5(4)

Member States shall ensure that all WEEE collected under paragraphs 1, 2 and 3 above is transported to treatment facilities authorised under Article 6 unless the appliances are reused as a whole. Member States shall ensure that the envisaged reuse does not lead to a circumvention of this Directive, in particular as regards Articles 6 and 7. The collection and transport of separately collected WEEE shall be carried out in a way which optimises reuse and recycling of those components or whole appliances capable of being reused or recycled.

Article 6(1)

Member States shall ensure that producers or third parties acting on their behalf, in accordance with Community legislation, set up systems to provide for the treatment of WEEE using best available treatment, recovery and recycling techniques...

Article 8 (1)

Member States shall ensure that, by 13 August 2005, producer provide at least for the financing of the collection, treatment, recovery and environmentally sound disposal of WEEE from private households deposited at collection facilities, set up under Article 5 (2).

6.3.2. Transposition Outcome

Member States are unanimous in their assignment of responsibility to producers for this obligation and there are no deviations on this issue.

⁷⁷ Recital 20: Users of electrical and electronic equipment from private households should have the possibility of returning WEEE at least free of charge. Producers should therefore finance collection from collection facilities, and the treatment, recovery and disposal of WEEE.....

The Producer Responsibility Principle of the WEEE Directive
6. Member State Transposition of the WEEE Directive

Table 14: Allocation of Responsibility for Collection, Treatment, Recovery, Recycling and Disposal of WEEE from Private Households Deposited at Collection Points in National Legal Text: EU 27⁷⁸

Member State	Collection onwards (Private Households)	Legal clause
	Physical & Financial Responsibility	
Austria	Producers	7
Belgium (Brussels)	Producers	3
Bulgaria	Producers	15
Cyprus	Producers	6.(1), 8
Czech R.	Producers/Operators	37l (1) (3)
Denmark	Producers	16, Statutory Order No. 664
Estonia	Producers	26(4), Waste Act 6(2), Regulation No. 376
Finland	Producers	7(1), Government Decree 852/2004
France	Producers	13
Germany	Producers	10(1)
Greece	Producers	
Hungary	Producers	3
Ireland	Producers	16, 19, 21, 22
Italy	Producers	7
Latvia	Producers	20 ⁴ , Waste Management Act
Lithuania	Producers	
Luxembourg	Producers	9
Malta	Producers	8
Netherlands	Producers	3, Section 8
Poland	Producers	27
Portugal	Producers	9(7), 12
Romania	Producers	5(12)
Slovakia	Producers	54e
Slovenia	Producers	10
Spain	Producers	6(2)
Sweden	Producers	12, 13, 15, 16
UK	Producers	8(1)

6.4. Financial Mechanism: WEEE from Private Households

6.4.1. WEEE Directive Text

In terms of allocation of financial responsibility for WEEE from households, Article 8(2) and (3) of the WEEE Directive distinguishes between historical and new WEEE, as follows.

Article 8

(2) For products put on the market later than 13 August 2005, each producer shall be responsible for financing the operations referred to in paragraph 1 relating to the waste from his own products. The producer can choose to fulfil this obligation either individually or by joining a collective scheme.

Member States shall ensure that each producer provides a guarantee when placing a product on the market showing that the management of all WEEE will be financed and

⁷⁸ The articles, sections and numbers referred to in this table are from the national legislation listed in Appendix 11.2. When more than two legal texts are analysed, the relevant law is specified.

that producers clearly mark their products in accordance with Article 11(2). This guarantee shall ensure that the operations referred to in paragraph 1 relating to this product will be financed. The guarantee may take the form of participation by the producer in appropriate schemes for the financing of the management of WEEE, a recycling insurance or a blocked bank account.

(3) The responsibility for financing of the costs of the management of WEEE from products put on the market before the date referred to in paragraph 1 [13 August 2005] (historical waste) shall be provided by one or more systems to which all producers, existing on the market when the respective costs occur, contribute proportionately, e.g. in proportion to their respective share of the market by type of equipment.

6.4.2. Transposition Outcome

In this section we present an analysis of how Member States have, within their national legal texts, set forth the financial mechanisms to be applied for historical and new WEEE respectively. The results of this legal text analysis are found in the table below. There we denote the specific articles that address the financing of WEEE from private households in each MS legal text. If there is specific reference made to financing of WEEE from products placed on the market after 13 August 2005 or new WEEE, we note this, followed by a more detailed description. Likewise for historical WEEE we note the specific article addressing financing obligations followed by a more detailed description.

The Producer Responsibility Principle of the WEEE Directive
6. Member State Transposition of the WEEE Directive

Table 15: Financing of WEEE from Private Households in National Legal Text: EU 27⁹⁹

Member State	Financing of WEEE from private households (Legal Clause)	Financing of WEEE put on the market after 13 August 2005 (New WEEE)		Financing of WEEE put on the market before 13 August 2005 (Historic WEEE)	
		Legal clause	Content	Legal clause	Content
Austria	7	7(3)	Choice of financing individual or collective	7(2)	Proportion based on current market share
Belgium (Brussels)	35	35(1)	Finance waste from own products	35(1)	Proportion based on current market share
Belgium (Flanders)		3.5.1A.(1)	Finance waste from own products	3.5.1A.(2)	Proportion based on current market share
Bulgaria	11	11 (4), 11 (5)1.	Proportion based on current market share	11(4),11(5)2.	Proportion based on current market share
Cyprus	8	8(2)	Finance waste from own products	8(5)	Proportion based on current market share
Czech R.	37n	37n(1)	Finance waste from own products	37n(3)	Proportion based on current market share
Denmark	16 (1), Statutory Order No. 664	/	Proportion based on current market share	/	Proportion based on current market share
Estonia	26 ,Waste Act	26(1),(4), 26.2(4)	Indiv.PR, Finance waste from own products	26 (5)	Proportion based on current market share
Finland	18a(1) & 18c(2), Waste Act, 6, Government Decree 852/2004	/	His own as well as proportion to the market share	/	His own as well as proportion to the market share
France	13	/	Proportion based on current market share	/	Proportion based on current market share
Germany	14	14(5) 1. or 2.	Choice of financing individually or collectively	14(5)	Proportion based on current market share
Greece	10A, Decree 15 amending Presidential Degree No. 117.	/	Producer responsible, but no specific financing mechanisms	/	Producers responsible, but no specific financing mechanisms
Hungary	15	15(1)a	Defines new WEEE but no financial mechanism	definition 2.c) & 3(1)15	Responsibility defined but not financial mechanism
Ireland	16	16(1)(a), 30 (a)	Finance waste from own products, but exemption from responsibility if members of approved bodies	16(1)(b) 30 (a)	Proportion based on current market share, but exemption from responsibility if members of approved bodies

⁷⁹ The articles, sections and numbers referred to in this table are from the national legislation listed in Appendix 11.2. When more than two legal texts are analysed, the relevant law is specified.

The Producer Responsibility Principle of the WEEE Directive

6. Member State Transposition of the WEE Directive

Member State	Financing of WEEE from private households (Legal Clause)	Financing of WEEE put on the market after 13 August 2005 (New WEEE)		Financing of WEEE put on the market before 13 August 2005 (Historic WEEE)	
		Legal clause	Content	Legal clause	Content
Italy	10. & 11.	11(1)	Producers responsible but no mention of "own"	definition 3(q) & 10.(1)	Proportion based on current market share
Latvia	21, Waste Management Act	/	Producers of waste are responsible	/	Producers of waste are responsible
Lithuania	34 ⁶ , Law of Waste Management	34 ⁶ 1(2)	Producers responsible but no mention of "own"	34 ⁶ 1(1)	Proportion based on current market share
Luxembourg	9	9(2)	Finance waste from own products	9(3)	Proportion based on current market share
Malta	9	9.(1)(b)	Finance waste from own products	9.(1)(f)	Proportionate, market share as example
Netherlands	5 Sec. 11	5. Sec 11(1)	Finance waste from own products	5. Sec. 11(2)	Proportion based on current market share
Poland	27, 28, 57	27, 28(1)(1), 57	Collection of own products mandated. No specific financing mechanisms. Responsibility could be delegated to collective systems.	27, 28(1)(2), 57	Collection mandated based on market share. No specific financing mechanisms. Responsibility could be delegated to collective systems.
Portugal		/	Not mentioned	9(8)	Proportion based on current market share
Romania	8	8(2)	Finance waste from own products	8(5)	Proportionate, market share as example
Slovakia	54e	54e(1)	Finance waste from own products	54e(2)	Proportion based on current market share
Slovenia	13	/	Proportion based on market share.	/	Proportion based on market share
Spain	7	/	Producers responsible but no mention of own products	second additional provision 1.(a)	Proportional based in market share
Sweden	12, 13	12	Defines new WEEE, but no explicit individual financial responsibility	13	Proportion based on market share
UK	3. 8.	/	Proportion based on current market share	/	Proportion based on current market share

Looking at the outcome of the above table we can distinguish 3 distinct patterns regarding how Member States interpret Article 8(2) with respect to individual financial responsibility for new WEEE

Pattern 1: Financing the management of waste from their own products for new WEEE

In the countries listed below the legal text clearly distinguishes that producers are required to finance the waste from their own products placed on the market after 13 August 2005.

Belgium (Brussels and Flanders)

Cyprus

Czech Republic

Estonia⁸⁰

Luxembourg

Malta

Netherlands

Romania

Slovakia

Pattern 2: Variations of 8(2) or Ambiguous Interpretation⁸¹

The following countries, in our opinion, have not formulated their legal text in such a way that an explicit individual financial responsibility is assigned. That is, in many cases producers responsibilities for products placed on the market after 13 August 2005 are mentioned in the plural form which makes for an ambiguous interpretation that producers in general are responsible for financing waste from their products.

We find other variations of Article 8(2), such as in the case of Germany and Austria, where producers are given the choice to decide of whether or not they are individually or collectively responsible financially for products placed on the market after 13 August 2006. Additionally, in the case of Ireland, producers that are members of an “approved body” are exempt from Article 16 on financing WEEE from private households which clearly assigns an individual financial responsibility for new WEEE.

⁸⁰ In the Estonian Waste Act, Producers are also responsible for the management of WEEE from their own products for historical WEEE.

⁸¹ The articles, sections and numbers referred to in this table are from the national legislation listed in Appendix 11.2. When more than two legal texts are analysed, the relevant law is specified.

The Producer Responsibility Principle of the WEEE Directive
6. Member State Transposition of the WEE Directive

Member State	Rationale
Austria	Producers may choose individual or collective financing for future WEEE 7(3)1. if individual, must sort out their own products at all collection sites 7(3)2. if collective, allocation by market-share mandated
Belgium (Walloon)	Article 18 only mentions that "The financing of the costs ... originating from products put on the market after 13 August 2005 is provided by the manufacturers."
Germany	Producers may choose individual or collective historic financing for new WEEE (Article 14 [5])
Hungary	Mentions manufacturers bear responsibility for products manufactured "by him" but only defines responsibilities for historic waste (Article 15 [1] [a]).
Ireland	New WEEE producers are responsible for their own products, however explicit exemption from this requirement if a member of an approved body (Article 30(a)).
Italy	Article 11(1) Producers are responsible to manage new WEEE, but no explicit mention of their own WEEE
Lithuania	Article 34 ⁶ 1(2) Producers are responsible but no explicit mention of own
Poland	Makes collective schemes responsible for future waste rather than producers (once producers are members of a collective scheme) (Article 62).
Portugal	Individual for new WEEE only mentioned in Pre-amble and not in main body of the legal text
Spain	Individual for new WEEE only mentioned in Pre-amble and not in main body of the legal text
Sweden	Producers are responsible to manage new WEEE, but no explicit mention of their own WEEE

Pattern 3: Individual Financial Responsibility for New WEEE missed⁸²

In the following table are listed MS that have transposed Article 8(2) in such a way that for new WEEE the provision that producers should be individually responsible for the waste from their own products appears to be ignored. In many of the countries listed, allocation of financial responsibility for new WEEE is to be determined by a current market-share when costs are incurred, as in the historical WEEE financing mechanism.

⁸² The articles, sections and numbers referred to in this table are from the national legislation listed in Appendix 11.2. When more than two legal texts are analysed, the relevant law is specified.

Member State	Rationale
Bulgaria	Art. 11(4) mandates producers to collect a relative share of the required kg/capita/yr of WEEE, calculated based on the market-share of that producer in the obligating year Article 11(5) although distinguishes between historic and future WEEE, simply states that ... each manufacturer or importer shall for performing their obligation under 11(4), collect both historic and future WEEE
Denmark	No distinction made between financing historical and future WEEE in Section 16 of Statutory Order No. 664 Market-share allocation mandated in 16(1)
Finland	No distinction made between financing historical and future WEEE in Section 6 of Government Decree 852/2004 and Chapter 3a, Section 18a(1) and Section 18c(2) of Waste Act
France	Article 13 mandates market-share calculation for both historical and future WEEE
Greece	Article 7: No distinction between historical or new WEEE, only financing obligation
Latvia	Section 20 ⁴ no distinction between historical and future WEEE financing requirements
Slovenia	13(1,2,3) mandates financial responsibility of all WEEE collected, allocated by market-share
UK	No distinction made in Regulation 8, market-share allocation of both new and historical mandated However, Schedule 3: regulation 6. new 28A (2) Mandates each scheme to submit a report by 31 Dec 2007 b(i) how members will finance their own future WEEE b(ii) how scheme provide a guarantee for future WEEE

6.4.3. Implications of transposition outcome

6.4.3.1. Views of the stakeholders

On March 2, 2007 a group of 34 companies, associations and environmental NGO's released a Joint Industry/NGO Statement on Producer Responsibility for WEEE. In essence, the group stressed its concern that the present transposition of the directive will not achieve the Directive's primary goal to reduce Waste⁸³.

The group specifically acknowledges and supports the main objective of introducing producer responsibility in the WEEE Directive, namely to create incentives for producers to proactively improve the design of their products. The statement is quite clear in pointing out that the WEEE Directive obliges producers to bear financial responsibility for the end-of-life management of their own brand products put on the market after 13 August 2005. It further points out that Article 8(2) is the instrument chosen by the EU institutions to achieve the objectives of the WEEE Directive and the signatories are in full support of its formulation.

Compared to the findings in this study, the signatories come to a similar conclusion on the outcome of transposition by Member States with respect to the interpretation of financing obligations for WEEE from private households. The group claims that 12 Member States have transposed Article 8(2) as intended in

⁸³ Joint Statement by a group of Industry and NGOs on Producer Responsibility for Waste Electrical and Electronic Equipment, March 2, 2007. Available [on-line]. <http://www.greenpeace.org/raw/content/international/press/reports/joint-statement-by-a-group-of.pdf>

the WEEE Directive, while 11 seem to have ignored the provision for Individual Producer Responsibility for new WEEE.⁸⁴

In the 2007 statement the group claims that “individual producer responsibility encourages competition between companies on how to manage the end-of-life phase of their products” and that “this in turn drives innovation, such as in business models, take-back logistics and design changes, to reduce the environmental impact of products at the end of their life”.

The group stresses that the “EC Treaty obliges each Member State to implement the WEEE Directive in such a way as to give full effect, in legislation and in practice, to the wording, object and purpose of the WEEE Directive and not to put in place any measure that would jeopardise the attainment of the Directive's objectives.” Finally, the group urges the EU institutions and the Member States to ensure that individual producer responsibility of article 8.2 is correctly transposed and implemented in national legislation.

Industry Associations

EICTA , AeA, and the Japan Business Council in Europe have made specific reference to the issue of IPR in their joint submission to the Information Gathering Exercise for review of the WEEE Directive dated 11 August 2006. In terms of Article 8, the three organisations are of the opinion that producers are responsible to meet the costs of recycling their own products.

The group called for the European Commission and the Member States to ensure that the freedom of choice between individual compliance and collective compliance is properly implemented in National WEEE legislation. They claimed that there is an opportunity to strengthen the freedom of choice for IPR (individual producer responsibility), during the review process. The three organisations stress it should be mandatory for Member States to give producers the option to choose between IPR and collective solutions based on their product portfolio and business models used. Meanwhile, they point to the fact that producers can choose to fulfil this obligation either individually (which they call IPR) or by joining a collective scheme.

The group point out that as a first step towards IPR would be the possibility to allow producers to collect products of an equivalent type as sold by the producer, directly from end-users. They claim it should be possible to deduct these volumes from the obligations that the companies have under its collective collection system. In fact, Austria has included such a measure in its WEEE transposition (Article 17) and in Sweden, within the collective compliance scheme EI-Kretsen, ICT producers can deduct any WEEE collected by themselves from their obligations in that scheme.

During the development of the WEEE Directive, the same group of industry associations made a clearer statement on its support for individual producer

⁸⁴ Many of the signatories of the statement were the same companies and organisations that were calling upon the Parliament to reintroduce its provisions on the implementation of individual responsibility for the financing of the management of future WEEE, during the second reading of the WEEE Directive. The then joint statement also rejected the Council's common position on free riders, where existing producers should always finance the products of producers that disappear, or where a producer can not be identified.

responsibility, in line with the Article 8(2) of the WEEE Directive. It was in reference to the Parliament amendment to the Common Position of the Council with respect to the Council's view that any future orphans be paid by remaining producers on the market. The group clearly articulated the principle behind Article 8(2), as follows: "We support Parliament's Amendment 93 to Article 7 on the understanding that the reference to "financing" being provided "on an individual basis" refers to the producer's financial or legal responsibility, and not to how he discharges that responsibility. In other words, we support the principle of ALL producers being legally liable for financing the end-of-life treatment and disposal costs of their own products (and ONLY their own products). They must, however, remain free to set up whatever types of recycling systems they so choose. The distinction between financial responsibility (individual) and the execution of that practical responsibility (which can be done either via individual or collective recycling schemes) must be clear to all parties..."⁸⁵

WEEE Forum

On the issue of implementing individual financial responsibility, the WEEE Forum made an conclusion that IPR is a feasible strategy for the future of collective organisations. "As amounts of historic waste steadily decline, and when all consumer waste put on the market has financial guarantees, it will be reasonable for producers to make calculations on the actual return share of their branded products. As the actual return share may be less than present market share, due to longevity or market saturation of the products, it would be more equitable to divide costs via return share. This may be done reasonably first through statistical sampling, then through the use of Radio Frequency Identification technologies to recognize specific, manufacturer product models."⁸⁶

Individual companies

Electrolux, probably one of the most active companies that has been promoting the importance of IPR has provided input into the information gathering exercise for the revision of the WEEE Directive. The company notes that IPR, as stated in the WEEE Directive "needs to be consistently transposed into national legislation" and that "less than half of the countries have properly transposed this provision".⁸⁷ Electrolux points out that the principle that the producer should be responsible for the recycling of his own products (sold after 13 August 2005) is one of the main objectives of the WEEE Directive and is essential to provide the producer with an incentive to design and produce product that are easier to recycle.

6.4.3.2. Analysis by the project team

In terms of the producer responsibility principle, Article 8 has been attributed to having significant importance with respect to establishing incentives for produc-

⁸⁵ EICTA, JBCE, AEA (2001). Joint Association Position Paper concerning the EP's Second Reading of the proposal for a directive of the European Parliament and of the Council on waste electrical and electronic equipment WEEE (COM(2000) 347 – C5-0414/2000 – 2000/0158(COD)). Brussels, 4 December 2001. Available at: http://www.jbce.org/files/JPP_WEEE.pdf

⁸⁶ Available on-line: http://www.weee-forum.org/guidance_more.htm

⁸⁷ Electrolux(2006). Electrolux reply to the Commission's information gathering in relation to Directive 2002/96/EC. Electrolux, Zaventem, Belgium.

ers to design products for improved end-of-life management. This is because of the individual legal and financial responsibility placed on producers to finance the management of waste from “his own” products – individual financial producer responsibility.

The distinction between the financial mechanism to be applied for new WEEE (placed on the market after 13 August 2005) and historic WEEE (Placed on the market before 13 August 2005) is clearly laid out in the WEEE Directive. Namely, producers bear individual financial responsibility for new WEEE. Meanwhile, as producers could not influence the design of products placed on the market before the directive came into force, the WEEE Directive assigns collective responsibility for this historic WEEE on all producers on the market when the costs to manage it will arise.

However, the second sentence of Article 8 (2), which allows producers to fulfil his obligation for individual financing for new WEEE either individually or by joining a collective scheme, contributes to a certain degree of confusion on the issue.

The meaning of the financing principle for New WEEE: IPR

The implications of Article 8(2) that mandates individual financing of new WEEE can be discussed from two aspects. That is, the limitation of responsibility given to the producers by specifying that they are responsible for financing their own WEEE, and the operational side of developing systems to manage WEEE in practice.

Article 8(2) allows producers to be able to fulfil the obligation to finance new WEEE management relating to the waste from his own products either individually or by joining a collective scheme. Given that producers have the flexibility on how to fulfil their obligation in practice, it could be argued that producers who choose to join collective operational schemes using the ‘pay as you go’ financial mechanism will be able to meet their obligations for new WEEE as well, even though compliance schemes do not allocate costs based on what is actually returned.

However, at the same time, the wording of Article 8(2) makes it clear that producers, whether they are members in collective compliance systems or individual systems, should never be forced to pay for the costs of managing WEEE from other producers. This in practice means that no entity would be defined as responsible for management of new WEEE whose producers are not identified – thus no financial guarantee provided – when placed on the market.⁸⁸ Who would bear this responsibility, Member States, municipalities or general taxpayers?

This means that market surveillance is critical to ensure that all actors placing EEE on the market are identified and provide a suitable financial guarantee for the future end-of-life management of these products. This is perhaps one of the most likely arguments why certain MS have not explicitly allocate individual

⁸⁸ The range of new WEEE whose end-of-life management is not secured may become even wider considering how financial guarantee is currently understood in many MS (see Section 6.5).

financial responsibility or chosen to take the market-share based approach, for new WEEE. From the market surveillance perspective, less onus is placed on national governments to identify all actors on the market. The remaining producers on the market would inevitably pay for the management of free-riders and there would be no risk that these costs would fall on actors other than producers.⁸⁹

It should be clarified that a producer is legally responsible to finance the waste from his own products, regardless of his choice to physically develop an individual system or to join together with other producers in collective infrastructure.

There is a difference between the legal obligation to finance a producers own WEEE, and how systems are set up in practice to meet this obligation. Individual financial responsibility does not necessitate the development of individual systems to manage producers own brands. If producers choose to join a collective scheme that uses the PAYG⁹⁰ financing mechanism, in essence they may agree to finance the WEEE of others, as this is their choice. However, as noted above, this approach entails a risk of missing actors that are responsible for handling of orphaned products.

IPR in practice

As was discussed above, elements of IPR can be realised in practice both in collectively organised and individually organised compliance systems. Given that there are both environmental and economic benefits from collectively organising the collection and transportation and processing of WEEE, especially from private households, it is not surprising that there has been collaboration between producers on this front. However, in terms of the financial mechanism applied for allocating the costs of the system to individual producers, there are collectively managed EPR programs that attempt to base this on actual costs associated with managing individual producers WEEE.

In fact there are EPR programs in operation today or in the past that have or had elements of IPR embedded within their operational structure. For example, within ICT Milieu (the collective system for ICT equipment in the Netherlands) until the end of 2002, an individual producer's monthly financial contribution was based on the actual weight of their own brands recycled plus a proportion of the WEEE from orphaned and free-rider products.⁹¹ In Japan, under the Specified

⁸⁹ This argument is supported by the fact that in the Council's Common Position of 4 December 2001, Article 7(4) (added by the Council) clearly placed the legal responsibility on remaining producers in the market to finance any future orphans that may arise if producers are not identified and provide for a guarantee when they place products on the market. Article 7 (4) reads: "The management of WEEE coming from producers that are no longer present on the market or which can no longer be identified at the time when the costs occur shall also be financed by producers, and Member States may provide that it is financed in accordance with paragraph 3."

As a counter proposal to the Council's view that any future orphans be financed by producers on the market when the costs arise, the Parliament inserted the requirement for a guarantee to be made when producers place products on the market, which ultimately remained in the final legal text of the WEEE Directive after the conciliation process. This clear difference of opinion between the European institutions provides insight into the current outcome of the transposition process.

⁹⁰ We define the PAYG financial model as a mechanism to allocate costs of WEEE management to producers proportionate to their market share when those costs occur. The definition includes systems that charge producers a flat fee when placing a product on the market, which is usually based on an estimate of the number of products that are expected to be sold and the amount of all brands of WEEE expected to be returned in a given reporting period (usually annually). It also can apply to systems where current collection and recycling costs are based on market share calculations.

⁹¹ Ibid. Supra note 40.

Household Appliance Law (SHAR), for the two main compliance schemes that have emerged, financial responsibility for treatment and recycling is determined on the basis of each manufacturer's own share of returned equipment.⁹² Similarly, Maine (in operation), Washington State, Oregon and Connecticut (planned) in the United States have or will have EPR systems that are based on the return-share financing model.

In these models, although no distinction has been made between the properties of products when treated, producers financed a share of the total costs to manage WEEE based on their own products that were returned. This financing model based on **return-share** provides incentives for producers to both lightweight products and encourage durability, since the costs producers pay individually are dependent on these variables. Meanwhile, none differentiate the fees based on the inherent costs to handle an individual producers products. This means that other variables that influence cost, such as the presence of hazardous components that need to be dismantled and separately treated – and hence increase costs – do not influence individual producers fees under the existing return-share model. Although return-share could be considered a proxy for Individual Producer Responsibility, further differentiation of the fees that producers pay to manage their individual costs is needed in order to provide further incentives for improved design.⁹³

The most common argument brought forth against the financing model based on return-share, is that added costs associated with sorting or sampling WEEE by brand and that these additional costs do not yield enough environmental gain to justify them. While there is no doubt that costs would increase as a result of either a full WEEE sorting by brand, or a representative sample and subsequent sorting by brand to identify return-share, in many collective systems operating today there is already sampling or full sorting taking place. This is required for a number of reasons, such as the request of members in collective systems to ensure that no cross subsidisation takes place within collection categories and to meet the reporting requirements of national authorities for WEEE collected and managed by producers. Some sorting of representative samples or full stream takes place on a product category level, although not to the brand level. The added costs to identify individual brands may not be significant.

While added costs to administer a return-share based financial mechanism may be overstated, there are other factors that may hinder the introduction in the European context. Firstly, since historical WEEE in many countries are financed collectively based on market share of each producers, it might be difficult to introduce the return-share model while historical WEEE dominates what is being collected. On the other hand, the market-share allocation is only suggested in Article 8(1) of the WEEE Directive as an example for how to allocate the costs to manage historical WEEE proportionately.

⁹² Ibid. Supra note 40.

⁹³ Depending on the product category in question, there may be very little variance between the costs to manage individual producers brands. This of course should be considered when deciding on the suitability of individual financing mechanisms within collective schemes. At the same time, one should not under estimate how such incentives might drive firms to consider product alterations in order to reduce the cost of end-of-life management.

Another problem may arise when there are parallel imports of the same brand. This may pose difficulties in subsequently identifying who the appropriate producer for return-share purposes. If parallel importers are identified as producers in the national context and they subsequently do not label their products to distinguish themselves as the producer, it would not be possible to determine which producer to credit for the return (either the brand owner or the parallel importer). The implications of this are discussed further in Section 6.9.

Changes in the market share of producers over time may bring resistance to the return-share model. This is especially the case where certain producers who had a historically large share of the market in the past and currently have a smaller share are required to finance a proportionately larger share of the current costs. Similarly, variation in market share over time might make it difficult for producers to predict the recovery costs when based on return-share financial models. These points were all raised by ICT Milieu as being influential in the decision to move away from the return-share model.⁹⁴

Despite these difficulties, renewed interest in the return-share model for financing has emerged in Europe. The European Recycling Platform (ERP) has as recently as June 2007 conducted return-share pilots in Ireland and Portugal in order to investigate and demonstrate the feasibility of a return-share based system for IPR and to explore the return share data that is generated in comparison to existing data from the Netherlands and the USA. Results are complete for Ireland, where WEEE collected during one week period from 9 retailer and 10 civic amenity sites was collected and sorted by WEEE product categories 1-10, the product type and brand. Results are currently being analysed by ERP Ireland.⁹⁵

The issue of Accruals

As the WEEE Directive places financial responsibility on producers for the management of historical and future WEEE from private households differently, the question of how to treat this financial liability through accounting practices became an issue for corporate auditors. Namely, the WEEE directive had given rise to questions about when the liability for the management of WEEE for historical and new WEEE should be recognised. This was brought to the attention of the International Accounting Standards Board (IASB).

Through the work of the International Financial Reporting Interpretations Committee (IFRIC), a draft interpretation D-10 “Liabilities arising from Participating in a Specific Market—Waste Electrical and Electronic Equipment” was issued in November 2004. This was later released as IFRIC Interpretation 6: Liabilities arising from Participating in a Specific Market—Waste Electrical and Electronic Equipment in 2005 (IFRIC 6).⁹⁶

IFRIC 6 clarifies the timing upon which certain producers of electrical goods will need to recognise a liability for the cost of waste management relating to the

⁹⁴ Ibid. Supra note 40.

⁹⁵ Dempsey, Mark (2007, July 11). Personal Interview.

⁹⁶ IFRIC (2005). IFRIC Interpretation 6 Liabilities arising from Participating in a Specific Market – Waste Electrical and Electronic Equipment, IASB. London

end-of-life management of historical WEEE supplied to private households. IFRIC 6 states that the event giving rise to the liability for costs of such historical waste, and so its recognition, is participation in the market in a measurement period. In other words, this can be understood as a period in which market shares are determined for the purposes of allocating waste management costs for historical WEEE.

The Interpretation addresses neither new waste nor historical waste from sources other than private households. The liability for such waste management is adequately covered in IAS 37.

IAS 37, is one of the specific rules under the International Accounting Standards Board (IASB) that creates generic rules for the accounting treatment of all legal obligations with inherent financial liabilities. Specifically, IAS 37 provides rules under which accruals can or can not be made in internal accounts of organisations.⁹⁷

Since under Article 8(2) of the WEEE Directive producers are responsible for financing the waste from their own products placed on the market after 13 August 2005, a legal obligation is present satisfying one of the 3 essential criteria of IAS 37 that should be satisfied before making an accrual.

Even though IFRIC 6 may imply that if in national legislation new waste from private households is treated in a similar manner to historical waste the principles of the interpretation may apply, it is not explicitly stated.

Given the outcome of transposition with respect to Article 8 and the fact that many compliance schemes are not making a distinction between historical and new financing obligations, it can be expected that producers in different Member States will be subject to varying requirements when it comes to making accruals for WEEE management. This may result in an inconsistent application of accounting practices between Member States.⁹⁸

In fact, discussions with producers on this issue revealed that producers are uncertain if long-term provisions are needed for new WEEE, given that in certain Member States the WEEE transpositions do not make a distinction between new and historical WEEE liabilities. Even in the Member States where it is clear that for new WEEE, producers are responsible for the financing of the waste management of their own products, accountants seem to have varying views on whether long term accruals should be made for new WEEE. This is primarily due to fact that membership in a compliance schemes is considered the financial guarantee. Since the financing mechanisms of these collective schemes are based market share calculations, it is believed that IFRIC 6 should apply.

This issue of whether long-term accruals should be made or not by producers for new WEEE is not resolved, especially with respect to producers who are members in collective compliance schemes where membership in the scheme is considered the financial guarantee. On the other hand, the requirement is more certain if producers chose to organise their compliance individually, espe-

⁹⁷ IASB, IAS 37 Provisions, Contingent Liabilities and Contingent Assets, IASB, London, 1998

⁹⁸ http://ec.europa.eu/internal_market/accounting/docs/ias/roundtable/060920issues-paper.pdf

cially when the national legal text mandates individual financial responsibility for new WEEE, as in Article 8(2). This does not provide for a level playing field between collective compliance approaches and producers who wish to organise the management of WEEE take back individually. The issue will be further discussed in the following section 6.5.

6.5. Financial Guarantee: WEEE from Private Households

As the WEEE Directive stipulates individual financial responsibility for new WEEE, producers are required to finance the costs of waste management of their own products. As discussed in the previous section, although producers can choose to fulfil their obligations collectively, they are not forced to finance the cost of other producer's WEEE. Since it cannot be assumed that all producers that are on the market today will remain active on the market when their products are collected as WEEE, a financial guarantee is required so that these costs will not fall on society or other producers.

6.5.1. WEEE Directive Text

Reference to the requirement for a financial guarantee is found in Article 8(2) noted below:

Article 8 (2) Second paragraph: Member States shall ensure that each producer provides a guarantee when placing a product on the market showing that the management of all WEEE will be financed and that producers clearly mark their products in accordance with Article 11(2). This guarantee shall ensure that the operations referred to in paragraph 1 relating to this product will be financed. The guarantee may take the form of participation by the producer in appropriate schemes for the financing of the management of WEEE, a recycling insurance or a blocked bank account.

Three alternatives for financial guarantees are mentioned in the text;

- Participation by the producer in appropriate schemes for the financing of the management of WEEE
- A recycling insurance
- Blocked bank account

6.5.2. Transposition Outcome

This section presents the transposition outcome regarding the financial guarantee in two ways. The following table summaries the manner in which the Member States transposed the requirements related to guarantee in their legislation. When the assessment is "as WEEE Directive", it means the transposition is the same as what is found in WEEE. Mentioned is made when the content of the text is different from the WEEE directive and/or additional clarification/ requirements are made. Table 17, on the other hand, provides a summary on how Member States have interpreted the need for a financial guarantee in practice.

The Producer Responsibility Principle of the WEEE Directive
6. Member State Transposition of the WEE Directive

Table 16: Legal text reference to Requirement for Financial Guarantee in Article 8(2) ⁹⁹

	Legal Clause	Assessment
Austria	8	Producers in collective schemes are legally exempt from guarantee requirements 8(1)1. Producers with individual guarantees must sort products by brand during collection.
Belgium (Brussels)	10(1)	Guarantee required for both individual scheme and collective scheme but only needed for 6 months contingency (must be paid to Region)
Belgium (Flanders)	3.5.1A. (1)	As WEEE Directive
Belgium (Walloon)	Not reviewed	Not reviewed
Bulgaria	Not mentioned	-
Cyprus	8(3)	As WEEE Directive
Czech R.	37n(2)	Producers in collective financing schemes are legally exempt from guarantee requirements
Denmark ¹⁰⁰	12(6)	Producers are legally exempted from guarantee requirements if collective scheme has more than 10 producer members, or 30% share of WEEE market or any WEEE category.
Estonia	26 of Waste Act	As WEEE Directive
Finland ¹⁰¹	18m(2)	As WEEE Directive
France	16	Guarantees needed for both individual and collective compliance but only for current year of obligation
Germany	6(3) & 14(5)	As WEEE Directive, Guarantee in collective systems can be based on reciprocity 14 (5)
Greece	7. C. (1). a1. 7. C.(2). a1.	Guarantee: Annex VI, A & B - Mentions only the need to describe guarantee as mentioned in 7 C (1) a1: Individual alternative management systems – approval requires proof of necessary economic infrastructure and 7. C. (2) a1.: same as above for collective alternative management systems
Hungary	16	16 (7): Producers in collective financing schemes are legally exempt from guarantee requirements
Ireland	16(2)	Individual guarantees must secure future financing whereas collective guarantees must only assure sufficient 'contingency reserve' against current costs.
Italy	11(2)	As WEEE Directive
Latvia		20.6 of Waste Management Act requires producers that place EEE on the market after 13 August 2005 that have not fulfilled the obligations to collect and manage WEEE provide a guarantee with a bank guarantee or civil liability insurance.
Lithuania	3, Rule 2006, Nr.61	Five options are provided, including the membership in a licensed organisation. ¹⁰²
Luxembourg	9(2)	As WEEE Directive
Malta	9.(1) (c)	As WEEE Directive
Netherlands	5. Section 11. (4.)	II. Notes on individual sections: Guidelines say producers may choose collective historic financing for future waste when selecting guarantees. (section 11)
Poland	3, 18	Guarantee is limited to costs of current year and not future waste costs 18(1). (1).
Portugal	25 (3)	Producers with individual system must provide guarantees for each product sold, whereas collective systems must agree fee structures with the relevant ministry.
Romania	8(3)	As WEEE Directive

⁹⁹ The articles, sections and numbers referred to in this table are from the national legislation listed in Appendix 11.2. When more than two legal texts are analysed, the relevant law is specified.

¹⁰⁰ Statutory Order No. 664 of 27 June 2005 on the management of waste electrical and electronic equipment (the WEEE Order)

¹⁰¹ Waste Act (1072/1993; amendments up to 1063/2004 included)

¹⁰² Five options are found in Section 7.4.2.5.

The Producer Responsibility Principle of the WEEE Directive
6. Member State Transposition of the WEEE Directive

	Legal Clause	Assessment
Slovakia	54h(1)	Producers with individual system must provide guarantees for each product sold, whereas no requirements are set of guarantees from collective systems.
Slovenia	17	17(8): Producers in approved scheme do not need to provide guarantee. Individual guarantee is limited to 1 year operational costs, refundable at the end of each year.
Spain	7(5)	Producers with individual system must provide guarantees for each product sold, whereas producers in collective system must not.
Sweden	18	Interpretation of suitable financial guarantee forthcoming. Note from Ministry likely to allow producers to choose collective financing for new WEEE.
UK	None but see, Schedule 3: reg. 6 , new 28A (2) b(ii)	Schedule 3: regulation 6. new 28A (2) Mandates each scheme to submit a report by 31 Dec 2007 b(i) how members will finance their own future WEEE b(ii) how scheme provide a guarantee for future WEEE

The Producer Responsibility Principle of the WEEE Directive
6. Member State Transposition of the WEE Directive

Table 17: Member State requirements for Financial Guarantee in Article 8(2)

	Collective scheme membership is considered to be the Financial Guarantee	Financial Guarantee Required from all compliers	Product Tax is considered to be the de facto guarantee if proof of compliance is not satisfied
Austria	•		
Belgium	•103		
Bulgaria			•
Cyprus	•104		
Czech R.	•		
Denmark	•105		
Estonia	•		
Finland	•		
France	•		
Germany		•106	
Greece	•		
Hungary	•		
Ireland	•107		
Italy		•	
Latvia			•
Lithuania	•		
Luxembourg	•		
Malta	•		
Netherlands	•		
Poland	•		
Portugal	•		
Romania			•
Slovakia			•108
Slovenia	•		
Spain	•		
Sweden	•109		
UK	•		

Source: Adapted from Perchards WEEE Information Service

As seen, most Member States have interpreted membership in a collective compliance scheme to be an appropriate guarantee for new WEEE obligations. At the same time, producers that wish to comply individually must either have a

¹⁰³ Belgium: Collective scheme guarantee needs governmental approval

¹⁰⁴ Cyprus: Although required, little evidence to suggest proof of guarantee is being offered

¹⁰⁵ Denmark: collective scheme guarantee not needed if it has at least 10 members, or 30% of market share in the relevant WEEE categories, or if they satisfy more detailed Environment Agency requirements.

¹⁰⁶ Germany: For producers who choose PAYG for new WEEE, there are collective guarantee solutions available on the market: based on reciprocity.

¹⁰⁷ Ireland legislation does require a contingency reserve for compliance schemes

¹⁰⁸ Producers are required to pay into the Recycling Fund if not complying through individual or collective systems

¹⁰⁹ Swedish Environmental Protection Agency is presently not requiring financial guarantee from producers who are members of EI-Kretsen.

blocked bank account or recycling insurance to satisfy the guarantee requirement. In Germany and Italy (details forthcoming) and possibly Sweden (guidance document forthcoming) a financial guarantee is required by all compliers. However in Germany the guarantee can be based on a collective guarantee, which means that producers will be responsible for other producers' products in the event that one member exits the market.

6.5.3. Implications of the transposition outcome

6.5.3.1. Views of the stakeholders

CECED suggested that the 3 options mentioned in the Directive text are not meant to non-exhaustive list of options and serve more as examples of options.¹¹⁰ In their opinion, the 3 options of forms of financial guarantee can be translated in a number of tools available to producers to meet the requirement. Without going in to detail these could include the following options:

- Recycling insurance
- Blocked bank account
- Collective scheme based on reciprocity
- Trust
- Bank Guarantee
- Group Guarantee
- Securities

6.5.3.2. Analysis by the project team

As found from the section above, many MS exempts producers who are members in a collective compliance scheme from their duty to set aside financial guarantee for future WEEE. This transposition outcome has various implications, as discussed below.

Lack of a level playing field and inflexibility

The current transposition of many of the MS requires a producer that chooses to set up an own brand or limited brand compliance system to take out recycling insurance or create a blocked bank account as a financial guarantee. Both of these options are presumed to be significantly more costly than joining a collectively-organised compliance.¹¹¹ Meanwhile, producers joining a collective scheme are exempt from their duty of setting aside a financial guarantee in

¹¹⁰ CECED (2005) Presentation by Pascal Leroy on Financial Guarantees at INSEAD, Fontainebleau 5-6 July 2005

¹¹¹ In Germany, where there is a legal requirement to provide a financial guarantee regardless of the compliance approach taken, a number of insurance type solutions have emerged that have been developed by industry associations to meet this demand. According to the German producers we interviewed, the size of such insurance is very low. However, these guarantees can only be triggered when the last producer exits the market for a particular product category, making the risks of such an event occurring quite low. One might question the added value of such a guarantee, especially when the primary cost driver for this type of guarantee is related to the administrative coordination associated with the operation of the solution. Moreover, for producers that are placing small volumes of EEE on the market each year, it is often more economical to use a blocked bank account or an annual bank guarantee to manage the liability, as the fixed administration fee makes up the majority of the fee

many MS. This would mean more financial burden for producers choosing to set up an individual system or limited brand compliance scheme. Many producers have cited the fact that the added costs of providing a financial guarantee is one of many limiting factors hindering the development of individual or limited brand compliance schemes.

Moreover, for economic efficiency it is essential that a producer can leave one system and join another or establish his own. This will force the various actors to continuously improve their systems. This is equally important when it comes to the system for financial guarantees. A producer must be able to shift the way he/she organises the financial guarantee without jeopardising the guarantee for the products which are already on the market and without jeopardising the guarantees of an organisation to which he/she previously belonged.

Findings from our interviews with producers that have producer responsibility obligations on a Pan-European basis suggest that for the most part there has been little demand on the market for financial guarantee solutions. In their view, this is primarily a result of the fact that in most Member States membership in a compliance scheme is considered as the financial guarantee. Exception is the situation in Germany, where there is a legal requirement to provide a financial guarantee regardless of the compliance approach taken. A number of insurance type solutions have emerged that have been developed by industry associations to meet this demand. The adequacy of the type of guarantee in Germany can be questioned, as found in footnote 111.

In order to ensure a level playing-field for producers whether they choose to join a collectively-organised compliance system or establish an own-brand or limited brand compliance system, the requirements for a financial guarantee should be the same for both. This would also help allow a dynamic and flexible development of various efficient solutions.

Provision of adequate funds for WEEE Management

Recital 20 of the WEEE Directive provides an overall goal of the guarantee, namely that costs do not fall on society or the remaining producers on the market. Membership in a collective scheme based on the PAYG model that includes agreements on reciprocity, as considered by most Member States as an appropriate guarantee, can be questioned from this aspect.

There are a number of uncertainties regarding whether there will be adequate funds available to finance all new WEEE placed on the market. The risk is found primarily in countries where the national transposition addresses individual financial responsibility as written in the WEEE Directive, and at the same time the financial guarantee is waived for producers that are members of collective compliance schemes. In such a case, according to the law the producer could never be forced to finance the WEEE of other producers. If a major actor was to leave the compliance scheme either to develop its own individual systems, join another collective system, or exits the market due to insolvency, which negatively impacted the costs of all remaining producers in the scheme, there is no legal argument that would force the remaining producers to finance the WEEE of the actor leaving the scheme. Unless there were long-term agreements of producers that stipulate that producers could not leave the

scheme, the chances that this might occur are real. Moreover, if any player with significant market share were to leave the market or the collective scheme, potential system collapse cannot be ruled out.¹¹²

Member State concern over IPR: If market surveillance is not successful.

With IPR the market surveillance is essential in order to ensure that all actors on the market are identified and place a financial guarantee to ensure the availability of adequate funds for the end-of-life management of WEEE in the event of insolvency or bankruptcy. Therefore, increased onus is placed on Member States not only to survey the market, but also to ensure that financial guarantees will hold up to the test when they are called upon.

Conversely, this onus is placed on producer compliance schemes and producers when the collective approach to financing WEEE is chosen. This is because orphan products will be financed by actors on the market at the time when the cost to manage orphans occur. As discussed in Section 6.4, the MS concern over the market surveillance prompted them to argue for collective responsibility.

Lack of consultation with the financial sector and guidance to Member States

During the legislative process of the WEEE Directive, it was realised quite late that in order to ensure that IPR could be operationalised, there was a need for a financial guarantee to ensure that costs do not fall on actors other than the producer who placed the product on the market.

The requirement for a guarantee calls on Member States to build certain mechanisms to ensure that the financial guarantee would be available in the event that a producer is no longer present on the market when the costs to manage the new WEEE is incurred. There must be assurance that neither the producer nor the guarantee provider would be able to cancel the guarantee before it can be triggered. A guarantee should be secure from creditors in the case of bankruptcy or insolvency.

However, no guidance was provided in the WEEE Directive on what these mechanisms could be. Moreover, little consultation with the financial sector was undertaken to understand how the guarantee would impact a company's financial accounting and more importantly how these options would actually be put in practice. In order to facilitate further development of financial guarantee, existing knowledge in the field should be better cultivated. The role the producer register may play in the confirmation and suitability of producer guarantees, although not explicitly mentioned in the WEEE Directive, is an important consideration for Member States.

New WEEE insurance solution¹¹³

¹¹² This has occurred in the EL-Kretsen system in Sweden, where certain members of the TV and Radio sector exited EL-Kretsen due to high costs to manage their products. The effective market share of actors left in the system increased, making their costs also increase. At this point the affected actors referred to the national legal text, finding that they are legally obligated only on an old-for-new basis (as was the case in Sweden prior to the entry into force of the new law). They left the system so as not to have to contribute to the management of WEEE beyond their obligation. The collective PAYG systems may face similar circumstances.

¹¹³ www.elektronikatervinning.com and Tengå (2007), personal interview, 27 February.

Since April 2007 a newly established system for WEEE insurance has appeared on the Swedish market. The name is Elektronikåtervinningsföreningen (Association for Recycling of Electronics). The Association is owned by its members. It is open for all companies (WEEE Category 1-4), which are referred to as producers according to the ordinance implementing the WEEE Directive in Sweden.

The system builds on the fact that several EEE retailers are today offering various insurances for the products they sell. Such insurances have been a way to prolong the existing warranties. These retailers have established their own insurance companies in order to efficiently deal with a high number of low-value, and thus low-premium, insurances. They manage to operate such insurances by benefiting from computerised solutions and minimising the number of people involved. The new Association makes use of these insurance systems to minimise administrative costs. Additionally, the member companies will, because of the ownership structure, be able to regain future savings, emanating for instance from improved design solutions. The financial guarantee will ensure the coverage of future recycling cost for 15 years (universal to all the products).

With low administrative costs and good capital management, the Association promises to supply attractive financial guarantees to its members. They claim that the cost level they offer today is ca 80% of the main PRO in Sweden. More details can be found at Section 7.6.3. More details on the collection solutions, today presumably through the retailer outlets, are needed in order to make a more thorough evaluation of the system.

Financial Guarantee and Cross Border Distance Sales

German-based producers that sell EEE products to other Member States outside of Germany through distance communication are required to register in Germany. Although they are responsible to report these sales, there is no obligation to finance WEEE in Germany. This is reasonable as producers of these products will not end up as WEEE in Germany. However, the requirement for a financial guarantee is upheld. Given that in Germany, the most common form of guarantee is a collective one, there will be no way a third Member State would be able to trigger the guarantee if the producer was insolvent. Plus, the distance seller would be required to join a compliance scheme in the country where the end user was located anyway.

6.6. Visible Fee for Historical WEEE from Private Households

6.6.1. WEEE Directive Text

Article 8(3) of the WEEE Directive stipulates the financial mechanisms for historical WEEE from private households. Its second paragraph makes it possible for producers to show costs for retrospective financing of historical WEEE for 8 years (10 years for Category 1) after the directive comes into force. Producers are allowed to show purchasers at the time of sale of new products, the cost of collection, treatment and disposal of historical WEEE.

Article 8(3) second paragraph

Member States shall ensure that for a transitional period of eight years (10 years for category 1 of Annex IA) after entry into force of this Directive, producers are allowed to show purchasers, at the time of sale of new products, the costs of collection, treatment and disposal in an environmentally sound way. The costs mentioned shall not exceed the actual costs incurred.

6.6.2. Transposition Outcome

The following table indicates the way in which MS transpose the second paragraph of Article 8.3 in their national legislation. It also summarises the implementation status of the Member States concerning the use of visible fee for financing of the management of historical WEEE.

Table 18: Use of visible fee for financing of the management of historical WEEE: legislative text and practice in EU 27

Member State	National Transposition	In practice
Austria	Optional	Not used
Belgium	Optional	Mandatory for Recupel members
Bulgaria	Optional	
Cyprus	Optional, but if opted for use, then must be shown through the supply chain	
Czech R.	Optional	Most systems use it
Denmark	Optional	
Estonia	Optional	
Finland	Optional	Serty & EIKER members: yes certain categories NERA: no
France	Mandatory	Mandatory
Germany	Optional	Not used
Greece	Mandatory, through supply chain but not to final consumer where it is included in price	Used
Hungary	Optional: historical and new WEEE	Used for Cat 1, 4, not many in Cat 3
Ireland	Mandatory for certain categories	Not used for Cat. 3, 7, 8,9,10
Italy	Optional	Used (certain categories)
Latvia		Not Used
Lithuania	Optional, but if opted for use, then must be shown through the supply chain	Not used
Luxembourg	Optional	Mandatory for Ecotrel members
Malta		
Netherlands	Optional	Used by NVMP members Not used by ICT Milieu
Poland	Optional	Used Cat 5 (lamps)
Portugal	Optional	Mandatory in one scheme
Romania	Optional	
Slovakia	Optional	Envidom & SEWA members use VF
Slovenia	Optional	

Member State	National Transposition	In practice
Spain	Mandatory	Used
Sweden	No explicit mention	Not used
UK	Optional	Not used

6.6.3. Implications of the transposition outcome

There are a number of potential problems that have already arisen or may arise in the future with respect to use of the visible fee for financing historical WEEE obligations.

Retailers/Distributors

In general retailers/distributors have questioned the costs needed to alter existing IT systems and investments used for billing and taxes to accommodate the visible fee. They are most likely a key determinant for its practical use in MS.

Mandatory Visible Fee and Competing Collective Compliance Schemes: Actual Costs

In countries where a non-differentiated standard visible fee per type of product is mandatory on the one hand, while the competition between compliance schemes exist on the other, appears to be in conflict with market principles. Having a standard fee that is charged at the point of sale on the one hand and competition for waste management to reduce costs for producers could be interpreted as price-fixing.

Mandatory Visible Fee and Free-riders

If visible fees are made mandatory by Member States, any producer that is not fulfilling their obligations under the law would essentially be profiting any fee collected at the point of sale, either indirectly if fees collected are by retailers and passed on to producers, or directly if prices are increased to reflect the visible fee when sold to distributors or retailers. Unless rigorously monitored by authorities the potential for this activity is quite high. For example, in Spain, ORPAEE – Observatory of the Registry of EEE Producers – has estimated that EUR15 million in visible fees are fraudulently collected each year by unregistered producers. ORPAEE has estimated that the largest proportion of illegally collected fee was in the EEE Categories 3 & 4 (70%), followed by power tools with EUR 5 million and small domestic appliances at EUR 3 million¹¹⁴.

Visible Fee used beyond financing Historical WEEE

Although the visible fee is only to be used to cover the costs of managing historical WEEE, it would appear that some compliance schemes may be including the cost to deal with future WEEE in the visible fee charged to consumers.

For example, on Recupel's (Belgian national compliance scheme) website, the visible fee paid by the consumer is described as follows:

¹¹⁴ Perchards WEEE information Service (2007). Country Report: Spain

“Each appliance is defined according to highly specific criteria. An amount is assigned to each appliance that covers the costs of its recycling. A small part of this contribution is also used for recycling equipment that was brought onto the market before the take-back obligation came into force. The list is revised every year and is communicated to the public after it has been approved by the authorities.

The contribution is paid by the end-user purchasing a new appliance. To better inform consumers, the law stipulates that the amount of the contribution must be clearly displayed on the shelves in the store and in catalogues, brochures and advertisements.”¹¹⁵

Cost-Internalisation: Compliance cost compounds as it moves through the supply chain

Common practice for retailers when pricing products is to use a standard mark-up percentage to retailers purchase price from wholesalers or manufacturers. Therefore, certain actors have argued that if the visible fee for WEEE management is not shown separately in the supply-chain, the cost to manage WEEE would actually be compounded as retailers add their standard percentage mark-up. A counter-argument to this view is that end-of-life costs are just another cost associated with bringing the product to market and that it is not realistic to think that other costs (e.g. labour) would ever be shown with a visible fee.

6.7. Distance Sellers

6.7.1. WEEE Directive Text

In order to avoid that traditional distribution channels have a disproportionate economic burden compared with distance or electronic selling channels, Recital 9¹¹⁶ outlines that provisions of the WEEE Directive should equally apply to products and producers irrespective of the selling technique used. The inclusion of distance sellers can be found in the legal text in the Directive specifically in Articles 3(i) on the definition of producers, Article 8(4) concerning financial mechanism and Article 12(1) on information and reporting.

Article 3(i): ‘producers’ means any person who, irrespective of the selling technique used, including by means of distance communication in accordance with Directive 97/7 of the European Parliament and of the Council of 20 May 1997 on the protection of consumers in respect of distance contracts: ...

Article 8(4): Member States shall ensure that producers supplying electrical or electronic equipment by means of distance communication also comply with the requirements set out in this Article for the equipment supplied in the Member States where the purchaser of that equipment resides.

Article 12 (1) second paragraph: Member States shall ensure that producers supplying

¹¹⁵ Recupel's homepage:

http://www.recupel.be/portal/page?_pageid=531,770625,531_770634&_dad=portal&_schema=PORTAL

¹¹⁶ The provisions of this Directive should apply to products and producers irrespective of the selling technique, including distance and electronic selling. In this connection the obligations of producers and distributors using distance and electronic selling channels should, as far as is practicable, take the same form and should be enforced in the same way in order to avoid other distribution channels having to bear the costs of the provisions of this Directive concerning WEEE for which the equipment was sold by distant or electronic selling.

electrical and electronic equipment by means of distance communication provide information on the compliance with the requirements of Article 8(4) and on the quantities and categories of electrical and electronic equipment put on the market of the Member States where the purchaser of that equipment resides.

For the purposes of this section we focus on the treatment of distance sellers with respect to cross-border sales only. We do not look at the requirements for distance sellers that are located on a national market and selling domestically, although this may have implications in terms of obligations for 1:1 take back of products.

6.7.2. Transposition Outcome

This section aims to provide a complete picture of how all 27 Member States have transposed and implemented the obligation on distant sellers stipulated in the WEEE Directive. In addition to reviewing national legal text and gathering information from MS national registers via questionnaires, the results of two existing works are compared. One of them was a study commissioned by the Nordic WEEE working group of the Nordic Council of Ministers and conducted by KPMG,¹¹⁷ and the other was data from Perchards WEEE information service. The findings from the former served as the starting point for the research on this issue.

The main finding from the KPMG study was the emergence of two main patterns or approaches that Member States take when handling the registration of distance sellers selling products to end-users in other EU states. These are as follows:

- Approach 1: Registration of distance sellers in the **sellers'** Member State
- Approach 2: Registration of distance sellers in the **end users'** Member State

In countries that apply Approach 1, companies selling EEE by distance to end users in other Member States must register in their home Member State and report the number of products placed on the market in each Member State where products are sold. On the other hand, countries that apply Approach 2 require companies selling EEE by distance to register and report the number of products placed on the market in the Member State where the end users are located. Given the wording of Article 8(4) it is not surprising that MS have taken varying approaches to registration and reporting of cross border distance sellers.

The table Table 19: Inclusion of distant sellers and exporters in the MS legal text below provides a summary of how each Member State handles the registration and reporting of producers that are involved in cross border distance sales. The column furthest to the right denotes which of the approaches MS take, as reported in the administered questionnaire.

¹¹⁷ The Nordic WEEE working group of the Nordic Council of Ministers organised a workshop regarding the way in which the 27 MS have defined the obligations of distance sellers on November 9-10, 2006. The purpose of the workshop was to create an overview of Member States' implementation of the requirements for distance sellers as well as to facilitate cooperation at a European level with a view to coordinating Member States' measures towards distance sellers. As part of the preparatory work for the workshop, consultants KPMG administered a questionnaire to 16 Member States and Norway, with operating national producer registers.

The reported practice was compared to how distance sellers are dealt with in the national transposition text regarding definition of producers. In second column from the left the reference article to the definition of producer is stated. The third column indicates whether a MS has included distance sellers in the definition of producer. The fourth column states whether the definition of producers includes exporters as obligated parties. The fifth column denotes in the cases when distance sellers are not mentioned in the definition of producer, whether or not other articles in the legal text stipulates distance seller obligations separately. The sixth column represents the expected approach to be taken by MS given the outcome of columns 3, 4, 5. If distance seller and exporter are included in the definition of producers, Approach 1 is expected to be taken. If specific obligations are defined (found in column 5) and indicate either Approach 1 or 2, this indication is considered as the expected approach.

The Producer Responsibility Principle of the WEEE Directive
6. Member State Transposition of the WEE Directive

Table 19: Inclusion of distant sellers and exporters in the MS legal text

Member State	Definition of Producer (Legal Clause)	Distance Seller included in producer definition	Exporter included in definition	Where distance seller not included in definition, Specific Obligations further defined	Approach expected from the definition	As Reported by National Register
Austria	13(1) of AWG	No	Yes	Yes 7(4), 15(3), 21, 23(2)	1	1
Belgium (Brussels)	1(3)	Yes	No		2	1
Bulgaria	No definition in the legal text available					
Cyprus	2(1)	Yes	Yes		1	
Czech R.	37g. (e)	Yes	No		2	2 ¹¹⁸
Denmark	9(2)	No	No	Yes, 5(1), 5(2)	2	2
Estonia	1(5)	Yes	Yes		1	1 & 2
Finland	3(9)	Yes	Yes		1	1
France	3(1)	No ¹¹⁹	No	No	2 ¹²⁰	2
Germany	3(11)	Yes	yes		1	1
Greece	3(15)	Yes	Yes		1	2
Hungary	2(d-f)	No	No	No	none	2
Ireland	3(3)	Yes	Yes		1	1 & 2
Italy	3. (1)m	Yes	Yes		1	1
Latvia	20 ²	Yes	Yes		1	2
Lithuania	2(18), (19), (32) Law on Waste Management	No	No	Yes, 34(4) para 2, Law on Waste Management	-	¹²¹
Luxembourg	3(i)	Yes	Yes		1	1
Malta	3(1)	Yes	Yes		1	-
Netherlands	1, Section 1(j)	Yes	Yes		1	1
Poland	3(12) (13)	No	No	No	none	1
Portugal	3(d)	Yes	No		-	2 ¹²²
Romania	3(i)iii	Yes	Yes		1	1 & 2
Slovakia	54a(10)	Yes	No		-	¹²³
Slovenia	3(20)	Yes	Yes		1	1
Spain	2 (c), (d)	Yes	Yes		1	1 & 2
Sweden	3	No	Yes	Yes, 9(1)	1	1
UK	2 (1)	Yes	Yes		1	1 & 2

¹¹⁸ Czech Republic: An amendment is likely to allow Foreign Distance seller to register

¹¹⁹ Distance seller is included in the definition of Distributor

¹²⁰ In September 2006 ADME User manual for producers: Distance seller from abroad considered producer and must register

¹²¹ Lithuania: National Register reported that distance sellers are not required to register

¹²² Portugal: Obligated to register but foreign entities currently cannot register

¹²³ Slovakia: National Register reported that distance sellers are not required to register

The results received from national registers indicate that of the 27 Member States, **10 apply Approach 1** exclusively, while **7 Member States exclusively apply Approach 2**. **Five (5) Member States have chosen to combine Approaches 1 and 2**, requiring both domestically-based cross border distance sellers as well as foreign distance sellers selling on their national markets to register and report sales. **2 MS** report that cross-border distance sellers are not required to register. At this point, we are uncertain about the standing of **3 Member States** and their approach taken.

6.7.3. Implications of the Transposition outcome

Lack of clarity in how distance sellers should fulfil their duties

The provision of Article 8(4) implies that when Member States transpose the WEEE Directive into their national statutes, a provision must be included that mandates any distance seller located in that Member States' domestic market to comply with the other 26 Member States equivalent WEEE legislation, as regards to the obligations of financing WEEE from private households. In Article 12(1) second paragraph, Member States shall also ensure that producers supplying EEE by means of distance communication provide information on the compliance with the requirements of 8(4) and on the quantities and categories of EEE put on the market of the Member States where the purchaser of that equipment resides. With the definition of distributor¹²⁴, the obligation to accept WEEE on a 1:1 basis would seem to also apply to distance sellers regardless of their location, especially in light of Recital 9¹²⁵. Recital 9 intends to ensure that a level playing field is established for actors distributing products to end users regardless of the selling technique.

Despite these, the Directive is not specific with how these obligations should be carried out (by the distance seller) or how reporting and monitoring compliance is coordinated between the Member States where the distance seller is located and the Member State to where the distance seller is selling to.¹²⁶ Lack of specification raises uncertainties of the obligations of distance sellers.

Emergence of two approaches

As presented in the previous section, varying approaches have been taken by MS regarding registration and reporting. The consequences of this variance causes two main problems when particular combinations of approaches are applied depending on whether the distance seller or end user is located in a Member State applying Approach 1 or Approach 2. The table below summa-

¹²⁴ j) 'distributor' means any person who provides electrical or electronic equipment on a commercial basis to the party who is going to use it;

¹²⁵ The provisions of this Directive should apply to products and producers irrespective of the selling technique, including distance and electronic selling. In this connection the obligations of producers and distributors using distance and electronic selling channels should, as far as is practicable, take the same form and should be enforced in the same way in order to avoid other distribution channels having to bear the costs of the provisions of this Directive concerning WEEE for which the equipment was sold by distant or electronic selling.

¹²⁶ The explicit mention of distance sellers obligations as producers, is not repeated in Article 9 – Financing in respect of WEEE from users other than private households, while at the same time the definition of producer in Article 3(j) unequivocally includes distance sellers.

risers the impacts on Distance sellers depending on the MS approach from where they are selling and that of their clients (where selling EEE to).

Table 20: Registration & Reporting Requirements on Cross Border Distance Sellers

MS Location of Distance Seller	MS Location of End User	Registration & Reporting Requirements	Assessment
Approach 1	Approach 1	Register and Reports in Home MS	Reporting Functions
Approach 2	Approach 2	Register and Reports in End User MS	Reporting Functions
Approach 1	Approach 2	Register and Reports in both Home and End User MS	Double Reporting
Approach 2	Approach 1	No Registration or Reporting to either MS	No Reporting

Two main problems arise and are as follows. Either a distance seller is **obligated to register in both** Member States where selling from and selling to, or a distance seller **will not be obligated to register** neither in its home Member State nor in the Member State where the end-user is located.

The first complication (Scenario 1) arises when a distance seller is located in a Member State that applies Approach 1 and sells to an end user located in a Member State using Approach 2. In this scenario, the distance seller will be obliged to register at least twice (and absorb the duplicated costs of registration and reporting, and possibly for the management of historical and future WEEE costs).

The second complication (Scenario 2) arises when a distance seller is located in a Member State that applies Approach 2 and sells to an end user located in a Member State using Approach 1. In this scenario, the distance seller will not be obliged to register in either its home Member State nor the Member State where the end user is located.

These two scenarios are clearly unacceptable outcomes of the lack of a harmonised approach in addressing obligations of cross-border distance sellers, which clearly should be addressed in the WEEE review process. There are advantages and disadvantages to each of the approaches (discussed below), however it is necessary to ensure that a consistent application of Member State requirements to register, report and finance WEEE from producers that sell on distance across borders is agreed upon.

The Producer Responsibility Principle of the WEEE Directive
6. Member State Transposition of the WEEE Directive

Table 21: Advantages/disadvantages of using Approach 1 or Approach 2 for the handling of registration and reporting of Distance Sellers by Member States

Issue	Approach 1	Approach 2
Administrative burden for Distance Sellers	(less) Only need to register in home Member State	(more) Must register in all Member States where selling to
Administrative burden for Member States	(more) Required to pass on producer and sales data to all other Member States	(less) All distance sellers report directly to National Register
Difficulty in identifying free riders	(less) Obligated producers are located in Member State jurisdiction	(more) Need to identify distance sellers in all other Member States
Difficulty in securing financing from distance seller	(more) Rely on other Member State registers ability to identify distance sellers	(less) Since the distance seller is registering directly, easier to secure proof of financing at time of registration
Difficulty in Enforcement and Legal Prosecution	(less) Registered companies within Member State legal jurisdiction	(more) Registered producers outside legal jurisdiction
Possibility to Register Distance Sellers outside EU	Not possible	Possible

Given that under half of all Member States are exclusively using Approach 1, the likelihood that both the distance seller and the end user are located in Member States is greater than any of the other possible combinations of distance seller and end user. However, it is clear that the problems of double registering and reporting and possibly double financing of WEEE can arise, if are not already (When a distance seller located (Approach 1) sells to an end user located in a Member State (Approach 2)).

Potential Solution Proposed

One of the working groups proposed a potential solution to address the problems caused when Member States take dissimilar approaches to the treatment of distance sellers. The proposal is based primarily on **Approach 1**, and is built on the following 5 points¹²⁷.

- Distance sellers register and report all sales to end user located in other Member States, to their home country. Distance sellers are obligated to participate in the financing of WEEE in the end users Member State. The Member State where the distance seller is based informs the end user Member State the amount and type of products sold.
- Under this approach, when registering, distance sellers should be required to sign a declaration stipulating the sales and type of products sold to end users in all applicable Member States and for complying with financing obligations. The proposal suggests that in each Member State national law, distance sellers should be required to comply with the WEEE legislation in the Member States where selling to. In this context, the distance sellers

¹²⁷ Nordic Council of Ministers (2007). Distance sale of electrical and electronic equipment to consumers, EU WEEE Workshop 9-10 November 2006 in Copenhagen. Tema Nord 2007:526

should be obliged to join a collective system, and likewise collective systems should accept their membership.

- An agreement should be made between the home and end user Member State which coordinates the management and organisation of data collection, data exchange and enforcement. This includes legislation and procedures for the following:
 - Data collection from the distance sellers;
 - Monitoring/verification of the data collected from the distance sellers;
 - Exchange of data from home Member State to the end user Member State. In that area, an EU clearing house for the exchange of information, e.g. by using the EIONET platform, was mentioned;
 - Request in case of non-compliance and how to manage this;
 - Market surveillance. Distance sellers should be obliged to keep sales records for a number of years for the purpose of inspections;
 - Enforcement. The authorities in the distance seller's home Member State should be able to enforce and prosecute the distance seller on behalf of other Member States. This might require new legislation.
 - In the area of enforcement, cooperation with the VAT authorities and using information on the distance sellers from the VAT and tax systems were mentioned.
- WEEE financial obligation should be paid directly by the distance seller to the end user Member State. Based on the reported sales, the WEEE Bodies (Register/compliance scheme) where the end user is located sends an invoice to the distance seller who should pay the financing obligations
- As an alternative to reporting sales to the distance seller home Member States, the distance seller registers sales to the end users Member State register but is still required to register in the home Member State. This may solve concerns of distance sellers with respect to exchange of confidential data between Member State registers.

6.8. Allocation of Responsibility of WEEE other than WEEE from Private Households

6.8.1. WEEE Directive Text

Directive 2003/108/EC amends 2003/96/EC with regards to financing WEEE from users other than households, as follows.

Article 9: Financing in respect of WEEE from users other than private households

1. Member States shall ensure that, by 13 August 2005, the financing of the costs for the collection, treatment, recovery and environmentally sound disposal of WEEE from users other than private households from products put on the market after 13 August 2005 is to be provided for by producers.

Member States shall ensure that, by 13 August 2005, for WEEE from products put on the market before 13 August 2005 (historical waste), the financing of the costs of management is as set out in the third and fourth subparagraphs. For historical waste being replaced by new equivalent products or by new products fulfilling the same function, the financing of the costs shall be provided for by producers of those products when supplying them. Member States may, as an alternative, provide that users other than private households also be made, partly or totally, responsible for this financing.

For other historical waste, the financing of the costs shall be provided for by the users other than private households.

2. Producers and users other than private households may, without prejudice to this Directive, conclude agreements stipulating other financing methods.

The Commission acknowledged industry concern over the impact of retroactive financial responsibility for historical non-household WEEE, due to changing market share structure over time. For historical non-household WEEE, producers are only responsible when they supply new products on an old-for-new basis. The amendment does not change the obligations with respect to responsibility for new waste. Producers are responsible for the financing of the costs of collection, treatment, recovery and environmentally sound disposal of WEEE from users other than private households for products placed on the market after 13 August 2005.

Producers are also provided the option in Article 9(2) to conclude contracts with end users stipulating other financing methods for new WEEE.

6.8.2. Transposition Outcome

The table below summarises how MS have allocated the financing of B2B WEEE. Except for Germany, France and the Netherlands, all MS determined that for historical WEEE, producers are responsible to accept WEEE from end users when purchasing new products. If end users of historical WEEE are not purchasing new equipment the responsibility rests with the end user. However in Germany, France and the Netherlands the end user is responsible for financing all B2B historical WEEE.

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For products placed on the market after 13 August 2006¹²⁸, producers have the general obligation in all MS to finance the WEEE from users other than from private households. However, according to Article 9 (2) producers and users other than private households may conclude stipulating other financing methods.

Table 22: Allocation of Responsibility to finance WEEE from users other than households

Member State	Historical WEEE (Put on the Market before 13 August, 2005)	New WEEE
Austria	1:1	Producer
Belgium	1:1	Producer
Bulgaria	1:1	Producer
Cyprus	1:1	Producer
Czech R.	1:1	Producer
Denmark	1:1	Producer
Estonia	1:1	Producer
Finland	1:1	Producer
France	End User	Producer
Germany	End User ¹²⁹	Producer
Greece	1:1	Producer
Hungary	1:1	Producer
Ireland	1:1	Producer
Italy	1:1	Producer
Latvia	1:1	Producer
Lithuania	1:1	Producer
Luxembourg	1:1	Producer
Malta	1:1	Producer
Netherlands	End User	Producer
Poland	1:1	Producer
Portugal	1:1	Producer
Romania	1:1	Producer
Slovakia	1:1	Producer
Slovenia	1:1	Producer
Spain	1:1	Producer
Sweden	1:1	Producer
UK	1:1	Producer

Orgalime has produced a “Guide to contractual options for producers selling business-to-business equipment” to assist producers that would like to stipulate alternative financial contractual arrangements with end users. It discusses four possible contractual options available to producers which include; 1. Producer retains all obligations., 2. Producer transfers all obligations, 3. Producer transfers obligations of financing and 4. Producer transfers obligation of collection.

¹²⁸ Dates may vary in certain MS.

¹²⁹ Historical WEEE refers to put on the market before 24 March, 2006

Depending on the MS national law, it may or may not be possible to transfer the obligations to both collect (Article 5(3) of the WEEE Directive) and finance B2B WEEE. The guide reviews this possibility for 15 MS including; Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Portugal, Slovenia, Spain, Sweden and the UK. According to the Orgalime guide,

- It is possible to transfer all obligations (collection and financing) to end users in 7 of the 15 MS reviewed (Belgium, Czech Republic, France, Germany, Italy, Spain and Sweden).
- In all of the 15 MS reviewed it is possible for the producer to maintain the sole obligation for financing of the take back and recycling of B2B WEEE with the exception of Slovenia where it is unclear.
- Among the MS reviewed it is possible for the producer to transfer the obligations of collection to the end user in Belgium, Czech Republic, France, Germany, Italy, Spain and Sweden. This is not possible in Austria, Denmark, Finland, Ireland, Netherlands and Portugal.¹³⁰

6.8.3. Additional Responsibilities

According to Article 8 of the WEEE Directive, a financial guarantee is required to ensure the financing of WEEE placed on the market after 13 August 2005. There is no explicit mention of the requirement for a guarantee for WEEE from users other than private household. However certain some MS have extended the requirement for a financial guarantee for B2B products in addition to EEE from private households.

¹³⁰ Orgalime (2006). Orgalime Guide, Guide to contractual options for producers selling business-to-business equipment. Brussels.

Table 23: Additional responsibilities for B2B Producers in MS

Member State	Requires Waste Plan to be Approved	Financial Guarantee
Austria	No	No
Belgium	Yes	Yes
Bulgaria	Yes	Undetermined
Cyprus	Yes	Yes
Czech R.	Yes	No
Denmark	No	No
Estonia	Yes	Yes
Finland	Yes	No
France	No	No
Germany	No	No
Greece	Yes	No
Hungary	Undetermined	Undetermined
Ireland	Yes	No
Italy	No	Yes
Latvia	No	Undetermined
Lithuania	No	Undetermined
Luxembourg	Yes	No
Malta	Undetermined	Undetermined
Netherlands	Yes	Undetermined
Poland	No	Undetermined
Portugal	No	Yes
Romania	Undetermined	Yes
Slovakia	Undetermined	Yes
Slovenia	Yes	Undetermined
Spain	Yes	Undetermined
Sweden	No	No
UK	No, but must report through a collective system	No

6.8.4. Implications of the transposition outcome

Due to the differences of the requirements given in relation to B2B and B2C (**B2C/B2B split**), several issues have been arisen that may impact the implementation practices. They are of special relevance to the so-called **dual use products** – products used by both private households and institutional users. Dual-use products include products such as mobile phones, laptop computers, desktop PC, but may also include refrigerators and stoves that are often found both in work offices and homes.

Migration of products from business users to private households

It is important to ensure that the management of WEEE of dual use products sold to businesses, subsequently migrate to private households and eventually discarded, is financed. To address this migration issue, many MS have man-

dated that unless otherwise proven, all dual use products should be declared as B2C EEE. Although this may help to ensure that all WEEE that migrates to household users is financed, it may also have certain negative impacts as well.

In the case when dual use products sold to businesses are classified as B2C (laptops, mobile phones, etc.) and must be reported to the national register as B2C, several issues arise. Since in many cases the clearing house uses this reported figure to calculate market share obligation of a producer, if producers have contracts with their commercial clients to manage end-of-life products (for the same products that are classified as B2C), there is a concern that producers are in essence paying twice for the management of these products. Once they are put on the market, and second when WEEE from the business is treated.

Certain countries such as in Austria and Germany have attempted to address this by allowing producers to deduct any dual use products classified as B2C that they have collected from businesses by their own efforts from their B2C obligations calculated by the clearing house.

Provision of collection sites for business users

If producers declare dual use products sold to businesses as B2C, whether or not these businesses have access to collection points for disposal becomes a potential issue that needs to be considered. If businesses are not allowed access to municipal collection sites to dispose of their WEEE, producer's compliance scheme should make alternative arrangement to collect this WEEE from businesses. This is true especially when fees have been levied based on the number of products placed on the market. It also applies to systems where costs to manage WEEE collected from private households is based on market share.

Take-back of other producers' WEEE as common business practice

Depending on the product category it is fairly common that producers agree to take back the products that the new sale is replacing at the time of delivery or soon thereafter. These replacement products may not be the same brand as the products being replaced. One question that emerges is how could this impact responsibilities for own new B2B WEEE. If it is expected that producers will continue to offer collection of B2B WEEE on a 1:1 basis would producers also need to have dedicated systems for new WEEE? This has not been determined in any detail.

Added responsibility and selection of compliance approaches

As found in Table 23 among the responsibility added to the B2B producers are development of waste management plan and provision of financial guarantees. Administrative burden associated with developing a waste management plan may limit the development or continuation of individual compliance systems for B2B products and clients. Producers may simply decide to contract the same compliance scheme that handles its WEEE from private households obligation, instead of developing or operating its own system for B2B WEEE.

Similarly, although the requirement for a financial guarantee in Article 8(2) of the WEEE Directive applies to WEEE from private households, some Member

States have extended the obligation for a financial guarantee for WEEE from users other than private households. If membership in a collective scheme is considered to be the financial guarantee, as is the case for WEEE from private households, then producers may be inclined to join such compliance schemes to avoid more costly guarantee options associated with individual compliance

This may have a negative effect on the development of producers' national Europe-wide individual take back systems which have been developed either before the onset of the WEEE Directive or in response to new obligations.

EICTA's proposed criteria list

EICTA¹³¹ has proposed the following list of criteria that could be applied when deciding how to classify an EEE when it is placed on the market.

1. Evidence in the form of signed contract between the business user and the Producer (or party representing the Producer e.g. reseller under contract), that clearly assigns responsibilities for end of life collection and treatment costs, ensuring that the EEE will not be disposed of through municipal waste streams, or
2. EEE that due to its features is not used in private households and that will therefore not be disposed of through municipal waste streams. This criterion should be supported by either one or a combination of the following criteria:
 - a) EEE that is operated by specialised software as for example an operating system or system environment requiring a special configuration for professional use.
 - b) EEE operating at a voltage or having a power consumption outside of the range available in private households
 - c) EEE requiring professional licenses to operate, e.g. Base Stations requiring the license of the telecommunication regulator
 - d) EEE of large size or weight requiring to be installed and de-installed or transported by specialists
 - e) EEE which requires a professional environment and / or professional education (e.g. medical X-ray equipment)
 - f) EEE in category 10 of Annex 1A
 - g) EEE outside of the scope of the General Product Safety Directive for consumer products

Sub-points a-g in point 2 seem to provide a clear indication that these types of products would never end up as WEEE from private households. The first criteria point might be more difficult to ensure compliance with as these products

¹³¹ EICTA, AEA, JBCE. (2006). Input for Information Gathering Exercise for review of Directive 2002/96/EC. Brussels, 11 August 2006.

may end up being re-sold to users from private households. This would be difficult to monitor in practice. However, by not allowing this option many initiatives by individual producers to take back WEEE would be discouraged to do so.

6.9. Labelling of EEE – Producer Identification

6.9.1. WEEE Directive Text

There are two references in the WEEE Directive, requiring producers to mark their products in order to identify the responsible producer. The first reference is in Article 8(2), where financial obligations for new WEEE are laid down.

Article 8(2) second paragraph

Article 8(2) second paragraph

...and that producers clearly mark their products in accordance with Article 11(2)

From this reference to Article 8(2) it is clear that producer identification is deemed crucial by the legislators in order to facilitate the requirement that producers are responsible to finance the management of WEEE from their own products.

The second and primary requirement is found in Article 11: Information for treatment facilities.

Article 11(2)

Member States shall ensure that any producer of an electrical or electronic appliance put on the market after 13 August 2005 is clearly identifiable by a mark on the appliance. Furthermore, in order to enable the date upon which the appliance was put on the market to be determined unequivocally, a mark on the appliance shall specify that the latter was put on the market after 13 August 2005. The Commission shall promote the preparation of European standards for this purpose.

In accordance with Article 11(2) on 12 June 2004 the Commission issued mandate M/336 EN to CEN/CENELEC/ETSI to develop a European standard to facilitate a harmonised approach to the labelling of EEE products. Obviously, a European standard was considered important in this context, as producer identification and distinction between new and historical WEEE would subsequently be used to allocate costs among producers. If an ad hoc approach would have been applied, ambiguities over identification and whether a product is new or historical WEEE has the potential to cause legal uncertainty over producer responsibilities.

In January 2005 CENELEC published EN 50419:2005 which has subsequently been replaced by EN 50419:2006, after an initial review by the European Commission required minor changes to be made from the original standard.

Accordingly, EN 50419:2006¹³² denotes the following requirements for **identification of the producer**. The standard notes that in order to identify the producer a number of options for marking exist for producers. Marking can take

¹³² EN 50419:2005 - Marking of electrical and electronic equipment in accordance with Article 11(2) of Directive 2002/96/EC (WEEE)

the form of a brand name, trademark, company registration number or other suitable means to identify the producer.

The document further states that whichever option is chosen, this shall be recorded in the Member States' register of producers in accordance with Article 12(1) of the WEEE Directive.

Producers have the option of identifying that their products have been placed on the market by either: 1) The date of manufacture/put on the market, in un-coded text in accordance with EN 28601 or other coded text, for which the code shall be made available for treatment facilities, or 2) Marking as shown in Figure 1 being an additional mark used in conjunction with the crossed-out wheeled bin in accordance with Annex IV of Directive 2002/96/EC already required under Article 10(3) of this Directive.

The additional marking to the crossed-out wheeled bin referred to above should consist of a solid bar, with specific height requirements. The bar shall only be used in conjunction with the crossed out wheeled bin. The bar shall not contain any text or any kind of additional information.¹³³

6.9.2. Transposition Outcome

Table 24 indicates the requirements related to producer identification stipulated in the Member States. The assessment includes 1) whether the producer identification is required or not, 2) if B2B and/or B2C products are covered by the producer identification requirements, and 3) whether any additional remarks/requirements have been made.

Furthermore, if the definition of producer in the national legal text is defined to include intra-community imports (i.e. the so-called national approach discussed in Section 6.1), and the requirement to mark products for producer identification only mentions that "producers" must do so, we classify this as a "national" requirement. In this case, any obligated producer would need to ensure that his/her name can be identified on the product.

Conversely, if the legal text explicitly requires that the name of the producer who places his products in European market for the first time to be on the products, it indicates that the manufacturer or first importer to Europe have the obligation to mark products. The same applies if a Member State takes a so-called European approach when defining producer. We classify these cases as a "European" requirement.

¹³³ Ibid supra note 132.

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Table 24: Requirements for Producer Identification in the EU 27

Member State	Producer Identification Required	B2B & B2C	Additional
Austria	Yes, if individual (national) No, if collective (EC)	Both	No
Belgium	yes (national)	Both	No
Bulgaria	yes (national)	Both	Name and statistical register number BULSAT to be used
Cyprus	Yes (national)	Both	No
Czech R.	Yes (national): Producer identification either by producer name or registration number or by the brand under which the product is imported;	Both	Brand name requirement exempts importers from having to re-label
Denmark	Yes	Both	Refers to EN Standard
Estonia	Yes (national): producer name, tel. number, address and registry code	Both	Tel. number, address, registry code
Finland	Yes (EC) name of producer introduced on the EC market	Both	no
France	Yes (national)	B2C only	no
Germany	Yes (EC)	Both	no
Greece	Yes	Both	Refers to EN Standard
Hungary	Yes (national)	Both	No
Ireland	No	-	-
Italy	To be defined	-	Refers to EN Standard
Latvia	Yes (national)	Both	Refers to EN Standard
Lithuania	Yes (national)	Both	Refers to EN Standard
Luxembourg	Yes (national)	Both	No
Malta	Yes (national)	Both	No
Netherlands	Yes (national)	Both	No
Poland	No	-	- (weight published in manual)
Portugal	Yes (national)	Both	Refers to EN Standard
Romania	No	-	-
Slovakia	Yes (national)	Both	No (not needed for lighting)
Slovenia	No	-	-
Spain	Yes (EC)	Both	Refers to EN Standard
Sweden	Yes (national)	Both	No
UK	Yes (EC)	Both	No

Our analysis of the outcome of Member State transposition on marking for producer identification, points to the finding that **15 out of the 27** apply a national approach to the requirement for the producer to mark products so they can be identified. Austria, Finland, Germany, Spain and the UK take a European approach.

However, important to note is that many Member States clearly refer to either the forthcoming European standard or even refer to EN 50419 or the national equivalent as the standard to be followed by the producer for product identification. Given that in the standard the definition of producer with respect to importing and exporting is defined on the European level, i.e. into a Member State, it

is quite possible that this takes precedent over the national definition of producer most often found in the national text.

Taking this into consideration a further **6 Member States** (Denmark, Greece, Italy, Latvia, Lithuania, and Portugal) explicitly refer to the European standard that producers should refer to when marking products to identify themselves as the producer. Spain also refers to the EN standard, but is counted above in the **5 Member States** that apply a European requirement for producer identification. In addition the Czech Republic only requires that producers mark the product with the brand name, therefore relieving importers of the requirement to potentially re-label products.

6.9.3. Implications of the transposition outcome

Producer identification is crucial to enable individual producer responsibility for new WEEE as outlined in Article 8(2). That is, if the costs are to be allocated to producers for the management of their own WEEE, some form of identification is necessary to achieve this. Moreover, producer identification is also necessary for authorities to be able to trigger a financial guarantee of a producer that is no longer on the market when the costs to manage its new WEEE arise.

This does not necessarily require all WEEE to be sorted by each individual producer, but at minimum identification of the responsible producer through sampling of WEEE must be possible. Similarly, being able to distinguish between new and historical WEEE is equally important as individual financing is only applicable for new WEEE, according to Article 8.

Producer definition and product identification

From the government perspective, there does not seem to be any identified issues with respect to producer identification, when the legally obligated producer is the brand owner or manufacturer of the EEE placed on the market on the national market. This is due to the fact that labelling for producer is made during the manufacturing stages of the product. Even when production is outsourced to third-party manufacturers, these requirements are easily communicated in contractual agreements determining product specifications.

However, problems arise when considering how Member States have interpreted the definition of producer as discussed in previous sections. When the national definition of producer is applied, the identified producer in many circumstances will be the local actor that brings EEE on to the national market. In countries where a manufacturer has no legal operations this is either the wholesaler, distributor or in some circumstances retailers. Accordingly, these actors identified as the producer on the national level are required to mark these products to distinguish themselves as the producers. This would ultimately require a re-labelling of the product if the national producers' identity was not printed on the product during the manufacturing process.

In reality, however, this is not common practice within the EEE industry as products are manufactured for the entire European if not International markets. As mentioned in Section 3.2.2, Commission services have responded to indus-

try concern over the requirement to re-label products.¹³⁴ When speaking with manufacturers and wholesalers during interviews, we have not been made aware of any actors that are re-labelling products to meet the requirement to identify the producer in Member States, especially where the obligated producer is different from the producer identification marked on the product. Similarly the brand manufacturers that we spoke with had not mentioned that they had received any requests from customers (distributors, wholesalers or retailers) to re-label their products.

Additional requirements

Certain Member States have mandated additional marking requirements on products that go beyond requirements of the WEEE Directive and EN 50419:2006. For example, Bulgaria requires that the registration number appear on the product, while Estonia requires that the producers' telephone number, address and registration number are marked on the product. Additionally, Poland requires that producers report the weight of the product in the user manual. Interviewees from industry have indicated frustration on additional administrative burdens these requirements create.

6.10. Labelling of EEE - Separate Collection

6.10.1. WEEE Directive Text

Article 10(3) states that:

Article 10(3)

With a view to minimizing the disposal of WEEE as unsorted municipal waste and to facilitating its separate collection, Member States shall ensure that producers appropriately mark electrical and electronic equipment put on the market after 13 August 2005 with the symbol shown in Annex IV. In exceptional cases, where this is necessary because of the size or the function of the product, the symbol shall be printed on the packaging, on the instructions for use and on the warranty of the electrical and electronic equipment

This article is straightforward with respect to the obligations placed on producers to label products with the crossed-out wheeled bin symbol found in Annex V of the WEEE Directive. The only uncertainty with respect to this requirement is whether it applies to both products intended for private households as well as B2B products. What we have found is that this varies between the MS. This is illustrated in Section 6.10.2.

6.10.2. Transposition Outcome

Table 25 below summarises the requirements for producers to label products with the crossed-out wheeled bin symbol within national laws.

¹³⁴ Although not legally binding, the President of the European Commission has indicated that any request to re-label products moving from one Member State to another is not in conformity with the EC Treaty rules on the free movement of goods. In particular, such a requirement would be contrary to Article 28 of the Treaty which prohibits all quantitative on the trade of goods between Member States and all measures having an equivalent effect. PRODI(2004)A/4700. Letter to Mr. Luigi Meli, Director General CECED from Mr. Romano Prodi, President of the European Commission. 26 07 2004

Table 25: Requirement to label products with crossed-out wheeled bin in EU 27

Member State	Labelling products with crossed-out wheeled bin Required?	B2C & B2B
Austria	yes	B2C only
Belgium	yes	Both
Bulgaria	yes	Both
Cyprus	yes	Both
Czech R.	Yes	Both
Denmark	Yes	Both
Estonia	Yes	Both
Finland	Yes	Both
France	Yes	B2C only
Germany	Yes	B2C only
Greece	Yes	Both
Hungary	Yes	Both
Ireland	Yes	Both
Italy	Yes	Both
Latvia	Yes	Both
Lithuania	Yes	Both
Luxembourg	Yes	Both
Malta	Yes	Both
Netherlands	Yes	Both
Poland	Yes	Both
Portugal	Yes	Both
Romania	Yes	Unclear if B2B
Slovakia	Yes	Both
Slovenia	Yes	Both
Spain	Yes	Both
Sweden	Yes	Both
UK	Yes	Both

6.10.3. Implication of the transposition outcome

The requirement to label products with the crossed out wheeled-bin does not seem to have caused any real concern from actors and does not seem to interfere with the producer responsibility principle as we see it. As found in the transposition of the Directive in national laws, most countries have required producers to label both B2C and B2B EEE with the symbol, even though the measure is seen to be needed due to “a view to minimising the disposal of WEEE as unsorted municipal waste”.

6.11. Information to consumers

6.11.1. WEEE Directive Text

Article 10(1), (2) and (4) requires the following regarding information that should be given to the consumers.

Article 10

(1) Member States shall ensure that users of electrical and electronic equipment in private households are given the necessary information about:

- (a) the requirement not to dispose of WEEE as unsorted municipal waste and to collect such WEEE separately;
- (b) the return and collection systems available to them;
- (c) their role in contributing to reuse, recycling and other forms of recovery of WEEE;
- (d) the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment;
- (e) the meaning of the symbol shown in Annex IV.

(2) Member States shall adopt appropriate measures so that consumers participate in the collection of WEEE and to encourage them to facilitate the process of reuse, treatment and recovery.

(4) Member States may require that some or all of the information referred to in paragraphs 1 to 3 shall be provided by producers and or/distributors, e.g. in the instructions for use or at the point of sale.

In addition to the requirement to label products with the crossed out wheeled bin (discussed above) there are a number of information items that shall be provided to users of EEE in private households. The text obliges MS to ensure that this information is provided to users of EEE, but as Article 10(4) denotes, MS can assign responsibility to producers or retailer to provide such information as well.

6.11.2. Transposition Outcome

The table below illustrates how MS have assigned responsibility for information provision to consumers.

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Table 26: Allocation of responsibility to provide information to consumers regarding WEEE¹³⁵

Member State	Information to Users
Austria	Individual Compliance: Producers Collective: Collective scheme takes responsibility
Belgium	As WEEE Directive text
Bulgaria	Producers must provide information in Bulgarian and must include instructions to remove built in batteries Retailers to provide information at point of sale about 1:1 take back, other collection sites and meaning of crossed out wheeled bin
Cyprus	Producers must provide users of electrical and electronic equipment for private household use with the necessary information relating to: a) the requirement not to mix the waste from electrical and electronic equipment with normal household waste but to keep it separate b) the systems available for the return and collection of the waste c) their role in re-use, re-cycling and other forms of development of the waste from electrical and electronic equipment d) the likely effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment e) the meaning of the symbol shown in Schedule IV.
Czech R.	Producers shall supply information to consumers on mandatory requirement to separately collect WEE their role in contributing to reuse, recycling, recovery the potential harmful effects of dangerous substances contained in WEEE
Denmark	Producers shall supply information to consumers on: the requirement for WEEE to be collected separately from other household WEEE information on the WEEE scheme for the equipment in question Importance of the product's marking Information must be shown in sales and information manuals, including the directions for use
Estonia	Producers shall ensure that users are provided at the points of sale with information on: Return facilities (location and telephone numbers where relevant information can be obtained Potential effects on the environment and human health as the result of the presence of hazardous substances in EEE The meaning of the separate collection mark
Finland	Producers must provide information to users of the EEE about The obligation for separate collection of WEEE Collection facilities available The consumers role in collection and recovery of WEEE The potential effects on the environment and health of dangerous substances in WEEE The meaning of the crossed-out wheeled bin symbol shown on the product
France	Municipalities, producers, distributors and coordinating organisations shall take measures which they deem appropriate to inform B2C users of The obligation to use the separate collection systems The take back ad collection systems available The potential effects of hazardous substances in EEE on the environment and human health
Germany	Municipalities & Producers accordingly must inform households about The take back or collection options available The user's contribution to reuse, material recovery, or other type of recovery of WEEE The consequences of hazardous substances contained in the equipment The meaning of the crossed-out wheeled bin
Greece	Producers and importers must inform users about

¹³⁵ The information provided in this table has been gathered from the individual country updates of Perchards WEEE Information Service.

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Member State	Information to Users
	<p>The requirement for WEEE to be collected separately from other household waste</p> <p>The return and collection schemes available to them</p> <p>Their role in contributing to reuse, recycling and other forms of recovery of WEEE</p> <p>The potential effects on human health and the environment of harmful substances in EEE</p> <p>The meaning of the crossed-out wheeled bin symbol</p>
Hungary	<p>Producers shall inform consumers in Hungarian about</p> <p>the harmful effects of waste EEE on the environment, if the equipment is not handled according to the relevant environmental provisions</p> <p>the parts of the EEE that contain hazardous substances</p> <p>the obligation for separate collection</p> <p>available system for the take back of WEEE</p> <p>Role of consumers in WEEE management</p>
Ireland	<p>When supplying a new product, producers must ensure that the user is informed of</p> <p>the requirement for WEEE to be separately collected</p> <p>the users' role in contributing to the reuse, recycling and other recovery of WEEE</p> <p>the potential effects on the environment and human health as a result of the presence of hazardous substances in EEE</p> <p>The meaning of the crossed-out wheeled bin symbol</p>
Italy	<p>The producer must indicate in the product manual, appropriate information about:</p> <ul style="list-style-type: none"> – the obligation for separate collection; – collection systems in place and the possibility of returning a product to the retailer on purchase of a similar product; – potential health risks; – the meaning of the crossed-out waste-bin symbol (marked on the equipment if size allows); and – penalties for incorrect disposal <p>In the final Decree, responsibility for information about the role of the producer in WEEE management has been shifted to the municipalities</p>
Latvia	<p>The manufacturers and distributors of electric and electronic equipment shall, in their home pages on the Internet, at their sales places and in the instructions for operating the electric and electronic equipment for the household use, provide such information for the consumers:</p> <ul style="list-style-type: none"> - the meaning of the symbol provided in the appendix of these Regulations – the requirement to return electric and electronic equipment waste separately from other type of waste; - the options for returning electric and electronic equipment waste; - the required operations in order to facilitate recycling, regeneration and repeated use of electronic waste; - the possible risk of the hazardous substances, present in electric and electronic equipment, on the environment, human life and health.
Lithuania	<p>Distributors must inform end-users about their possibility of returning WEEE on 1:1, old-for-new basis. Producers must inform users on hazardous materials content and the associated risks to the environment and human health.</p>
Luxembourg	<p>Producers and/or retailers must inform users about</p> <p>the separate collection of WEEE, the collection facilities available to them,</p> <p>their role in take-back, reuse, recycling and recovery of WEEE,</p> <p>the meaning of the crossed-out bin symbol and</p> <p>the potential impact on human health and the environment of the hazardous substances used in WEEE</p> <p>All or some of the above information may be provided in the user manual of the product or at the point of sale</p>
Malta	<p>Producers or distributors or both such as in the instructions for use or at the point of sale, shall provide users of EEE in private households with the necessary information about:</p> <ul style="list-style-type: none"> - requirement not to dispose of WEEE as unsorted municipal waste and to collect such WEEE separately - the return and collection systems available to them;

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Member State	Information to Users
	<ul style="list-style-type: none"> - their role in contributing to reuse, recycling and other forms of recovery of WEEE - the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment; - the meaning of the symbol shown in schedule 4 to these regulations
Netherlands	<p>The producer shall apply the following to all electrical and electronic equipment produced by him and put on the market after 13 August 2005:</p> <ol style="list-style-type: none"> a. the symbol shown in Annex IV to Directive no. 96/2002; b. information clearly identifying the producer; and c. information specifying that the product was put on the market after 13 August 2005. <p>2. The symbol referred to in subsection 1(a) shall be applied so as to be clearly visible.</p> <p>3. If, in view of the size or function of the product, it is impossible to apply the symbol referred to in subsection 1(a) to the product itself, the symbol may be applied on the packaging, on the instructions for use or on the warranty accompanying the product.</p>
Poland	<p>The entity introducing household equipment must provide with the equipment the following information concerning:</p> <ol style="list-style-type: none"> 1) the ban on placing waste equipment together with other types of waste, along with the explanation of markings specified in annex 3 hereto; 2) potential consequences for natural environment and for the human health, resulting from the use of hazardous substances in the electrical and electronic equipment; 3) the weight of the electrical and electronic equipment. 4) the system of collection of waste electrical and electronic equipment; 5) the contribution of a household to re-use and recovery, including recycling, of waste equipment.
Portugal	<p>Individual and collective compliance systems must inform users about the separate collection of WEEE, the collection facilities available to them, the role of the compliance system the potential impact on health and the environment of the hazardous substances used in WEEE, the meaning of the crossed out bin symbol.</p>
Romania	<p>As in the Directive – in the instruction manual or at point of sale</p>
Slovakia	<p>As in the Directive but without the requirement to provide information about the consumer's role in WEEE management.</p>
Slovenia	<p>Producers to include a notice in the instructions or packaging or in some other suitable manner to inform the final user of the possibility to return WEEE free of charge to the distributor within 3 weeks of purchase, or later to the designated collection point</p> <p>Producers to notify all distributors about the method of collecting WEEE from final users.</p>
Spain	<p>Producers must inform consumers/WEEE Text</p>
Sweden	<p>Municipalities are to inform householders about the potential effects on human health and the environment resulting from the presence of dangerous substances in EEE the meaning of the crossed-out bin symbol; the need to separately collect WEEE; the collection systems to which householders have access; and the type of recovery to which the sorting of WEE contributes.</p> <p>Producers must inform B2B users of EEE about the purpose of managing WEEE separately the means of delivering WEEE to the producer or collection system.</p>
UK	<p>Distributors of B2C EEE must make information available to users - On the collection and take-back system available</p> <ul style="list-style-type: none"> - their role in contributing to the recovery of WEEE; the potential effects on health and the environment of hazardous substances in EEE; the meaning of the crossed-out bin symbol; and that EU law requires member states to minimise the disposal of WEEE as unsorted municipal waste.

What we see in the outcome is that most MS have assigned responsibility to producers (either solely or in combination with retailers) to ensure the information found in Article 10 of the WEEE Directive is provided to users of EEE from private households. Some MS have assigned this responsibility to the compliance scheme, while 2 MS assigned all or partial responsibility to municipalities.

6.12. Producer Registration & Reporting

6.12.1. WEEE Directive Text

Article 12 of the WEEE Directive provides requirements about the producer registers and reporting.

Article 12 Information and reporting

1. Member States shall draw up a register of producers and collect information, including substantiated estimates, on an annual basis on the quantities and categories of electrical and electronic equipment put on their market, collected through all routes, reused, recycled and recovered within the Member States, and on collected waste exported, by weight or, if this is not possible, by numbers.

Member States shall ensure that producers supplying electrical and electronic equipment by means of distance communication provide information on the compliance with the requirements of Article 8(4) and on the quantities and categories of electrical and electronic equipment put on the market of the Member State where the purchaser of that equipment resides.

Member States shall ensure that the information required is transmitted to the Commission on a two-yearly basis within 18 months after the end of the period covered. The first set of information shall cover the years 2005 and 2006. The information shall be provided in a format which shall be established within one year after the entry into force of this Directive in accordance with the procedure referred to in Article 14(2) with a view to establishing databases on WEEE and its treatment.

Member States shall provide for adequate information exchange in order to comply with this paragraph, in particular for treatment operations as referred to in Article 6(5).

2. Without prejudice to the requirements of paragraph 1, Member States shall send a report to the Commission on the implementation of this Directive at three-year intervals. The report shall be drawn up on the basis of a questionnaire or outline drafted by the Commission in accordance with the procedure laid down in Article 6 of Council Directive 91/692/EEC of 23 December 1991 standardising and rationalising reports on the implementation of certain Directives relating to the environment⁽¹⁹⁾. The questionnaire or outline shall be sent to the Member States six months before the start of the period covered by the report. The report shall be made available to the Commission within nine months of the end of the three-year period covered by it.

The first three year report shall cover the period from 2004 to 2006.

The Commission shall publish a report on the implementation of this Directive within nine months after receiving the reports from the Member States.

Article 12 generally refers to the requirement of Member States to 1. Draw up national registers and to collect information on the amount of EEE put on the market as well as collected, reused, recycled and recovered within the Member State including exports. Secondly, it also requires that Member States provide the Commission with reports on “two-yearly basis 18 months after the end of the period covered. Since the first set of information shall cover the years 2005 and 2006, the first report is scheduled for mid 2008. Thirdly, Article 12(2) requires Member States to send a report to the Commission on the implementation of the Directive at three-year intervals. The report shall be drawn up on the basis of a questionnaire. Subsequently, for this purpose the Commission developed the required the questionnaire which was published in the Official Journal of the European Union on 16 March 2004.¹³⁶

¹³⁶ OJ 78/56 16.3.2004. Commission Decision concerning a questionnaire for Member States reports on the implementation of Directive 2002/96/EC of the European Parliament and of the Council on waste electrical and electronic equipment (WEEE)

6.12.2. Transposition Outcome and practical application

Although many MS have developed detailed regulations on required information and formats with respect to registering and reporting, the legal text was not systematically reviewed as in other sections of this report. Instead, we present the national implementation measures based primarily on the data gathered from the national registers themselves through a questionnaire. Prior to sending the questionnaire to each national register, information gathered from multiple sources was pre-entered into the form so that each national register only needed to confirm or provide new information where needed.

The following series of tables present how the registering and reporting functions in each MS on a number of key aspects, namely with respect to;

- Which actor is required to register
- Registration/reporting fees
- Number of producers registered
- Reporting frequencies
- Product information required
- B2C/B2B reporting requirements
- Definition of weight

6.12.2.1. Actors required to Register and Report

The table below denotes the types of actors who are responsible to register and report products placed either on the national market or in other Member States. In the table there are seven categories of producer types listed. We denote with a bullet point when an actor is required to register in the MS in question. Important to note is that for any one product placed on the market only one of the seven categories of actors would be required to register. For products placed on the national market categories 1 (manufacturers), 2 (those selling others equipment under own trademark), 3 (importers in the intra-community trade), 6 (distant sellers based in other MS and sell products on the national market) and 7 (private importers in B2B cases) apply. Products put on the market by exporters (category 4) or distance sellers based in the nation and selling products to other MS (category 5) are sold to markets outside of the MS in question.

In the table household and non-household EEE is represented as B2C and B2B respectively. The last column (furthest to the right) indicates whether registration is open to producers that are registered in another MS of the EU. This addresses the possibility of a registered manufacturer or brand owner registered in any MS can register as producers in another MS, without necessarily having to have a legal personality in the latter (please see relevant footnotes regarding for clarification).

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Table 27: Obligated Actors to Register & Report in National Producer Registers in EU 27

	1. Manufacturer		2. Sells others equipment under own trademark		3. Importer (Intra-community trade)		4. Exporter (Intra-community trade)		5. Distance Seller (National to other MS)		6. Distance Seller (other MS to national)		7. Private Import	Registration is Open to Producers located in any MS in EU
	B2C	B2B	B2C	B2B	B2C	B2B	B2C	B2B	B2C	B2B	B2C	B2B	B2B	
Austria	*	*	*	*	*	*			*				*	
Belgium	*	*	*	*	*	*			*					*137
Bulgaria	*	*	*	*	*	*	*	*						
Cyprus	*	*	*	*	*	*								
Czech R.	*	*	*	*	*	*								
Denmark	*	*	*	*	*	*					*			*138
Estonia	*	*	*	*	*	*	*	*	*		*			*139
Finland	*	*	*	*	*	*	*	*	*					*140
France	*	*	*	*	*	*					*141			*142
Germany	*	*	*	*	*	*			*					*
Greece	*	*	*	*	*	*					*		*	
Hungary	*	*	*	*	*	*					*			*143
Ireland	*	*	*	*	*	*	*	*	*		*144			*145
Italy	*	*	*	*	*	*	*	*	*	*				*
Latvia	*	*	*	*	*	*					*	*		*146
Lithuania	*	*	*	*	*	*								*
Luxembourg	*	*	*	*	*	*	*	*	*147	*	*148	*		*149
Malta														
Netherlands														
Poland	*	*	*	*	*	*			*	*			*	
Portugal	*	*	*	*	*	*					*	*	*	*
Romania	*	*	*	*	*	*	*	*	*	*	*	*		
Slovakia	*	*	*	*	*	*								*
Slovenia	*	*	*	*	*	*	*	*	*	*			*	
Spain	*	*	*	*	*	*	*	*	*	*	*	*		
Sweden	*	*	*	*	*	*			*	*				*
UK	*	*	*	*	*	*			*	*	*	*		*

¹³⁷ Importers can mandate foreign suppliers to fulfil their legal obligation

¹³⁸ Only Distance sellers located in other MS can and are obligated to register

¹³⁹ Producers outside Estonia can join a compliance scheme and relieve the importer or end-user obligation to register

¹⁴⁰ Producers outside Finland can join a compliance scheme and relieve the importer or end-users obligation to register

¹⁴¹ Foreign distance sellers are the only foreign producers that are obligated , but can only register through a collective system

¹⁴² Indirectly through a compliance scheme

¹⁴³ Indirectly through a compliance scheme

¹⁴⁴ Foreign distance sellers are required to inform customers in Ireland of their right to 1:1 take back as well as display the visible fee

¹⁴⁵ If one of three conditions is met: Limited company in Ireland, Place of business (address), or Branch office

¹⁴⁶ Only foreign distance sellers selling into Latvia

¹⁴⁷ Administration de l'Environnement requires individual compliers to report distance sales to other MS

¹⁴⁸ Ecotrel requires distance sellers from Abroad to register and finance WEEE put on the market in Luxembourg

¹⁴⁹ Luxembourg: Ecotrel allows foreign producers to be members as long as the importers are also members

Table 28 indicates for each Member State whether 1) a compliance scheme can register its members in the National Register, or 2) If it is mandatory for producers to register themselves individually, regardless of their membership to a compliance scheme (i.e. the compliance scheme cannot register on their behalf as a bulk registration).

Table 28: Possibility for compliance scheme to register their members in EU 27

Member State	Compliance schemes can Register Member Producers	Producers must register individually regardless of their membership to a compliance scheme
Austria		• ¹⁵⁰
Belgium	•	
Bulgaria		•
Cyprus	•	
Czech R.	•	
Denmark	• ¹⁵¹	
Estonia	•	
Finland	•	
France	•	
Germany		•
Greece	•	
Hungary		•
Ireland		•
Italy		
Latvia		
Lithuania	•	
Luxembourg		•
Malta		
Netherlands	•	
Poland	•	
Portugal		•
Romania		•
Slovakia		•
Slovenia		•
Spain		
Sweden		•
UK	• ¹⁵²	

6.12.2.2. Registration/Reporting Fee and Number of Registered Producers

The table below indicates whether the producers, in registering themselves and reporting, need to pay some fee, and if so, in what manner. It also indicates the number of registered producers as of Spring 2007.

¹⁵⁰ In Austria, compliance schemes can enter data in the system but the final registration must be conducted by the producer individually

¹⁵¹ The compliance scheme in Denmark must register their members with the national register. The information registered for the enterprise, which is a member of a compliance scheme, is the same as the information registered for the individual producers. This is also the case for the annual reporting.

¹⁵² Producers can only register through a compliance scheme for both B2B, B2C in the UK.

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Table 29: Registration and Reporting Fees and Number of Registered Producers in EU 27

Member State	Registration/Reporting Fee	Number of Producers Registered
Austria	None	1450
Belgium (Collective compliance scheme)	None	
Bulgaria	None	
Cyprus		
Czech R.	None	3060
Denmark	136 €/ one time registration fee Yearly admin fee: 2005-2006 0.06 DKK/kg put on the market 2007: 0.02 DKK/kg put on the market	1036
Estonia	None	126
Finland	440 € - individual registration- one time 5400 € compliance scheme – one time 130 €/yr individual - yearly reporting 1080 €/yr compliance scheme yearly reporting	770
France	None	3725
Germany	150 € Basic Registration per producer & first brand ad type of equipment and 250 – 300 € for checking guarantee (b2c) or documentary proof (b2b) 80 € Additional brands and type of equipment	6100
Greece (national collective system as register)	None	640
Hungary	300 € one time fee	704
Ireland	variable based on turnover 2007, < 250k 250€ , <500K 500 €, <1M 1000 €, >1M 2000 € Yearly Fee	850
Italy		
Latvia		
Lithuania	None	589
Luxembourg (Individual compliers register with Administration de l'Environnement)	None	32
Luxembourg (national collective scheme as register)	None	388
Malta		
Netherlands (Individual compliers)	None	~50
Netherlands (NVMP as register)	None	1500
Netherlands (ICT Milieu as register)	None	230
Poland	Variable based on turnover 12 – 1875 €	2020
Portugal	Variable based on turnover 375-1500 €	950
Romania	None	900
Slovakia	None	763
Slovenia	None	665
Spain	None	951
Sweden	300 €/yr	1083
UK	Variable based on turnover €30 - €445	>3100

There is a considerable degree of variation between countries with respect to the number of producers that are registered in the national register. Possible reasons for this variation may include the market structure with respect to the number of importers in the national market and whether or not it is possible for brand owners and manufacturers that do not have a legal presence to be able to register.

6.12.2.3. Reporting Frequencies/Product Type and Product Data

The following table shows for each MS the required frequency of reporting, the categories of equipment to be reported and the product data that is needed for reporting sales of products placed on the market. As indicated, some MS follow the categories indicated in the Annexes of WEEE Directive, while others set up their own categories based on the collection method, etc.

Table 30: Summary of Reporting Requirements National Producer Registers in EU 27

Member State	Reporting Frequency		Categories/ Type of Equipment	Product Data
	B2C	B2B		
Austria	Quarterly	Quarterly	5 collection categories	weight
Belgium – Collective System	Monthly or Quarterly	Monthly or Quarterly	7 categories, plus subcategories	Units – (B2C) Units & Weight (B2B)
Bulgaria	Quarterly	Quarterly	WEEE Annex 1A & 1B	weight & units
Cyprus				
Czech R.	Annually	Annually	WEEE Annex 1A & 1B	Weight, units & brand name
Denmark	Annually	Annually	WEEE Annex 1A	weight
Estonia	Quarterly 2006, Annually 2007	Quarter 2006, Annually 2007	WEEE Annex 1A	weight & units
Finland	Annually	Annually	WEEE Annex 1A	weight & units (if possible)
France	Bi-Annually	Bi-Annually	WEEE Annex 1A, 1 st four number of customs code	weight & units
Germany	Monthly	Annually	WEEE Annex 1A & Type of Equipment List	weight & units
Greece (national collective system as register)	Monthly	Monthly	WEEE Annex 1A	weight & units
Hungary	Annually	Annually	WEEE Annex 1A Categories	weight
Ireland	Monthly	Monthly	WEEE Annex 1A plus 21 sub-categories	weight & units
Italy	Annually	Annually	WEEE Annex 1A, 1B	weight & units
Latvia	Quarterly	Quarterly	Both 99 custom code categories and 15 Natural Resources Tax categories	weight & units
Lithuania	Annually	Annually	WEEE Annex 1A	weight
Luxembourg (Individual compliers register with Administra-	Annually	Annually	Variation of WEEE Annex 1A with 43 sub-categories	weight & units

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Member State	Reporting Frequency		Categories/ Type of Equipment	Product Data
	B2C	B2B		
tion de l'Environnement)				
Luxembourg (national collective scheme as register)	Quarterly: if annual cost exceeds € 500 Annually: if annual costs are less than € 500	Not applicable	Variation of WEEE Annex 1A with 43 sub-categories	units
Malta				
Netherlands (Individual compliers)	Annually	Annually	WEEE Annex 1A	weight & units
Netherlands (NVMP as register for Members)				units
Netherlands (ICT Milieu as register for Members)	Quarterly	Quarterly Annually	Category 3 only	weight & units
Poland	Quarterly	Quarterly	WEEE Annex 1A, 1B & national customs code	weight & units
Portugal	Bi-annually	Bi-annually	List of 250 product types	weight & units
Romania	Annually	Annually	WEEE Annex 1A & 1B	weight & units
Slovakia	Annually	Annually	National customs code	weight & units
Slovenia	Quarterly	Quarterly	470 custom tariff codes identifying 1500 EEE items	weight & units
Spain	Quarterly	Quarterly	National Register list of products – 103 sub-categories	weight & units
Sweden	Annually	Annually	WEEE Annex 1A	weight
UK (based on legislation)	Quarterly	Quarterly	WEEE Annex 1A, plus additional sub-categories for display equipment, cooling appliances containing refrigerants and gas discharge lamps	weight, & units

6.12.2.4. Criteria for B2C/B2B Differentiation & Definition of Weight

The table below illustrates the approach taken in MS to set criteria for producers to apply when reporting products placed on the market either as household EEE (B2C) or non-household EEE (B2B). It also shows how each MS has defined product weight which producers should apply when reporting total weight placed on the market of a particular product type.

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Table 31: Criteria for B2B/B2C split & Definition of Product weight in the EU 27

Member State	Criteria for B2C/B2B Differentiation	Definition of Weight
Austria	Pre-determined list of over 1100 product types	Product, including batteries, electronic accessories and non-electronic accessories if necessary for the function (tube of vacuum cleaner) excluding packaging and documentation
Belgium	B2C and B2B distinguished by predetermined lists by national collective scheme	Product weight, including accessories (consumables, parts, cables), excluding packaging, manuals, batteries
Bulgaria	Producer self-declares B2C/B2C split	Product, electronic accessories and non-electronic accessories if necessary for the function (tube of vacuum cleaner) excluding batteries, packaging and documentation
Cyprus		
Czech R.	Producer self-declares B2C/B2B split	
Denmark	Producer self-declares B2C/B2B split	The weight is always stated in kilograms as the weight of the entire product in the form it is marketed to the user, excluding packaging, instructions and manuals, including electronic accessories
Estonia	All those products that can be used and are used by households are classified as B2C products (categories 1-7, if producer doesn't prove opposite). Selling channel does not have any role on classification.	Net product weight
Finland	All those products that can be used and are used by households are classified as B-to-C –products. Selling channel does not have any role on classification.	Whole product including batteries and functional parts, excluding packaging
France	Sales channel: If sold to business client, then B2B. If sold to a private consumer, then B2C	Product excluding batteries and packaging, including accessories that are necessary for the use of the product
Germany	Type of Equipment Lists as default classification For B2B: producer must provide evidence that products will not end up in municipal waste stream	Varies for each product category
Greece	Classified as B2C if likely to end up in household waste stream	Product, components, consumables and batteries included. Packaging and user manuals excluded.
Hungary	Exhaustive list of B2C products all others are classified as B2B	No definition available
Ireland	If an EEE product placed on the Irish market, can at any stage be sold to or used by a consumer, this transaction is considered B2C, regardless of the supply chain	Product and accessories, including batteries, excluding packaging
Italy	Producer self-declares B2C/B2B split	Gross product weight minus packaging, manuals, removable batteries, non-electrical accessories
Latvia		

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Member State	Criteria for B2C/B2B Differentiation	Definition of Weight
Lithuania	Producer self-declares B2C/B2B split	Product, excluding non-electrical and electronic accessories, batteries and packaging
Luxembourg	List of EEE with Restrictive Criteria: criteria distinguishing B2C and B2B are either weight or size parameters, plus the statement that all appliances designed exclusively for professional use are considered professional	Average weight based on product incl. non-electrical and electronic accessories and batteries without packaging
Malta		
Netherlands	ICT Milieu: B2C if less than 35 kg B2B if greater than 35 kg NVMP: Product lists defining household and professional products	
Poland	Typical use	Product weight and number of batteries to be indicated separately product, incl. non-electrical and electronic accessories, batteries excluding packaging
Portugal	No Distinction made between B2B and B2C	Product, including batteries, consumables and cables, excluding packaging and manuals
Romania	Producers self-declares B2C/B2B split	No definition available
Slovakia	Predetermined list based on customs codes	No definition of weight – amendment being prepared
Slovenia	Predetermined list based on customs codes	Product excluding packaging
Spain	National Register List stipulates which products are B2C and which are B2B	Product, incl. non-electrical and electronic accessories, batteries & packaging
Sweden	Any products which are typically used in a household context, and which become household waste when they have served their time, are regarded as household products	Product weight and accessories, packaging excluded, batteries included
UK	Evidence in the form of signed contract between the business user and the Producer (or party representing the Producer e.g. reseller under contract), that clearly assigns responsibilities for End of Life collection and treatment costs, ensuring that the EEE will not be disposed of through municipal waste streams, Or EEE that due to its features is not used in private households and that will therefore not be disposed of through municipal waste streams.	Includes the weight of the whole electrical or electronic product itself, any electrical or electronic accessories supplied with it, and any non-electrical accessories that are specific to the product or likely to be regarded by the purchaser as part of the overall product and therefore likely to be discarded with it. Does not include packaging, instructions and other paperwork.

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6.12.2.5. Set up and Operating Costs of Member State National Registers

In the questionnaire administered to national registers set up and operating costs were requested. Responses to these questions were received from 11 out of the 20 MS that returned the completed or confirmed forms. The table below captures the information received.

Table 32: Member State, Set-up and Operating costs: National Producer Registers

Member State	Set-up Costs	Person hours/year	Yearly operating costs	Comments
Austria (Clearing-house)	700 000 EUR	6 full time employees/yr	650 000 EUR	
Austria (Register)	-	1 person month	20 000 EUR	WEEE Register is part of a larger Austrian Waste Register
Denmark	10 000 000 DKK (1 DKK = 0.134 Euro)	-	5 000 000 DKK	
Czech Republic	-	6500 person-hours per year	-	
Estonia	Hardware:200 000 EEK Software: 600 000 EEK Labour 300 000 EEK Total 11 000 000 (1 EEK = 0.064 Euro)	4200 hours/year	700 000 EEK	Register includes WEEE, ELV and Tires
Finland	150 000 Euro	2 full time person/yr Controlling free-riders 1person/yr.	-	Includes all producer responsibility sectors
France	500 000 Euro	1 person in the ADEME/yr (included in operating costs)	160 000 Euro	
Germany			2006: 9 000 000 Euro 2006: 9 600 000 Euro	
Hungary		1 fulltime employee/year		
Slovakia	54 430 Euro	1,5 fulltime employment/year, 3120 hrs/year 11 000 Euro		
Portugal	350 000 Euro		350 000 Euro	
Sweden		3920 person hours/year	-	

6.12.2.6. Classification of National Registers

Depending on the MS in question, the national register may be administered by either a public authority, privately run by industry, through the compliance scheme or a combination of public authority and industry as indicated in the table Table 33: Classification of Producer Registers and Clearinghouse by Responsible Actor below.

Table 33: Classification of Producer Registers and Clearinghouse by Responsible Actor

Register & Clearinghouse Privately Run	Register: Public Clearinghouse: Private	Register: Public	Register: Compliance Scheme	No Register Currently Operating
Germany Ireland Denmark Latvia Portugal	Austria Italy Spain (proposed private clearinghouse)	Czech Republic Estonia France Finland Hungary Lithuania Luxembourg Poland Romania Slovakia Slovenia Spain Sweden	Netherlands Belgium Greece	Malta Bulgaria UK Cyprus

6.12.3. Implications of the implementation of national registers

By far the largest concern raised by industry stakeholders is the **lack of harmonisation** between the administrative functions of the national producer registers. Actors claim that the lack of clear guidance by the Commission with respect to key definitions has created a situation where producers must adhere to up to 27 varying requirements for reporting. Member States have developed their systems independently with little communication and exchange of information between and among them.

In general, lack of harmonisation between Member State producer registers has been raised on the following points:

Reporting Periods (frequency of reporting)

As found in Table 27, reporting of products put on the market (input) as well collection and recycling reporting (output) varies from Member State to Member State. This ranges from monthly, quarterly bi-annually to annual reporting periods. Reporting should be frequent enough to deter unscrupulous producers that, for example, may be able to avoid reporting if only present on the market for peak sales periods. Chosen reporting periods may also affect producers in divergent ways due to certain seasonal variations in sales for certain products

which might affect when products are most often returned as WEEE. Meanwhile, although producers claim that consistent application is the primary concern, there is also need to have a suitable frequency of reporting that will address the so called “hit and run” producers.

This suggests that there is a balance between reducing administrative costs associated with the frequency of reporting with the need to be able to avoid free-riders. On the other hand, this does not explain the diverse reporting periods required by different Member States.

Criteria to distinguish B2C vs. B2B EEE which will end up as WEEE

There is concern raised over how Member States develop criteria for discerning between WEEE from private households and WEEE from users other than private households. The WEEE Directive only provides for a definition of WEEE from private households. Member States have interpreted the definition quite differently, and as a result, varying criteria exist. This lack of a harmonised definition requires producers to ensure that for each Member State the chosen criteria must be determined, leading to potentially unnecessary administrative work to avoid the problems associated with so-called dual-sue products which are discussed in Section 6.8.4.

In addition to the risk of double payment as discussed in Section 6.8.4, another concern the effects of the potential migration of EEE placed on the market in one Member State, which are then re-sold in a second-hand market to a private persons in another Member State. Although no quantitative data are readily available to understand the actual amount of EEE that is sold second hand, usually from B2B clients to users in private households, this is certainly taking place. The impact of this intra-community sale of used products on the financing of WEEE management in the end users Member State is not well understood. Potentially, there is a risk that the Member State where products are migrating to do not have sufficient fund to manage the WEEE, especially if the IPR is transposed in the national law – producers are only responsible for their own waste. Producers could simply refuse to finance WEEE that they did not place on the market. Alternatively, when these products end up in collection facilities for WEEE from private households then it is the local producers that will finance this WEEE (mostly importers, considering who producers are in countries where product is migrating to).

Definition of “put on the market”

Differences or ambiguities may cause confusion among producers on what sales should be reported in a Member State given that known subsequent intra-community trade will happen. In most Member States, it is when a financial transaction raising VAT occurs that theoretically products are “put on the national market” and sales are required to be reported by the producer who placed those products on the market. Depending on whether the national register allows foreign producers located in another Member State to register or not, the producer may be one of several actors, manufacturer, distributor/wholesaler or even retailer. However, discussions with producers reveals that most manufacturers and large wholesalers/distributors will not report sales on the national market to the register if they know that the client (which may be the legal pro-

ducer in the Member State) will subsequently ship those products to another market. This makes sense from a producers' perspective, as any sales reported to the national register will be used to calculate its market share.

Another finding was identified through an interview with a large retailer that purchases EEE from a national supplier, but may be unknowingly obligated as a producer. In this case the retailer places an order through a national sales office of a brand manufacturer, however the products are shipped and subsequently invoiced from the brand manufacturer's warehouse in another MS. Since the invoice comes from another Member State, the retailer is the legally obligated producer due to the fact that he/she is importing the product into the national Member State. Without closely scrutinising each invoice, the retailer would not know if it was the obligated producer or not, even though the original purchase order was made through the national office of the brand manufacturer. In this case we were told that non-reporting is the current practice in this case.

Reporting Formats

Again due to the diversity of reporting formats, industry has complained about the increased administrative burden placed on them to report data to national registers. When reporting the number of products placed on the market, national registers require divergent reporting with respect to the categories of equipment that sales must be reported in. For example, Member States may use the Annex 1A Categories for reporting, followed by more detailed type of equipment sub-categories, sometimes based on Annex 1B or specialised lists of "Type of Equipment", custom codes, collection categories, size, or a combination of the above. This causes increased administrative burden and cost, at least when initially setting up internal systems to deal varying reporting formats.

Lack of common definition of weight

Similar to the above arguments, there is a great deal of divergence between Member States application of the definition of weight causing unnecessary administrative burden. In certain cases, the definition applied in Member States makes it impossible for producers to be able to gather the data from "bill of materials" to accurately report the weight of the product. In this circumstance, when a new product is launched in the market, the producer must physically weigh the product and relevant components in order to fulfil the weight definition. Again, a common definition for the EU 27, would reduce this burden considerably and allow rationalisation of the enterprise resource planning software and develop a standard applicable for all products and Member States.

Who can register/report as the producer

In most countries it is only legal entities that are based in the Member State where products are placed on the market that are entitled to register as the legally obligated producer. In certain countries, namely Ireland and Austria, an importer (intra community trader) that has placed products on the market can not have his/her legal obligations released, even when the brand-owner of the products is located within the Member State. This creates a situation in certain Member States, where brand manufacturers are not located due to market size, etc., the first importer is most often the producer.

As discussed in Section 6.7, distance sellers that are based in Member States that adopt Approach 1 to registration (meaning that they must register in countries where they sell products to end users) and sell to end users in countries that only allow nationally based actors to be producers, cannot meet their producer responsibility obligations, and are therefore unwilling free-riders.

Associated administrative costs

Within our questionnaire administered to producers, we specifically asked for the administrative costs that producers experienced with registering and reporting products placed on the market in the MS where they are producers. Producers were also questioned regarding the nature and extent of any investments made in software or tools to support the registering and reporting obligations.

Many producers did not have an accurate figure on the number of person hours spent on tasks associated with registering. A common response was that depending on the size of the company 1-4 persons within the organisation are responsible for all aspects of WEEE compliance and the break-down of the time associated with registering and reporting were not available.

However, we were able to obtain cost data from a large printer manufacturer that was the obligated producer in 9 MS. This manufacturer had invested approximately **250 000 Euros** in new enterprise resource planning software that was configured to be able to facilitate reporting sales data in the 9 MS where it is registered as the producer, plus an undisclosed number of MS where it assisted its customers who were obligated producers. An annual cost of **30 000 Euros** to maintain the licence was also reported. In addition to the investments in software, the manufacturer reported that for each MS the time needed to generate the sales reports (monthly, quarterly, bi-annually, or annually depending in the national register) was approximately **2 hours**.

6.12.4. Harmonisation efforts to date

Originating out of a workshop on WEEE Harmonisation issues held at Insead business school on 23 February 2006, the European WEEE Registers Network (EWRN) has met on two occasions. During a meeting on the Harmonisation of WEEE registers organised by the German Presidency in Brussels on May 4, 2007, representatives from Ireland and Portugal presented the concrete work of the group to date. So far the group has been concentrating on establishing contact with all functioning registers and are beginning to address options for registers to harmonise/apply consistent practices on the approach to address a number of key issues. These include treatment of distance sellers, definition of weight, B2C/B2B definitions, Scope, free riders, treatment of foreign producers, and registration fees. The next meeting will take place in Portugal in October 2007.

7. Implementation of the WEEE Directive

As seen in the previous chapter, the transposition of the WEEE Directive in the national laws of the respective Member States differs considerably among the Member States. Some sections in the previous chapter (for instance Section 6.2, 6.7 and 6.12) also reveal the differences in approaches taken by MS to implement the Directive. Moreover, there are differences in what is happening in practice compared to what the legal text suggests.

Bearing these variations in mind, the implementation of WEEE Directive in selected four Member States are reviewed in depth in this chapter. The Member States selected – Ireland, Germany, Lithuania and Sweden – represent different patterns of compliance approaches taken by the MS to implement the Directive related primarily to WEEE from households, as discussed further in Section 7.1. Each case country study (Section 7.2 to 7.6) contains the overview of compliance scheme, the review of items raised in Chapter 3 as well as how these items are dealt with in practice. Each section concludes with a short remark discussing the implications of implementation to the producer responsibility principle.

7.1. Generic Classification of Compliance Approaches for B2C products

The practical implementation of the WEEE Directive varies considerably between Member States, mainly on the roles and responsibilities for collection of WEEE from private households, the financial mechanism applied and the level of competition between compliance systems set up by producers to fulfil their producer responsibility obligations.

The compliance approaches for WEEE from private households in Member States can be categorised into two – single national compliance systems and competing collective systems. As the names imply, the categorisation is based on whether two or more compliance schemes handle WEEE in the same category in competition (competing collective system), or not (single national compliance system). The characteristics of these approaches, as well as their variations, are described further in sections below.

7.1.1. Single National Compliance System

Single National Compliance systems have been the standard approach for countries with legislation prior to the implementation of the WEEE Directive. These countries include Belgium, the Netherlands and Sweden, as well as Norway and Switzerland, which are not Member States. They have developed and

continue to have in place national compliance systems, initiated by producers or their trade associations collectively, to practically arrange the take back and recycling operations on behalf of members. Although there may be competitive tendering for services such as transportation, pre-treatment and recycling, in terms of options for producer compliance, these systems are the only collective compliance option available.

Even when there is more than one scheme in operation in the country (ICT Milieu and NVMP in the Netherlands) there is usually no competition between product categories for the management of WEEE. With the national approach to the organisation of producer responsibilities, there is neither a need for a clearinghouse function to allocate collection sites nor market share for historical WEEE. This is because the national scheme is responsible for setting up a national-wide collection system, in collaboration with municipal collection sites and retailers and there is no need to divide this obligation with other collective compliance schemes.

7.1.2. Competing Collective Systems

7.1.2.1. Background

Both driven by certain national government's opposition to monopolistic arrangements of national compliance schemes, and producer's concern over the price impact of lack of competition, there is an emerging trend towards the establishment of multiple collective systems in competition. From industry side, this process has been spearheaded by the European Recycling Platform (ERP) founding members, Braun/Gillette, Sony, Electrolux and HP. These producers were generally unsatisfied with the functioning of monopolistic compliance schemes for WEEE management in Member States where there is a single national compliance scheme and the tendency to accrue large sums of operating reserve to treat future WEEE.

Proponents of the competitive approach to compliance systems have identified supply chain management as the basis to this model and indicate that single national approaches run contrary to this management strategy.¹⁵³ This is because in large organisations supply chains are managed on the basis of competitive tender and WEEE in their view is simply regarded as part of the supply chain activities that could benefit from identical management skills as those used in other areas of product life cycle management.

7.1.2.2. Required Coordination

In order to facilitate competition between schemes certain involvement of the authorities or a central coordinator is required to ensure that the competitive playing field is level for all market actors on key issues such as access to WEEE and market share allocation of responsibilities for historic WEEE. A

¹⁵³ European Commission Joint Research Centre. (2006). Implementation of the Waste Electric and Electronic Equipment Directive in the EU. Institute for Prospective Technological Studies.

clearing house, as it is often referred to, is the most common body responsible for allocating, in essence, producers responsibilities in a fair and accurate way.

Given this, one way of further classifying competing collective schemes is by the mechanism used for the allocation of waste to individual producers or their competing collective organisations managing their responsibilities. It also relates to the level of intervention to ensure access to WEEE is fairly distributed among the producers on the market.

7.1.2.3. Variations of the Approach

On one end of the spectrum, the use of an algorithm to determine when and where a producer is required to pick up and process WEEE from collection sites. Since producers are responsible for the costs to manage historical WEEE collectively based on, for example, his/her weight-based market share, the total amount of collected WEEE needs to be known so it can be divided among obligated parties. In addition, the location of collection sites in relation to urban centres and recycling facilities is an obvious factor that influences costs to manage WEEE. In remote locations and sparsely populated areas cost can be significantly higher.

The algorithm attempts to distribute these cost differences among producers for a more equitable outcome. This ensures that all locations are serviced by producers and that all collected WEEE by municipalities is financed by producers. In theory, this could be considered the most equitable way of assigning responsibility for the management of WEEE collected at collection points. For this allocation mechanism to function there is a need for a strong coordinating body that has the trust both of the producers and municipalities. This approach is used in, for instance, Germany.

On the other end of the spectrum is the situation where government authorities or coordinating bodies have a more or less hands off approach to organising the allocation of responsibility for access to WEEE. Instead of having the starting point of dividing responsibilities based on what is actually collected at municipal sites, the coordinating body assigns a required amount of WEEE to be collected, and leaves it up to producers or their compliance scheme to achieve the results. This provides a so called 'bounty on WEEE' that encourages compliance schemes to meet their collection quotas in the least expensive way. There is usually very little municipal collection infrastructure already in place, and compliance schemes will contract directly with retailers for collection of WEEE or may organise special WEEE collection days or even curb side collection.

Under this approach, there is a need for authorities to set the required collection amount to adequately reflect the availability of WEEE in the Member State as well as the desired level of collection rate ambition. Most of the countries employing this approach most often mandate that if producers do not meet their collection targets, any shortages would need to be made up through payment of product fees or payment into a recycling fund. Variations of this scenario are found in Hungary, Lithuania, Latvia, Bulgaria, Poland, Slovenia and Slovakia.

In between these ends of the spectrum there are approaches used where varying degrees of coordination exist to allocate access to WEEE. For example, in Ireland, the national authorities and the 2 competing compliance schemes came to an agreement on how to divide the obligations to collect WEEE from municipal collection sites. In an original agreement the collection sites were divided up based on a geographical allocation of existing sites. This allocation of collection sites represented an equal population served with a representative selection of urban and rural population densities as well as similar average distances to recycling centres.

In Austria the four competing collective schemes are free to contract directly with municipalities to collect WEEE from their municipal collection sites. However, any WEEE collected by un-serviced municipalities not under contract with a compliance scheme, is allocated to the scheme with the highest outstanding obligation of its market share calculation.

In the UK there will be a similar set-up where compliance schemes or waste collection companies operating on their behalf will negotiate directly with municipalities that have agreed to become designated collection facilities (DCF). Approved compliance schemes are also free to establish their own private DCFs.

In Italy a new coordination body run by industry has been established to ensure the rationalisation and equity of allocation of WEEE from municipal collection sites by the competing collective systems.

In Portugal and Spain, two competing systems are establishing their own collection networks based on both distributors and municipal collection points. In the absence of a coordinating body overseeing the allocation of collection points, each collective scheme in Finland contracts with municipalities directly, and allocation of collection occurs on a rotating basis, where municipal collection sites inform collective systems of their obligation on an ad hoc basis.

7.1.2.4. Selection of cases

The table below captures the compliance approach taken in most of the EU 27, and lists the abbreviations of the compliance systems and the categories of WEEE that they manage.

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Table 34: Generic Classification of Compliance Approaches

Countries with Single National Compliance System	Countries with Competing Collectives or National and Pan-European Consortia		
NL: Netherlands NVMP (All except cat. 3) ICT Milieu (cat. 3)	DK: Denmark ¹⁵⁴ NERA (all) El-Retur (all) LWF (cat 5) RE:DK	AT: Austria UFH Lamps (cat. 5) UFH (all but 5, B2C & B2B) ERA (all cat., B2C & B2B) EVA (all cat., B2C only) ERP (all but 5, B2C & B2B)	CZ: (4) Czech Republic Asekol (cat 3,4, 7, 8,10) Electrowin (cat. 1,2,6) Rema (cat. 2,3,4,6,7,8) Retela(cat.1,2,3,4,5,6,7,8,9,10) Ekolamp (5) Bold: Approval for Historical WEEE exclusively
SE: Sweden EL Kretsen	IR: Ireland: (2) WEEE Ireland (all) ERP (all but cat. 5)	FI: Finland FLIP Ry (Elker Oy) (cat. 5) ICT (Elker Oy) (cat. 3) SELT Ry (Elker Oy) Serty Oy NERA	HU: * Hungary (6) Electro-Coord (All cat.) Comp-Cord (2,3,4,5) E-Hulladeck (All cat.) Elektro-Waste Kht (3) Ökomat Kht. (All categories) Re-Elektro Kht. (All cat.)
BE: Belgium Recupel	IT: Italy Ecodom (cat. 1) Ecolamp (cat. 5) Ecolight (cat. 5) EcoR'lt (cat. 3)	PT: Portugal AMB3E (all cat.) ERP (all but cat 5.)	LV: * Latvia (3) LZE (All cat.) Green Dot (LZP) LEtA (All cat.) Ecolight
LU: Luxembourg Ecotrel	MT: Malta RofA SA		
EL: Greece Appliances Recycling S.A.	CY : Cyprus EDHHA		
EE: Estonia EES-Ringlus			
CZ: (4) Czech Republic Asekol (cat 3,4, 7, 8,10) Electrowin (cat. 1,2,6) Rema (cat. 2,3,4,6,7,8) Retela(cat.1,2,3,4,5,6,7,8,9,10) Ekolamp (5) Bold: Approval for Historical WEEE exclusively	FR: France Eco-Logic EcoPlanet's Eco-Systèmes ERP Recyclum (cat 5) ELEN (B2B) Recy'stem-Pro (B2B)	ES: SPAIN Assoc. Ambilamp ECOASIMELEC Ecofimatoca ECOLEC Foundation ECOTIC ERP Tragamovil	LT: * Lithuania (1 producer association, 20 recyclers) Infobalt EPA (1, 2,3,4,5) EMP (recyclers, All cat.) Kuusakoski (recyclers, All cat.) Zalvaris PL: Poland Auraeko Biosystem Elektrorecykling EL-Centrum ElectroEko ERP
Switzerland: SWICO SENS	DE: Germany	SI: * Slovenia (3) ZEOS (All cat.) Interseroh (All cat., mostly B2B) Slovak (All cat. B2C&B2B)	SK: * Slovakia SEWA (All cat.) Ekolamp (cat. 5) ZEO (cat. 6) Etalux (cat 5)
Norway: EL Retur			

¹⁵⁴ Divided Geographically by clearing house

As mentioned, based on the categorisation, we have chosen four Member States as exemplary cases in this report – Sweden, Germany, Lithuania and Ireland.

Sweden is selected as a representative case of a single national compliance system for WEEE from private households. The country has had producer responsibility legislation since 2001 (two years before the entry into force of the WEEE Directive) and El-Kretsen, the national compliance scheme, has been in operation for over 6 years.

Germany represents one end of the spectrum within the competing collective systems. It allocates pickup obligations/logistics based on an algorithmic calculation method and takes a competition-oriented compliance approach. In this approach the central coordination body plays a strong role.

Lithuania provides an example of a case from the other end of the spectrum – hands-off approach, found in many of the new Member States. They encourage competition among producers by having the coordinating body assign the amount of WEEE to be collected while leaving the means of achieving the requirements in the hands of producers/compliance schemes.

Finally, Ireland represents the scenario where two competing collective organisations have been established by producers to fulfil the legal obligations of their respective members. Allocation of responsibility for WEEE is divided between the competing schemes on a geographical basis. It was one of the few countries to have an operational system as of 13 August 2005, in line with the obligations of the WEEE Directive. It did so without having any previous legislation or systems in place prior to the WEEE Directive. Ireland's national register was also up and running within the required timeframe.

7.2. Exemplary Case: Ireland

7.2.1. Background

Ireland was one of the few countries to have an operational system as of 13 August 2005, in line with the obligations of the WEEE Directive. Prior to the implementation of the WEEE Directive in Ireland, the collection infrastructure for WEEE was considered relatively poor with approximately 45 local authority collection facilities available throughout the country, with only 19 sites accepting all categories of WEEE.¹⁵⁵ Collection trials running over 12 months in 2003-2004 indicated that within the catchments for each of the trial facilities, collection rates between 2.1 and 3.5 kg/person/yr had been achieved. The pilot estimated that with the removal of recycling fees charged by local authorities and increased public awareness that the recycling target 4 kg/person/yr would be achievable.¹⁵⁶

¹⁵⁵ Wilkinson, S., Duffy, N. (2004). Waste Electrical and Electronic Equipment (WEEE) Collection Trials in Ireland. Synthesis Report. Environmental Protection Agency, Wexford Ireland.

¹⁵⁶ Ibid.

Draft statutory instruments on WEEE were published on 15 April 2005. These were much in line with recommendations that came out of the WEEE Taskforce report published in April 2004.¹⁵⁷ The final legislation was published on 6 July 2005.

In the period leading up to the WEEE Directive implementation 35 new civic amenity sites were in the process of being constructed in Ireland and by August 2005 a total of 79 facilities for collecting WEEE were expected to be in place.¹⁵⁸ Within the first year of the program implementation this target has been surpassed with a national collection rate of approximately 6.7 kg/person/year, indicating a successful start to WEEE collection in Ireland.

7.2.1.1. Legislation

In Ireland there are two statutory instruments that form the country's transposition of the WEEE Directive. These include:

- Statutory Instruments No. 290 of 2005: Waste Management (Waste Electrical and Electronic Equipment) Regulations 2005 – published 22 June 2005 (S.I. No. 290)
- Statutory Instruments No. 340 of 2005: Waste Management (Waste Electrical and Electronic Equipment) Regulations 2005 - published 5 July 2005 (S.I. No. 340)

S.I. No 290 of 2005 amends the Waste Management Act of 1996 for the purpose of accommodating the WEEE and RoHS Directives in the Irish legal system. It forms the legal basis for S.I. No. 340 of 2005, which further details the specific requirements of the WEEE Directive. The articles mentioned in the remaining sections of Irish case study are from S.I. No. 340, unless otherwise mentioned.

7.2.1.2. Compliance approach

In terms of compliance approach taken for WEEE from private households, two competing collective organisations have been established by producers to fulfil the legal obligations of their respective members. The two organisations are **WEEE Ireland** and **European Recycling Platform – Ireland (ERP)**. They both obtained approval as a compliance scheme on 4 August 2005. The type of WEEE covered by the two organisations, as well as the status of their memberships, are summarised in the following table.

¹⁵⁷ The taskforce was set up in February 2003 that was chaired by the Department of Environment, Heritage and Local Government and included representation of key stakeholders. The consultation period for stakeholders to comment was rather short and was closed on 16 May 2005. The final regulation was published on 6 July 2004.

¹⁵⁸ Ibid, pg. 5.

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Table 35: WEEE Ireland and ERP Ireland: WEEE categories covered and membership status

	WEEE Ireland	European Recycling Platform -Ireland
WEEE categories covered	All 10 categories in the Directive, with a focus on 1-6 B2C only	Categories 1-4, 6-10 in the Directive
Membership	Open to all producers of EEE in Ireland Number of members: 350 in mid 2006 – 428 in February 2007, representing 82% of EEE placed on the Irish market by weight in 2007	Open to all producers of EEE Number of members: 60 in June, 2007

WEEE Ireland was founded in March 2005 by producers within the 3 main branches of Irish EEE Industry including; the WGA: White Goods Association, CEDA: Brown Goods Association and ICT: Information and Communication Technology. It is a not-for-profit organisation, with 20 Founding Members with voting rights on the Board of Directors.

ERP was founded in 2002 as a response to the development of the WEEE Directive. Specific aims of ERP are threefold; (1) to meet the specific requirements of electrical and electronic producers, (2) to promote cost-efficient and (3) innovative recycling strategies, while actively embracing the concept of individual producer responsibility as set out in the EU Directive, and to open up opportunities for pan-European recycling services and cross-border competition in the waste management service market. With these aims, ERP members seek to avoid national non-competing collective organisations, similar to those in the Netherlands, Sweden, Switzerland and Norway, from monopolising the compliance options for their members. To date, ERP is operating in 9 Member States, including Ireland. In total there are over 850 members in all 9 European countries where ERP is operating.

Producers may join one of the two compliance schemes or self-comply and submit a waste management plan showing how they fulfil their producer obligations for the collection, recycling and recovery of WEEE from private households.

7.2.2. Transposition and implementation practices

7.2.2.1. Definition of Producer

The definition of producer is found in Article 3(3), as follows.

Article 3(3)

“producer” means any person who, irrespective of the selling technique used, including by means of distance communication –

- (i) manufactures and sells electrical and electronic equipment under his or her own brand,
 - (ii) resells electrical and electronic equipment produced by other suppliers under his or her own brand,
 - (iii) imports electrical and electronic equipment on a professional basis into the State,
 - (iv) exports electrical and electronic equipment on a professional basis from the State to another Member State of the European Union, or
 - (v) distributes electrical and electronic equipment from a producer who is deemed not to be registered under the provisions of article 12(2),
- with the exception of a person or persons exclusively engaged in the provision of financing under or pursuant to any finance agreement unless also acting as a producer within the meaning of sub-paragraphs (i) to (v);

Ireland like most European countries defines producers with respect to importing and exporting on the national level (**national approach**). Distance sellers are included in the definition of producer, as well as exporters (intra-community trading).

In addition, distributors or retailers that **sell products from a producer who is deemed not to be registered in the national register** are also defined as “producers” under the regulations. This additional requirement is defined in such a way that adds a safety net to ensure that a legal actor will always be identifiable as the producer in Ireland.

7.2.2.2. Allocation of Responsibility for Collection from private households

Legal clauses assigning responsibility for collection from private households from 13 August 2005 onwards are found in Article 14, 15, 16 and 19.

Article 14 and 15 outlines responsibility of **distributors** in detail, of which those relating to collection of WEEE from private households are described here.

Distributors are required to accept WEEE free of charge on a 1:1 basis (Art.14 (1) (b) (i)), among which, specific rules are set regarding the retailers supplying products to consumers through home delivery (Art.14 (2)). They have the possibility to have other parties fulfil their responsibility on their behalf provided that the alternative arrangement would not become more difficult for end users to return their products (Art. 14 (3)). In addition to the physical responsibility, distributors also bear some informative responsibility regarding collection from households. Namely, they are required to notify consumers of their right to re-

turn WEEE on a 1:1 basis (Art. 14 (4)). Moreover, when producers decide to have a visible fee (Section 7.2.2.6), distributors must display the visible fee on invoices, receipts, dockets, and other sale materials (Art. 16 (12)).

WEEE from private households, once received by distributors, cannot be transferred to entities other than producers responsible for financing of the WEEE management, approve bodies or collectors acting on behalf of these two entities (Art. 15 (1) (a) (i)). Distributors are entitled to deliver WEEE to civic amenity facilities in accordance with the agreement with the operator of the facilities, or alternative collection points set up by **local authorities** (Art. 15 (1) (b), (2)). Distributors can retain WEEE that can be resold to the public as well for the use of components, spare parts (Art. 15 (1) (a) (ii)).

Distance sellers are explicitly mentioned as having the same responsibility as other distributors concerning acceptance of WEEE from private households and provision of information to consumers (Art. 14 (7)). This explicit obligation for distance sellers is rarely found within other Member State legal text. In this respect Ireland is quite unique, in ensuring a level playing field for traditional 'brick and mortar' retailers as well as distance sellers.

Article 19 outlines the requirements for the collection of WEEE from 13 August 2005 onwards. Final users of waste electrical and electronic equipment from private households are entitled to deposit such waste at civic amenity sites at least free of charge (Art. 19 (a)). According to the definition of civic amenity facility (Art 3(3)), the facility can be operated by a local authority or a private sector operator, or actors operating on their behalf. Local authority also has the possibility to set up alternative collection points and thereby direct distributors to deliver WEEE to the collection points instead of amenity sites (Art. 15 (2)). These articles suggest that **local authorities** have physical responsibility to manage civic amenity facilities when they operate them, and collection points that they establish. Physical responsibility of the management of the rest of civic amenity facilities is fulfilled by **private sector operators**.

Each producer has the responsibility to finance "the environmentally sound management of waste electrical and electronic equipment from private households deposited at collection points and civic amenity facilities..." (Art. 16 (1)). Given the definition of "financing the environmentally sound management of waste electrical and electronic equipment" found in Article 3(3),¹⁵⁹ **producers** have a financial responsibility to provide receptacles to local authorities to facilitate the segregation of WEEE at collection points as well as the financial obligation for operational costs, where appropriate.

In summary, the Irish law mandates physical responsibility for the collection of WEEE to distributors (1:1 basis), local authorities (civic amenity facilities operated by them or on their behalf, alternative collection points they set up) and private sector operators (civic amenity facilities operated by them or on their behalf). Financial responsibility for collection of WEEE from private households rests with distributors (operational costs and transportation to civic amenity

¹⁵⁹ "the cost of collection from collection points, together with the treatment, recovery and environmentally sound disposal of waste electrical and electronic equipment, including where appropriate the provision of receptacles to facilitate the segregation of waste electrical and electronic equipment at collection points and associated operational costs"

sites) and producer (operational costs of collection points and the cost of containers for separate collection).

Table 36: Allocation of Responsibility for Collection from Private Households in Ireland

	Physical Responsibility	Financial Responsibility
Collection and Sorting	Distributors (Retailers & Distance Sellers) Local Authorities Private sector operators	Distributors (Retailers & Distance Sellers) Producers

Implementation practice

In practice, the main actors allocated responsibility for the collection of WEEE from private households have organised the collection system in a slightly different way than in the legal text. Both ERP Ireland and WEEE Ireland offer pickup and transportation of WEEE that is collected at retailer collection points assuming that a minimum quantity is present. Between the two schemes at total of approximately 600 retail collection points are serviced. This relieves the retailer from delivering WEEE to civic amenity facilities.

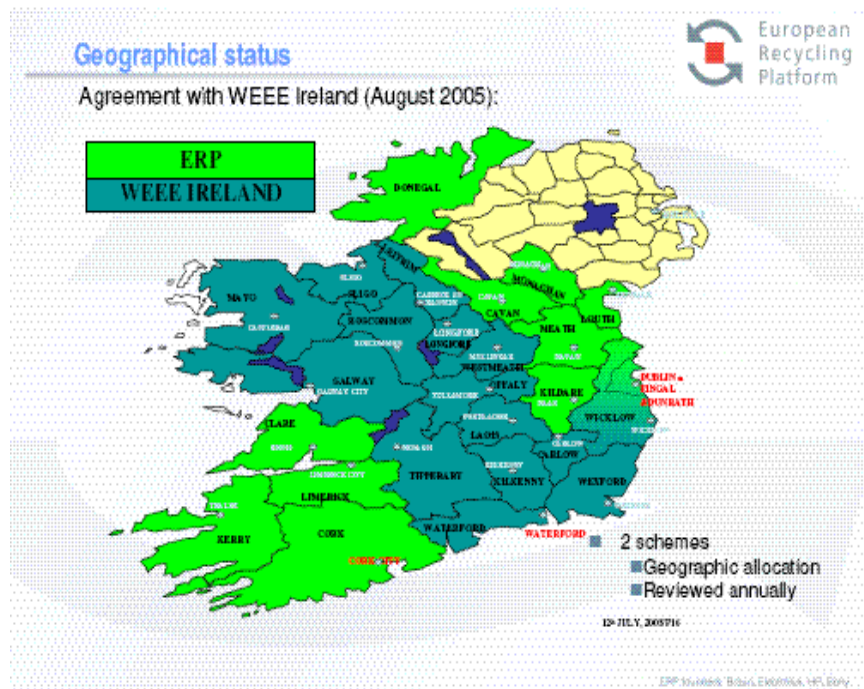
Although producers have an obligation to provide containers as well as finance operation of collection points (Article 16), according to a representative from the Department of Environment, Heritage and Local Government, both WEEE Ireland and ERP Ireland are only providing collection containers. There is an ongoing dispute between local authorities and compliance schemes over the provision of financing to cover operational cost associated with handling WEEE at collection points that local authorities operate.

7.2.2.3. Allocation of Collection, Treatment, Recovery, Recycling and Disposal of WEEE from private households deposited at collection facilities

In line with the WEEE Directive, **producers** have the obligation to collect, treat, recover, recycle and dispose of all WEEE deposited at collection sites and civic amenity sites. Article 19, 21 and 22 lay down producers' physical responsibility on these activities, while Article 16 allocates financial responsibility to producers.

Implementation practice

In order to avoid overlap in collection area, the existing two compliance schemes systems agreed on a geographical split (in consultation with authorities) of municipal and retail collection points. Each system would be responsible to collect and manage all WEEE from its designated local counties. The original agreement between the two systems included an allocation of Irish counties that was representative of an equal proportion of the population and distances to reprocessing facilities.

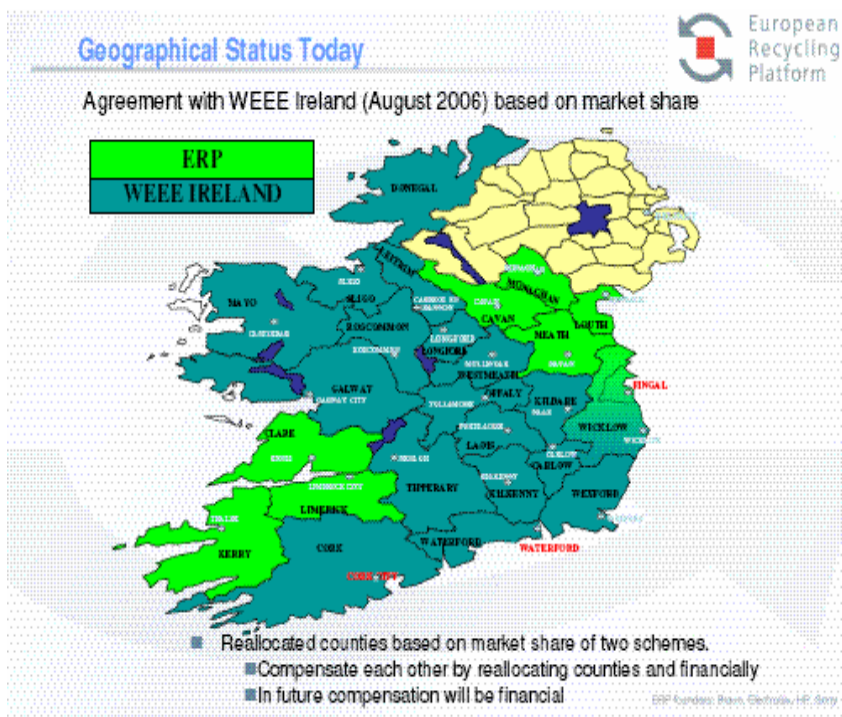


Source: European Recycling Platform 2007

Figure 1: Original Geographical Split of Counties to be served by Collective Systems: Ireland

However, in August 2006 this allocation was adjusted to be more representative of the relative total market shares of the members in each system. This led to a decrease in the area assigned to ERP Ireland as well as financial compensation from WEEE Ireland for over collection of WEEE by ERP. This reallocation of counties is represented in Figure 2: Reallocation of Geographical Split of Counties to be served by Collective Systems: Ireland below.

As noted by ERP, in the future any subsequent changes in relative market share between the two systems will be addressed not by reallocation of collection areas, but through financial compensation between the systems



Source: European Recycling Platform 2007

Figure 2: Reallocation of Geographical Split of Counties to be served by Collective Systems: Ireland

Organisation of Collection and Recycling by WEEE Ireland

As of June 2007 WEEE Ireland's network of collection points is made up of over 740¹⁶⁰ **collection points**, consisting of commercial retailers and approximately **80 local authority sites**. This network has been increasing since the start of collection in July 2005. For example, WEEE Ireland's network in 2006 included approximately 650 collection sites.

For category 5, lamps, WEEE Ireland collects from the entire country including the counties in European Recycling Platform's geographical area.

WEEE deposited at collection facilities is sorted into the following categories that represent

- - Television and computer monitors
- - Refrigerators and freezers
- - Large electric domestic appliances
- - Small domestic appliances and ICT
- - Lamps

WEEE Ireland has contracted 5 transportation firms to pick up WEEE from collection points to be transported to 5 treatment contractors depending on the type of WEEE.

¹⁶⁰ Many of the collection points from large retail chains have already consolidated the WEEE from their subsidiary stores. Given this, the total number of collection points available to the consumer is over 2000.

Atlas Environmental and Irish Lamp Recycling collect and recycle fluorescent tubes and gas discharge lamps nationwide. Both companies provide collection containers to civic amenity sites, electrical wholesalers and other WEEE Ireland approved collection points. The collection point notifies the contractor when the container is ready for collection and processing. Irish lamp Recycling is also involved in the collection and recycling of light fittings.

Cedar Resource Management, Indaver Ireland and KMK Metals Recycling process the majority of material collected from retailers, civic amenity sites, and distribution hubs. They handle all categories of WEEE providing it is available in suitable quantities.

Organisation of Collection and Recycling by ERP Ireland

In terms of operation, ERP members will not be physically involved in collection or treatment of WEEE, and have outsourced all activities to two general contractors, Geodis (covering France, the UK, Ireland, Portugal, and Spain) and CCR (covering Germany, Italy, Austria and Poland).

As discussed above, in the first operating year from July 2005 – August 2006, ERP Ireland was responsible for the collection of WEEE in categories 1-10 (excluding category 5: lamps) in approximately 50% of the counties in Ireland. Since August 2006, it was agreed by both ERP and WEEE Ireland to reallocate responsibility for collection of WEEE in Irish counties that was more representative of actual market share of membership in each scheme. This led to a reduction in counties approximately 120 collection sites, approximately 12 Civic Amenity Sites.

Collection categories:

- Television and computer monitors
- Refrigerators and freezers (CFC)
- Large electric domestic appliances
- Small domestic appliances and ICT

7.2.2.4. Financial Mechanism for WEEE from private households

Article 16(1) specifies financial responsibilities for historic and new WEEE from private households, as follows:

16. (1) On and from 13 August 2005, each producer shall ensure that he or she or a third party acting on his or her behalf finances the environmentally sound management of waste electrical and electronic equipment from private households deposited at collection points and civic amenity facilities in the functional areas of all local authorities relating to –

(a) his or her own products for electrical and electronic equipment for private households placed on the market as and from 13 August 2005, and

(b) all products of electrical and electronic equipment for private households placed on the market prior to 13 August 2005 in proportion to his or her current share of the market by type of equipment as categorised in the First Schedule, as determined by the registration body or, as appropriate, a third party acting on its behalf, when the respective costs occur.

The Irish legislation requires producers placing products on the market on and from 13 August 2005 are responsible for financing the environmentally sound management of WEEE from **his or her own products** (Art. 16 (1) (a)). For products placed on the market prior to 13 August 2005 this should be in proportion to his or her current share of the market by type of equipment (Art. 16 (1) (b)).

However, according to Article 30, producers that hold a valid certificate granted to him or her by an approved body (compliance scheme) stating that the producer is participating in a scheme for the environmentally sound management of waste electrical and electronic equipment arising from private households shall be exempt from the requirements of Articles 16, 19, 21, 22, 23 and 24. This means that the financial obligation for a producer specified in Article 16 (1) do not have to be followed once he/she part of the compliance scheme.

Implementation practice

Different financial mechanisms have been employed for products using visible Environmental Management Costs (vEMC) and those not using vEMC in WEEE Ireland and ERP.

WEEE Ireland

There are 2 methods of financing the costs of WEEE Ireland.

- Those applying vEMC- each producer declare the volume of products they placed on the market on a monthly basis to the WEEE Register black box WEEE Ireland invoices the producers for the appropriate amount based on the approved vEMC. The amount of the cost to the producers is direct debited from their account.
- Where there is no visible fee the sector pays for their costs of collection and treatment of WEEE based on their market share.

In addition, two types of **membership fees** should be paid: 600 Euro for joining, and 2 600 Euro annual fee.

ERP Ireland

Products subject to vEMC: ERP Members report sales volume of products subject to vEMC to ERP Ireland, and ERP Ireland invoices ERP Members for total.

The fees that are paid by members to ERP are kept in separate member accounts within ERP. Recycling charges are based on actual costs to manage collected WEEE and charged on a Euro/kilogram treated basis. Therefore, any differences between what is collected from the vEMCs and the actual recycling charges are accrued within the separate member account. Apparently, this surplus considered the guarantee for new WEEE.

For products not subject to vEMC the following rates apply:

Table 37: ERP Prices for Products not subject to vEMC: Ireland

WEEE Category	Rate €/tonne processed
IT & Telecommunications Equipment	350 508 (if containing TV monitor displays)
Toys, Leisure and Sports Equipment	350 508 (if containing TV monitor displays)
Medical Devices	350 483 (if containing cooling equipment)
Monitoring and control instruments	350
Automatic Dispensers	483 (if containing cooling equipment)
Other	350

Source: ERP Ireland Membership Agreement

In the case of ERP Ireland, in addition to the fee mentioned above, some members need to pay **membership fees**. 500 Euro annual fee is charged to members when they are also members in WEEE Ireland. No Fee is charged if the producer is an EU wide Member of ERP SAS.

7.2.2.5. *Financial Guarantee*

Article 16(2) on financing outlines the requirement for a financial guarantee for products placed on the market on and from 13 August 2005.

16(2) When a product is placed on the market as referred to in sub-article (1)(a), the producer shall provide, within the tenth working day of the month following its placement on the market, a financial guarantee showing that the full cost of the environmentally sound management of waste electrical and electronic equipment will be financed when it is discarded by the final user.

Articles 16(3) outlines the options for the financial guarantee which include a) blocked bank account b) an insurance policy c) self insurance provided the producer maintains a minimum balance of 15 000 000 Euro or 10% annual turnover of EEE in Ireland or d) a bond

As mentioned above in Section 7.2.2.4, according to Article 30, producers who are members in approved compliance schemes are exempt from the requirements found in Articles 16, 19, 21, 22, 23 and 24. Therefore, the requirement for an individual financial guarantee is waived if a producer is a member of an approved compliance scheme. The scheme itself is required to have a contingency reserve, but the amount is not specified within the regulations.

Implementation in practice

In the case of ERP Ireland, for Products falling under Product Categories with visible Environmental Management Costs (vEMC), there is no further contingency needed. This is because it is assumed that the vEMC will exceed costs of managing WEEE

For non vEMC applicable product, the amount to be paid shall be calculated from the following formula:

Rate * [ERP Ireland Member Relevant Market Share * Total Service Volume]

Where:

“ERP Ireland Member Relevant Market Share” means the market share of ERP Ireland Member within the categories of products for which no Visible Environmental Management Costs are specified expressed as a fraction of the total market share of all ERP Ireland Members within these categories.

“Total Service Volume” means the volume by weight of WEEE that is collected and processed by ERP WEEE Compliance Scheme within the categories of products for which no Visible Environmental Management Costs are specified.

“Rate” means the rate per category set out in Table 37.

Source: ERP Ireland Membership Agreement

7.2.2.6. *Visible Fee*

The Irish legislation allows producers to show to the buyers the cost for end-of-life management of historical WEEE (referred to as environmental management cost: EMC) provided that the EMC does not exceed the “current substantiated cost of environmentally sound management of that equipment” (Art. 16 (10), (11)). Producers should If producers decide to employ visible fee system, distributors must display a visible fee on invoices to customers (retailers, wholesalers, etc) then these costs must be made visible to the final consumer at the point of purchase (Art. 16 (12)).

Implementation practice

The WEEE Register Society Limited, the national registration body for producers, has determined the “visible Environmental Management Costs” (vEMC) per category and subcategory of EEE in consultation with industry.

According to the WEEE Register Society, the vEMCs displayed to consumers cannot exceed the actual costs of recycling and must be assigned for recycling activities only. They should not be diverted to other activities. The vEMC’s are calculated on the basis of the estimated number of electrical and electronic appliances that will be recovered and the expected costs associated with the management activities. Given that collection rates and recycling costs may vary with the development of the program, Irish authorities expected that these would change as more information becomes available.

Producers of not all product categories have decided to apply a vEMC. Of the 10 categories of equipment found in the WEEE Directive, five use vEMC, while the rest do not use it.

The Producer Responsibility Principle of the WEEE Directive
7. WEEE Implementation in Member States

Table 38: Product categories using/not using visible Environmental Management Costs (vEMC) in Ireland

Product Categories Using vEMC's	Product Categories not using vEMC's
1: Large household appliances	3: IT & telecommunications equipment
2: Small household appliances	7: Toys, leisure and sports equipment
4: Consumer equipment	8: Medical devices
5: Lighting equipment	9: Monitoring and control instruments
6: Electrical and electronic tools	10: Automatic dispensers

The table below lists the vEMCs that are applicable in Ireland. All listed vEMC are inclusive of 21% VAT. There has been a price decrease in the visible fees since October 2006. WEEE Register Society Ireland in consultation with both compliance systems (individually) determined that the visible fees needed to be reduced to reflect the actual costs that the compliance schemes have to treat historical WEEE.

Table 39: Visible Environmental Management Costs (vEMCs)

vEMC	From August 26, 2005 EUR	From October 1, 2006 EUR
1 Large Household Appliances		
1.1 All refrigeration (capacity above 250 litres)	40	30
1.2 All refrigeration (capacity up to 250 litres)	20	20
1.2b Refrigeration (under table, chest freezers <150 litres)		10
1.3 Large Appliances	20	10
1.4 Medium Appliances	5	5
1.5 Small Appliances	2	1
2 Small Household Appliances		
2.1 Floor Care	5	2
2.2 Other Small Household Appliances	2	1
2.3 Miscellaneous Small Household Appliances	1	0.50
2.4 Clocks and Watches		0
4 Consumer Equipment		
4.1 Large Colour Televisions	20	15
4.2 Medium Size Colour Televisions	10	10
4.3 Small Size Colour Televisions	5	5
4.4 Medium Size Consumer Products	5	1
4.5 Small Consumer Products	2	0.50
4.6 Miscellaneous Minor Items	1	0.50
5 Lighting Equipment		
5.1 Gas Discharge Lamps (including small lighting equipment)	0.50	0.50
5.2 Lighting Equipment	2	0.50
6 Electrical and electronic tools		
6.1 All Electrical Equipment	3	2

7.2.2.7. Distance Sellers

Distance sellers located in Ireland that sell to end users located in other Member States are required under Article 13 to register as a producer in the national register. They are not required to report directly the quantity of products placed on the market in the buyers Member State, but upon request of the authorities they should provide proof of compliance with Article 8 and 9 of WEEE Directive in the buyers Member State. The fact that distance sellers must provide evidence that they comply with Article 9 of the WEEE Directive implies that Ireland has extended the obligation to non-household WEEE. This is not prescribed in the WEEE Directive.

Distance sellers located domestically in Ireland or situated in another Member State and selling on to the Irish market are required to register and report sales to the national register. Since they are “distributors” under the law they have the same legal obligations of all other retailers in Ireland. Therefore, under Part III, Article 14(7) distance sellers are responsible to ensure that when delivering a new product, WEEE can be returned to him or her on a 1:1 basis, assuming that it is of a similar type or function.

According to Article 14(3) distributors, with the agreement of the appropriate local authorities may make alternative arrangements for ensuring the obligations for a 1:1 take back of WEEE are fulfilled by other means, including a nominated distributor, group of distributors or a third party acting on their behalf.

7.2.2.8. Allocation of Responsibility for WEEE from users other than private households

Financial responsibilities for WEEE arising from sources other than households - Business to Business (B2B) WEEE fall under Articles 17 & 18.

From the 13th August 2005, each producer must finance the environmentally sound management of WEEE arising from B2B customers as follows. For new WEEE (equipment placed on the market after the 13th August 2005 that will become waste), the producer must finance the take back and management of WEEE from the business end user (Art. 17 (1)) or make alternative financing arrangements with the business user (Art. 18). Regarding the latter, there must be a formal agreement between both parties on how and who will finance the management of the WEEE. The WEEE must be transported and managed by appropriately licensed and permitted waste management operators.

For historic B2B WEEE (equipment placed on the market prior to the 13th August 2005 that is now waste), when a producer replaces EEE of a similar type and function (irrespective of brand) for a business end user purchasing new equipment from him/her, the producer must finance the take-back and management (Art. 17 (2)).

If the business end user is simply discarding the WEEE and not replacing it, the responsibility for ensuring the environmentally sound management of the WEEE remains with the business end user (Art. 17 (2), 21 (1) (b)). An appropriately

licensed and permitted waste management operator must be used to transport and manage the waste in both scenarios.

Implementation in practice

At the current time producers can only meet their obligations through self-compliance systems. According to the WEEE Register Society, B2B producers must engage in the following activities in order to be in compliance:

Each producer of B2B products must collect or provide for the collection his/her proportion of WEEE arising from WEEE placed onto the market prior to 13 August 2005, according to current market share. The market share target is provided by WEEE Register Society Ireland's Black Box Function.

B2B producers must have a waste management plan approved by the EPA, which is valid for three years. Producers are also obligated to mark their product with the appropriate marking identifying that the producer of the EEE has registered with the Registration Body in accordance with their terms and conditions (Article 27 & Ninth Schedule).

7.2.2.9. Product Labelling: Producer Identification

In the regulations there is no actual article that requires producers to mark their products in order to ensure that any producer of an electrical or electronic appliance put on the market after 13 August 2005 is clearly identifiable. There is only the requirement in **Article 27(1)(a)(i)** that producers mark products placed on the market on and from 13 August 2005 with the crossed-out wheeled bin symbol.

Although no explicit requirement for producers to label their products for identification purposes is mentioned in the main body of the legal text, within the **Third Schedule** appears to cover this obligation. **Part 1 (2)** of the Third Schedule requires that producers should provide the unique identity utilised by the producer to identify the EEE that he or she will place or has placed on the market and the means of such unique identity.

However, in practice the WEEE Register Society does not require producers to provide a unique identity on the registration or reporting forms.

7.2.2.10. Information to Consumers

Under Article 14 distributors have an obligation to inform consumers of the WEEE take back facilities available to them and that they are encouraged to participate in the separate collection of WEEE. Article 14(4)(a) specifically notes that distributors must indicate in writing to each purchaser the last date on which the WEEE from private households can be returned free of charge to the distributor or an alternative collection point. According to Article 14(5) any distributor that has approval of the local authority to designate an alternative collection point to fulfil the take back obligation must display a notification that outlining the approval of the local authority and the alternative location.

In Article 16(12), distributors are required to inform purchasers of EEE the environmental management costs in writing if the producers who supplied the EEE

to the distributor had displayed the costs. This environmental management cost should be displayed on any invoice, receipt or docket issued to the purchaser at the time of sale. Distributors must also display a n in-store sign outlining this obligation.

Article 27 obligates producers to provide users of EEE with the following information when supplying a new product, which is identical to the wording in the WEEE Directive.

- The requirement not to dispose of waste electrical and electronic equipment as unsorted municipal waste and to have such waste electrical and electronic equipment collected separately,
- their role in contributing to reuse, recycling and other forms of recovery of waste electrical and electronic equipment,
- the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, and
- the meaning of the symbol shown in the Ninth Schedule.

7.2.2.11. Producer Registration and Reporting

Part II, Articles 5, 6, 7, 8, 9, 10, 11 and 12, are concerned with the set-up and operation of the Registration Body and the relevant obligations of producers and distributors with respect to registration and reporting. Articles 5, 6 and 7, address the conditions under which the Minister can grant approval to an appropriate person, persons or body to undertake the functions of the national register.

Article 8 lays down the required functions of the register which include; maintaining the national register of producers, determining and notifying the market share of each producer, verification of financial guarantees, maintaining accounts of applicable costs, providing information to the Minister from time to time, and notifying the relevant local authority when producers have failed to comply with any provision of the regulation.

Under Article 10, addresses the obligation of producers to register and pay fees on and from 20 July 2005 and the requirement for producers to display the registration number that is assigned to them upon registration on all invoices, credit notes, dispatch and delivery dockets issued to distributors. Any producer that does not register or is refused registration cannot place products on the market. In addition to this, and as a backup distributors are prohibited from selling products from producers who do not show proof of registration on invoices and delivery notifications (Article 14(1)(a)).

Producers must also renew their registration on a yearly basis (Article 11(1)). Under Article 12 (4) the registration body can also refuse a producers application for renewal if the producers has failed to meet the recovery targets outlined in Article 22.

In practice, The WEEE Register Society, <http://www.weeeregister.ie/>, serves as the national producer register as well as the clearinghouse function. It a privately-owned not-for-profit business established by the EEE industry in Ireland

to aid producers in fulfilling their requirements for registrations and reporting. The producer must declare (via the WEEE Blackbox) how many of these units have been sold on a monthly basis and the scheme will invoice the producer (monthly) for the sum of vEMCs associated with those products.

Invoicing Visible Fees¹⁶¹

- For categories **1, 2, 4, and 6** ERP and WEEE Ireland shall bill the Producer the EMC less 21% (VAT), less 20% (retailer's handling charge)
 - Worked Example:
If the EMC is 1€ (this is inclusive of 21% VAT)
The 21% VAT = 17 cent (this is the EMC*0.826)
The EMC net of VAT = 83 cent
The 20% retailer reduction of the EMC net of VAT, here 83 cent, = 17 cent
The producer shall be invoiced 66 (83 - 17) cent plus 21% VAT on that 66 cent (=14cent) = 80 cent in total
- For **category 5** the producer will be billed the EMC less 21% VAT with no 20% retailer percentage.
- The Producers of lighting have set up a provision for collection of WEEE lighting products with the wholesaler.

Financing Mechanism to be Applied:

- WEEE Ireland and ERP charge the producer based on the weight of products placed on the market compared to the individual total weight placed on the market by each member of WEEE Ireland/ERP.

Products in Categories 8, 9 and 10 are considered to be B2B and no vEMC is charged to producers, unless the producer has declared them as B2C products.

Registration Fee

There is an annual fee payable to the WEEE Society Register. It is variable and based on turnover

Variable Fees for 2007
< 250k, 250 Euro
<500K, 500 Euro
<1M, 1000 Euro
>1M, 2000 Euro

Functional Responsibilities

¹⁶¹ According to the WEEE Blackbox FAQ Available at: <https://www.weeeblackbox.ie/>

The main functions of the WEEE Register Society include:

- Registration of producers and importers of electrical and electronic equipment.
- Notifying the Environmental Protection Agency where there is evidence of non compliance with the Regulations.
- Verification of visible Environmental Management Costs (vEMC)
- Determination of the market share of individual producers.

The WEEE Register Society has appointed Deloitte to carry out the latter two functions because it is precluded by law from seeing the underlying commercial data. This is described as the 'blackbox' function.

Role of the WEEE Blackbox

The WEEE Blackbox is basically a reporting portal where producers declare the number of products that they place on the Irish market on a monthly basis. From the information supplied by producers the WEEE Black Box provides the following services:

- Determination of market share based on product type, producer and/or other criteria e.g., consortia or collective compliance scheme;
- Advising WEEE Register Society Ltd on the validation of environmental management costs (costs of collection, treatment, recycling and disposal of WEEE);
- Advising WEEE Register Society Ltd on the adequacy of financial guarantees;
- Providing management reports for WEEE Register Society Ltd; and
- Providing year-end reporting by preparing and sending out annual summaries for each producer and/or compliance scheme.
-

Reporting Frequency

Producers are required to report products put in the market on a monthly basis. All monthly data must be submitted before or on the 19th day of each month.

Reporting Format

When reporting products placed on the market to the WEEE Blackbox producers are required to report six distinct pieces of information

1. **Category:** 1 of 10 WEEE categories
2. **Sub Category:** Categories 1-7 have listed sub categories of product types. For example, Category 3 has 5 sub categories that include 3.1 Centralised Data Processing, 3.2 Personal computing, 3.3 Printing and copying equipment, and 3.4 User terminal and systems
3. **Product Type:** For some sub-categories the sub category is the product type and for others specific products are listed. For example, product types under sub category 3.1 include, mainframes, minicomputers, printer units, and other centralised data processing equipment

4. **Quantity:** Number of products sold
5. **Weight:** Exact total weight of the products.
6. **Declaration of B2B/B2C/Unknown:** Producer specifies whether the products were sold to businesses (B2B), consumers (B2C) or to an unknown group.

Criteria for discerning B2C & B2B

According to the WEEE Register Society, the criterion that producers should apply when determining whether to report an EEE as household EEE or business EEE is as follows; “If an EEE product placed on the Irish market, can at any stage be sold to or used by a consumer, this transaction is considered B2C, regardless of the supply chain”.

Representatives from the Department of Environment, Heritage and Local Government take a slightly different position on this matter. The Department takes the position that if a producer is taking back WEEE on a 1:1 basis when selling new products then the producer should be entitled to declare dual use products as B2B products. Similarly, if a producer develops an alternative financing agreement with the buyer for example, where a buyer agrees to finance the transportation of WEEE to an agreed point while the producer agrees to finance the recycling of the product in question, then this sale should be considered B2B.

This diverging view on reporting EEE as B2C/B2B creates an obvious degree of uncertainty for producers on how to report appropriately which may have financial impacts with respect to potential market share calculation for WEEE from private households as well as potentially double financing of WEEE from B2B clients (once for market calculation of WEEE from private households and secondly when taking back dual use WEEE from businesses).

7.2.2.12. Monitoring & Enforcement

Ireland has taken a very proactive approach to monitoring and enforcing the WEEE statutory instrument, with a particular focus on distributors. The Environmental Protection Agency's Office of Licensing and Guidance, as part of the National Waste Prevention Programme, is responsible for enforcing the Waste Electrical and Electronic Equipment (WEEE) Regulations in co-operation with local authorities and other regulatory bodies with related responsibilities. There is currently an ongoing programme of unannounced inspections, complaint investigation and surveillance by these organisations.

In addition to the Environmental Protection Agency's activities, the following additional Authorities involved in enforcement:

- Office of Director of Consumer Affairs visited 223 premises during Nov/Dec 2005 checking pricing of 1,120 products
- Advertising Standards Authority for Ireland concerning correct advertising
- Non-compliances are noted in each case on EPA enforcement files.

To date The EPA has made 3 convictions under the Act, all of which are distributors. On 23 January 2006 Boots retail was convicted of two offences under the Waste (WEEE) Management Regulations for failing to provide an in-store informing customers that prices included a contribution to the producer Recycling Fund. The second offence was for the publication of a non-compliant advertisement for EEE which failed to include the contribution to a Producer Recycling Fund as well as the net price as required by the Regulations. Boots was fined 1200 Euro and the EPA was awarded costs of 6865 Euro by the court. Similar convictions were made against two other distributors, Spectra Photo Limited and Argos Limited on 2 May 2006 and 8 May 2006, respectively.¹⁶²

7.2.2.13. Promotion and Education

WEEE Ireland has developed **WEEE School Awareness Program** where children are informed of the importance of the separate collection and treatment of WEEE. Since April 2006 a number of schools have been visited nation-wide and approximately 18 tons have been collected from schools.

In counties where there is no permanent civic amenity site or where local governments have shown interest, WEEE Ireland has organised **mobile public collection days**. To date, WEEE Ireland has organised approximately such **30 events** in counties where it has been allocated collection. These events typically recover 16 tons/day of WEEE per event.

Concerning the activities of ERP Ireland, development of consumer awareness program is ongoing in, for instance, schools.

7.2.3. Results

From the start of collection of WEEE in mid August 2005 until July 2006, approximately 26,700 tons of WEEE was collected in Ireland by the two competing collective organisations ERP Ireland and WEEE Ireland.

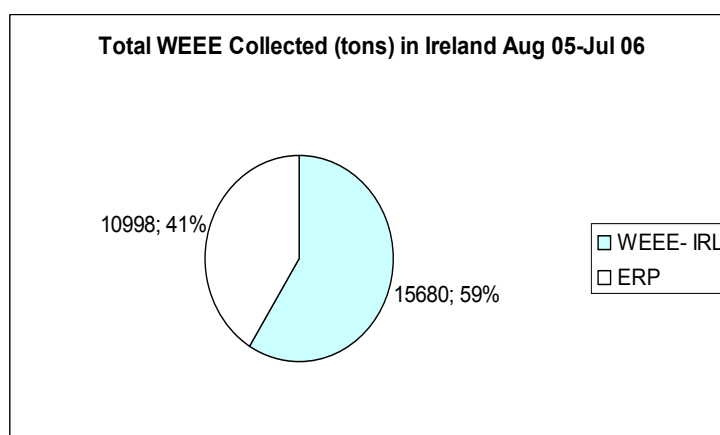
¹⁶² WEEE Register Society (2007) [online] Available: <http://www.e-pire.com/weeeregister/listnews.php> [2007, 10 April]

Table 40: Total WEEE collected in Ireland from August 2005-July 2006

Collection Category	Tons
Fridges and Freezers	5326
Large Household Appliances	15 078
Small Household Appliances	740
ICT	560
Computer Monitors	776
Televisions	2437
Consumer Electronics	330
Lamps	205
Tools	168
Other (Toys, etc)	2080
Total	27 700

Since Ireland's population was just over 4.1 million inhabitants in 2005¹⁶³, the total collection rate for this period is estimated to be approximately 6.7 kg/person/year.

Concerning the breakdown of the amount of WEEE collected by the two organisations, as found in Figure 4: ERP Ireland kg/capita collection in ERP counties: Aug 05-July 06, WEEE Ireland collected approximately 60% of the 26 700 tons¹⁶⁴ (7.8kg/person), while ERP accounted for roughly 40% (5.75kg/person).



Source: ERP Ireland, 2007

Figure 3: breakdown of WEEE collected by two compliance schemes in Ireland: August 2005-July 2006

The breakdown of the collection in the counties where ERP was serving between August 2005 and July 2006 ERP (serving 1 912 696 people) is found in Figure 4: ERP Ireland kg/capita collection in ERP counties: Aug 05-July 06. ERP Ireland mentioned that between January and March 2007, they have collected up to 2 200 tons.

¹⁶³ The Department of Environment, Heritage and Local Government used the 2005 population figure when calculating kg/person/year for the August 2005-July 2006

¹⁶⁴ The actual reason for 1000 ton variance between what ERP and WEEE Ireland collected in total and what was reported by the Department of Environment Heritage and Local Government has not been identified.

Source: Presentation by John Hayes, ERP at London Remade- Local authority network meeting: WEEE, - it's a big decision on Monday 26 February 2007

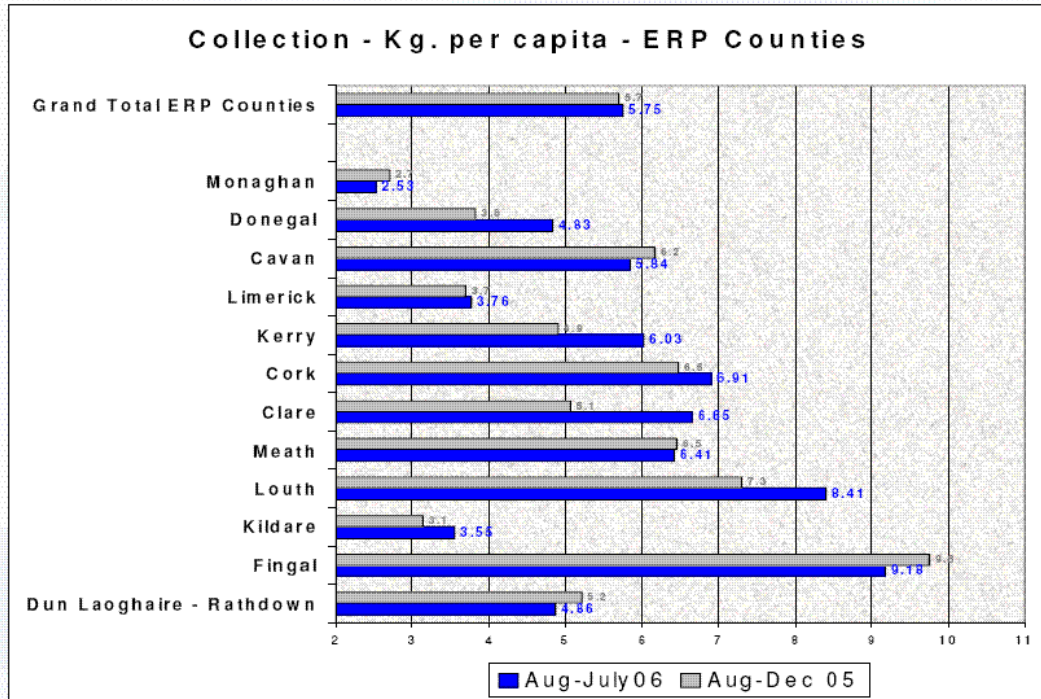


Figure 4: ERP Ireland kg/capita collection in ERP counties: Aug 05-July 06

Recycling Results

Of the roughly 11 000 tons collected by ERP Ireland from August 13, 2005 – July 31 2006

- 60% of WEEE collected is processed in Ireland
- 18 % of WEEE collected is processed in Germany
- 22% of WEEE collected is processed in UK

7.2.4. Summary and implication to the Producer Responsibility Principle

The Irish implementation of the WEEE Directive, both in terms of the transposition into national law and implementation in practice has been rather successful with respect of meeting the required deadlines and applicable targets of the WEEE Directive. This is especially true considering that there was no pre-existing legislation or comprehensive collection and treatment infrastructure in place before the introduction of the WEEE Directive. The 4 kg/person/year collection target has been surpassed prior to the 31 December 2008 deadline that granted to Ireland due to its lack of recycling infrastructure.

In Ireland, retailers have been allocated a considerably large role in the EPR system through specific provisions in the legal text. Under the definition of producer, retailers are listed as obligated producers if they sell products from pro-

ducers who are deemed as not to have registered. Moreover, they are not allowed to sell products from entities not registered as producers. This provides a mechanism in which retailers would play an important role in monitoring the registration of producers, and thus would avoid the reduction of free-rider problems.

In addition to the obligation to an in-store take back WEEE on a 1:1 basis, retailers have an obligation to take-back WEEE on a 1:1 basis when delivering a product to a household. How this obligation of take-back – especially for small WEEE – can be implemented in practice remains to be seen. The fact that retailers are compensated by compliance schemes for their additional responsibilities by being able to retain 20% of the visible fee that is shown to the household purchases of EEE, might help in complying with the responsibility. On the other hand, it may not be easy to have consumers bring back small WEEE to retailers. In the cases where consumers do not bring back WEEE to retailers, what should happen to 20% of the visible fee retained by retailers?

The agreement between the 2 compliance schemes, ERP and WEEE Ireland on the geographical allocation of counties in which each is responsible for collection of WEEE from private households appears to be functioning quite well. With the supervision of the Department of Environment, Heritage and Local Government, the groups have been able to agree on the division of geographical responsibilities as well as adjustments to reflect the changing market share obligations of each scheme.

Article 16 makes a clear distinction between the financing mechanism for new and historic WEEE, where for products placed on the market after 13 August 2005 producer are responsible for the financing of waste from their own products. However, under Article 30, producers who are members of an approved body (compliance scheme) are exempt from Article 16 among other, which may seriously undermine the intention of Article 8(2) of the WEEE Directive, namely individual producer responsibility for new WEEE.

7.3. Exemplary case: Germany

7.3.1. Background

Germany had a pending legislation on WEEE management prior to the entry into force of WEEE Directive. It waited to finalise the national legislation until the finalisation of the WEEE Directive, due to the revisions expected to be required in order to meet with the WEEE Directive.¹⁶⁵

With the entry into force of the WEEE Directive, industry started to discuss the implementation measures two years before the finalisation of the national legis-

¹⁶⁵ Dworak, Thomas & Kuhndt, Michael. (2001). Return, Reuse and Recycling of IT Products: The German / European Approach. In T. Langrock, H.E. Ott, & T. Takeuchi (eds.) Japan & Germany: International Climate Policy & the IT-Sector. A report on the "Policy dialogue between Japan and Germany for facilitating co-ordinated measures to address global warming". Wuppertal: Wuppertal Institute.

lation. This led to the development of EAR Project Partnership in February 2004, which later was established as the “Stiftung Electro-Altgeräte Register” – **EAR Foundation** – in August 2004. The EAR Foundation was officially designated to carry out some tasks of the Federal Environmental Agency in July 2005.

The German system can be characterised by its competition-oriented compliance approach, driven from the government strong preference to competition over monopolistic compliance schemes, which may be partly stemming from the dissatisfaction with the experience in the packaging sector with Duales System Deutschland (DSD). It allocates pickup obligations to producers based on an algorithmic calculation method, coordinated centrally by the EAR Foundation.

7.3.1.1. Legislation

The following legislation has been introduced in Germany to implement the WEEE Directive.

- Act Governing the Sale, Return and Environmentally Sound Disposal of Electrical and Electronic Equipment (Electrical and Electronic Equipment Act, or ElektroG), published on 23/03/2005
- Cost Ordinance to the Electrical and Electronic Equipment Act (ElektroG-KostV), with list of fees for administrative acts, published on 12/07/2005

In addition, an amendment ordinance to the ElektroGKostV was published on 19 December 2006, which came into effect since 1 January 2007. The sections mentioned in the remaining sections of the German case study are from ElektroG of 23/03/2005, unless otherwise mentioned.

The German legislation provides different starting time for the rights and obligations given to various actors (Section 24 and 25).

7.3.1.2. Compliance approach

As mentioned, the compliance approach in Germany can be characterised by its competition-oriented compliance approach, which allocates pickup obligations to producers based on a algorithmic calculation method. This is coordinated centrally by the EAR Foundation.

The establishment of the EAR Foundation was initiated by the Industry Associations of ZVEI (German Electrical and Electronics Industry Association) and Bitkom (German Association for Information Technology Telecommunications and New Media e.V.) in June 2003. It led to the development of the EAR Project Partnership founded by 11 companies and 6 industry associations as a partnership. This was followed by the official establishment of the EAR Foundation on 19 August 2004, by 27 EEE manufacturers and the 3 Industry Association (Bitkom, ZVEI, and Photoindustrie-Verband). It was officially designated as an entity carrying out some tasks of the Federal Environmental Agency (UBA) in July 2005.

Within the EAR Foundation, All 10 EEE categories in the WEEE Directive are represented by what is known as a Category Assembly (PVB). Each of the 10 Category Assemblies is represented by all registered producers in their respec-

tive category. Concerning the rules that apply to each PBV, it is the membership that is responsible for determining them.

There is also a Board of Trustees consisting of 7 members elected by the PVBs and 4 members (2 have voting rights) appointed by ZVEI and Bitkom. The seven trustees elected by the PVBs must be on the Executive Board of their respective company. They represent the following EEE Categories; 1 member for large household appliances, 1 member for small household appliances, 2 members for ICT, 1 member for consumer electronics, 1 member for lighting, and 1 member for power tools. The Board of Trustees is also responsible to appoint the Executive Board and the Advisory Committee.

The main objective of the EAR Foundation is to act as a neutral Registration Body and Clearinghouse. As the designated authority the EAR Foundation is charged with executing administrative tasks, including, among others, the following;

- Registration of producers via the Internet portal
- Allocation of registration numbers to producers
- Keeping records of the quantities of products placed on the market
- Coordination of the provision of suitable containers and collection of WEEE from municipal collection points
- Calculation of individual obligations of producers
- Levying of fees associated with the ElektroG and enforcement of its administrative decisions
- Examination and certification of financial guarantees for B2C EEE.

However the UBA retains the responsibility for the legal and technical supervision of the EAR, and thereby ensures that the legal provisions of the ElektroG are upheld by designated parties.

The activities of EAR are financed by a combination of 1.) Fees charged to producers for the registration process, 2.) reimbursement of costs as provided for in the ElektroG and 3.) consulting fees from services to similar organisations in other countries.¹⁶⁶

¹⁶⁶ Perchards (2007). WEEE Information Service: Country Update – Germany updated Nov. 2006

7.3.2. Transposition and implementation practices

7.3.2.1. Definition of Producer

Section 3 (11) defines producers as follows:

3(11) Producer means any person or legal entity, irrespective of the selling technique used, including by means of distance communication, within the meaning of Section 312b (2) of the German Civil Code (BGB), who:

1. Manufactures and places electrical and electronic equipment under an own brand on the market for the first time in the territory covered by this Act.
2. Resells under an own brand in the territory covered by this Act 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 No. 1.
3. Imports for the first time electrical and electronic equipment into the territory covered by this Act and places it on the market or exports it to another EU Member State and provides it directly to a user in that country.

Similar to many other Member States, the definition related to importers and exporters take the so-called **national approach**. The definition also includes distant sellers.

7.3.2.2. Allocation of Responsibility for Collection from private households

Section 9 on separate collection elaborate responsibilities related to collection of WEEE from private households. The law allocate responsibility for setting up collection points to public waste management authorities (**municipalities**) (Sec. 9 (3)). The last owner, who is obliged to place WEEE separated from the unsorted domestic waste (Sec. 9 (1)), should be able to return the WEEE to the collection points **free of charge** (Sec. 9 (3)). Municipalities are required to collect WEEE into the five collection categories and hold the WEEE collected free of charge until producers take them back (Sec. 9 (4)). They shall also have to report to the Clearing House when the containers are ready for pick-up (Sec. 9 (5)).

Table 41: Collection Categories in Germany as stipulated in Article 9 (4) of ElektroG

1. Large household appliances, automatic dispensers
2. Refrigerators and freezers
3. IT and telecommunications equipment, consumer equipment
4. Gas discharge lamps
5. Small household appliances, lighting equipment, electric and electronic tools, toys, sports and leisure equipment, medical products, monitoring and control instruments.

Producers must **supply municipalities with containers, free of charge**, to enable the separate collection mentioned above (Sec. 9 (5)). There is no obligation for distributors to collect WEEE (Sec. 9 (7)). However, if they choose to do so, they must comply with treatment and recovery obligations (Sec. 9 (7)).

Table 42 summarises the responsibilities mandated by law related to collection of WEEE from private households in Germany.

Table 42: Physical and Financial Responsibility for Collection of WEEE from Private Households: Germany

	Physical Responsibility	Financial Responsibility
Collection and Sorting	Municipalities (setting up collection points, separate collection into five categories) Producers (provision of containers)	Municipalities and producers (financing the activities allocated to them)

7.3.2.3. Allocation of Collection, Treatment, Recovery, Recycling and Disposal of WEEE from private households deposited at collection facilities

Section 9 (8) and 10 discusses responsibility regarding the take-back and treatment of WEEE from private households.

Section 9 Separate collection
 (8): Producers may choose to set up and operate individual or collective take-back systems for WEEE from private households provided they fulfil the objectives set out in Section 1. They shall reuse the WEEE or its components or treat it in compliance with Section 11 and dispose of it in compliance with Section 12.
 Section 10: Producer Obligation to Take Back WEEE
 (1) Producers shall collect in a timely manner containers made available for collection under Section 9 (4) in compliance with the instructions issued by the Competent Authority under Section 16 (5). Section 9 (8) applies as appropriate. Producers shall either reuse the WEEE or its components or treat it in compliance with Section 11 or dispose of it in compliance with Section 12, and shall bear the costs of collection and disposal.

It is **producers** who are the responsible actor – both **physically and financially** – for recovery, recycling, treatment and disposal of WEEE from private households. Meanwhile, Section 9 (6) provides possibility for **municipalities** to take over these tasks, provided that they comply with the treatment and disposal obligations.

Implementation practice

The German situation is unique compared to compliance approaches taken by most other Member States. Early on in the discussion around compliance system development, the German Competition Authority announced that it would not allow any take back system to develop whose membership included an entire product sector. Market competition was the preferred solution and the authority notified that the market share by weight in one type of EEE of producers could not exceed 25%. Consequently, there are many market actors involved in the management of WEEE, including logistic firms, waste management service firms and consortia of producers competing for the demand of individual producers.¹⁶⁷

Leading up to the start of the producer obligations larger producers started to bundle their demand together in order to develop better economies of scale towards service providers, either on a temporary basis or aim to provide full services for consortia members.

Most producers, especially smaller to medium sized have bought services directly from WEEE service providers usually at higher prices than larger producers that have been able to secure individual contracts with service providers.

Producer Alliances: Purchasing Consortia

According to Perchards¹⁶⁸ five producer purchasing consortia have in total approximately 80% of all EEE placed on the market. These consortia range from organisations that aim to provide full WEEE services for their members to temporary demand bundling partnerships for securing favourable prices.

¹⁶⁷ Perchards (2007). WEEE Information Service. Country Report: Germany updated 16 November 2006

¹⁶⁸ Ibid

Table 43: Non-Exhaustive List of Producer Alliances for Purchasing and Compliance

Large Household Appliances	Small Household Appliances	ITC	Consumer Electronics	Gas Discharge Lamps	Tools and Gardening Equipment
Miele, Bauknecht, Stiebel, Whirlpool, Eltron, Liebherr, Merloni, Candy, Fagor, Kueppersbusch, Gorenje	Bosch-Siemens, Miele, Philips, SEB, Vorwerk, ProBusiness	ProReturn Philips, Sharp, Siemens	ProReturn Loewe, Philips Sharp, Siemens	LARS ¹⁶⁹	Recycling Konsortium (IVG, ZVEI)
ERP ¹⁷⁰ Electrolux, Samsung, Elica	ERP Electrolux, Gillette/Braun, Varta/Remington, Saeco	ERP Sony, HP, Samsung, Toshiba, Lucent, Logitech	ERP Sony, Braun	OLAV ¹⁷¹	
Quelle		ENE ¹⁷² Panasonic, Thomson, JVC	ENE Panasonic, Thomson, JVC		

Source: Perchards WEEE Information Service: Germany.

WEEE Management Providers

There are an estimated 300-600 WEEE treatment companies in Germany that have approval to treat WEEE.¹⁷³ Of these are many SME's and divisions of larger waste management parent companies. There are approximately 120 social enterprises owned or partly owned by municipalities that are involved in the management of WEEE, namely repair and refurbishment and resale of WEEE deposited at municipal collection sites.

Involvement of municipalities

From what we could find, the Federal Environmental Agency did not have knowledge on the number of municipalities participating in the collection or those exercising their right to hold on to WEEE.

7.3.2.4. Financial Mechanism for WEEE from private households

Section 10 (1) mandates producers to finance the collection and management of WEEE from private households. Section 14 describes the allocation of responsibility for historical and new WEEE.

¹⁶⁹ LARS: Lampen Recycling und Service <http://www.lampen-recycling-service-gmbh.de>

¹⁷⁰ ERP: European Recycling Platform

¹⁷¹ OLAV: Osram Lampen Vertwertung <http://www.olav.ccr.de>

¹⁷² ENE: EcolgyNetEurope:

¹⁷³ Perchards WEEE Information Service (2006): Country Report - Germany updated May 2006

Section 10: Producer Obligation to Take Back WEEE

(1) Producers shall collect in a timely manner containers made available for collection under Section 9 (4) in compliance with the instructions issued by the Competent Authority under Section 16 (5). Section 9 (8) applies as appropriate. Producers shall either reuse the WEEE or its components or treat it in compliance with Section 11 or dispose of it in compliance with Section 12, and shall bear the costs of collection and disposal.

Section 14: Clearing House Responsibilities

(5) The Clearing House calculates the quantities of WEEE for each registered producer to collect from public waste management authorities and reports the figures to the Competent Authority. For equipment placed on the market before 13 August 2005, producers' obligations are based on the share of the total quantity of electrical and electronic equipment per type of equipment that the producer places on the market in the respective calendar year. For equipment placed on the market after 13 August 2005, producers may opt for their obligation to be based on either:

1. Their verified share of clearly identifiable WEEE, arrived at through sorting or application of scientifically recognised statistical methods, in the total quantity of WEEE according to equipment type.
2. Their share of the total quantity of electrical and electronic equipment per type of equipment placed on the market in the previous calendar year.

For Historical WEEE (placed on the market before 13 August 2005), the German ordinance assigns collective responsibility to all actors present on the market when the cost to manage historical WEEE arises. These costs are allocated to each producer relative to that producer's market share when the costs are incurred. The clearinghouse calculates this obligation on a monthly basis, based on reported sales to the register.

For New WEEE (placed on the market after 13 August 2005), producers have a choice to have their obligations based either on their share of new WEEE that is actually collected at municipal collection sites (**return share**) or on a market share calculation. The latter option is identical to the historic WEEE calculation mentioned above (**market share**).

If producers go for the first option, no cash obligation to finance WEEE arises when these products are placed on the market (however, an obligation to accrue for future costs may arise, according to accounting rules). On the other hand, producers that opt for the section option do have an immediate obligation when placing new products on the market to finance a proportion of WEEE that is collected, based on the market share of those same products that they place on the market after 13 August 2005.

The requirement for the financial guarantee in section 7.3.2.5 may provide some insights into why producers are not opting for their obligations to be based on brand return-share, as the cost for individual guarantee requirements may be higher than any benefits from reduced obligations calculated on return-share.

Implementation practice below provides a very rough sample of WEEE prices from WEEE management providers. Most producer consortia have annual contracts with providers. Prices listed below do not include transportation costs.

Table 44: Sample of prices based on estimates from several WEEE management providers¹⁷⁴

	Large household appliance, automatic dispensers	Refrigerators and Freezers	ITC, Consumer Equipment, and CRT	Gas Discharge Lamps	Small Household appliances, tools, toys, sporting equipment, medical, monitoring and control equipment
Euro/ton October 2005	5 -20	180 -250	140-180	.30 per unit	85-150
Euro/ton May 2006	0 to -10 Euro/ton	180-240 Euro/ton	20-120 Euro/ton	.30 Euro-cent/unit	50-120 Euro/ton
ERP	-25 Euro/ton	164 Euro/ton	104 Euro/ton		66 Euro/ton

7.3.2.5. Financial Guarantee

Section 6(3) of the ElectroG lays down the general requirement for a financial guarantee for products placed on the market after 13 August 2005.

Section 6 Clearing House, Registration and Financing Guarantee

(3) Each producer shall provide to the Competent Authority an annual guarantee for the event of insolvency to guarantee financing of the return and disposal of the electrical and electronic equipment which is placed on the market after 13 August 2005 and which is suited to use in private households. This does not apply to electrical and electronic equipment for which the producer plausibly documents that it is used solely in establishments other than private households or that such equipment is not usually used in private households. The guarantee may be provided in the form of an insurance policy, a frozen bank account or the producer's participation in an appropriate system to fund WEEE disposal, for example a system based on the calculations contained in Section 14 (5) sentence 3 No. 2.

The legislation clarifies that the requirements is **only for B2C products**. The examples of the financial guarantee provided include an insurance policy, a frozen bank account or the producer's participation in an appropriate system to fund WEEE disposal. With regard to the third option, they provide the system with market-share based calculation as an example of the appropriate system.

Implementation practice

In the EAR rulebook, there is a distinction made between collective guarantee systems and compliance based on individual 'pre-financing' WEEE, which relates to the option provided to producers with respect to financing new WEEE. A further explanatory note issued on 5 January 2005 intended to provide clarification on a number of issues, such as the following:

¹⁷⁴ Ibid

- Collective groups of producers (consortia) are not exempt from the obligation to provide a financial guarantee
- The relevant actors that are to be included in the guarantee. These included the a). producer, b). German-based security provider c). German Trustee, the Beneficiary (other producers paying for the bankrupt producer's WEEE)
- EAR has the authority to decide if a guarantee is to be activated. If a decision is made to activate a guarantee, EAR instructs the security provider to provide funds to the trustee, who passes these funds on to the beneficiary or beneficiaries.

Depending on the chosen financing option for EEE placed on the market after 13 August 2005, producers are required to provide either a collective financial guarantee (based on reciprocity) or an individual pre-financing guarantee.

Table 45: Individual and Collective Guarantee Requirements in Germany

Type	EAR reference	Calculation Methodology for Amount if Guarantee	Guarantee activated
Collective Guarantee	EAR rulebook 25/07/2005	Guarantee (EUR) = EEE placed on the market in the × Expected return rate in percentage % × Expected WEEE costs (EUR/tonne)	When last producer of a pay as you go system leaves the market
Individual Guarantee	EAR FAQ 23/07/24	Same as above, plus proof of sorting costs of WEEE. Guarantee is required over maximum product life cycle	When individual producer exits the market

Source: Adapted from Perchards WEEE Information Service: Country Updates - Germany

Collective Guarantees

Only when producers opting for their share of the total quantity of new EEE per type of equipment placed on the market in the previous calendar year can they choose the collective guarantee option. Collective guarantees are based on the principle of reciprocity. Under this system, if any producer were to become insolvent, the remaining producers in the product category would assume the market share obligation of the insolvent producer. The criteria concerning when a collective guarantee can be released for the use of financing WEEE, is determined at the point when the last guaranteed producer in the respective category of EEE leaves the market. Therefore, as long as there is one actor left in the market (producer would have 100% market share) there would be funds available to finance collected WEEE. Obviously, the risks of this extreme situation to happen are very low, and the premiums applied by the 2 main collective guarantee solutions reflect this, as found below.

GSA: Guarantiesystem Altgeräte¹⁷⁵

GSA is founded by Bitkom Service Gesellschaft (BSG) and 12 producers including Brother, Cherry, DeTeWe, Deutsche Telekom, Fujitsu Siemens, Ingram Micro, Kyocera, Motorola, Siemens, Sony, Toshiba and Vodofone. It was approved by EAR on 21 September 2005, and work based on the following charging mechanisms.

- Registration Fee : € 52 (exclusive of VAT) one-off
- A premium to cover external risk protection: € 1.25 for € 1,000 guarantee amount
 (or 0.125%) of required total guarantee
- Yearly Administration Fee

Table 46: Yearly administrative fee charged by GSA in Germany

	Single type of equipment	Several types of equipment
Up to € 1000 guarantee amount	€ 290 plus VAT	€ 680 plus VAT
Up to € 5000 guarantee amount	€ 450 plus VAT	€ 910 plus VAT
Above € 5000 guarantee amount	€ 910 plus VAT	

Source: GSA - http://www.garantiesystem-altgeraete.de/en/content/c_systemgebuehr.php

The solution is open to all Manufacturers/Producers in all 10 WEEE Categories. As of 2007, GSA has 800 subscribers with a cumulative guarantee capital of nearly € 150 million.

A premium is paid annually for the life-expectancy of the product. GSA initiates a credit check on the manufacturer/producer during the application process. Table 47 compares the premiums set by two collective financial guarantee schemes in currently available in Germany.

¹⁷⁵ Information provided in this section was mostly gathered from the homepage of GSA found at: http://www.garantiesystem-altgeraete.de/en/content/c_systemgebuehr.php

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Table 47: Comparison of Premiums between GSA's and ZVEI's Collective Financial Guarantees: Euro/tonne Put on the Market

Product Category	EAR Defined Guarantee Amount (cost/ton x return rate)	Number of Years to be Guaranteed	GSA Premium (0.125% per year of required guarantee Euro/tonne)	ZVEI Premium (0.355% per year of required guarantee Euro/tonne)
1.1 Refrigerators, air conditioners, oil radiators	165	10	2.06	5.86
1.2 Other large B2C equipment	10	10	0.13	0.36
2.1 Small household appliances	68	5	0.43	1.21
3.1 Personal data processing	62	7	0.54	1.54
3.2 Personal printing, copying	62	7	0.54	1.54
3.3 Personal telecom	62	7	0.54	1.54
3.4 Mobile phones	62	8	0.62	1.76
3.5 Monitors	76	8	0.76	2.16
3.6 Cameras	62	7	0.54	1.54
4.1 TVs	115	10	1.44	4.08
4.2 Other consumer electronics	115	5	0.72	2.04
5.1 Gas discharge lamps	750	6	5.63	15.98
6.1 Power tools	20	5	0.13	0.36
7.1 Toys	12	10	0.15	0.43
7.2 Sporting and Leisure equipment	12	10	0.15	0.43

Source: Adapted from Perchards WEEE Information Service: Country Update – Germany updated Nov. 2006

Annual Bank Guarantee

Bosch-Siemens is using an Annual Bank Guarantee to meet its obligation for a financial guarantee.¹⁷⁶ The company representative noted that the annual bank guarantee is less expensive than collective insurance options above.

No costs/prices given were provided to the project team. No information was provided with respect to the details on how the guarantee would be released if company became insolvent.

¹⁷⁶ Graziani, Claudia. (2007, March 29). Personal Interview

7.3.2.6. Visible Fee

Under sub point 4 of Section 6 of the EAG producers are given the option to use a visible fee to show the cost of managing historical WEEE.

Section 6: Clearing House, Registration and Financing Guarantee
(4) The disposal costs for Category 1 WEEE from private households may be indicated to the customer at the time of purchase up to 13 February 2013, and up to 13 February 2011 for all other categories of WEEE that come from private households and which were placed on the market before 13 August 2005. The costs indicated must not exceed the actual costs incurred. Indication of disposal costs for electrical and electronic equipment placed on the market after 13 August 2005 is prohibited.

This is in-line with the wording of the WEEE Directive.

7.3.2.7. Distance Sellers

In addition to inclusion in the definition of producers, the German legislation contains specific clause about the distant sellers in its Section 8, as follows.

Section 8: Selling via Distance Communication
The provisions of Section 6 (2), (3) and (4), Sections 7 and 13 (1) No. 1 and (3) sentences 1 to 5 shall apply to all producers of electrical and electronic equipment who operate sales via distance communication to directly supply consumers in private households in another EU Member State.

According to the legislation, the approach taken is 1 in our typology – distant sellers should be registered in the sellers' Member States: in this case, Germany. This is also the approach that the German register is taking in practice.

7.3.2.8. Allocation of Responsibility for WEEE other than WEEE from private households

Allocation of responsibility for WEEE from business users are stipulated in Section 10 (2).

Section 10: Producer Obligation to Take Back WEEE
(2) Each producer shall create from 13 August 2005 a reasonable option for the return and disposal of WEEE of users other than private households for new equipment placed on the market after this date. Holders are responsible for the disposal of WEEE that does not come from private households and was placed on the market before 13 August 2005. Producers and users may reach an agreement which departs from the provisions contained in sentences 1 and 2 above. The party responsible for disposals shall either reuse WEEE or its components or treat it in compliance with Section 11 and dispose of it in compliance with Section 12, and shall bear the costs of disposal.

Germany, along with the Netherlands and France has chosen to allocate the financial responsibility for the management of historic non-household WEEE to the final holders of equipment. Comparatively, under the WEEE Directive, producers of non-household EEE are responsible for the take back and management of historical WEEE on a 1:1 basis when supplying new equipment. The obligation was not binding until 23 March 2006 as stated in Section 24.

In the German Act, for products placed on the market after 13 August 2005, producers are responsible for providing the take back and management of non-household WEEE as well, although this obligation was not binding until 23 March 2006 as stated above. In addition to this allocation of responsibility, as in the WEEE Directive, producers and users are free to reach an alternative contractual agreement which departs from the provisions listed above.

7.3.2.9. Product Labelling: Producer Identification

Requirements related to product labelling is found in Section 7.

Section 7: Labelling

Electrical and electronic equipment placed on the market in an EU Member State after 13 August 2005 must be indelibly marked in such a way that the producer is easily identifiable and that it is recognisable that the equipment was placed on the market after that date.

Equipment must also be marked with the symbol shown in Annex II in cases where a guarantee is required under Section 6 (3). Where the product's size or function make it necessary, the symbol must be printed on the packaging, the instructions or the warranty for the electrical or electronic equipment.

According to EAR, if a German importer sources EEE from outside the EU, Section 7 in the ElektroG applies and the importer is required to be uniquely identifiable on the product. However, if a German importer sources EEE from another Member State, the importer is not required to mark products to identify itself as the producer, as this would be contravene single market rules on the free movement of goods.¹⁷⁷

7.3.2.10. Information to Consumers

Section 9(2) obligates **municipalities** to inform consumers of their obligation to source separate their WEEE from domestic waste. Municipalities must also inform consumers of their:

- Options in their district for the return or collection of WEEE
- Their role in the reuse, recycling and other forms of recovery of WEEE.
- The possible impacts on the environment and human health from the disposal of harmful substances contained in electrical and electronic equipment.
- The meaning of the crossed-out wheeled bin found in Annex II.

The same obligation is given to **producers** (Sec. 10 (3)).

¹⁷⁷ Perchards WEEE Information Service: Country Update – Germany updated May 2006

7.3.2.11. Producer Registration and Reporting/Clearinghouse

Registration Fee

EAR fees associated with registering producers are required to be approved by the German Ministry of Environment as outlined in the ElektroG. The initial fee structure was published 12 July 2005 (Electrical and Electronic Cost Ordinance – ElektroGKostV). However, in December 2006 a new fee structure was published, reflecting reductions in fees for all producers and exemptions of fees for smaller producers that can demonstrate that they meet certain criteria. This was in response to concerns from small market actors that were faced with proportionally high costs of registration, often exceeding their actual cost of recycling their historical WEEE obligations. The new fee structure came into effect on 1 January 2007.

Table 48: Registration Fees in Germany in accordance with ElektroGKostV and its amendment

No.	Measures Subject to Fees	Fee (Euro) July 2005	Fee (Euro) Jan. 2007
1	Registration		
1.01	Basic Registration Per producers, first brand and first type of equipment	155	150
1.02	Supplementation of the basic registration according to No. 1.01 For every additional brand including one type of equipment and every additional type of equipment belonging to a brand	85	80
1.03	Update of quantitative data on existing registrations according to Nos. 1.01 and 1.02	100	95
1.04.a	Detailed review of an individual producer guarantee per producer, first brand and first type of equipment	455	300
1.04.b	Detailed review of a guarantee based on a Clearing House certified producer guarantee system Per producer, first brand and first type of equipment	545	270
1.04.c	Extension of a proven guarantee according to Nos. 1.04.a and 1.04.b. to another type of equipment per producer for every additional brand including one type of equipment and every additional type of equipment belonging to a brand	90	85
1.04.d	Change or annual update of a proven guarantee according to Nos. 1.04.a, 1.04.b or 1.04.c concerning the quantity and evaluation for an unchanged type of equipment per change or per update	215	193
1.04.e	Change of other guarantee data per change made	90	85
1.04.f	Verification of the plausible documentation according to Section 6 (3) second sentence of the Electrical and Electronic Equipment Act per registration		250
1.05	Change of other guarantee data per change made	50	45
1.06	Additional expense in the case of non-electronic transfer of data per accepted and executed order	160/hr	160/hr
2	Instruction regarding provision	45	41
3	Instruction regarding collection	55	52
4	Sanctions		
4.01	Instruction regarding increase to guarantee	160/hr	160/hr
4.02	Warning on the case of no provision	160/hr	160/hr
4.03	Warning in the case of no collection	160/hr	160/hr
4.04	Revocation of the registration	160/hr	160/hr

Also included in the new cost ordinance were criteria for small producers to be exempt from registration charges if they put EEE on the market in quantities less than certain thresholds. The EAR may grant an exemption from a charge if the application of the standard charge for the registration would be disproportionate with regard to the amount of equipment placed on the market, the economic value of the registration for the company, the expected costs of waste management and the relevance for the waste management. According to the Ordinance, applications for exemption must include details with regard to all four criteria mentioned above. The weight thresholds where producers would be exempt from fees for registration are listed in the table below:

Table 49: Threshold Values in kg/year for Exemption from EAR Registration Fees stipulated in the revised ElektroGKostV, Germany

Weight Category	Equipment Category (e.g....)	Threshold Value in kg/year (=12 months)
1	<ul style="list-style-type: none"> - Small household appliances for use in private households - Small household appliances for commercial use only - Equipment for data processing, the printing of data and the transfer of printed data in private households - Telecommunications equipment for use in private households - Cellular telephones - Cameras (photo) - Commercially used ICT equipment - Consumer equipment, unless listed in weight category III - Gas discharge lamps for use in private households - Gas discharge lamps for commercial use only - Toys for use in private households - Medical products for use in private households - Monitoring and control instruments for use in private households 	50
2	<ul style="list-style-type: none"> - Visual display units - Luminaires for commercial use only - Tools for use in private households - Tools for commercial use only - Sports and leisure equipment for use in private households - Toys - Sports and leisure equipment for commercial use only - Medical products for commercial users - Monitoring and control instruments for commercial use only 	100
3	<ul style="list-style-type: none"> - Television sets - Commercially used audio and video equipment - Large displays - Cooling appliances, air conditioning appliances and oil radiators for use in private households - Other large household appliances for use in private households 	200
4	<ul style="list-style-type: none"> - Cooling appliances, air conditioning appliances and oil radiators for commercial use only - Large household appliances for commercial use only - Automatic dispensers for use in private households - Automatic dispensers for commercial use only 	500

Functional Responsibilities

The primary functions of EAR are:

- Register producers and importers
- Examine and certify the financial guarantees for B2C EEE.
- Coordinate the provision of suitable containers and collection of WEEE from municipal collection points
- Control and enforce the implementation of the law
- Raise fees and fines.

EAR has a crucial role to play in determining each producers' WEEE obligations based on market share calculation from reported monthly sales. Equally important, is the allocation/coordination of pickup of WEEE from municipalities to an obligated producer. EAR informs a producer of its obligation of a pickup order which must be met within a certain time frame. This requires producers to develop a network of service providers that are available on short notice to be able to meet the demand from EAR in a timely fashion.

Experience to date

Although industry has been generally positive towards the functioning of the German clearinghouse model and its role in facilitating increased competition and reduced costs of compliance, the system is not without its own problematic issues.

There have been reported issues with the coordination of pick-up requests by the EAR. Currently, when a producer or its compliance scheme acting on its behalf receives an order for pickup he must investigate to who the owner of the container is and negotiate a price. This is because the EAR refuses to allow producers/compliance schemes to collect WEEE from their own bins which have been supplied to municipalities. There have been some suggested solutions to the container issue, including having a standard container pool that are used by all producers/recyclers on a lease basis. With this approach there would not be a need to coordinate pickup details between producers. However, the drawback is the investment cost needed which has been estimated at 100 million Euro.

A second discussed solution would be to make a geographical split, similar to the approach in Ireland, but based on German regions. The size of the region allocated would match the obligations of the producer or its consortia. Benefits of this approach include better relations between compliance schemes and municipalities. Apparently, the Federal Environmental Ministry has signalled it is willing to facilitate discussion between industry and EAR.

There has been some criticism of the EAR with respect to access to producer inquiries. For example, although foreign companies can register, EAR does not offer registration in any other languages other than German. Apparently, it is very difficult to contact EAR in person. There has been some discussions about allowing registration in English as well as opening a call centre to address these issues.

There have also been reports from compliance solutions that municipalities are in some cases removing valuable components (cables, cords) and reusable ITC as well as complaints over broken monitors and TVs. This results in reduced treatment efficiency and increased costs. There have been a number of proposed solutions to the problem associated with monitors. One is to increase the number of collection categories to six by separating group 3 into TV and monitors and the remainder ITC and consumer electronics. A second solution is to combine ITC and consumer electronics with small household appliance and separating out TVs and monitors. Either of these solutions would solve not only the broken CRT issue, but would also dispel concerns from IT companies that have issues with cross-subsidising monitors. CRTs and monitors could be financed by current display manufacturers, avoiding cross subsidisation from other non-display selling ICT producers.

Reporting Frequency

Put on the Market (input)

- For household EEE (B2C) producers are required to report sales of respective Reporting
 - Monthly
- B2B Reporting
 - Annually

Treatment and Recovery (output)

- B2C Reporting
 - Annually
- B2B Reporting
 - Annually

Reporting Formats

- Annex 1A and Predetermined list of Type of Equipment (TOE) categories

Criteria for discerning B2C & B2B

For a producer to be able to report products as B2B, documentation is required in order to provide plausible evidence that those products will not end up in the municipal waste stream. The following excerpt from an FAQ on the EAR website recommends the necessary steps in order to register products as B2B.¹⁷⁸

“If a producer chooses the registration reserved for B2B equipment, he needs to explain in a mandatory field why his products have the properties of B2B

¹⁷⁸ Fraunhofer Institute (2005). Guide to Registering with the EAR Foundation. Version 0.3. Authors: Marcus Homberger & Stefan Dully.

equipment. This explanatory statement must be accepted and approved by the EAR before registration can be successfully completed”

This statement may be substantiated by, the rules set out for the product categories (e.g. ITC: 35 kg), type and composition of the product, type and purpose of usage, special requirements for usage (e.g. operating license, qualification of operating staff) and price.

7.3.3. Results

At the time of finalising the report there were no published data on WEEE collected since 24 March 2006 at municipal collection sites or through individual B2B compliance. Officials at the Federal Environment Agency reported that data were expected from EAR during July. Depending on the format of data supplied, the Environment Agency plans to publish results by the end of July or beginning of August.

7.3.4. Summary and implication to the Producer Responsibility Principle

When discussing the implications of the implementation of the WEEE Directive in Germany to the producer responsibility principle a number of interesting issues can be highlighted. Regarding the organisation of the national register and clearing house function, it is clear that the German authorities were intent on avoiding any one producer compliance organisation from forming to meet the producer responsibility obligations of producers. The role of the clearing house to allocate WEEE pick-up requests from municipalities to producers based on their current market share is clearly mandated in the national transposition. In an effort to ensure fairness to all obligated producers a “scientifically recognised formula verified by an independent expert” is mandated within the legal text (Article 14(6)) to calculate the temporal and spatial distribution of collection quotas for producers.

Municipalities have been obligated as the main actors responsible for the collection of WEEE from private households and this responsibility is clearly defined in the legal text. Producers are required to finance the provision of the containers and collection, treatment and recycling when assigned a pick-up by the EAR. The functioning of the allocation mechanism has been met with mixed response by producers and municipalities as discussed above. There have been some recommendations put forth to address these issues although no formal process to resolve them has begun.

Municipalities have been given the primary responsibility to provide information to consumers of their obligation not to dispose of WEEE with unsorted domestic waste as well as location of the options available to households to return WEEE. Municipalities are also responsible to inform consumers of WEEE of their role in the reuse, recycling and other forms of recovery, including the impacts on the environment and human health from the disposal of WEEE. Producers are responsible for the above information provision “accordingly”. Retailers have

not been obligated to provide collection on an 1:1 basis, although they can offer collection on a voluntary basis.

Unlike many MS a financial guarantee is required from all producers and no exemption is provided to producers that are members of recycling consortia. Producers that choose to finance their new WEEE obligations based on their share of the total quantity of EEE per type of equipment placed on the market, are able to provide a guarantee in the form of participation in an appropriate system to fund WEEE. In practice, several guarantee solutions are available on the market today. A closer look reveals that the guarantee can only be triggered when the last remaining producer exits the market in a particular product group. Since the risk is quite low of this taking place the premiums charged are also quite low.

In terms of producer responsibility for new WEEE, the ElektroG provides producers a choice to either finance the WEEE from their own products (though sampling or sorting) or to calculate this obligation based on market share in the same way as historical WEEE. Providing a choice of having a responsibility either individually or collectively for new WEEE varies from the intention of Article 8(2) of the WEEE Directive. The EAR allows producers to deduct any individually collected WEEE from their allocated share of WEEE collected from municipal collection sites.

7.4. Exemplary Case: Lithuania

7.4.1. Background

Lithuania is located on the Eastern side of the Baltic Sea. As of 2004 3.45 million people live in the country representing 0.75% of EU 25 countries, with the population density of 54.8 people per square kilometres.¹⁷⁹

There are approximately 250 manufacturers, 800 importers and 2000 distributors of EEE, and 20 companies handling the WEEE collected. The main flows of WEEE in Lithuania originate from private households, offices and shops. 70-75% of WEEE from households constitutes large and small household equipment, consumer goods and IT and telecommunication equipment.¹⁸⁰

The transposition of the WEEE Directive into national legislation started in early 2004. However, the completion of the transposition has been delayed and required “a complex and ambiguous amendment” of the Law of Waste Management due to the disagreements in Parliament regarding the role of producers in waste management.¹⁸¹

¹⁷⁹ Eurostat. (n.d.). Population and social conditions. [On Line]. Available: epp.eurostat.ec.europa.eu/portal/page?_pageid=0,1136184,0_45572598&_dad=portal&_schema=PORTAL [1 March 2007]

¹⁸⁰ Personal interview with Jolanta Dvinelyte, Lithuanian Environmental Protection Agency, Data Management Division. March 2007. Tel: +37052662811. Mail address: j.dvinelyte@aaa.am.lt.

¹⁸¹ Perchards. (2007). WEEE and RoHS Legislation in Europe. Legislation and Compliance. Lithuania. updated 18 September 2006.

The approach taken in Lithuania is a representation of the other end of the spectrum within the competing collective system, where management of WEEE is left in the hands of free market. This is to an extent realised via a number of private collectors and service companies having contract with the so-called producer organisation. However, as of spring 2007, there exists only one entity, called "InfoBalt EPA" that has the license to fulfil producers' responsibility on their behalf.

7.4.1.1. Legislation

The following legislative documents are relevant for WEEE management in Lithuania:

- 1) ***Atliekų tvarkymo įstatymas*** (Žin., 1998, Nr. 61 – 1726; 2002, Nr. 72-3016; 2005, Nr. 84-3111). ("Waste Management Law" 1998 Nr. 61 and its amendments 2002, Nr. 72-3016; 2005, Nr. 84-3111).
- 2) ***Banko garantijos, laidavimo sutarties ir kitų sutarčių įrodančių, kad elektros ir elektroninės įrangos atliekų tvarkymas bus finansuojamas, sudarymo ir vykdymo, lėšų, gautų pagal šias sutartis, kaupimo, naudojimo ir grąžinimo taisyklės*** (patvirtintos Lietuvos Respublikos Vyriausybės 2006 m. sausio 19 d. nutarimu Nr. 61 (Žin., 2006, Nr. 9-340). ("Rules for creating bank guarantees, collateral agreements and other agreements proving, that management of waste electric and electronic equipment will be financed, as well as rules for the accumulation, use and return of funds.", approved by the Government of the Republic of Lithuania, Jan 19, 2006, Nr. 61.)
- 3) ***Gaminių ir (ar) pakuočių atliekų tvarkymo organizavimo licencijavimo taisyklės*** (patvirtintos Lietuvos Respublikos Vyriausybės 2006 m. sausio 11 d. nutarimu Nr. 18 (Žin., 2006, Nr. 5 -144). ("Licensing rules for the organization of product and/or packaging waste management" approved by the Government of the Republic of Lithuania Jan 11, 2006, decision Nr. 18)
- 4) ***Elektros ir elektroninės įrangos bei jos atliekų tvarkymo taisyklės*** (išdėstytos nauja redakcija aplinkos ministro 2005 m. rugpjūčio 16 d. įsakymu Nr. D1-395 (Žin., 2005, Nr. 102-3793). ("Rules of the management of waste electrical and electronic equipment", new edition by the minister of environment, August 16, 2005, Nr. D1-395).
- 5) ***Gamintojų ir importuotojų registravimo taisyklės*** (patvirtintos Lietuvos Respublikos aplinkos ministro 2005 m. lapkričio 17 d. įsakymu Nr. D1-555 (Žin., 2005, Nr. 138-4989; papildytos 2006, Nr. D1-619). ("Rules of registration of producers and importers", approved by the order of the Minister of environment, Nov 17, 2005, Nr. D1-555, amended 2006, Nr. D1-619).

Of these five pieces of legislation, the Waste Management Law (number 1 in the list) will be referred to as "the Law" in the remainder of this case study description,. Rules (number 2-5 in the list) will be referred to with their years and numbers.

7.4.1.2. Compliance approach

The mechanism emerged in Lithuania is to have (a) producer association(s), who serve(s) as (a) “middleman” between the producers/importers and waste managing organisations. Members of producer associations transfer their responsibilities to their association, which in turn takes over the responsibility for organising the management of WEEE, consulting and providing information to all interested parties on question related to WEEE management. As of spring 2007, there exists only one licensed producers’ association, called “InfoBalt EPA”. InfoBalt EPA all 10 categories of WEEE under the WEEE Directive.

There are both the manufacturers as well as retailers of EEE who are the members in the organisation. To become a member an applicant must submit an application and a form where it states the amount of EEE planned to release onto the market per year (in tons) following the list of ten categories. As of May 2007 there are 38 members in the organisation.¹⁸²

7.4.2. Transposition and implementation practices

7.4.2.1. Definition of Producer

The term “Producer” in the Lithuanian legislation applies to both the producers and importers (and distributors) of products that fall under EPR regulations.

The following definitions apply:

“**Producers** – a person who registered his/her activity according to the requirements of Lithuanian legislation, who on the territory of Lithuania *manufactures* oils, means of transport, electric and electronic equipment, taxable products and/or packs such products” (Art. 2⁽¹⁸⁾, the Law)

“**Importer** - a person who registered his/her activity according to the requirements of LR legislation, who *imports* and/or from the other EU Member States *brings in* oils, means of transport, electric and electronic equipment, taxable products and/or packs such products to the territory of the LR” (Art. 2⁽¹⁹⁾, the Law)

“**EEE distributor** – a person, who for commercial purposes provides EEE to consumer by putting it on the market” (Article 2⁽³²⁾).

“**putting on the internal market of Lithuania**” is defined as “possession to other person in the Republic of Lithuania or consumption for the needs of Producer or Importer of oils, means of transport, electric and electronic equipment, taxable products and/or packaged such products produced in LR or imported and/or brought in from the other EU Member States” (Rules 2005, Nr. D1-555, Article 2 Sec I).

As seen, the definition in Lithuania takes the so-called **national Approach**. The definition of the producer itself does not include distant sellers, but another article under the Law specifies the duty of distant sellers.

¹⁸² The list of the members can be found at: http://www.epa.lt/index.php?user_sub_id=12&

7.4.2.2. Allocation of Responsibility for Collection from private households

In relation to the responsibility for collection from private households, Article 34⁽⁴⁾ of the Law assigns responsibility for collection from households to distributors on old-for-new, 1:1 basis (Paragraph 2). The distributors subsequently transfer the WEEE they receive from households to “an enterprise engaged in the management of” WEEE (Paragraph 4). The distributors do not have to accept the WEEE if they lack key parts or if they contain waste that are not classified as WEEE (Paragraph 3).

In addition, Article 34⁽¹⁾ of the Law provides following rights to manufacturers and importers of EEE:

- Individually manage their product
- Direct waste management enterprises to manage product on the contract basis,
- Establish organisations and direct them to introduce waste collection system supplementing the municipal waste management system organised by the municipality, in order to implement product waste management objectives set by the Government or its designated authority.

According to the Clause 79 of the National Strategic Plan for Waste Management, municipalities must guarantee no less than one collection station for large size waste for each 100 000 inhabitants, but also no less than one collection station for large size waste on the territory of municipality, unless such facilities exist in the regional (inter-municipal) waste management systems. This is applicable to all waste in general, but the plan does not have any specific prescriptions regarding WEEE collection.¹⁸³ However, according to Article 30^(3,3) of the Law and proposed amendments for Article 30⁽³⁾ paragraph 5 and additional new paragraph 6, municipalities are responsible to organise separated collection schemes for a variety of waste streams including WEEE.

Through the channels mentioned above, the collection target of annual 4 kg per capita should be achieved for WEEE from households by 1 January 2008, in accordance with the requirements in the WEEE Directive. For collection of WEEE from private households it is the municipalities who are responsible to run and manage waste collection centres and at the same time the producers are responsible to achieve 4 kg per capita collection target.¹⁸⁴

Concerning the financial aspects, Article 34⁽⁶⁾ paragraph 1 of the Law suggests that producers must finance WEEE management system organised by themselves, WEEE in municipal waste management organised by municipalities and/or WEEE during the management of WEEE collected from distributors.

The following table summarises the responsible actors related to collection from households and their responsibilities in Lithuania, based on the Law of Waste Management and the National Strategic Waste Management Plan.

¹⁸³ Lietuvos Respublikos Vyriausybės nutarimas “Del valstybinio strateginio atliekų tvarkymo plano patvirtinimo” 2002 m. balandžio 12 d. Nr. 519, Vilnius Nutarimas paskelbtas: Žin., 2002, Nr. 40-1499.

¹⁸⁴ “National Strategic Waste Management Plan”, Government Resolution Nr. 1252, 5 October 2004

Table 50: allocation of responsibility for collection of WEEE from private households, Lithuania

	Physical Responsibility	Financial Responsibility
Collection and Sorting	Distributors 1:1 (old for new) Municipalities (establishment and management of collection points) Producers: achievement of 4kg target	Producers

Implementation practice

In practice, WEEE from private households is collected in two different ways. One is via **kerbside collection** from waste collection points for mixed household waste close to the household residences. In this case, collectors and/or recyclers (service companies) who have the licenses to operate in prescribed geographic areas, market their services and provide information to waste generators. The service companies are normally being asked to book collection service at a particular time. This is done to avoid WEEE scavenging for metals, which is still often taking place. Many service companies have toll-free telephone numbers and on-line booking services available.¹⁸⁵

Alternatively, end-users can **bring** the WEEE to collection points established parallel to municipal waste collection system.

Information as to ratio of WEEE collected/population served by the collectors/service companies, compared to WEEE collected/population served by the municipal collection system, was not available.

7.4.2.3. Allocation of responsibility for collection, Treatment, Recovery, Recycling and Disposal of WEEE from private households deposited at collection facilities

The Law specifies that producers are responsible for the collection, treatment, recovery, recycling and disposal of WEEE from private households.

Implementation practice

The WEEE collected at the kerbside or collection points are transported to recyclers, among which the largest are UAB EMP. WEEE is typically shredded and sorted by different material fractions. Some products for which there is no recycling infrastructure are exported from Lithuania (e.g. luminescent lamps).

¹⁸⁵ See for example the services of EMP company at URL: <http://www.emp.lt/registruokites-internetu/>

7.4.2.4. Financial Mechanism for WEEE from private households

Article 34⁽⁶⁾ paragraph 1 1) of the Law stipulates that the producers must finance the historical WEEE from households proportionate to their market share.

It also stipulates that the Government or its designated authority determines the percentage (by weight) of historical WEEE that the producers must take care of. In accordance with this article, Rules 2006, Nr. 61 on the financial guarantee requires producers to collect and recycle historical WEEE that in total weighs 15% of the EEE placed on the market in 2006, and 20% in 2007 (Annex table: WEEE management objectives for 2006-2007).¹⁸⁶

For new WEEE, the Law indicates that producers must pay for it without explicitly specifying how it should be financed (Article 34⁽⁶⁾ paragraph 1 2)).

Regarding what operation should be financed, as mentioned in the previous section, Article 34 (6) paragraph 1 of the Law suggests that producers must finance WEEE management system organised by themselves, WEEE in municipal waste management organised by municipalities and/or WEEE during the management of WEEE collected from distributors.

Implementation practice

The tasks of producer association, InfoBalt EPA are financed by two types of fees collected from its members: recycling fee and membership fee.

Concerning recycling fee, a flat fee for the respective categories of WEEE are applied regardless of brands. The size of the fee as of 2007 is found in the following table.

Table 51: Average WEEE tariffs charged by InfoBalt EPA in Lithuania

WEEE Category	Euro/ton
1. Large household appliances	487
2. Small household appliances	487
3. IT and telecommunications equipment	521
4. Consumer equipment	504
5. Lighting equipment	1842
6. Electrical and electronics tools	452
7. Toys, leisure and sport equipment	487
8. Medical devices	452
9. Monitoring and control instruments	521
10. Automatic dispensers	487

Source: InfoBalt EPA (2007)

¹⁸⁶ Ibid, supra note .

Members of the organisation sign a contract to finance their WEEE recycling according to their market share. In turn, the treatment of members' WEEE in accordance with the national legislation is guaranteed. However, there is an opinion that the guarantee in this system is trustworthy only in cases when the members are occupying a sufficiently large market share (75-80% by weight) in the respective product categories.

At the moment there is no exact tariff being set for the future, but according to the producer organisation InfoBalt EPA, it is foreseen that it should not exceed 1,000 Lt/t.¹⁸⁷

The members of the IfoBalt EPA also pay **membership fees** based on the market share of EEE (weight based) for the relevant year. The fees for 2007 can be found in the table below.

Table 52: Differentiated membership fee used by InfoBalt EPA in 2007: Lithuania

Membership fee differentiation criteria		Fee 2007 (LTL/year)	Fee 2007 (eur/year)
EEE amount annually re-released on the market (tons)	<25	1,000	290
	25-50	1,500	434
	50-100	2,000	579
	100-200	2,500	724
	200-1000	3,000	869
	>1000	4,000	1,158

From the fees collected, InfoBalt EPA pay their contractors (service companies/collectors) for their services. Service companies set various charges, which change over time (usually quarterly). For instance, the largest service company EMP charge a uniform 990 Lt fee for WEEE collection and have recycling charges differentiated by EEE category.

WEEE category	Charges Lt/kg (w/o VAT)	Charges eur/kg (w/o VAT)
1	1.09	0.32
3,4,6	1.19	0.34
2,7,8,9,10	1.39	0.40
5	5.5	1.59

WEEE from households is collected by service companies free of charge, while collection and recycling charges are applied for WEEE from businesses.

7.4.2.5. Financial Guarantee

According to Article 3 of the Rules 2006, Nr. 61, producer or importer of WEEE when registering according to the rules of the Environmental Protection Ministry must submit to the regional department of the Ministry where he/she is operating one of the following documents guaranteeing the financing of his/her WEEE

¹⁸⁷ More detailed information is available from "InfoBalt EPA", Tel: +370-5-272 99 85 and edgaras@epa.lt

management and ensuring the fulfilment of WEEE management goals for the current year.¹⁸⁸

- bank guarantee (Art. 3.1)
- warrant insurance agreement, produced between producer/importer and an insurer, ensuring the fulfilment of WEEE management goals for the current year (Art. 3.2)
- contract or other document witnessing that producer/importer is a member of a licensed organisation (Art. 3.3);
- warrant agreement between producer/importer and a waste managing organisation managing specific WEEE (Art. 3.4);
- three-party agreement between B2B EEE producer/importer, the possessor of this EEE and a waste managing organisation managing specific EEE (Art. 3.5).

7.4.2.6. Visible Fee

The Law requires distributors to state the cost of WEEE management to the user when requested from producers (Art. 34⁽⁴⁾ paragraph 2). This indicates that the use of visible fee is optional for producers.

7.4.2.7. Distance Sellers

Article 34⁽⁴⁾ paragraph 6 of the Law requires distant sellers to fulfil the same obligations as those given to distributors. The same article stipulates that the users must have the opportunity to hand in WEEE at the point of collection of new EEE.

7.4.2.8. Allocation of Responsibility for WEEE other than WEEE from private households

Article 34⁽⁷⁾ of the Law requires producers to finance the management of historical WEEE on old-for-new, 1:1 basis (paragraph 1), while make the final holders of the rest of the historical WEEE responsible for the financing of the management of their own WEEE (last-owner pays, paragraph 2). It also allows other solutions to be agreed between producers and waste holders so long as it is in line with the legislation governing WEEE. Thus regarding historical WEEE, the provision in Lithuania is in line with WEEE Directive.

Regarding the new WEEE, similar to the provision on financial mechanism for WEEE from households (Section 7.4.2.4), the Law on Waste indicates that producers must pay for it, without explicitly specifying how it should be financed (Article 34⁽⁷⁾ paragraph 1 2)).

As mentioned in Section 0, service companies charge business end-users some fee for collection of WEEE.

¹⁸⁸ "Rules for creating bank guarantees, collateral agreements and other agreements proving, that management of waste electric and electronic equipment will be financed, as well as rules for the accumulation, use and return of funds.", approved by the Government of the Republic of Lithuania, Jan 19, 2006, Nr. 61.

7.4.2.9. Product Labelling: Producer Identification

Article 34⁽⁵⁾ of the Law requires producers to mark their products put on the Lithuanian market after 13 August 2005 that allows “unambiguous identification of” producers. The identification procedure and requirements for the producers are outlined by Articles 8-11 in Section II of the Rules 2005 Nr. 1-395. Two labels are to be used – one informing that WEEE has to be collected separately from other municipal waste specified in Annex 2 of the Rules 2005 Nr. D1-395¹⁸⁹ (Article 8¹) and another – identifying the producer or importer (Article 8² of the Rules 2005 Nr. D1-395). The two labels can be replaced by a combined label according to Lithuanian standard LST EN 28601:2000 and according to the date and time labelling requirements specified in ISO 8601:1988 and AC1:1991. This applies to all products that have been placed on the market after August 13, 2005 (Article 8³ of the Rules 2005 Nr. D1-395).

Problems identified in some cases related to this requirement is that, depending on the definition of producers and who are allowed to register as producers, in the end it is the distributors in a country, not the brand, who are at least theoretically required to re-label the products. According to Article 8² of the Rules 2005 Nr. D1-395, the labels must unambiguously identify the producer or the importer of the product.

7.4.2.10. Information to Consumers

Article 34⁽⁴⁾ Paragraph 5 of the Law mandates **distributors** to inform the end users how they can hand in WEEE which distributors receive on old-for-new, 1:1 basis (Section 7.4.2.2). The Law also requires **producers** to provide users with information on hazardous materials content and the associated risks to the environment and human health (Article 34⁽⁶⁾ Paragraph 2).

7.4.2.11. Producer Registration and Reporting

According to Article 3⁽³⁾ of the Rules 2006, Nr. D1-619, all producers putting EEE on the market and compliant to Article 2⁽¹⁶⁾ of the Law must:

- register annually before 31 March;
- register before releasing EEE on the Lithuanian market;
- by the end of the year not later than 31 January next year, must complete Section III of the registration form provided in the 2nd Annex of the Rules and indicate the actual quantity of EEE released onto the Lithuanian territory during the calendar year;
- obtain a certificate of registration provided in the 4th Annex of the Rules 2005 Nr. D1-395 and be registered in the on-line list of producers and importers prepared by the Environmental Protection Agency.

Registration Fee

The registration itself is free of charge.

¹⁸⁹ “Rules of the management of waste electric and electronic equipment”, new edition by the minister of environment, August 16, 2005, Nr. D1-395.

Reporting Frequency

Producers must report their products put on the market once per year (between the end of the year and 31 January of the next year). Reporting can be done online, at <http://aaa.am.lt> portal. The website is administered by the Environmental Protection Agency.

Reporting Format

The amount of products put on the market should be reported on weight basis, for the respective categories of the Annex 1 A of the WEEE Directive. When reporting the weight of products, the weight of non-electrical and electronic accessories, batteries and packaging should be excluded.

Criteria for discerning B2B & B2C

Producers themselves declare whether their products are for use in households (B2C) or for institutional users (B2B).

7.4.2.12. Promotion and Education

InfoBalt EPA conducts education and awareness raising campaigns among the public. Recyclers are also taking part in the latter, since it is within their interest to increase collection rates from private households and compete with their competitors over WEEE volumes.

7.5. Results

According to EMP, the largest recycler in Lithuania, there will be 60 000 ton of new EEE released on the market in 2007, which means that 12 000 tons have to be collected and recycled. Out of this 5 000 tons will be the share of InfoBalt EPA.¹⁹⁰ We do not have data for concrete results achieved so far.

7.5.1. Summary and implication to the Producer Responsibility Principle

As mentioned earlier, Lithuania is selected as a representative of a case where compete collective systems work without a strong involvement of coordinating bodies/government authorities. As found in many of the systems that take this approach, the Lithuanian system determines the amount of historical WEEE that producers need to collect and recycle based on the new EEE put on the market each year. In other words, the amount of products that producers must collect does not depend on what is actually coming back to the collection points.

¹⁹⁰ <http://www.delfi.lt/news/economy/business/article.php?id=13567910>

It is up to producers or their compliance scheme to achieve the required collection and recycling.

This means on one hand that producers or compliance schemes must compete to collect WEEE that is assigned to them, which would encourage these entities to meet their collection quotas in the least expensive way. On the other hand, the approach may create a situation where it is unlikely that remote areas would be serviced, especially if not mandated by the authorities. Moreover, there is a disincentive for producers and compliance schemes to collect more than their required quotas as any excess would have to be financed by producers, unless the over capacity could be banked by the scheme or sold to other compliance schemes. The problem of the disincentive has been mentioned by some interviewees as a threat for producers who wish to fulfil their responsibility responsibly. Moreover, it was feared that consumers may start to “sell” WEEE, knowing the mandate given to producers to collect certain amount of WEEE. This might force producers to put their efforts on negotiating with consumers to give away WEEE that do not have market value, an intended consequence of the WEEE Directive.

By looking into the situation in Lithuania in depth, it turned out that there is only one licensed scheme – InfoBalt EPA – operating in Lithuania at the moment, while the rest of the entities that we considered in the beginning were compliance scheme turned out to be recyclers. Although the recyclers may have direct contract with producers to collect their share of historical WEEE and may compete with InfoBalt EPA on this issue, the research team did not have possibilities to obtain concrete insights on the issue. Information on what is happening outside of the licensed scheme was not available. This makes it difficult to discuss the situation outside of the InfoBalt EPA.

However, the situation surrounding the collection of WEEE from households – possibilities for collectors and service companies establishing direct contract with waste generators – tend to suggest the emergency of a fierce competition among the waste collectors/service companies to collect WEEE. This may lead to a situation similar to what has been experienced in the area of municipal waste collection in, for instance, Poland. In Poland, the strong drive towards free market economy affected municipal waste collection system as well. Municipalities must provide license to collect waste to entities provided that these entities fulfil certain criteria prescribed in relevant legislation. This created a situation where a number of waste collection companies operate on the same road without any coordination, obtaining contract with individual households through fierce price competition.¹⁹¹ The inefficiency of such system is rather obvious, and should be avoided.

All in all, due to the short duration of the program implementation, it remains to be seen how the system evolves in the future. It will be important to monitor the development, not the least to avoid some of the potential negative consequences raised above.

¹⁹¹ Tojo, Naoko. (2007). *Evaluation of Waste Management Policy and Policy Instruments – three case studies*. Research report within the Project HOLIWAST (Holistic assessment of waste management technologies). Forthcoming publication.

7.6. Exemplary Case: Sweden

7.6.1. Background

The Swedish implementation of the WEEE Directive is representative of the case in which a single national compliance scheme is the operational model currently in place for WEEE from private households. Sweden has had producer responsibility legislation since 2001 (two years prior to the entry into force of the WEEE Directive) and EI-Kretsen, the national compliance scheme, has been in operation for over 6 years. Collection volumes are highest in Europe, with a per capita collection of close to 16 kg/person/year.

7.6.1.1. Legislation

Prior to the adoption of the WEEE Directive, Sweden had already enacted its own producer responsibility ordinance for WEEE in 2000. **SFS 2000:208 Producer Responsibility for Electrical and Electronic Products** and came into force on 1 July 2001. When the WEEE Directive came into force, it was revised to bring the Ordinance in line with the minimum requirements of the Directive, mainly with respect to product scope and the definition of producer. This led to the issuance of a new **Ordinance SFS:2005 Producer Responsibility for Electrical and Electronic Products** and entered into force 13 August 2005.

In addition to the Ordinance, there are two supporting regulations issued by the Swedish Environmental Protection Agency **NFS 2005:10 on pre-treatment of waste composed of electrical and electronic products** which came into force on 1 January 2006 essentially outlines the requirements that must be followed by recyclers when managing WEEE.

NFS 2006:15 concerning the provision of information regarding producer responsibility for electrical and electronic products relates to the reporting requirements to the national register.

7.6.1.2. Compliance approach

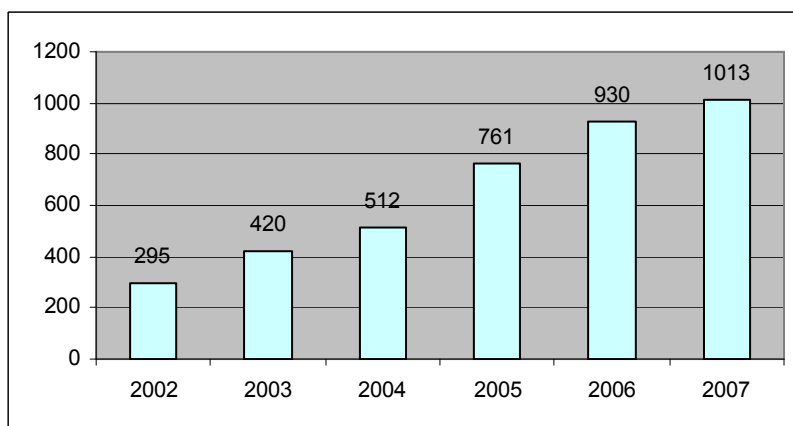
In Sweden, there is currently a single national compliance scheme or Producer Responsibility Organisation (PRO) that handles WEEE from private households – **EI-Kretsen**.¹⁹²

EI-Kretsen was founded in 2001 as a not-for-profit organisation and is owned by 20 industry associations in Sweden. It was established in response to meet the producer responsibility obligations placed on importers and producers of EEE in Sweden.

EI-Kretsen collects WEEE from Categories 1-9 of the Annex I of the WEEE Directive plus luminaries from households. The only item not covered by the scheme is Category 10: Automatic Dispensers. Since its initiation, the number

¹⁹² There exists at least one alternative approach for WEEE from institutional users, which is mainly utilised by ICT producers. As the issues covered in this report concerns mainly WEEE from private households, the implementation mechanism of the alternative approach – called Euroenvironment, will not be discussed further.

of the members of EI-Kretsen grew from 295 in 2002 to 1013 in 2007 (see Figure 5: Number of members of EI-Kretsen, Sweden (changes 2002-2007)).



Source: EI-Kretsen

Figure 5: Number of members of EI-Kretsen, Sweden (changes 2002-2007)

7.6.2. Transposition and implementation practices

7.6.2.1. Definition of Producer

Section 3 of SFS 2005:209 defines producers as follows:

Section 3

For the purposes of this Ordinance a producer means a person who:

1. manufactures electrical and electronic products and sells them under his own brand,
 2. sells under his own brand electrical and electronic products that do not have a brand that can be attributed to a producer referred to in point 1, or
 3. on a professional basis either imports electrical and electronic products into Sweden or exports such products from Sweden to another Member State of the European Union.
- The term producer does not refer to a person who only provides financing under a loan, lease, rental or hire purchase agreement that relates to a product, irrespective of whether the agreement means that the ownership right to the product will or may be transferred.

Regarding the importers and exporters, similar to many other European countries, Sweden takes the so-called **National** approach. The definition includes actors that export EEE out of Sweden to other Members States, although producers are not obliged to register exports when reporting to the national register.¹⁹³

The definition of producer in the Swedish context does not include distance seller within its scope, although obligations of distance sellers are defined in later parts of the ordinance (Section 7.6.3.2 of the report).

7.6.2.2. Allocation of Responsibility for Collection of WEEE from private households

Section 5 of SFS 2000:208 (ordinance prior to the entry into force of the WEEE Directive) assigned producers an old-for-new responsibility for the collection of WEEE. That is, when supplying a new product, producers had the obligation to

¹⁹³ Lars Eklund (2007). Swedish EPA

accept a similar product for disposal from consumers. The SFS 2000:208 Ordinance did not allocate responsibility for collection of the rest of the products to anyone specific. Thus it was assumed that municipalities, the entity responsible for municipal solid waste management, had the physical and financial responsibility to set up collection systems to manage all WEEE that consumers wanted to dispose of when not purchasing a new product. The table below summaries the allocation of responsibility under SFS 2002:208 Ordinance. There was no distinction between historical and new WEEE.

Table 53: Swedish Ordinance SFS 2000:208 – Allocation of Responsibility for Collection of WEEE from private households

	Physical Responsibility	Financial Responsibility
Collection and Sorting	Producers 1:1 (old for new) Municipalities (when no new product is purchased)	Producers 1:1 (old for new) Municipalities (when no new product is purchased)

When transposing the requirements of the WEEE Directive, producers became both physical and financial responsibility for the collection of WEEE from private households (Section 12, 13, 15 and 16, SFS 2005:209) as summarised in the table below.

Table 54: Swedish Ordinance SFS 2005:209 - Allocation of Responsibility for Collection of WEEE from private households

	Physical Responsibility	Financial Responsibility
Collection and Sorting	Producers	Producers

While there is a requirement for producers to consult with municipalities when deciding where to set-up collection systems (Section 23), municipalities have no obligation to collect WEEE covered under the scope of the Ordinance. Distributors have not been assigned an obligation to collect on an old-for-new basis, as outlined in the WEEE Directive. Sweden has chosen to depart from this obligation on distributors as permitted within Article 5(2)b of the WEEE Directive, assumingly on the basis that returning WEEE has not made more difficult for the final holder as a result. Given that prior to the transposition of WEEE Directive a relatively high collection rate in kg/inhabitant was achieved without the collection of WEEE from retailers, the argument seems justifiable.

Implementation practice

In practice, the collective compliance organisation EL-Kretsen and the municipalities in Sweden in 2001 came to an agreement that would shift the responsibility from what is mentioned in SFS2000: 208. That is, municipalities would be responsible for running the collection infrastructure of all WEEE from private households, while producers would finance the pick-up and transportation of this WEEE for recycling. This arrangement ultimately would relieve the producers from the obligation to collect WEEE on a 1:1 basis, something that the retailers had strongly rejected to.

Even after the transposition of the WEEE Directive and assignment of both physical and financial responsibility on producers, in practice municipalities continue to be physically responsible for collection of WEEE from private households. Concerning financial responsibility, municipalities continue to cover the cost for the operation of collection sites for WEEE in Sweden while EI-Kretsen pays for the collection containers. The allocation of responsibility for collection of WEEE from private households in practice is summarised in the table below.

Table 55: Allocation of Responsibility for Collection of WEEE from private households in Practice: Sweden

	Physical Responsibility	Financial Responsibility
Collection	Municipalities	Municipalities (producers pay for containers)

The collection system that EI-Kretsen in conjunction with municipalities developed is called EI-Retur, and today encompasses a nation-wide collection network of approximately **950 collection points** in **290 municipalities** for household WEEE.

EI-Kretsen, Avfall Sverige (The Swedish Association of Waste Management) and the Swedish Association of Local Authorities and Regions, reached a new agreement in 2005 for the co-operation between EI-Kretsen and Sweden's municipalities. The new agreement is valid until 2010 and essentially remains the same as the original agreement. In the agreement, municipalities agree to provide space at manned collection sites free of charge while EI-Kretsen is responsible for providing the collection containers, transportation and recycling of WEEE collected at these sites.

In 2006, there were a total of 650 municipal collection sites in the 290 municipalities in Sweden where households could deposit WEEE. In addition to these sites, some municipalities offer kerbside collection for large household appliances as part of the waste management service within their municipality.

Collection Categories at Municipal Collection Sites

EL-Kretsen and the municipalities have agreed on the categories of equipment that WEEE should be sorted into at municipal collection sites. The collections categories coincide with products that require similar end-of-life treatment routes. They are as follows:

- Large Household Appliances
- Cooling and freezing appliances
- Diverse Electronics (As of March 2007, this category has been divided into 2 sub-categories) Screens (CRT, LCD, Plasma - TVs and monitors) and Diverse Electrical and Electronic Equipment
- Lamps: Fluorescent Tubes
- Lamps: Compact Fluorescent bulbs and other discharge lamps
- Lamps: Light bulbs (incandescent) (under separate ordinance)

7.6.2.3. Allocation of collection, Treatment, Recovery, Recycling and Disposal of WEEE from private households deposited at collection facilities

Prior to the transposition of the WEEE Directive, similar to the allocation of responsibility for setting up and operating collection of WEEE from private households, both municipalities and producers were responsible for managing the WEEE that was collected at the collection points that each was operating (Section 5, SFS 2000:208). Producers were obligated to manage WEEE that was collected on a 1:1 basis, while municipalities were responsible for managing WEEE that was returned to municipal collection sites.

Table 56: Swedish Ordinance SFS 2000:208: Allocation of responsibility for collection, treatment, recovery, recycling and disposal of WEEE from private households deposited at collection facilities

	Physical Responsibility	Financial Responsibility
Treatment & Recycling (including Transportation)	Producers 1:1 (old for new) Municipalities (when no new product is purchased)	Producers 1:1 (old for new) Municipalities (when no new product is purchased)

The new ordinance 2005:209 that transposed the WEEE Directive assigns both physical and financial responsibility for handling of WEEE collected at collection sites to producers (Section 12, 13, 15 and 16), as indicated in the table below.

Table 57: Swedish Ordinance SFS 2005:209: Allocation of responsibility for collection, treatment, recovery, recycling and disposal of WEEE from private households deposited at collection facilities

	Physical Responsibility	Financial Responsibility
Treatment & Recycling (including Transportation)	Producers	Producers

Implementation practice

As mentioned above, the municipalities and EL-Kretsen agreed that municipalities would assume responsibility for all collection of WEEE at collection sites while producers would be responsible for transportation, pre-treatment and recycling of the collected WEEE.

Given the original allocation of roles, this arrangement would prove beneficial for both parties, as municipalities had already existing collection sites for other household wastes that could be utilised and the producers could avoid having to set up new systems for collection. The agreement continued after the transposition of the WEEE Directive, as found in the following table.

Table 58: Allocation of responsibility for collection, treatment, recovery, recycling and disposal of WEEE from private households deposited at collection facilities in practice, Sweden

	Physical Responsibility	Financial Responsibility
Treatment & Recycling (including Transportation)	Producers	Producers

7.6.2.4. *Financial Mechanism for WEEE from private households*

Financial mechanisms for WEEE from private households are stipulated in Section 12 and 13 of the Ordinance SFS 2005:209, as follows.

Section 12.

A producer shall deal with waste electrical and electronic products if, after 12 August 2005, the producer has sold the products in Sweden or in another Member State of the European Union or at a distance to such a Member State.

Section 13. A producer shall participate in action to deal with waste electrical and electronic products put on the market before 13 August 2005 that become household waste.

For every time period prescribed by the Swedish Environment Protection Agency the producer shall be responsible for

1. a share of the waste generated in Sweden equal in size to the producer's market share of sold household products in Sweden, and
2. in the event of distance selling to another Member State of the European Union, a share of the waste generated in each such Member State equal in size to the market share that the producer's distance-sold products constitutes of household products sold in that Member State.

These shares may refer to a certain product type or product market or some other suitable categorisation.

The Swedish Ordinance makes a distinction between historical and new WEEE financing obligations. Section 13 on the financing of historical WEEE is much in line with the WEEE Directive in that it prescribes a collective responsibility for WEEE placed on the market before 13 August 2005. It prescribes a distribution of the costs to manage historical WEEE that is to be based on the producer's market share of household products put on the Swedish market.

For new WEEE it is uncertain from the wording of Section 12 if producers are allocated an individual financial responsibility for new WEEE. Section 12 mandates that producers "deal with WEEE that they have put on the market after 12 August 2005", but provides no indication that this is a responsibility directed to their own products.

Implementation practice

Members of EI-Kretsen have agreed upon a principle of **no cross-subsidisation between product groups**. Given this, the actual cost to manage the various product types within each category of EEE needs to be calculated. However, there is no cost differentiation made within product types at the individual brand level.

Within EI-Kretsen, 3 financial models are used depending on the product category in question.

1. Payment per Product 'put on the market'

An upfront cost per unit or per kilogram is charged to producers for the products they put on the market on a monthly (quarterly for some product groups) basis. At the end of each month, producers report their sales volume for each type of product. EI-Kretsen then invoices its members' by the middle of the following month for the previous month's levied fees. Producers are able to apply for a rebate of fees paid for any products that were previously reported, but have subsequently been exported out of Sweden through, for example, wholesalers.

The calculation of fees at the beginning of the year which are applicable for the entire year, are dependent on estimated values of expected products put on the market, expected WEEE returned and the cost to manage it. At the end of the fiscal year, accounts are balanced for each product type depending on if there is a surplus of funds (less costs than expected) or deficit (more costs than expected).

2. ICT Model:

The ICT branch within EL-Kretsen AB has decided upon a cost model that is based on actual monthly costs to manage this WEEE stream. EI-Kretsen AB invoices each producer a proportion of the total monthly costs to collect and manage various IT products based on that producer's calculated market-share. Market-share for each producer is calculated by sales volume reported quarterly, expressed in tonnes placed on the market. Quarterly reports are to be received by 40 days after the previous quarter end.

Interestingly, producers are able to deduct from their monthly obligations any ICT products that they themselves have collected and managed. For this to apply, producers must prove that all collection and recycling has been conducted according to all applicable laws. In addition, treatment operators must be approved by EL-Kretsen, and require that recyclers submit verification of recycling through appropriate certificates.

3. Other Payment Model:

Certain industry branches/products (e.g. Lamps) have a special financing model where product fees are flat fee based on a yearly basis, regardless of sales volume or market-share.

Sorting of WEEE by of product-type after collection points at pre-treatment sites is necessary for the collection group “Diverse Electronics” in order to:

- Negotiate fees with Pre-treatment companies
- Determine per unit and weight based fees for the different products within this collection category

In order to reduce costs associated with this activity, complete sorting at each pre-treatment site has now been replaced with a sampling protocol. A new sorting centre has been established where random samples from receiving bays of pre-treatment operators will be sorted to estimate return rates of the individual product types. It is estimated that 5-15% of the total WEEE collected in the diverse electrical and electronic equipment will be sampled.

In addition, two types of **membership fees** are charged. Companies wishing to become members of EL-Kretsen pay a one-time joining fee of 3500 SEK (approximately 380 EURO), excluding 25% VAT. There is a yearly membership fee of 500 SEK (approximately 55 EURO) excluding 25% VAT.

7.6.2.5. Financial Guarantee

Section 18 of Ordinance 2005:209 lays down the general requirement for a financial guarantee for products placed on the market after 13 August 2005 without specifying in detail what each option should consist of.

Section 18. A producer who sells electrical and electronic products in Sweden or at a distance to another Member State of the European Union shall ensure through a financing system, insurance arrangements, blocked accounts or in some other appropriate means that financing is available for the fulfilment of the producer's obligation to deal with products under Section 12 read together with Section 16 even if the producer terminates his operations or fails to carry through on fulfilment for some other reason. Action to ensure fulfilment shall be regarded as appropriate if it is likely, in view of the expected use and service life of the product sold and other circumstances, that the obligations will be fulfilled or that the person who fulfils the producer's obligation can obtain compensation for the costs that fulfilment will entail.

In order to further elaborate what the Swedish Environmental Protection Agency considers to be a suitable financial guarantee, the Agency had commissioned an independent study which explored possible options that would meet the criteria laid out in Section 18.

The outcome of the study was used to develop a proposal for general guidelines that were circulated for comments until 20 June 2007. The Swedish EPA plans to finalise these guidelines by the end of the summer 2007.

Proposal for a General Guideline on Financial Guarantees¹⁹⁴

Within the proposed guidelines, the EPA points out that the level of the guarantee should include a total amount that corresponds to the total cost for managing a product at its end-of-life. This cost should not be reduced by the material value of the product. The calculation of the end-of-life costs and the product's expected life length should be accessible to authorities on demand. If a producer is responsible for more than one type of product, information should be provided for each WEEE category. In the calculation of the guarantee it should be evident if products within a category have different life lengths and different end-of-life costs. The guarantee should be valid for the entire life length of the product

Type of Guarantee

The proposal suggests that following types of guarantee from banks or insurance companies that are conducting business according to Swedish law, should be acceptable, if all of the requirements mentioned above as well as those in Section 18 are fulfilled. These are:

A **recycling insurance** that guarantees that the party conducting the end-of-life management of the insured products, or corresponding similar products, will have enough compensation for the dismantling activities.

A **bank guarantee** in Swedish currency that is adjustable yearly to correspond to the total amount of products that need to be guaranteed. The guarantee should be accessible to the authorities in the event that the producer is insolvent, has exited the Swedish market, or for some other reason the producer does not meet his obligations.

A **blocked bank account** in Swedish currency which is held in reserve for the benefit of supervisory body which can only be used with the permission of the authorities.

¹⁹⁴NSF 200: Swedish EPA guidance document on the financial guarantee for Ordinance (2005:209) on producer responsibility for electrical and electronic products. (Naturvårdsverkets allmänna råd om finansiella garantier till 18 § förordningen (2005:209) om producentansvar för elektriska och elektroniska produkter Available [on-line] http://www.naturvardsverket.se/Documents/remisser/forslag_till_allmanna_rad_for_finansiella_garantier/forslag_allmanna_rad_070510.pdf

Further to the forms of guarantee listed above, a collective financing system should be considered appropriate if producers can demonstrate that the guarantee meets the monetary and time requirements mentioned in the general guideline. These monetary and time risks should be considered guaranteed if:

- At least annually the financing system ensures that sufficiently available funds exist and that the systems members have no control over how the funds can be used. The system, in relation to its members, accepts not to use the funds for purposes other than what is stated in the ordinance or the guidelines,

Or

- The system's members explicitly agree to take care of each others waste from household products if the need should arise and that the system is suitably solid to guarantee that members WEEE will be managed.

Regardless of how the collective financing system guarantees its members' undertakings the guarantee should be reflected in the contract between the financing system and the members. A copy of the agreement should be shown at the authority's request.

If a collective financing system with an explicit recycling agreement where members secure each others obligations contractually, the total reciprocal guarantee should be greater than the members total cost for managing WEEE calculated according to these guidelines. Up to 150% of the calculated costs should be suitable to fulfil this reciprocal agreement.

The proposal for a guidance document notes that a collective financing system should be considered suitably stable if:

- The system's members are suitably creditworthy in relation to members total guarantee
- The system has a suitable number of members and is not financially dependent on a few members

Finally, producers should be able to transfer the guarantee from one form to another without restrictions.

7.6.3. Emergence of a new compliance scheme/ recycling insurance

Since April 2007 a newly established system for WEEE insurance has appeared on the Swedish market. The name is Elektronikåtervinningsföreningen (Association for Recycling of Electronics). The Association is owned by its members. It is open for all companies, which are referred to as producers according to the ordinance implementing the WEEE Directive in Sweden.

The system builds on the fact that several EEE retailers are today offering various insurances for the products they sell. Such insurances have been a way to prolong the existing warranties. These retailers have established their own insurance companies in order to efficiently deal with a high number of low-value, and thus low-premium, insurances. They manage to operate such insurances by benefiting from computerised solutions and minimising the number of people

involved. The new Association makes use of these insurance systems to minimise administrative costs. Additionally, the member companies will, because of the ownership structure, be able to regain future savings, emanating for instance from improved design solutions. The financial guarantee will ensure the coverage of future recycling cost for 15 years (universal to all the products).

What is offered by the Association is not only limited to the financial guarantee, but also the organisation of take back and recycling. The Association will charge its members a separate fee for the management of historic WEEE and financial guarantee and future end-of-life management for new WEEE. Table 59 suggests the indicative price for the four products. With low administrative costs and good capital management, the Association promises to supply financial guarantees at attractive prices to its members. They claim that the level of combined cost for historical WEEE and financial guarantee for future fee, they offer today is, on average ca 80% of what EI-Kretsen charges its members for historical WEEE.

Regarding the organisation of concrete infrastructure, the Swedish Ordinance requires a nation-wide collection infrastructure. The Association would presumably utilise members' retail outlets for collection points. However, there are a few municipalities where members of the Association do not have stores. Moreover, most likely waste from EEE sold by its members would end up in the existing EI-Kretsen system, and visa versa. These, among others, indicate the need to collaborate with existing systems on a number of issues. The Association is also waiting to finalise its solution based on the final guideline on financial guarantees from the Swedish Environmental Protection Agency, which is expected to come out in August 2007 (not finalised at the time of finalising this report).

Table 59: Fee charged for management of historical products as well as financial guarantee and future end-of-life management of new products under Elektronikåtervinningsföreningen and EI-Kretsen in 2007 (in SEK)

	Elektronikåtervinningsföreningen		EI- kretsen	
	Management of historical WEEE	Financial guarantee and future management of new WEEE	Management of historical WEEE	
			February 1 2007- July 1, 2007	From July 1, 2007
Washing machine	3.50	3.04	5	0
Vacuum Cleaner	6.25	4.53	15 ¹⁹⁵	15 ¹⁹⁶
Laptop computer	6.12 (per unit)	4.44 (per unit)	2.2 (per kg)	2,2 (per kg)
TV 32 inch	75.60	71.13	100	120

A more thorough evaluation of the system requires, among others, the observation of the development of the collection solutions as well as the means of distinguishing historical and new WEEE.

¹⁹⁵ Includes financial guarantee for new WEEE

¹⁹⁶ Ibid

7.6.3.1. *Visible Fee*

There is no mention of the possibility of the use of “visible fees” for displaying the costs for the management of historical WEEE in the Swedish Ordinance 2005:209. In practice, no visible fee is used.

7.6.3.2. *Distance Sellers*

Section 4 of the Ordinance 2005:209 explicitly defines distance selling as follows:

Section 4 paragraph 3

Distant selling: selling a product to a user in another country under a contract made directly with the user, exclusively by means of distance communication, when this user is not to be regarded as a producer under the corresponding regulations in the other country.

As seen, distance sellers are only defined as actors that are based in Sweden selling to private households in other Member States of the EU (**Approach 1**, see Section 6.7.2 of the report). In other words, distance sellers from other Member States selling to end users in Sweden are not obligated under Swedish law. Swedish authorities essentially rely on legislation in other Member States to assign responsibility on actors selling products into Sweden and for those actors to fulfil their responsibility in Sweden.

This is confirmed in other parts of the ordinance referring to the requirement to register and report sales as well as financial obligations of producers. For example, Under Section 9 on obligations of producers to register, producers are required to report sales of B2C and B2B on distance to other MS, while producers selling from other MS to Sweden do not have this obligation.

Section 12 and 13 of the Swedish ordinance also assigns financial responsibility to finance WEEE that is sold on distance from Sweden, while no such legal obligation is mandated for producers selling EEE on distance from other Member States. Distance sellers located in Sweden are also mandated to provide a financial guarantee when placing those products on the market in case the producer is no longer present when the costs to manage the end-of-life products arise. How such funds would be transferred to a third Member State is not clear.

7.6.3.3. *Allocation of Responsibility for WEEE other than WEEE from private households*

Section 14 of the Ordinance SFS 2005:209 stipulates responsibility for non-households historical WEEE.

Section 14.

A producer shall deal with waste electrical and electronic products put on the market before 13 August 2005 that are not household waste, if they are delivered to the producer in connection with the sale by the producer of a corresponding quantity of new products. This obligation only applies to products that are of the same product type as the products sold or that in normal use fulfil essentially the same function as the products sold.

Similar to WEEE from Private households, producers have the obligation to set up systems for the collection and processing of non-household WEEE. For historical non-household WEEE producers are responsible on 1:1, old-for-new basis (when selling new EEE producers must take back WEEE of the same product type or function). For New WEEE Section 12 of the Ordinance applies (See Section 7.6.2.3 of the report).

It is not explicitly stated that producers can make alternative arrangements for the financing of B2B WEEE, however the obligation to provide free take back of WEEE only applies to WEEE generated from households (Section 15 of the Ordinance SFS 2005:209).

7.6.3.4. Product Labelling: Producer Identification

Section 11 outlines the obligations of producer to mark products as follows:

Section 11.

A producer who sells electrical and electronic products in Sweden or at a distance to another Member State of the European Union shall ensure that the product is marked with

1. the symbol shown in Annex 2 to this Ordinance,
2. data showing that the product was put on the common market after 12 August 2005, and
3. the data required to identify the responsible producer.

If necessary because of the size or function of the product, the symbol referred to in paragraph 1 may instead be placed on the packaging of the product or in the written instructions for use or warranty that accompanies the product.

The requirement to mark products to be able to identify the responsible producer applies to both B2C and B2B EEE placed on the market. According to the EE-Register, it should always be possible to identify a producer based on the identification mark on the product. This implies that if there are multiple producers for the same brand of product, only one of the registered producers could use the brand identity as the unique identifier. The other producers would be required to re-mark their products to ensure they could be identified as the producer.

In practice, our discussions with producers and distributors that are not brand owners revealed that no re-labelling takes place on the Swedish market, with the exception of actors that are first importers of products from outside the EU.

7.6.3.5. Information to Consumers

Section 21 of the Ordinance SFS 2005:209 assigns municipalities the responsibility to provide information for users on issues relating to the management of WEEE. The municipality should inform households about these issues at the same time it informs households about general waste management activities in the municipality. The requirements are very much in line with Article 10 of the WEEE Directive and include;

1. the potential effects on human health and the environment as a result of the presence of dangerous components in such products,
2. the meaning of the crossed out wheeled bin
3. the obligation to sort waste consisting of such products
4. the collection systems available to households, and
5. the recycling outcome that sorting contributes to.

Although municipalities are responsible to deliver this information to households, producers are required to supply the municipality the data that it needs to be able to inform households if it the municipality requests it.

7.6.3.6. Producer Registration and Reporting

Section 9 of the Ordinance SFS 2005:209 sets out requirements for producer registration and reporting.

Section 9.

A producer who sells electrical and electronic products shall supply the Swedish Environment Protection Agency with data on the products. The data shall refer to products in every product category according to Annex 1 to this Ordinance, specified by product type and in the way that is appropriate for the application of this Ordinance. Data shall be supplied on

1. what products and quantities, expressed in weight or numbers, of the various products that the producer sells in Sweden and sells at a distance to other countries in the European Union,
2. what quantities, expressed in weight or numbers, of household products that the producer sells in Sweden,
3. what quantities, expressed in weight or numbers, of household products that the producer sells at a distance to each other Member State of the European Union, and
4. how the producer intends to fulfil his responsibility under this Ordinance and how the obligation to ensure the financing of action to deal with waste under Section 18 has been fulfilled.

The Swedish EPA has set up and operates the EE-Register according to its obligation under Section 9 of SFS 2005:209. Registration and reporting is possible in both Swedish and English and is available on-line at:

<http://eeregistret.naturvardsverket.se/net/ee/Producent+logga+in>. Unlike many Member States, registration is open for producers within the European Union and is not limited to nationally registered business entities.

Registration Fee

The Swedish EPA has preliminarily announced a yearly producer fee of 3000 SEK or approximately 320 Euro for management of the National Register activities. For 2007 no invoice was sent to producers as an amendment to an administrative ordinance regulating fees for testing and supervision under the Swedish Environmental Code is required in order to do so. No further decision on this matter has been made by the Swedish EPA..

Functional Responsibilities

According to Section 26, the Swedish Environmental Protection Agency is required to determine each producer's share of historical WEEE collected, based on the relative market share of each producer. The EE-Register informs all producers of their market share and their respective amount of WEEE

The Swedish Environmental Protection Agency is an inspection and enforcement authority, and provides information, follow-up and administers as well as ensures that the Ordinance is observed. The Swedish EPA has a duty to impose environmental penalty charges on producers who do not submit their description or report the required information to the EE-Register. The level of these charges can be found in Ordinance (1998:950) on Environmental Penalty Charges.

Reporting Frequency

Products placed on the market – Input Data

Producers are required to report total quantities of products placed on the market in Sweden as well as to other MS through distance selling on an **annual** basis for both Household EEE (B2C) and non-household EEE (B2C).

Management of WEEE – Output Data

Producers are required to report total weight (tonnes) of WEEE collected, re-used without treatment, treated, reused after treatment, material recycling, energy recovery, handled in another way, sent outside of Sweden for treatment, on an **annual** basis.

Reporting Formats

Products placed on the market- Input Data

Producers are required to report total quantities of products “placed on the market” in Sweden as well as to other MS through distance selling. Producers report the total **weight** of products they place on the Swedish market in the respective **10 WEEE categories** found in Annex 1A of the WEEE Directive.

Management of WEEE – Output Data

Producers are required to report total weight (tonnes) of WEEE collected, re-used without treatment, treated, reused after treatment, material recycling, energy recovery, handled in another way, sent outside of Sweden for treatment, on an **annual** basis.

Household EEE placed on the Swedish Market in 2006

Preliminary data on household EEE placed on the market in Sweden for the period between 13 August 2005 and 31 December 2006 were provided by the Swedish EPA- EE Register. The data were manipulated to provide a 12 month average of EEE placed on the market as well as a kilogram per capita placed on the market.

Table 60: Household EEE placed on the Swedish market 2006

WEE Category	13 August 2005 – 31 December 2006 (tons)	12 month Average (tons)	Kg/person/yr in 2006
Category 1	137 908	100 297	11
Category 2	33 458	24 333	2.67
Category 3	31 511	22 917	2.51
Category 4	37 860	27 535	3
Category 5	4 367	3 176	0.34
Category 6	5 393	3 922	0.43
Category 7	1 253	911	0.1
Category 8	190	138	0.01
Category 9	44	32	0.0035
Category 10	0.005	0.004	0
Total	251 983	183 261	20.1

Table 61: Non-Household EEE Placed on the Swedish Market 2006

	13 August 2005 – 31 December 2006 (tons)	12 month Average (tons)	Kg/person/yr in 2006
Category 1	1 757	1 278	0.14
Category 2	112	81	0.009
Category 3	29 191	21 230	2.33
Category 4	1 126	819	0.09
Category 5	18 061	13 135	1.44
Category 6	3 665	2 665	0.29
Category 7	590	429	0.05
Category 8	1 471	1 070	0.12
Category 9	1 134	825	0.09
Category 10	737	536	0.06
Total	57 844	42 068	4.62

7.6.3.7. Monitoring and Enforcement

In the Spring 2007, the Swedish Environmental Protection Agency through the EE-Register has taken some form of measures against 300 companies regarding their registering and/or reporting to the national register. Of the 300 producers, 120 have received notification that the Swedish EPA is considering to fine them for deficiencies in their reporting, namely for not reporting sales of products placed on the market and/or WEEE collected and processed.

7.6.4. Results

Since the start of the programme in 2001, total WEEE collected by EI-Kretsen has increased considerably from 5.7 kg/person/yr in 2001 to 15.8 kg/person/yr in 2006. If including the refrigerators and freezers collected by municipalities up until August 13 2005, collection of WEEE per capita in Sweden ranged from 10.7 to 15.8 kg/person/year.

Table 62: Collection Results EI-Kretsen 2002-2006

	2002	2003	2004	2005	2006
Large White Goods	30 800	32 800	36 600	36 300*	45 500
Other Household Appliances, Hand Tools, Garden Tools	9 800	8 900	10 200	12 300	11 900
IT, Office Equipment, Telecom	11 500	14 000	17 700	22 700	27 600
TV, Video, Audio	16 800	16 600	15 700	21 000	26 300
Camera, Watches, Toys	200	200	200	300	300
Light Sources	5 600	5 800	5 800	6 700	7 900
Other	100	300	900	2 200	2 400
Fridges and Freezers (EI-Kretsen)	0	0	0	10 500	28 000
Total (EI Kretsen)	74 800	78 600	87 100	112 000	149 000
kg/capita/year	5,7	9,0	9,8	12,2	15,8
Fridges and Freezers (Municipalities)	21 100	23 500	21 840	14 500	0
Total (EI-Kretsen and Municipalities)	95 900	102 100	108 940	126 500	149 000
kg/capita/year	10,7	11,4	12,1	14,0	15,8

* Total white goods collected increased by 5% between 2004-2005 however decrease in tonnages was due to an adjustment in average product weight

7.6.5. Summary and implication to the Producer Responsibility Principle

Sweden has been selected as an exemplary case representing the situation where a single national collective system for compliance with producer responsibility requirements is the dominant model. Although there are some producers that have developed alternative solutions mainly for WEEE from businesses (although this WEEE is actually B2C according to the interpretation of the EE-Register), most obligated producers fulfil their obligation by being members of EI-Kretsen.

In terms of WEEE collection, the EI-Retur System has achieved the highest rates of collection reported in Europe, with a total of 15.8 kg/capita/year in 2006. EI-Kretsen attributes this success to the level of cooperation between its partners, the municipalities and contractors and the willingness of the public to participate in the separate collection of WEEE. Although there are increased obligations for producers with respect to the allocation of responsibility for collection of WEEE in the new WEEE Ordinance, there has been essentially no change in the allocation of responsibilities in the practical sense. The original agreement between EI-Kretsen and the municipalities was extended until 2010, where producers agree to finance the provision of and collection of WEEE containers at municipal collection sites and municipalities provide the space for storage and acceptance of WEEE from private households.

The need for coordination by a central authority, i.e. in terms of allocation of collection sites for WEEE from household, is limited by the fact that EI-Kretsen

is the only compliance scheme operating and it has exclusive access to municipal collection sites. Since at the present time, no other compliance schemes are in operation, there is no need to verify that each scheme is handling the required amount of historical WEEE reflecting the market share of the respective members. This simplifies both the coordination of the collection of WEEE in practice as well (in terms of container provision and pickup scheduling, etc) and the monitoring of producer compliance by the authorities. However, the emergency of the new system may alter the situation. What will happen remains to be seen.

In the Swedish Ordinance, distributors are not obligated to offer collection of WEEE on a 1:1 basis when supplying new products as collection rates had already exceeded the WEEE Directive targets (without the participation of distributors) at the time of transposition. However, on the Swedish market a new compliance solution is emerging that will most likely use the existing nation-wide network of 2-3 large retailers for its collection network. If approved by the Swedish EPA as a suitable system then there will be an added complexity to WEEE management system in Sweden, most likely requiring the need for a clearing house mechanism.

The Swedish EPA has recently circulated a draft guidance document on what constitutes a suitable financial guarantee under the Ordinance. In addition to stipulating the condition of a recycling insurance, a blocked bank account or an annual bank guarantee, the guidance gives specific criteria for guarantees as membership in collective financing systems. The requirements of this type of guarantee appear to be formulated in such a way that will ensure a level playing field with the other forms of suitable guarantees under the ordinance.

With respect to the formulation of financial responsibilities for WEEE from private households, the Swedish Ordinance clearly defines that for historical WEEE all actors on the market are responsible proportionally at the time when the costs to manage historical WEEE. However, for new WEEE, producers in general seem to be allocated the financial responsibility for their products. There is no explicit mention that each producer is responsible for financing the waste from their own products.

8. Options for an amendment of the WEEE Directive

8.1. Introduction

The development of options for an amendment of the WEEE Directive starts at a point where only short term experiences from the implementation of the Producer Responsibility Principle (PRP) of the WEEE Directive are available. Experiences which are available are mostly related to the situation with historical waste and not with new waste.

What is particularly missing are actual experiences of EPR systems where financing models are based on IPR, whether these are collectively organised or represent individual producer efforts and the creativity of the involved players in developing approaches on how to deal best with new WEEE. The WEEE Directive provides the necessary framework (Article 8) and in several aspects the details will be completed by the involved stakeholders and especially by the producers and compliance schemes. Stakeholders highlighted for example the provision of Article 8.2 of the Directive, where it is provided that producers shall be responsible for financing the end of life phase “of their own products”. They expect that producers will force the development of approaches, where they in fact pay solely for their own products and do not cross finance the recovery of other products as it is the case, for example, for the product category “small household appliances”¹⁹⁷. Another example is the positive experience that has been made in the context of other Directives¹⁹⁸ regarding the development of treatment and recovery techniques (e.g. treatment and recovery technology for shredder light fraction developed by producers made responsible for their end of life products). Regarding WEEE treatment and recovery it must be stated that approaches are in a start up phase or under development¹⁹⁹ and establishing those technologies will need some additional years of implementation experience.

To give the system of which the WEEE Directive sets the starting point the necessary room for its development a framework is required that supports the fur-

¹⁹⁷ Here products with a high non ferrous metal content cross finance the recovery of low value plastic products. Some producers are presently discussing different possible approaches to approximate as far as possible to an individual financial mechanism (see for example: McIntyre, Kirstie: “Developing Practical Approaches to Individual Producer Responsibility”, E-Waste Management, Brussels, April 2007

¹⁹⁸ E.g. the ELV Directive, see for example: Report from the Commission to the Council and the European Parliament on the targets contained in Article 7(2)(b) of Directive 2000/53/EC on End of life vehicle, COM(2007)5 final; and: Report from the Commission to the Council and the European Parliament on the targets contained in Article 7(2)(b) of Directive 2000/53/EC on End of life vehicle - IMPACT ASSESSMENT, SEC(2007)14

¹⁹⁹ E.g. separation technologies for separation of hazardous substances or identification technologies for improved separation of valuable substances and materials and the identification of products in a waste flow that consists of different end of life products.

ther development of the PRP in the area of EEE and WEEE and its further transposition into practice by the involved parties. In contrast to this the analysis of the implementation of the WEEE Directive in the Member States showed that the current situation is characterised by heterogeneity and burdens or disincentives for activities of the involved parties and especially the (responsible) producers to develop optimised solutions.

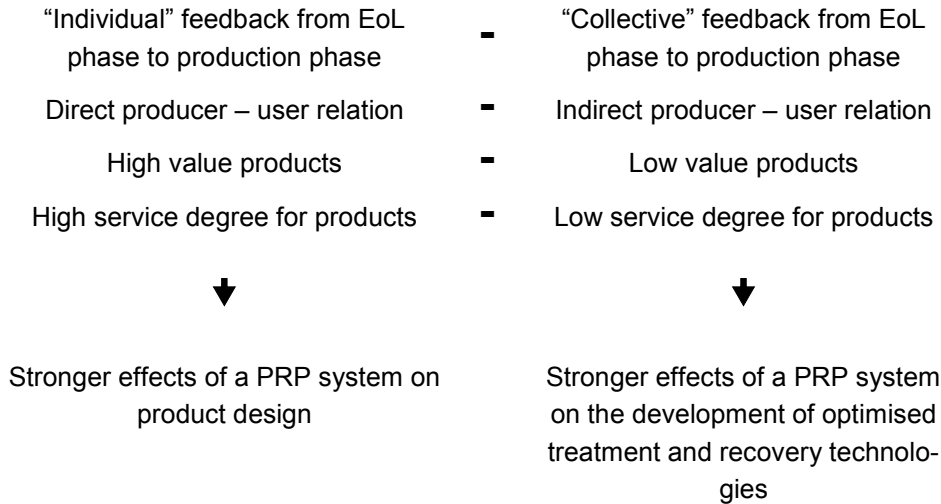
Some additional boundary conditions that provide starting points for the development of options for the amendment of the Directive are:

- Existing studies show that systems based on producer responsibility in general have the potential to trigger improved product design for end-of-life. Studies indicate that producers have improved the recyclability of products in anticipation of EPR-based legal requirements. Examples of the effects of the implementation of EPR program in inducing design change is found outside of Europe (e.g. Japan).
- The instrument of “incentives” as developed in the Directive has a high flexibility and can be applied, even in a situation where a wide range of products is going through a variety of treatment and recovery operations and local waste management activities²⁰⁰.
- An individual producer responsibility with feedback mechanism to product design is already working for several b2b products.
- In a future perspective for additional products (mainly b2c) such feedback mechanism will be more easily achievable where a relatively close producer–user–relation exists and more easily for large and valuable products than for small cheap products.
- Significant requirement for improvement of product design and waste treatment exists for plastics. The plastic portion is highest for small goods like toys (70% plastic as an average), some communication equipment (up to 58% plastics) and small household appliances (35%-50% plastics). Also the variety of plastics is very high in small household appliances.²⁰¹ Short term solutions for this kind of product are more expected in the improvements of treatment technologies developed by producers and resulting from the organisational responsibility of the producer for the waste management than by changed product design that has been triggered by a feedback mechanism from the waste phase.
- The relations between the product in the production phase and the product in the end of life phase are manifold in the area of EEE. Depending on these relations the effects of a PRP system on the optimisa-

²⁰⁰ The alternative to develop detailed requirements for DfR for all products of the ten product categories and all possible disposal situations and to integrate this in a more product oriented “Design Directive” would result in high development efforts and probably restricted efficiency. European Associations of producers propose to shift the design requirements into the EuP Directive (see for example [ORGALIME 2007], [CECED 2007]).

²⁰¹ Remark: Even when the application of “IPR” is most difficult for those products where the need to solve problems with the recovery of materials is highest it should be highlighted that other elements of the PRP are already effective in the area of recovery of mixed plastics.

tion of products and the end of life phase might focus in different areas as illustrated for four aspects in the figure below.



8.2. Upfront calculation of recovery costs

The feedback mechanism from the waste phase to the product design phase is perceived to be one of the most difficult elements of the implementation of the PRP. In order to effectively enforce PRP and especially IPR possibilities have been discussed to give a feedback via “calculated future recovery costs” upfront when the product is put on the market instead of or in addition to “real recovery costs” at the moment when the product becomes waste.

This calculation could be realised by a tool that processes information about the material composition of the product and about decisive constructive elements in conjunction with treatment and recovery technologies. In principle such a tool can be based on a DfR tool that is adapted for providing a feedback mechanism that is similar to the feedback mechanism that is intended in the IPR approach. It has been stated in different discussions (e.g. with ERP and with the Swedish Recycling Insurance) that similar tools that include at least some aspects are already used on an individual basis at different companies for internal assessments and in the practical implementation in Japan (see e.g. [Kirstie 2007]). The tool could be applied by individual producers, groups of producers (e.g. of similar products that are collected together) or insurances that provide a recycling insurance.

The outcome of the calculation can be used as a basis for the negotiations of the producer with auditors about accruals (before the product is put on the market) or with recycler about the payments in the waste phase of the product (given that Article 8.2 of the Directive is properly implemented).

In a further simplified approach the material composition of a product might be exclusively used as a basis for the calculation for future recovery costs when

constructive details are of minor relevance in the recovery process (like e.g. when washing machines are treated (after depollution) in a shredder). Where similar products are treated in the same process cost differences between the products could be the basis for further steps (e.g. the washing machine A has lower recovery costs than washing machine B because it has a cast iron balance weight instead of a concrete balance weight). In distinction to this case treatment cost will be most relevant when hazardous substances or components are present that must be removed before further recovery.

The development of a tool for upfront calculation of recovery costs and its application in a system of producer responsibility for WEEE has not yet achieved a status where practical experiences are available. Thus this approach is not discussed as an option for the amendment of the legal framework but seen as a perspective e.g. in the context of an “Insurance Solution”.

8.3. Monitoring of producers’ waste management responsibilities

Regarding the fulfilment of the producers’ waste management responsibilities common monitoring approaches are not yet developed²⁰². Detailed rules on how to generate the necessary data to show compliance with the provisions of article 7 of the WEEE Directive are needed in order to have a level playing field in Europe, meaning that when the same treatment and recovery activities are carried out in two Member States the recovery rates must be calculated in the same way in both countries²⁰³.

- Uncertainties exist for example on how far (via how many treatment stations) the fractions from treatment of the WEEE must be followed before the recovery rate is determined and on how to calculate recovery rates for certain recovery processes (e.g. for thermal metallurgical plants sometimes the input is calculated as 100% recycling, sometimes a split of recycling and energy recovery in the process is applied and sometimes a certain percentage of the input fraction is calculated as recycled while the rest of the fraction is seen as not yet recovered).
- In practice different product categories are collected together (“collection groups”). Only in some cases the different product categories are then separated again at the first treatment station (e.g. where depollution or the value of the materials requires doing so). Otherwise the collection groups are treated and recovered together. Reporting and monitoring per product

²⁰² Until now the monitoring rules described in Commission Decision 2005/369/EC of 3 May 2005 laying down rules for monitoring compliance of Member States and establishing data formats for the purposes of Directive 2002/96/EC of the European Parliament and of the Council on waste electrical and electronic equipment focus on the data format for the reporting of the achieved recovery rates according to Article 7. The approaches as to how the numbers to be reported are generated are not defined in detail (except the provisions of Article 2) and handled in the Member States in a non-uniform way.

²⁰³ Rules and approaches exist only on national level leading to a heterogeneous situation and differences between the Member States. see for example TNO 2003: Monitoring protocol for the treatment of Waste Electrical and Electronic Equipment (WEEE); Ökopol 2004: Monitoring re-use, recycling and recovery rates according to Article 7 of the WEEE Directive, Berlin, 2004, Ökopol 2007 “Monitoring of recovery rates for WEEE - a multi-stakeholder consensus approach, Hannover, 2007

category is often done by simply reporting same recovery rates for all product categories of a collection group.

- Depollution of WEEE before further treatment and recovery has a high environmental relevance for reducing emissions from recovery of WEEE and in order to prevent carryover of hazardous substances in recycling materials and products. In contrast to this high environmental relevance the WEEE Directive does not provide specific provisions for a monitoring of effective depollution. As a consequence the actual situation regarding the enforcement of depollution in some Member States is restricted to an approach where it is assessed whether the treatment plant could depollute in principal (e.g. via certification of the plant every sixteen months) but that a control of the actual activity of the plant is hardly performed.

Concluding it can be stated that no monitoring approach on a European level is available for further consideration.

8.4. Designing EPR legislation & programs that increase producer incentives for better product design

EPR programs for EEE manifested as take back and recycling systems should strive to achieve the multiple goals of (1) promoting design improvements of products and (2) high utilization of products material quality through effective collection and reuse or recycling.²⁰⁴

While collection targets and recycling targets are key aspects of EPR program design, in this section we focus on the **financial model** as the key incentive to promote design change of products and discuss how variations of the design of the model influence the incentive. Different possibilities exist to **implement individual financial responsibility within collectively organised systems**. We also set up four organizational system alternatives as examples to discuss how different organizational structure may also impact the operational complexities. Under different financial models it is possible to achieve individual financial responsibility both within collectively organized compliance systems and schemes operated by individual producers.

As mentioned in Section 6.4.3.2, there exist a handful of implementation practices that incorporate elements of individual producer responsibility (IPR). Moreover, some producers have been striving to establish alternative systems that enable IPR. As the former is currently limited to historical products and the latter is an on-going process, we do not have possibilities to conduct a comprehensive impact assessment of the alternatives. Nonetheless, we seek to provide a simple assessment concentrated on the impact on design changes and operational complexity. The assessment of the different financial models when

²⁰⁴ Lindhqvist, Thomas, & van Rossem, Chris. (2005). Evaluation Tool for EPR Programs. Report prepared for Environment Canada and the Recycling Council of Ontario. [On Line]. Available:

<http://www.rco.on.ca/intro/upcoming/conf05/ThomasLindhqvist.pdf>. Goal 2 can be divided into the 3 sub-goals of a). effective collection, b). environmentally sound treatment of collected products and c). high utilisation of products and materials in the form of re-use and recycling.

combined with various operational systems is summarised at the table in the end.

The products covered under the systems discussed in this section include WEEE from private households, including dual-use products in businesses.

8.4.1. System Designs

Individual financial responsibility can be implemented in EPR programs that are organised in varying ways. Among them, four systems consisting of collectively organised compliance schemes are provided as examples. The four systems presented here are generic in nature and are by no means exhaustive list of all possible combinations.

It should be recognized that in all of these system designs, it should be possible for producers that wish to set up their own individual collection systems for either their own new WEEE as well as a representative share of historical WEEE to do so. However, due to our focus on illustrating that IPR is possible to design within collective systems, we do not discuss systems managed by producers independently here.

System Design 1: This system design is characterized as having a single compliance organisation or Producer Responsibility Organisation (PRO) that manages the take back and recycling obligations of producers. All active producers are members in the scheme and all collection and recycling infrastructure is coordinated by the scheme. In this case no individual producer collection (own-brand or mixed brand) are recognized towards meeting compliance obligations)

System Design 2: Similar to System Design 1, this system design is characterized as having a single compliance organisation or Producer Responsibility Organisation (PRO) that manages the take back and recycling obligations of producers. Individual producer collection efforts (own-brand or mixed brand) are counted towards its general obligations under the PRO.

System Design 3: Multiple compliance schemes or PROs operating on a national market (no individual producer collection efforts (own-brand or mixed brand) can be used towards meeting compliance obligations). Producers or their compliance schemes develop collection infrastructure by either contracting directly with municipal collection sites and/or retailers. Allocation of this infrastructure may be done in several ways. This could include allocation of regional areas to compliance schemes, or through the use of an algorithm based formula to assign collection of WEEE from designated collection sites. Managing the allocation process could be the role of a national clearing house or negotiated between the existing compliance systems or negotiated with national authorities, or a combination of the above.

System Design 4: Multiple compliance schemes or PROs operating on a national market and individual producer collection efforts (own-brand or mixed brand) are recognized and are running in parallel.

8.4.2. Financing Models

The five models below show examples of structuring the financial mechanism used to allocate costs to producers for the management of WEEE. Each model premise is described with its potential impact on new product design incentive. Also presented are the operational requirements needed with respect to new and historical WEEE.

Just as the operational systems, the examples provided here are not exhaustive list of possible models used for EPR programs.

Financing Model A: *PAYG model* (no distinction between new and historical WEEE obligations); Current waste management costs within a product category or treatment category are divided among producers proportionate to their market-share (by **weight** placed on the market)

New product design incentive: Lightweighting products only (producers' relative share of WEEE to finance will be reduced if product weight put on the market is reduced).

Operational Impacts: Since no distinction between financing of new and historical WEEE is made, no determination of the historical/new split in the waste stream is necessary. Additionally, since the financing model is based on PAYG, no brand sampling or sorting is necessary as return-share determination is not needed. With the PAYG model, producers agree to finance the WEEE of others that leave the market (orphans). Clear rules need to be established that ensure producers will remain responsible in the long-term to finance future orphans if a collective financial guarantee that a PAYG financial model provides, is used. Otherwise there is a risk that funds will not be available if an actor with significant market share leaves the scheme and assumes responsibility for his/her own new waste only.

Note: Under this model, if a financial guarantee is provided (other than one based on reciprocity) then the funds that are made available to authorities or the compliance scheme could be used to finance the management of this WEEE, which might meet the demands of Article 8(3). However, it is not in line with Article 8(2) of the WEEE Directive, where producers are responsible for financing the WEEE from their own products for products placed on the market after 13 August 2005, especially if a financial guarantee is not provided.

Financing model B1: *Return-share model* (both for historical WEEE and new WEEE); Current waste management costs of producers divided among producers proportionate to the weight or number of their own-branded products returned.

New product design incentive: (1)Light weighting products (if based on **return-share by weight**) and (2)design for durability to prolong useful life and avoid disposal and end-of-life management costs.

Operational Impacts: Brand-sampling or sorting of the waste stream is required to allocate costs to each producer for both historical and new WEEE. Since both historical and new WEEE obligations are based on a return share model, no distinction between historical and new WEEE in the waste stream is necessary, only when triggering the financial guarantee. Allocation of historical orphan products needs to be carefully considered. Could be questioned whether this model meets the requirement of Article 8(3) with respect to financing historical WEEE and the demand for proportionality. However, Article 8(3) provides an example of proportionality financing that is based on market share, but does not seem to exclude other forms such as return-share.

Financing model B2: *Return-share model (both for historical WEEE and new WEEE:* Current waste management costs of producers divided among producers proportionate to the weight or number of their own-branded products returned. For both new and historic WEEE costs are differentiated based weight returned and for new WEEE on inherent properties of returned products.

New product design incentive: (1) Light weighting products (if based on return-share by weight) (2) design for durability to prolong useful life and avoid end-of-life costs (return-share by weight) (3) Phase-out of hazardous materials and substances (beyond RoHS) (If the fee charged to producers based on return-share of producers is differentiated by weight as well as based on the presence or absence of these substances, or the ease at which they can be removed.

Operational Impacts: This model is the same as B1, however there is an added need to distinguish between new and historical WEEE as new WEEE costs will be differentiated based on weight returned and inherent properties of the product

Financing model C1: *PAYG for historical WEEE, Return-share model for new WEEE;*

New product design incentive: (1) Light weighting products (if based on return-share by weight) (2) design for durability to prolong useful life and avoid end-of-life costs (return-share by weight)

Operational Impacts: This model would demand that WEEE stream be distinguished by new and historical WEEE as well as by brand for new WEEE (through sampling or sorting). However, the incorporation PAYG financing model for historical WEEE may be perceived as more equitable to a wider array of stakeholders than by the return share model in B1 and B2

Financing model C2: *PAYG for historical WEEE, Return-share model for new WEEE*

New product design incentive: (1) Light weighting products (if based on return-share by weight) (2) design for durability to prolong useful life and avoid end-of-life costs (return-share by weight) (3) Phase-out of hazardous materials and

substances (beyond RoHS) (If the fee charged to producers based on return-share of producers is differentiated by weight as well as based on the presence or absence of these substances, or the ease at which they can be removed.

Operational Impacts: This model would demand that WEEE stream be distinguished by new and historical WEEE as well as by brand for new WEEE (through sampling or sorting). However, the incorporation PAYG financing model for historical WEEE may be perceived as more equitable to a wider array of stakeholders than by the return share model in B.

A further incentive could be created in financing models B and C if costs for managing new WEEE when returned is differentiated based on the inherent properties of the products. Inherent properties that could be used to differentiate fees (in addition to product weight) could be presence of hazardous components, materials or substances. The inherent contribution of the returned products to the cost factors in recycling operations could also be attributed each producers products that are returned.

Similarly, for **model A**, the price per unit or kg put on the market that producers pay to manage the current WEEE stream could be differentiated also, but would be highly speculative given that the product will not come to end-of-life for 3-20 years depending on the product group. Recycling economics could drastically change in that time period.

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Table 63: Combination of systems and financing model: possibility of creating design incentives and complexity

		System 1 Single PRO	System 2 - Single PRO & Individual sys- tems (own-brand or mixed in paral- lel)	System 3 Multiple PRO	System 4 Multiple Pro & Individual sys- tems (own-brand or mixed in parallel)
Financing Model A: PAYG (his- torical and new)	Design incen- tives	low	low	low	low
	Coordination between sys- tems	no	low	medium	medium
	Required distinc- tion within product groups	none	none	none	none
Financing Model B1: Return- share (historical and new)	Design incen- tives	medium	medium	medium	Medium
	Coordination between sys- tems	no	low	medium	medium
	Required distinc- tion within product groups	brand	brand	brand	brand
Financing Model B2: Return- share (historical and new)	Design incen- tives	high	high	high	high
	Coordination between sys- tems	no	low	medium	medium
	Required distinc- tion within product groups	-brand -properties - historic & new	-brand -properties - historic & new	-brand -properties - historic & new	-brand -properties - historic & new
Financing Model C1: (PAYG: historical, Re- turn-share (new)	Design incen- tives	medium	medium	medium	medium
	Coordination between sys- tems	no	low	medium	medium
	Required distinc- tion within product groups	-Brand - historic & new	-Brand - historic & new	- brand - historic & new	- brand - historic & new
Financing Model C2: PAYG (historical, Return-share new)	Design incen- tives	high	high	high	high
	Coordination between sys- tems	no	low	high	high
	Required distinc- tion within product groups	-brand -properties - historic & new	-brand -properties - historic & new	-brand -properties - historic & new	-brand -properties - historic & new

Factors to consider when combining system design and financial model

The alternatives presented in this section is, in light of on-going efforts of producers, highly feasible.

In terms of providing incentives for design change Financing Model B2 and C2 has the potential to provide the greatest incentives for producers to redesign products for improved end-of-life management. At the same time it is the most complex to operate.

Given that sorting or sampling of WEEE is required to determine the relative share of new and historic WEEE as well as return-share is needed, it would be less complex to implement in Systems 1 or 2. Since there is only one PRO that is in operation in these models, WEEE collection is handled by one system. Therefore all sorting or sampling at collection sites to determine brand-share of new WEEE is less complex to manage.

In Systems 3 and 4, WEEE sorting and/or sampling must be done for each PRO since mixed brands are collected all collection sites operated by the numerous PRO's. Information sharing between the systems would be necessary to determine the return-share of each producer's new WEEE. This is more administratively complex. Alternatively a national clearing house could take a representative sample of the entire country and assign return-share proxies to each producer. Each system would be responsible for managing the WEEE of its total membership.

Assumptions:

National Clearing House in place that functions as a coordinating body that manages key activities that underpin the functioning of a level playing field including;

- National producer registers and data reporting (products placed on the market)
- Oversee development of national collection infrastructure or compliance schemes: Can include allocation of collection sites, geographical responsibilities, etc.
- Development of rules over reporting WEEE collected and managed
- Development of rules for classifying dual-use WEEE as either WEEE from private households (B2C) or WEEE other than from private households (B2C) when:
 - o Placed on the market: for calculating historical WEEE obligations for B2C
 - o Determining how historical WEEE from businesses should be managed: either as B2C or B2B WEEE which will determine financial mechanism to apply, collection options etc.
 - o How new dual-use WEEE sold to businesses will be managed when arising as new WEEE:

Dual use products (sold to businesses) can be managed by producers themselves, by compliance schemes (collecting from businesses) or a combination of both. All sources of collected dual use products collected from businesses should be reported to the National Register or Clearing House as either B2C or B2B. Any dual use WEEE collected by a producer himself should be credited towards his obligations calculated under the national compliance scheme. This WEEE can also be from special collection events, own take back programs and the like.

Dual use products (sold to businesses) are included in the calculation of market-share for historical WEEE (B2C) unless the producer demonstrates that these products will never end-up in the calculation described above.

Return-share can be calculated using several approaches

1. *Sampling (random)* collected WEEE at collection facilities as well as producer's own mixed waste collection efforts (i.e) dual-use WEEE collected from businesses by producers, or a special collection events or the like. This representative sample is used to determine relative return share of each producer. Sampling can take place either at collection facilities, consolidation centers, or recycling facilities (first tier)

2. *Sorting by brand:* All WEEE that is collected and processed is sorted to determine the number and or weight of each producers' WEEE (could be done both historic and new WEEE depending on what is considered as a proportionate) . This can be achieved by a manual sort to determine a brand count or by automatic product identification through enabling technology such as Radio Frequency Identification (RFID) tags and readers. Sorting could take place at collection facilities, consolidation centres or recycling facilities (first tier).

- For new WEEE charges to be differentiated by weight and other determining factors (presence of hazardous components or substances considerable product data is required

8.5. Options for an amendment of the WEEE Directive

Based on the analysis of the implementation of the WEEE Directive in the Member States and taking into account positions of stakeholders options for the future development of the legal framework for WEEE have been identified. The basic elements are described in the section below. Further details of the options and their clustering into scenarios can be found in section 9 of this report.

Article 8.2 of the WEEE Directive provides that for "future waste" producers can chose whether they want to fulfil their responsibilities individually or collectively. According to our analysis (see section 6.4.3.2) and the statements of the stakeholders the provisions of the Directive are sufficient to ensure that a producer

can choose to join a collective system or to run his own system. Whichever way he chooses, for “future waste” every producer should be required to pay only for the costs of recovery of his own products. Ensuring proper implementation of the existing provision of Article 8.2 provides an adequate framework for the development of potential individual approaches²⁰⁵. No amendment of the Directive is proposed here but as shown in the analysis of the implementation there is a strong need to ensure full implementation of the provisions.

Financial guarantees

Presently no harmonised situation is in place regarding the financial guarantees for the future recovery of WEEE. Basically the level of security for financing of future waste shall be same for individual and collective systems²⁰⁶ (see section 6.5.3.2 of this study).

Costs for collection

In a number of Member States a producer that runs an individual system does not have the same advantages of publicly financed collection as collective systems (involvement of municipal collection points). A level playing field and a harmonised implementation of financial and physical responsibilities is the basic element of this option²⁰⁷ (see section 6.2 of this report).

Harmonised definitions

Definitions that have relevance for EEE (like the term “producer” or “put on the market”, see also section 6.9.3 and 6.12) shall be harmonised in the Directives. The basis for this harmonisation can be the outcome from the legislative process based on Commission Proposal on a common framework for the marketing of products²⁰⁸ where definitions for different kind of economic operators are given in Title II Chapter 1 Article 6.²⁰⁹

²⁰⁵ CECED proposes not to change the provisions related to the PRP as laid down in Article 8 of the Directive [CECED 2007]. EICTA, JBCE, AeA [EICTA 2007] stresses that: “Although there are still several practical problems with the implementation of IPR, many producers are investigating potential IPR solutions and it could well be that in the near future producers may want to set up IPR systems. Therefore, EEE industry calls on the European Commission and the Member States to ensure that the freedom of choice between Individual Producer Responsibility and collective solutions is properly implemented in national WEEE legislation.” See also chapter 6.4.3.1 of this report regarding the joint industry/NGO statement of 2007 and position of the WEEE forum and additional information about the position of EICTA, JBCE, AeA.

²⁰⁶ EICTA, JBCE, AeA stress that it would not be beneficial for the EU economy when industry has to put a large financial reserve aside [EICTA 2007] See also chapter 6.5.3.1 of this report regarding the positions of CECED.

²⁰⁷ EICTA, JBCE, AeA see the financial responsibility for collection from private households at the municipalities [EICTA 2007]. See also section 6.2.3.1 of this report regarding the positions of ACR+, CEMR, and CECED.

²⁰⁸ 2007/0030 (COD); COM(2007) 53 final, Brussels, 14.2.2007

²⁰⁹ ORGALIME proposed to establish definitions (e.g. regarding “put on the market” or “producer”) on a horizontal level that would apply to any sectoral legislation [ORGALIME 2007]. CECED requires a coherent and enforceable definition of the term “producer” with the background of the experience of a heterogeneous and incoherent implementation in the Member States [CECED 2007]. EICTA, VBCE, AeA propose a harmonised definition of “put on the market” and to review the definition of “producer” and add amendments as done in the Spanish implementation of the Directive “The distributor will not be considered as a manufacturer if the brand of the manufacturer appears on the appliances, when the owner of this brand is registered on the state Industrial Establishments Register to which the first additional provision refers”

Harmonised standards

Registration procedures in the Member States shall be harmonised in a way that the same set of information is requested and the same definitions apply. The requirements shall be elaborated and published in the form of a European Standard and comprise at least the following elements²¹⁰:

- registration procedures and forms (see chapter 6.12)
- reporting (see chapter 6.12)
- application of the distinction between b2b and b2c (see chapter 6.8.4)
- definition of weight (see chapter 6.12)
- reporting by distance sellers (see chapter 6.7)

The WEEE Directive then shall require the application of this standard in all MS.²¹¹ (see section 6.12 of this report)

European Clearing House Mechanism

The Producer Responsibility Principle of the Directive connects the product/the production phase with the End of Life (EoL) phase. While products and producers are not constricted by national territories as waste related legislation and enforcement practices are, a need for certain supra-national approaches evolve e.g. regarding coordination of national activities, cross-border payments and waste flows and uniform enforcement of certain requirements in the EU. However, supra-national institutions with such a profile do not yet exist and the legal situation of the European Union does not make it likely that this could be established in a short term perspective.

The development of options takes this into account by proposing a network of national institutions (for supra-national communication and coordination). European clearing house mechanisms and communication between national Clearing Houses is performed in this option by the nationally located institutions.

This supra-national element of the implementation of the WEEE Directive can be combined with other elements that are not restricted to national borders like for example European Standards regarding technical and organisational re-

[EICTA 2007]. See also section 6.1.3.1 of this report regarding additional information on the positions of CECED, EICTA, JBCE, AeA and on the position of ELC.

²¹⁰ The terms "producer" and "put on the market" will be harmonised according to the procedure proposed in d).

²¹¹ ORGALIME proposes to harmonise registration procedures and definitions related to registration based on a European standard and its mandatory application in the Member States [ORGALIME pers.com. at the 2007 workshop on registers in Europe, Brussels, May 2007] [ORGALIME 2007] [ORGALIME 2006a]. CECED also sees the need of harmonised formats and procedures which includes definition of types of equipment, the basis of reporting and the frequency of reporting. They "propose that a committee composed of Member States should be mandated by the revised Directive to work out a workable, harmonised solution, including harmonised registration procedures and co-operation among registers" [CECED 2007]. EICTA, JBCE, AeA propose a harmonised definition of WEEE from private households and describes 7 criteria applicable for such a differentiation. They also require harmonising the registration and reporting procedures and definitions like "weight of a product" [EICTA 2007].

requirements (see above option on harmonised definitions).²¹² (see section 6.12 of this report)

European register and clearing house

In contrast to the option “European Clearing House Mechanism” producers can register at and report in this option to a central European institution. National enforcement of waste related questions still exist.²¹³ (see section 6.12 of this report)

²¹² ORGALIME proposes a European mechanism for the cooperation and coordination of WEEE registers with harmonised procedures and reporting systems” [ORGALIME 2007] [ORGALIME 2006a]. CECED also proposes coordination and clearing data about products and waste between the national registers not least because this is seen as an approach to improve market surveillance to fight free riders [CECED 2007]. EICTA, JBCE, AeA support the development of system where national registers “at least follow a coordinated approach towards registration” and where they “regularly exchange their data” [EICTA 2007].

²¹³ EICTA, JBCE, AeA “recommend to strongly encourage every step towards a harmonised EU registration process leading to harmonised national requirements and procedures, or even a single EU- wide registration body [EICTA 2007].

9. Impact Assessment

9.1. Introduction

9.1.1. Overview

This Section identifies and assesses the potential measures for improving the operation of the producer responsibility obligations under the WEEE Directive that were outlined in Section 8. The measures are organised into two broad groups:

- **harmonised definitions and approaches** - addressing areas of variation in the national implementation of the WEEE Directive, which mean that the principle of producer responsibility is not effectively applied and/or that unnecessary administrative burdens are placed on the EEE industry sector; and
- **a supra-national approach** - addressing the issue of cross-border trade within the EU and the associated difficulties with ensuring the correct application of producer responsibility obligations.

There are a total of eight measures, which are assessed individually in Sections 9.2 and 9.3 according to the Commission's impact assessment guidelines and the relevant economic, social and environmental criteria (see Section 9.1.2). In Section 9.4, these measures are grouped into Scenarios (as defined in the Project Specification) to illustrate the impacts of groups of measures.

A semi-quantitative assessment has been undertaken, using quantitative data where available and qualitative information where no data are available to quantify the impacts. Where quantitative data are not currently available, we set out what data would be needed to support a quantitative analysis, if these become available in the future.

9.1.2. The Approach

An approach comprising the following four steps was adopted in analysing the impacts of each of the individual measures:

1. identifying which impact categories (from those included in the Impact Assessment Guidelines) are expected to be relevant to the measures for improving the operation of the producer responsibility obligations under the WEEE Directive;
2. screening the impacts to identify those that may apply to each stakeholder group (business, consumers, public authorities and the environment);
3. describing the impacts of each measure qualitatively using matrices of measure versus impact categories (e.g. competitiveness, trade, administrative burden, etc.); and

4. quantifying impacts, or providing an indication of possible costs, where possible using the net administrative cost model and other approaches as appropriate.

By screening the potential impacts of the measures on different stakeholder groups, we have identified the following impact categories as being relevant to the assessment:

- competitiveness, trade and investment flows;
- competition in the internal market;
- operating costs and conduct of business;
- administrative costs on businesses;
- innovation and research;
- consumers and households;
- specific regions or sectors;
- third countries and international relations;
- the macroeconomic environment;
- public authorities;
- crime terrorism and security;
- the climate;
- renewable or non-renewable resources;
- waste production / generation / recycling;
- mobility (transport modes) and the use of energy; and
- the environmental consequences of firm's activities.

The definitions of these categories and justification for the inclusion and exclusion of particular impact categories are given in Annex 10-5. Note that the above impact categories are not all relevant across all stakeholder groups.

To provide consistency across all categories, impacts are described in qualitative and/or quantitative terms and are assigned a rating according to the expected magnitude of the effect. An eight point rating scale has been applied for these purposes:

- may have a major negative impact (potentially in the region of € billions)
- may have significant negative impact (potentially in the region of €100 millions)
- may have slight negative impact (potentially in the region of €10 millions)
- 0 may have no/negligible impact
- + may have a slight positive impact (potentially in the region of €10 millions)
- ++ may have a significant positive impact (potentially in the region of €100 millions)
- +++ may have a major positive impact (potentially in the region of € billions)
- (+)/(-) potential slight positive/slight negative impact due to uncertainty

Whilst the values associated with the ratings have been provided as a guide, considerable care should be taken in where viewing the results. For example, where impacts have not been quantified but, qualitatively, appear to be either

positive or negative, one + or - has been assigned; in practice the equivalent value may be more or less than €10 millions. Furthermore, the combination of scores across categories or stakeholders does not reflect financial values. For example, if the administrative costs of a measure score a single '-' across three stakeholder groups (e.g. businesses, Member States and the Commission) this **does not** mean that the combined costs are in the region of € billions.

When comparing measures that have been assigned ratings, it is commonplace to assume equal weighting. This means that the measure with the greatest number of positive impacts (indicated by the number of pluses) and the lowest number of negative impacts (indicated by the number of minuses) would be considered to have the greatest net benefit (lowest net costs).

9.2. Harmonised Definitions and Approaches

9.2.1. The Issues

The national implementation of the WEEE Directive varies amongst Member States in three key areas, as described in Sections 4 and 5 of this report:

- the requirement for a financial guarantee and whether membership of a collective system is deemed sufficient to meet this requirement of the Directive;
- the allocation of financial responsibility for the collection of WEEE from households; and
- the harmonisation of key terms and procedures.

An additional issue has been raised regarding the national implementation of Article 8(2) and the ability of a producer to choose between joining a collective scheme and operating his own system. The consensus amongst stakeholders is that the provisions of the Directive are sufficient to provide this choice; however, national legislation may, directly or indirectly, restrict this choice. The Commission should, therefore, enforce the correct implementation of the Directive and initiate infraction proceedings where necessary. This will not require any change to the Directive, therefore measures to address this issue have not been considered for the purposes of this impact assessment.

Financial Guarantees

Section 6.5.2 summarises the current requirements for financial guarantees in Member States. Table 64 groups Member States by the type of requirement for financial guarantee (note that the situation is unknown for three MS). The key issue is that, in 18 Member States, the transposition of this Article does not require members of collective compliance schemes to provide any form of financial guarantee for the management of WEEE, whereas companies wishing to establish an individual scheme must do so. In these 18 MS, it is considered that membership of a compliance scheme is sufficient to guarantee the future management of a company's WEEE, with any remaining members of a scheme covering the costs of a company which leaves the market or goes bankrupt.

Stakeholders argue that this works as a disincentive and a barrier to companies which might wish to set up an individual scheme, where they would be required to have their own financial guarantee in place. This variation may also affect competition within the internal market between companies operating in countries where it is necessary for all producers to pay a financial guarantee and those operating in countries where members of collective schemes are not required to pay financial guarantees.

Table 64: Requirements for a Financial Guarantee

Collective scheme membership is considered to be the financial guarantee	Financial guarantee required from all producers	Product tax is de facto guarantee
Austria	Germany	Bulgaria
Belgium	Italy	Latvia
Cyprus		Romania
Czech Republic		Slovakia
Denmark		
Estonia		
Finland		
France		
Greece		
Hungary		
Ireland		
Luxembourg		
Malta		
Netherlands		
Poland		
Portugal		
Slovenia		
Spain		
Sweden		
UK		

Costs of Collection

Article 8(1) indicates that producers are financially responsible for ‘at least’ the collection of WEEE from collection points onwards, allowing some countries to extend the producer responsibility to finance collection from households. As Section 4.2 notes, this has resulted in variation amongst countries in allocating financial responsibility for the collection of WEEE from households to the first collection point and for the costs for running the collection points, as illustrated by Table 65. In those countries where the municipalities finance collection, there has been growing concern over the increased financial obligations placed on municipalities as a result of the WEEE Directive.

Table 65: Financial Responsibility for the Collection of Household WEEE

Producer	Producer / Distributor*	Distributor*	Distributor* / Municipality	Municipality
Bulgaria	Austria	Poland	Italy	Denmark
Cyprus	Czech Republic		Luxembourg	Germany
Finland	Estonia		Netherlands	Romania
Greece	France		Slovenia	
Hungary	Ireland			
Latvia	Malta			
Lithuania	Portugal			
Spain	Slovakia			
Sweden	UK			

* The distributor bears financial responsibility where it provides a 1:1 take back scheme (i.e. within stores)

This variation has impacts on competition within the internal market, as producers in 19 MS do bear the costs of collection from households, whereas those in eight MS do not. In these eight MS, this may act as a disincentive and a barrier to companies which might wish to set up an individual scheme, where they would be required to finance their own collection.

Harmonisation of Definitions and Procedures

Sections 4 and 5 of the report have highlighted the problems arising from the lack of harmonised definitions for the following terms:

- the producer (and the interpretation of importers and exporters under Article 3(i) sub-point (iii)) (Section 4.1); and
- put on the market (Section 4.12).

Furthermore, Section 4.12 highlights additional issues arising from the lack of harmonised procedures for:

- registration (including forms);
- reporting periods;
- application of the distinction between b2b and b2c;
- the definition of weight; and
- reporting by distance sellers.

The impacts of this lack of harmonisation are summarised in Table 66.

Table 66: Impacts of the Lack of Harmonisation of Key Terms and Procedures

Definition / Procedure	Unnecessary Administrative Burden	Ineffective application of IPR	Double Financing of WEEE	Non-reporting	(Unintentional) Free-riding
Definition					
Producer	X	X	X		
Put on the market	X	X	X	X	
Procedures					
Registration procedures and forms	X				
Reporting periods	X				
B2C/B2B	X	X	X	X	X
Weight	X				
Distance sellers	X		X	X	X

For example, there is concern that the term ‘producer’ (as defined in the Directive) is not specific enough to designate the responsibilities and obligations given by the Directive to the economic operators concerned. Under the current implementation of the WEEE Directive, 20 countries take a ‘national approach’, whereby the first importer of a product into a Member State is considered to be the producer, if there is no manufacturer of that brand on the national market.

This has resulted in:

- either manufacturing companies setting up legal entities in all Member States where they sell their products; and/or
- importers bearing the cost burden relating to producer registration and reporting, financial provisions and guarantees and product re-labelling where producers do not set up legal entities in each Member State (it is also possible that both the producer and the importer incur costs, therefore duplicating the burden).

As shown in Table 67, 20 MS follow this ‘national’ approach, whilst three MS, in theory, follow a ‘European’ approach (where the producer must be present within the EU but does not have to have a legal entity within the MS)²¹⁴. Four MS have either an ambiguous or an undefined approach.

²¹⁴ The three MS only apply a European approach in their ‘legal’ definition of the producer. However, in practice, producers report what is placed on the market in these countries. Finland takes Approach 1 for registering cross-border distance sellers, while Spain and the UK take both Approaches 1 and 2.

Table 67: Approach to the Definition of Producer Taken by Member States

National Approach	European Approach	Ambiguous or Undefined Approach
Austria Belgium Cyprus Czech Republic Denmark Estonia France Germany Ireland Italy Latvia Luxembourg Malta Netherlands Poland Portugal Romania Slovakia Slovenia Sweden	Finland Spain UK	Bulgaria Greece Hungary Lithuania

Whilst there is an administrative burden for all companies to understand the different requirements in each country, operating costs will be incurred by either the manufacturer or the importer, depending on the approach chosen by the manufacturer. Of greater concern is that the producer responsibility principle is not being effectively applied where the importer of products bears the financial responsibility of WEEE, without being able to influence the design of the product.

Furthermore, the lack of harmonised reporting procedures has resulted in unnecessary administrative burdens for companies which operate across the EU and which have to deal with different requirements in different countries. For example, Table 68 indicates the variation in the frequency of reporting required across Member States.

Table 68: Reporting Frequency

Monthly	Quarterly	Bi-annually	Annually	Unknown
Belgium Germany (B2C) Greece Ireland	Austria Belgium Latvia (Luxembourg) (Netherlands) Poland Slovenia Spain UK	France Portugal	Czech Republic Denmark Estonia Finland Germany (B2B) Hungary Italy Lithuania Luxembourg Netherlands Romania Slovakia Sweden	Bulgaria Cyprus Malta

A key issue with the reporting procedures relates to the requirements for distance sellers. There are currently two approaches for dealing with distance sellers:

- Approach 1: registration of distance seller in the seller’s Member State; and
- Approach 2: registration of distance seller in the end user’s Member State.

As shown in Table 69, the responses received from national registers (see Section 6.12) indicate that, of the 27 Member States, 10 apply Approach 1 exclusively, while seven apply Approach 2 exclusively. Five Member States combine Approaches 1 and 2, requiring both domestically-based cross border distance sellers and foreign distance sellers selling on their national markets to register and report sales. Two Member States report that cross-border distance sellers are not required to register at all. At this point, we are uncertain about the position in three Member States and their approach taken.

Table 69: Approach to Distance Sellers Taken by Member States

Approach 1	Approach 2	Approach 1 and 2	Unknown/No Approach*
Austria	Czech Republic	Estonia	Bulgaria
Belgium	Denmark	Ireland	Cyprus
Finland	France	Romania	Lithuania*
Germany	Greece	Spain	Malta
Italy	Hungary	UK	Slovakia*
Luxembourg	Latvia		
Netherlands	Portugal		
Poland			
Slovenia			
Sweden			

Two main potential problems arise from this variance:

- either a distance seller is **obligated to register in both** the Member State where it is selling from and those which it is selling to, duplicating costs of registration and reporting (potentially not incurred by competitors) and, possibly, duplicating the financial responsibility for the management of historical and future WEEE; or
- a distance seller **will not be obligated to register in either** its home Member State (if the home Member State adopts Approach 2) nor in the Member State where the end-user is located (if this Member State adopts Approach 1), resulting in failure to finance WEEE and reduced operating costs for the distance seller compared to other companies operating in the EU. This would act against the principle of extended producer responsibility.
- The confusion resulting from the lack of harmonised terms and their implementation in practice can also result in either non-reporting of EEE on the market or the double financing of EEE sold to businesses.

9.2.2. Rationale for Intervention

The transposition of the Directive into national legislation has led to variations in the approaches taken, which result in:

- duplicated actions and unnecessary administrative burdens, affecting the operating and administrative costs of businesses;
- the obligation of actors to fulfil the administrative/financial responsibility of the producer, without the opportunity to improve product design (as foreseen by the Directive), other than through purchasing decisions;
- different costs incurred by actors in different countries, affecting competition within the internal market and the price paid by consumers; and
- a system which is open to abuse and allows the potential for free-riding.

9.2.3. Potential Measures

In order to assess the feasibility and impact of harmonising definitions and approaches for improving the efficiency of the WEEE regulations, five measures are considered in this Report:

- **Measure 1:** the 'do nothing' measure, which essentially provides the baseline against which the other measures can be assessed. This Measure involves maintaining the status quo, based on national approaches, with no changes to the WEEE Directive to address the problems identified.
- **Measure 2:** harmonise the requirement for financial guarantees so that membership of a collective scheme is **not** considered to be a financial guarantee and each individual producer pays a guarantee.

The subsidiarity principle provides Member States with the flexibility to implement solutions to achieve the objectives of the WEEE Directive and as such, they should have as wide a range of solutions as possible from which to choose. However, Article 8(2) of the Directive states that "...each producer shall be responsible for financing the operations....relating to the waste from his own products". Measure 2 therefore includes only the types of guarantees that meet this requirement, excluding membership of a collective scheme where there is no specific financial provision in the form of a guarantee. An amendment making it mandatory for members of a collective compliance scheme to make provision for an independent financial guarantee would meet this requirement.

- **Measure 3:** harmonise the requirements for financial responsibility so that all producers have to pay for the collection of WEEE by municipalities.

Stakeholders have argued that the collection of WEEE has little or no connection to eco-design incentive. However, the polluter pays principle could indicate that it may not be appropriate that general tax payers, rather than consumers of EEE, to finance the collection of WEEE from private households. Measure 3 integrates the polluter pays principle with the producer responsibility principle and requires producers to finance the costs of collection, whilst recognising that this cost may be passed on to the consumer.

- **Measure 4:** harmonise the definitions of ‘producer’ and ‘put on the market’, key terms according to the ‘Common framework for the marketing of products’, so that the following terms are used:
 - ‘manufacturer’ means any natural or legal person who designs or manufactures a product or who has a product designed or manufactured, under his name or trademark;
 - ‘distributor’ means any natural or legal person in the supply chain, who makes a product available on the market’;
 - ‘importer’ means any natural or legal person established within the Community, who places a product from a third country on the Community market; and
 - ‘placing on the market’ means the first making available of a product on the Community market.
- **Measure 5:** develop European standards (through CEN) to harmonise the procedures for registration and reporting, including reporting periods, the application of the distinction between B2C and B2B WEEE²¹⁵, the definition of weight and reporting by distance sellers.

The following table sets out the actions required by the key stakeholders under each of the different measures. Note that each measure is assumed to be independent of the others.

²¹⁵ UNU (2007) considers options to better define B2C and B2B WEEE.

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Table 70: Actions Required by Stakeholders

Stakeholder	Measure 1 (Baseline)	Measure 2 (Harmonise Financial Guarantees)	Measure 3 (Harmonise Costs of Collection)	Measure 4 (Harmonise Definitions to Common Framework)	Measure 5 (Harmonise Definitions by Standards)
Producers <i>Guarantees</i>	Membership of a collective scheme is considered to be a financial guarantee in 18 MS; other arrangements are in place in the remaining 9 MS	Each producer has to pay a financial guarantee regardless of membership of a collective scheme	Membership of a collective scheme is considered to be a financial guarantee in 18 MS, other arrangements are in place in the remaining 9 MS		
<i>Financial responsibility for B2C collection costs</i>	Producers and/or distributors pay costs of B2C collection in 19 MS		Producers pay costs of B2C collection in 27 MS, except where taken back to distributors	Producers and/or distributors pay costs of B2C collection in 19 MS	
<i>Importers</i>	Companies importing into individual MS are generally considered to the 'producer' for the purpose of the national WEEE legislation			Only companies importing products into the Community are considered to be the 'producer'	Companies importing into individual MS are generally considered to the 'producer' for the purpose of the national WEEE legislation
<i>Reporting</i>	Different reporting requirements exist in each MS, requiring producers to be familiar with a number of sets of requirements and to prepare different 'types' of report for each MS				Stakeholders should participate in the development of CEN standards A single 'type' of report is required by all MS, but must be submitted to each MS individually
Authorities <i>Financial responsibility for B2C collection costs</i>	MS pay costs of B2C collection in 7 MS		MS may have physical responsibility for WEEE collection but not financial responsibility	MS pay costs of B2C collection in 7 MS	
<i>Reporting</i>	Current actions not affected				Stakeholders should participate in the development of CEN standards

9.2.4. Impact Assessment of Harmonised Approaches and Definitions

9.2.4.1. 7.2.4.1 Measure 2: Harmonised Requirement for Financial Guarantees

Cost Components

To assess the costs and benefits of a harmonised requirement for financial guarantees, the following data are required:

- the cost of different types of guarantee for different types of EEE;
- the amount of EEE to be covered by the guarantee;
- the number of companies and/or compliance schemes requiring a guarantee;
- the administrative costs for companies to prepare their financial guarantees;
- the costs to competent authorities to monitor and enforce financial guarantees; and
- the impact of financial guarantees on product design.

At present, the majority of Member States consider membership of a compliance scheme to provide the financial guarantee. This tends to be the least-cost option for companies and has been widely adopted by industry. Where individual companies have taken out a different form of guarantee, such as Bosch-Siemens' annual bank guarantee they have not provided the Project Team with detailed cost data for reasons of commercial confidentiality. There is, therefore, little evidence of the costs of different types of guarantee in practice. However, the following examples are available:

- a theoretical study by PricewaterhouseCoopers (PWC, 2003);
- individual guarantees and compliance scheme guarantees required in Germany (see Table 47);
- financial guarantees required per tonne of EEE in Hungary, Poland and Slovakia (UNU, 2007, Table 85, p.145); and
- average costs of WEEE treatment by category (UNU, 2007, Table 85, p.145), which is essentially the basis for determining the level of guarantee in countries such as Sweden and Germany.

The following tables consider the advantages and disadvantages of the different types of financial guarantees available; however, the impact assessment only considers the impact of making an independent financial guarantee mandatory, without specifying the type of guarantee to be adopted.

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Table 71: Impacts of Recycling Insurance, Blocked Bank Accounts, Entries in Balance Books and Individual Bank Guarantees

	Recycling Insurance	Blocked Bank Account	Entries in Balance Books	Individual Bank Guarantee
Brief Description	Producers are required to take out an insurance policy against future recycling costs of products placed on the market.	Producers required to put sufficient funds to cover future recycling costs aside in a separate bank account	Producers are required to reserve an amount of money sufficient for the future recycling costs (liabilities) in their balance sheets	Producers would be required to take out a bank guarantee with a recognised banking institution which would then be responsible for funding recycling costs in the event of default by the producer
Strengthens IPR	Yes, strong effect if product design is taken into account for determining the level of the guarantee	Yes, strong effect if product design is taken into account for determining the level of the guarantee	Yes, small effect if product design is taken into account for determining the level of the guarantee	Yes, small effect if product design is taken into account for determining the level of the guarantee
Competitiveness, trade and investment flows	Effect limited as guarantee would be required by all producers placing products on EU market. Potential to be applied across EU assuming consistent legislation.			
Competition in the internal market	Equitable across producers as would require ALL to have some form of independent guarantee. Would have significant impact on SMEs which are mostly members of collective schemes and currently are not required to make separate provision. All have potential to be applied across EU assuming consistent legislation.			
	Number of companies offering such insurance is limited. Differences in 'insurance premium taxes' across member states could create inequities if these are not harmonised.	Difficult to ensure that account is 'inaccessible' to creditors in event of insolvency and therefore available to fund recycling.	Entry in balance books requires common accounting procedures, methods for estimating liabilities etc. (need for Local Guidelines?).	Unlikely to be available in all Member States for all products for the same period. SMEs likely to have more problems in securing guarantees.
Operating costs and conduct of business	May require that producer is identifiable at time of recycling, necessitating some form of technology or sampling of waste streams with associated costs. Although development costs for technology likely to be borne by larger firms, new equipment costs (if needed) are likely to be proportionally higher for SMEs.			
	Increase in operating costs due to premiums but insurance companies are set up to deal with long-term planning, risk assessment and financial management.	Ties up companies' working capital and payments to bank not likely to be tax-deductible(?).	No immediate costs but put into future obligations	Even if banks are willing to provide the guarantees, these are likely to be very expensive if required for the long-term. Likely to limit companies' ability to access further credit.
Administrative costs on authorities	Additional monitoring costs for competent authorities to ensure that guarantee responsibilities of producers are being met and that guarantees are sufficient to meet future waste management and recycling costs.			
Administrative costs on businesses	Limited to dealing with payment of premiums and notification to authorities. May need to provide regular updates/confirmation policy is appropriate	Comparative ease of administration for producer.	Ease of administration for producers, not requiring physical deposit of cash.	Additional time required by producers to locate, negotiate and update appropriate guarantees.
Innovation and research	Direct link between guarantee and recycling costs could provide an incentive to produce products which are lower in waste or more recyclable. However, the extent of incentive cannot be proven at the present stage of implementation of the Directive.			
	Provides certainty to producer and a potentially stronger incentive for eco-design. Premiums can be tailored to reflect 'design for recycling'.	Funds available for innovation and research may be reduced due to funds being tied up in separate bank account, but may provide	Less immediate incentive for eco-design as funds do not have to be set aside, but future obligations may have	Less incentive for eco-design.

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	Recycling Insurance	Blocked Bank Account	Entries in Balance Books	Individual Bank Guarantee
		incentive to ensure ease of recycling is considered in product design.	limited influence over design for recycling.	
	May require that producer is identifiable at time of recycling, necessitating some form of technology or sampling of waste streams. Caters for producers going out of business			
Waste production / generation / recycling	Existing regulatory framework for insurers will help ensure adequate future funds for recycling are available.	There is a risk that funds set aside will not cover future recycling costs.	Requires careful monitoring of funds on company books to ensure that they are sufficient to cover future recycling costs.	Difficulty in accessing long-term bank guarantees may have significant impact on ensuring that sufficient funds are available to cover recycling costs.
Employment and labour markets	Potential to boost employment in the specialist insurance sector if sufficient companies take out policies	Little or no effect.	Little or no effect.	Little or no effect.

Table 72: Impacts of Group Guarantees, Securities, Trust/Group Funds and Collective Schemes Based on Reciprocity

	Group Guarantee	Securities	Trust/Group Fund	Collective Scheme Based on Reciprocity
Brief Description	A parent company would provide the required guarantee for any/all of its subsidiaries	Producers provide purchased securities as guarantee against future obligations instead of cash	A legally separate trust financed through contributions of member producers would provide the guarantee	Members of the compliance scheme agree to pay the obligations of other members if they go out of business
Strengthens IPR	Limited as guarantee taken on by parent company without necessarily being linked to recyclability of the product	Yes as individual producer is required to purchase securities against the recycling obligations of its own products. Stronger if the level of securities required is linked to product design and ease of recycling	Yes if the value contributions to group fund required is linked to product design and ease of recycling	Obligations of producers going out of business will be taken on by remaining members of the scheme irrespective of product design.
Competitiveness, trade and investment flows	Effect limited as guarantee would be required by all producers placing products on EU market. Potential to be applied across EU assuming consistent legislation.			
Competition in the internal market	Equitable across producers. Would have significant impact on SMEs which are mostly members of collective schemes and currently are not required to make separate provision. Potential to be applied across EU assuming consistent legislation.			Members of collective schemes not required to provide independent guarantee whereas those setting up individual schemes are.
	Favours companies which are part of a larger group with parent company providing guarantee for subsidiaries in different countries. Requires pan-European application and acceptability of guarantee issued in one member state as applicable in another.		Could be used on EU wide basis with Trust set up in one country but able to cover obligations in whole EU market. Would require pan-European agreements.	Requires minimum standards to avoid free riding and must be binding and non-limited. Collective means that a company will absorb and share someone else's risk. Tendency for collective schemes to head towards 'monopoly' status, with producers having no control over recycling costs.
Operating costs and conduct of business	May require that producer is identifiable at time of recycling, necessitating some form of technology or sampling of waste streams with associated costs. Although development costs for technology likely to be borne by larger firms, new equipment costs (if needed) are likely to be proportionally higher for SMEs.			Result would be that other companies take on liability of those that default or go out of business, implying higher costs to remaining companies.
			Companies joining together in a fund are likely to be able to negotiate more preferable terms. SMEs likely to benefit from higher purchasing power as member of a group rather than individually. Could allow for reimbursement of monies advanced in the event recycling costs are lower and thereby provides incentive for eco-design.	No need to associate products with producers so no associated costs. Tendency for collective schemes to head towards 'monopoly' status, with producers having no control over recycling costs.

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	Group Guarantee	Securities	Trust/Group Fund	Collective Scheme Based on Reciprocity
Administrative costs on authorities	Additional monitoring costs for competent authorities to ensure that guarantee responsibilities of producers are being met and that guarantees are sufficient to meet future waste management and recycling costs			Perceived ease of administration by authorities and producers.
Administrative costs on businesses	Costs only incurred by parent company.	Limited to administering buying and selling of securities	Limited to operation of trust/fund	
Innovation and research	Direct link between guarantee and recycling costs can provide incentive to produce products which are lower in waste or more recyclable. However, the extent of incentive cannot be proven at the present stage of implementation of the Directive.			
			Could allow for reimbursement of monies advanced in the event recycling costs are lower and thereby provides incentive for eco-design.	Costs not linked to recyclability of product so no incentive for eco-design.
Waste production/ generation/ recycling				Without incentive for eco-design, no positive effect on reducing waste or making products easier to recycle.
		Value of securities fluctuates with no guarantee that value will be sufficient to cover recycling costs. Access to these funds by creditors in event of bankruptcy is an issue.	Guarantees against bankruptcies and ensures funds available for waste management/recycling. Access to these funds by creditors in event of bankruptcy is an issue.	Difficulties if a whole scheme disappears.
Employment and labour markets	No effect	Limited to employment of those handling companies' securities	Limited to those managing funds	No effect

PWC (2003) considers the costs of insurance, a blocked bank account or bank guarantee, and participation in a suitable financing scheme. These options are assessed for a company acting individually and collectively, using four hypothetical companies, within the Netherlands. The study concludes that bank guarantees are not a viable option as they would have an adverse effect on a producer's financial position. Furthermore, the costs for a producer taking insurance individually are ten times greater than for a producer participating in a collective scheme. However, PWC (2003) notes that the lack of existing insurance schemes means that it is difficult to estimate the costs involved.

The table below sets out the guarantees required by EEE category in Germany, Hungary, Poland and Slovakia, as well as the average total cost of treatment. The total costs of treatment have been used, as opposed to the technical cost, as UNU (2007) indicate that the total costs can include costs for sorting and sampling specific waste streams. The German regulations require individual guarantees to include such costs.

Table 73: Comparison of Individual Guarantees Payable and the Average Cost of Treatment

Category	Germany - EAR Defined Guarantee Amount (€/t)	Hungary (€/t)	Poland (€/t)	Slovakia (€/t)	Average Total Costs of Treatment (€/t)
1.1 Refrigerators, air conditioners, oil radiators	165	393	511	490	558
1.2 Other large B2C equipment	10	102	511	144	235
2.1 Small household appliances	68	275	511	346	383
3.1 Personal data processing	62	393	511	490	380
3.2 Personal printing, copying	62	393	511	490	380
3.3 Personal telecom	62	393	511	490	380
3.4 Mobile phones	62	393	511	490	380
3.5 Monitors	76	393	511	490	499
3.6 Cameras	62	393	511	490	380
4.1 TVs	115	373	511	461	528
4.2 Other consumer electronics	115	373	511	461	422
5.1 Gas discharge lamps	750	746	5,115	922	663
6.1 Power tools	20	334	511	432	301
7.1 Toys	12	393	511	490	495
7.2 Sporting and Leisure equipment	12	393	511	490	495

The costs of collective guarantees are illustrated by the German examples, as set out in Table 47 and reproduced in the table below for comparability.

Table 74: Comparison of German Collective Guarantees

Category	GSA Premium €/tonne per year	ZVEI Premium €/tonne per year	Number of Years to be Guaranteed
1.1 Refrigerators, air conditioners, oil radiators	2.06	5.86	10
1.2 Other large B2C equipment	0.13	0.36	10
2.1 Small household appliances	0.43	1.21	5
3.1 Personal data processing	0.54	1.54	7
3.2 Personal printing, copying	0.54	1.54	7
3.3 Personal telecom	0.54	1.54	7
3.4 Mobile phones	0.62	1.76	8
3.5 Monitors	0.76	2.16	8
3.6 Cameras	0.54	1.54	7
4.1 TVs	1.44	4.08	10
4.2 Other consumer electronics	0.72	2.04	5
5.1 Gas discharge lamps	5.63	15.98	6
6.1 Power tools	0.13	0.36	5
7.1 Toys	0.15	0.43	10
7.2 Sporting and Leisure equipment	0.15	0.43	10

The total amount of EEE put on the market between 2008 and 2020 can be estimated, according to the method set out in Annex 10-6. This suggests that 9.8 million tonnes of EEE will be put on the EU-27 market in 2008, rising to 13.3 million tonnes in 2020. It is also possible to estimate the amount of EEE by country and category, as set out in Annex 10-6.

The number of registered producers by Member State is set out in Table 29, and is reproduced in the table below with extrapolated data to complete any gaps. The number of compliance schemes by Member State is also included.

Table 75: Number of Producers and Compliance Schemes by Country

Member State	Number of Producers Registered	Number of Compliance Schemes
Austria	1,450	5
Belgium	2,341	1
Bulgaria	660*	
Cyprus	580*	1
Czech Republic	3,060	3
Denmark	1,036	4
Estonia	126	1
Finland	770	5
France	3,725	7
Germany	6,100	
Greece	640	1
Hungary	704	6
Ireland	850	2
Italy	3,230*	6
Latvia	590*	4
Lithuania	589	4
Luxembourg	420	1
Malta	510*	1
Netherlands	1,780	2
Poland	2,020	5
Portugal	950	2
Romania	900	
Slovakia	763	4
Slovenia	665	3
Spain	951	7
Sweden	1,083	1
UK	3,100	
Total	39,593	

Number of registered producers taken from Table 29, except for numbers in italics, of which Belgian data are from UNU (2007), and Bulgaria, Cyprus, Italy, Latvia and Malta are estimated based on calculated linear relationships between the number of producers and GDP for EU-15 and new Member States as appropriate.

There are no data available on the administrative costs for companies to prepare and monitor financial guarantees. This is because the majority of companies are members of collective schemes and therefore do not currently require individual guarantees. For the same reason, there are few data on the costs to competent authorities of monitoring compliance with the requirement for financial guarantees.

Table 76 provides details of fees paid by industry to the competent authority in Germany. These fees provide a proxy for the costs to competent authorities of monitoring compliance with the financial guarantees, assuming that the fees reflect the administrative work undertaken by the authority. In Germany, producers must pay an initial fee of €300 for a detailed review of an individual producer guarantee for the first brand and the first type of equipment, followed by additional fees of €85 to review an extension of the proven guarantee to each subsequent type of equipment or brand.

Data collected from 100 manufacturers of electrical and electronic equipment for a previous study by RPA (2005)²¹⁶ suggest that each manufacturer produces an average of 13 product families²¹⁷, which has been assumed to be equivalent to 13 different types of equipment for the purpose of this assessment. Therefore, based on the fees charged in Germany, the initial cost to competent authorities per producer, to monitor financial guarantees, is approximately €1,320 (= €300 (for first type of equipment) + (12 (additional types of equipment) x €85)). There may be additional costs in subsequent years, for example changes to the guarantee or annual updates incur a further fee of €193 per type of equipment, however the factors triggering the application of this fee are not clear and cannot be accounted for at this time.

Financial guarantees could influence product design, if the recyclability of products (as indicated by treatment costs) was taken into account in setting the level of guarantee. At present, though, guarantees set in Germany, Hungary, Poland and Slovakia are based on average treatment costs across all brands. However, assessing treatment costs for each individual brand and type of equipment, in order to set a guarantee based on recyclability, is likely to be costly in itself and the extent of the incentive that it would provide cannot be proven at the present stage of implementation.

Total Costs of Measure 2

Costs to producers

The total estimated amount of EEE placed on the market between 2008 and 2020 is set out in Annex 11. The proportion of household EEE by category and by country can be estimated according to the data in Annex 11, assuming that the distribution is constant amongst countries and over time.

It is assumed that companies in all countries are required to pay an individual guarantee equal to the costs of treatment, which is held for the maximum lifetime of the product (taken to be 10 years for all products). These are new costs for companies in all countries, except Germany and Italy, where it is an existing requirement and so costs to companies in these two countries are excluded from the calculations. It is assumed that there are no companies in other Member States currently paying individual guarantees - this may result in the costs of this Measure being overestimated; however, no data on the number of companies currently paying individual guarantees, so that the extent of the overestimate cannot be determined.

The costs of guarantees are based on the low and high estimates for each main category of EEE, as set out in the following table, with an average taken across all relevant values in Table 73. There is no subdivision of the main categories, due to a lack of compositional data, except for Category 1, where the difference

216 RPA and Quotient Associates (2005). Impact assessment of various policy options for a possible assessment of the Low Voltage Directive 73/23/EEC. Prepared for the European Commission, Directorate-general Enterprise and Industry.

217 The data suggest an average of two product families for small companies, eight for medium-sized companies and 16 for large companies. However, there is not sufficient information on the number of producers of different sizes to use this more accurate data at this time.

in costs (and availability of compositional data) for cooling and freezing equipment compared to other large household equipment necessitates separate consideration. For Hungary, Poland and Slovakia, actual costs (as set out in Table 73) are applied rather than a range.

Table 76: Costs per Guarantee Used to Assess Measure

Category	Low (€/t)	High (€/t)	Average (€/t)
1a - Cooling & freezing	165	558	423
1b - Other large household appliances	10	511	200
2	68	511	317
3	62	511	372
4	115	528	387
5	663	5,115	1,639
6	20	511	320
7	12	511	380

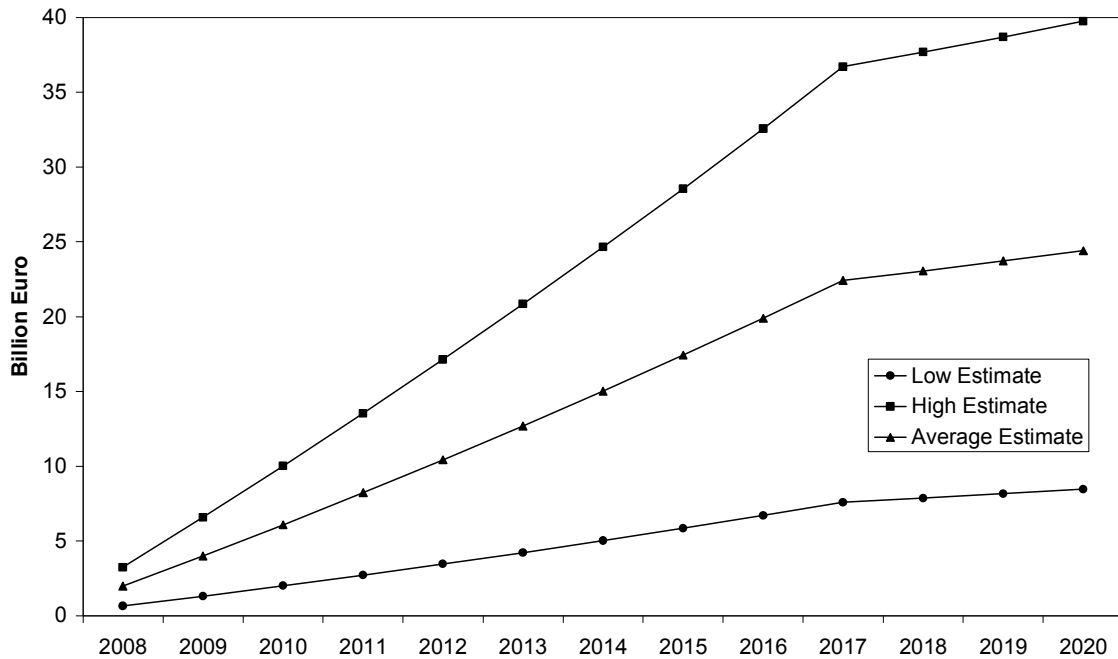
Applying these costs per guarantee to the quantity of EEE placed on the market, results in estimated annual costs of **€0.65 billion to €3.25 billion in 2008**, rising to €0.99 billion to €4.48 billion in 2020. These costs are shown in the following table; they do not include the administrative costs to companies, as there is no basis for calculating these costs at present.

Table 77: Estimated Annual Costs of Individual Guarantees for EEE Placed on the Market in the EU-27

Year	Estimated Value of Guarantee Required for Equipment Sold in the EU-27 Each Year (Billion Euro)		
	Low	Average	High
2008	0.64	1.97	3.25
2009	0.67	2.03	3.34
2010	0.69	2.08	3.42
2011	0.71	2.14	3.52
2012	0.74	2.20	3.61
2013	0.77	2.26	3.71
2014	0.80	2.33	3.81
2015	0.82	2.40	3.91
2016	0.86	2.47	4.02
2017	0.89	2.54	4.13
2018	0.92	2.61	4.24
2019	0.96	2.69	4.36
2020	0.99	2.77	4.48

These guarantees will be held for the lifetime of the products, as illustrated by Figure 6, assuming a 10 year product life. This results in a cumulative total of €8.5 billion to €39.8 billion being held as a guarantee in 2020.

Figure 6: Cumulative Value of Individual Guarantees Held (assuming 10 year product life across all categories)



These costs have not been discounted (as would normally be the case) as we have assumed that the opportunity costs of capital are offset by the interest earned. However, there would obviously be a complex set of arguments around this in practice.

For comparison, the costs have also been assessed for applying compliance scheme guarantees, as in Germany, across the EU-27. Two values are available per category, as set out in Table 74 providing a range of costs. These have been applied to the quantities of EEE placed on the market, by country and by category, excluding Germany and Italy. The guarantees are paid for each year of the life of the product, as set out in Table 74. Table 78 sets out the costs to be paid each year for collective insurances and, by 2020, these amount to between €52 million and €146 million across the EU-27. Over 12 years, between €486 million and €1.37 billion may be paid out by European companies.

Table 78: Estimated Costs of Collective Guarantees for EEE Put on the Market in the EU-27

Year	Estimated Value of Guarantee Required for Equipment Sold in the EU-27 Each Year (Billion Euro)	
	GSA	ZVEI
2008	0.01	0.04
2009	0.02	0.05
2010	0.02	0.07
2011	0.03	0.08
2012	0.03	0.09
2013	0.04	0.11
2014	0.04	0.12
2015	0.05	0.13
2016	0.05	0.13
2017	0.05	0.13
2018	0.05	0.14
2019	0.05	0.14
2020	0.05	0.15

Costs to Competent Authorities

There are more than 39,500 producers currently registered in the EU-27. At an average cost of €1,320 per producer to monitor compliance with individual guarantees, the total initial cost to competent authorities may be more than €52 million, with further costs expected in subsequent years.

Based on the costs incurred under the German approach, the costs to competent authorities are similar, whether an individual or collective approach is followed, as these collective guarantees must also be reviewed.

Unquantified Impacts of Measure 2 and Summary

Harmonisation of requirements on guarantees across the EU is expected to have a positive impact on competition within the internal market. Whilst this could be an important impact, it cannot be quantified at present because no data are available on the adverse effects on competition of the current differences in approach (due to the limited implementation of the Directive to date).

There could also be significant benefits to Competent Authorities, as such guarantees will avoid a situation where no finance is available to deal with WEEE because of collective schemes and/or producers going out of business and the costs have to be absorbed by the authorities. The extent of this benefit cannot be estimated, because no data are available yet on the potential extent of default. Initial costs to competent authorities to monitor financial guarantees may be €52 million.

However, the cost to industry of an individual guarantee approach could be significant, with €8.5 billion to €39.8 billion being held as a guarantee in 2020. A collective guarantee approach has lower costs, totalling €486 million to €1.37 billion over 12 years.

The potential impacts of Measure 2 are outlined in the tables below.

Implementing this Measure through individual guarantees is likely to incur significant costs for producers, due to the high cumulative costs of the guarantees. The use of collective insurance schemes, as in Germany, provides a lower cost option. This would not remove the potential barrier to establishing individual schemes; however, companies wishing to establish their own schemes may find lower costs solutions for their individual circumstances. The benefits of this option are difficult to quantify and it is therefore uncertain as to whether this Measure could be justified in practice.

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Table 79 Economic Impacts of Measure 2: Harmonised Requirement for Financial Guarantees for Businesses

Impact Category	Manufacturers	Importers / Distributors	Distance sellers/ Exporters	SMEs
Competitiveness, trade and investment flows	No positive or negative effects identified on competitiveness, trade flows and investment (0)			
Competition in the internal market	Consistent application of requirements across all EU MS compared to current situation would improve and harmonise competition in the internal market (+)			
Operating costs and conduct of business	Significant costs of individual guarantees held over lifetime of products, may be in the range of €8.5 billion to €39.8 billion by 2020 (---) Collective scheme guarantees may have lower costs, in the range of €486 million to €1.37 billion over 12 years (--)			
Administrative costs on businesses	Administrative costs will increase for companies to deal with the management of financial guarantees (--)			
Innovation and research	Direct link between guarantee and recycling costs may provide incentive to produce products which are lower in waste or more recyclable. However, the extent of incentive cannot be proven at the present stage of implementation of the Directive (+)			
Consumers and households	Change in costs may be passed on to consumers (---)			
Specific regions or sectors	No specific impact identified (0)			
Third countries and international relations	No specific impact identified (0)			
The macroeconomic environment	Little or no effect (0)			
Key:	<ul style="list-style-type: none"> --- implementation of Measure may have major negative impact -- implementation of Measure may have significant negative impact - implementation of Measure may have slight negative impact 0 implementation of Measure may have no/negligible impact + implementation of Measure may have a slight positive impact ++ implementation of Measure may have a significant positive impact +++ implementation of Measure may have a major positive impact (+)/(-) potential slight positive/slight negative impact due to uncertainties on actual impact 			

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Table 80: Economic and Social Impacts of Measure 2 on Public Sector Organisations

Impact on Authorities	Public Sector Organisations
<i>Member State Competent Authorities</i>	
Public authorities (Economic impacts)	Additional monitoring costs for competent authorities to ensure that guarantee responsibilities of producers are being met and that guarantees are sufficient to meet future waste management and recycling costs may be in the region of €52 million (--)
The macroeconomic environment	Greater administrative requirements likely to create jobs, but may be at the expense of other employment (+)/(-)
Crime, Terrorism and Security	No impact (0)
<i>European Authorities</i>	
Public authorities (Economic impacts)	No impact (0)
The macroeconomic environment	No impact (0)
Crime, Terrorism and Security	No impact (0)

Table 81: Environmental Impacts of Measure 2

Impact on Environment	
The climate	No significant change from status quo expected (0)
Renewable or non-renewable resources	Requiring independent financial guarantees may reinforce current Directive's intention of more environmentally friendly goods and less use of non-renewable resources (+)
Waste production / generation / recycling	Requiring independent financial guarantees may result in better design for recycling and therefore increased recycling (as intended by current Directive) (+)
Mobility (transport modes) and the use of energy	No change from status quo expected
The environmental consequences of firm's activities	Requiring independent financial guarantees may result in more environmentally friendly goods (+)

Table 82: Summary of Impacts of Measure 2: Harmonised Requirement for Financial Guarantees

Impact	Stakeholder								
	Producers				Consumers and Households	Public Sector Organisations		International Stakeholders	Environment
	Manufacturers	Importers / Distributors	Distance Sellers / Exporters	SMEs		MS	EC		
Competitiveness, trade and investment flows	0	0	0	0	0	0	0	0	0
Competition in the internal market	+	+	+	+	0	0	0	0	0
Operating costs	---	---	---	---	---	--	0	0	0
Administrative costs	--	--	--	--	--	-	0	0	0
Innovation and research	+	0	0	+	0	0	0	0	+
Crime, terrorism and Security	0	0	0	0	0	0	0	0	0
The macroeconomic environment	0	0	0	0	0	(+)/(-)	0	0	0
NET IMPACT	-3	-4	-4	-3	-5	-3	0	0	+1
Key:									
--- implementation of Measure may have major negative impact -- implementation of Measure may have significant negative impact - implementation of Measure may have slight negative impact 0 implementation of Measure may have no/negligible impact					+ implementation of Measure may have a slight positive impact ++ implementation of Measure may have a significant positive impact +++ implementation of Measure may have a major positive impact (+)/(-) potential slight positive/slight negative impact due to uncertainties on actual impact				

9.2.4.2. Measure 3: Harmonised Requirement for Financial Responsibility of B2C Collection

Cost Components

To assess the costs and benefits of a harmonised requirement for financial responsibility of B2C collection, the following data are required:

- the amount of WEEE arisings by category;
- the return rate by category; and
- the costs of collection and management by municipalities.

The quantity of WEEE arisings has been estimated by UNU (2007, p.67) and these figures have been used for consistency. Similarly, Tables 55 (p.109), 37 (p.58), 56 (p.109) and 57 (p.110) of UNU (2007) provide the composition of WEEE arisings, the distribution of household WEEE, and current and estimated future collection rates by category respectively. These data have been combined to estimate the proportion of WEEE collected from households by weight. UNU (2007) assume full implementation of the WEEE Directive by 2011 and that estimated future collection rates will be achieved at this time. This assumption has also been used here. Therefore, the table below sets out the proportion of WEEE arisings by category and in total collected from households in 2008-2010 and 2011-2020.

Table 83: Estimated Proportion of Collected WEEE (by weight) from Households

Category		Household WEEE as % of total WEEE collected	
		2008-2010	2011-2020
1A	Large household appliances	4.38%	4.38%
1B	Cooling and freezing	4.70%	12.91%
1C	Large household appliances (smaller items)	1.41%	2.64%
2	Small household appliances	1.83%	4.12%
3A	IT and Telecom excl. CRTs	1.31%	2.83%
3B	CRT Monitors	1.72%	3.66%
3C	LCD Monitors	0.00%	0.00%
4A	Consumer electronics excl. CRTs	3.10%	4.65%
4B	CRT TVs	3.93%	9.86%
4C	Flat Panel TVs	0.00%	0.00%
5A	Lighting equipment - Luminaires	0.03%	0.07%
5B	lighting equipment	0.08%	0.16%
6	Electrical and Electronic tools	0.56%	1.63%
7	Toys, leisure & sports equipment	0.01%	0.05%
8	Medical devices	0.01%	0.01%
9	Monitoring and control instruments	0.04%	0.04%
10	Automatic dispensers	0.00%	0.00%
Total		23.11%	46.99%

The values in the table above can be applied to the total WEEE arisings calculated by country by UNU (2007) for those countries where the municipalities currently fund the collection of WEEE from households. This assumes that:

- all household waste is taken to municipal civic amenity sites. The quantity of WEEE collected by distributors or other methods is currently unknown and therefore it cannot be subtracted from the total amounts of WEEE from households; and
- the composition of WEEE by category (and therefore weight) does not change over time or by country. This is unlikely to be the case; for example, in Table 83, the proportion of LCD monitors and flat screen TVs is negligible. It is likely to be significantly higher in 2020, due to current purchasing patterns. Whilst market data and trends could potentially improve these estimates, the complexity of the calculations by country and over time means that they cannot be completed within the current project and, in any case, the additional work is unlikely to significantly improve the robustness of the cost estimates, given other uncertainties.

The costs currently charged by municipalities for collecting and managing WEEE are available for five Member States, as set out in the table below. These range from €26 to €80 per tonne, with an average of €52 per tonne. Whilst the basis for calculating these costs is unknown for four Member States (and may or may not accurately reflect the actual costs), the Belgian costs are based on detailed data from 143 civic amenity sites. This provides a cost of €45 per tonne, which is close to the average of €52, indicating that the average is likely to be a reasonable indication of actual costs.

Table 84: Average Costs of WEEE Collection and Management at Municipal Civic Amenity Sites

Member State	Average Cost (€/tonne)
Austria	57
Belgium	45
Finland	50
Spain	80
Portugal	26
Average	52

Source: Section 6.2.2

UNU (2007) identifies the issue of high-value materials being removed from WEEE stored at civic amenity sites before it is collected by the recycler. This affects the cost-effectiveness of recycling WEEE and may be a significant problem. Future actions to address this problem may result in increased storage costs at municipal sites (e.g. for greater security). However, this is uncertain and the current prices are therefore assumed to be applicable until 2020.

Total Cost of Measure 3

Costs to producers and competent authorities

At present, household WEEE collection is funded by municipalities in Denmark, Germany, Italy, Luxembourg, Netherlands, Poland, Romania and Slovenia. In

Germany, producers are required to provide containers free of charge to civic amenity sites and therefore the costs below may overestimate the additional costs for German companies.

Applying the range of costs from Table 84 to the amount of household WEEE collected in these eight Member States results in additional costs to companies ranging from €20.9 million to €64.3 million in 2008, reaching €58.5 million to €180 million in 2020. **The total present value costs (discounted at 4%), over the period 2008 to 2020, range from €448 million to €1.38 billion, with an average cost of €897 million.** This is a transfer of costs from municipalities to producers.

Table 85: Estimated Collection Costs for Household WEEE Payable to Municipalities

Country	2008 (€'000s)			2020 (€'000s)		
	Low	High	Average	Low	High	Average
Denmark	682	2,099	1,365	1,800	5,537	3,599
Germany	9,144	28,134	18,2875	24,114	74,197	48,228
Italy	6,226	19,155	12,4515	16,420	50,523	32,840
Luxembourg	92	283	184	243	747	486
Netherlands	1,813	5,579	3,626	4,782	14,714	9,564
Poland	2,039	6,275	4,079	7,762	23,884	15,524
Slovenia	173	531	3455	658	2,026	1,317
Romania	730	2,245	1,4595	2,770	8,522	5,540
Total	20,898	64,302	41,796	58,549	180,150	117,098

Unquantified Impacts of Measure 3 and Summary

The key potential benefit of this measure is to improve competitiveness amongst companies operating in the EU by removing (some of) the cost variations between countries. It will also remove (some of) the cost barriers for those companies that wish to implement an individual scheme rather than to participate in a collective scheme, by creating a level playing field.

Increased costs will be incurred by companies in those Member States where the municipalities currently fund collection, with an equal benefit (in the form of reduced costs) for those municipalities. This transfer of costs is in the region of €448 million to €1.38 billion over 12 years.

There is some concern that the ability of municipalities to charge companies may result in higher costs of collection, due to their 'monopoly' in the collection market. The experience in Belgium is that industry concerns have been addressed by clearly stating the basis of the charges and, in turn, this has illustrated that it would not be possible for industry to collect WEEE at a lower cost than the municipalities. It is likely that, provided municipal charges are transparent, the charges would not be excessive.

The overall impact on consumers and households is expected to be neutral, since the costs of collection will no longer be funded by tax payers, but are likely

to be funded by EEE consumers instead, i.e. there is a shift in burden within the consumer and households sector.

The removal of (some) barriers to producers setting up individual schemes may result in better designed products, if better-designed products give rise to sufficiently reduced costs for manufacturers own schemes. However, significant environmental benefits are not expected from this Measure.

Overall, the potential impact of this measure is expected to be neutral. However, the improvement in competition in the internal market and removing barriers for those companies that wish to set up their own schemes could result in a slightly positive impact.

The potential impacts of Measure 3 are outlined in the tables below.

Table 86: Economic Impacts of a Harmonised Requirement for Financial Responsibility of B2C Collection (Measure 3) for Businesses

Impact Category	Manufacturers	Importers / Distributors	Distance sellers/ Exporters	SMEs
Competitiveness, trade and investment flows	No positive or negative effects identified as costs incurred would be required by all producers placing products on EU market (0)			
Competition in the internal market	Consistent application of requirements across all EU MS compared to current situation would improve competition in the internal market. In addition, it will remove cost barriers for those companies that wish to implement an individual system, and therefore create a level playing field (+)			
Operating costs and conduct of business	Increased operating costs for businesses in 8 MS which do not currently finance WEEE collection (however, may be transferred to consumers); neutral in 19 MS. Total cost may be €448 million to €1.38 billion over 12 years (-)			
Administrative costs on businesses	Payment of collection costs likely to be incorporated into overall WEEE management system (i.e. it will not require a separate action) therefore limited additional administrative costs (0)			
Innovation and research	Financing the costs of collection is unlikely to influence design of product (0)			
Consumers and households	Change in costs may be passed on to consumers in 8 MS but removed from tax payers (hence, cost neutral overall) (0)			
Specific regions or sectors	Transfer of costs affects companies in Denmark, Germany, Italy, Luxembourg, Netherlands, Poland, Slovenia and Romania, but is not region specific (0)			
Third countries and international relations	No specific impact identified (0)			
The macroeconomic environment	Little or no effect (0)			
Key:	<ul style="list-style-type: none"> --- implementation of Measure may have major negative impact -- implementation of Measure may have significant negative impact - implementation of Measure may have slight negative impact 0 implementation of Measure may have no/negligible impact 			
	<ul style="list-style-type: none"> + implementation of Measure may have a slight positive impact ++ implementation of Measure may have a significant positive impact +++ implementation of Measure may have a major positive impact (+)/(-) potential slight positive/slight negative impact due to uncertainties on actual impact 			

Table 87 Economic and Social Impacts of Measure 3 on Public Sector Organisations

Impact on Authorities	Public Sector Organisations
<i>Member State Competent Authorities</i>	
Public authorities (Economic impacts)	Costs of B2C WEEE collection covered by producers instead of public authorities in 8 MS. Total savings may be €448 million to €1.38 billion over 12 years. (++)
The macroeconomic environment	Transfer of costs, no net impact expected (0)
Crime, Terrorism and Security	No impact (0)
<i>European Authorities</i>	
Public authorities (Economic impacts)	No impact (0)
The macroeconomic environment	No impact (0)
Crime, Terrorism and Security	No impact (0)

Table 88: Environmental Impacts of Measures 3

Impact on Environment	
The climate	No significant change from status quo expected (0)
Renewable or non-renewable resources	The removal of barriers to setting up individual schemes may result in better designed products, if manufacturers set up their own schemes and the incentive is sufficient (+)
Waste production / generation / recycling	The removal of barriers to setting up individual schemes may result in better designed products, if manufacturers set up their own schemes and the incentive is sufficient (+)
Mobility (transport modes) and the use of energy	No change from status quo expected (0)
The environmental consequences of firm's activities	The removal of barriers to setting up individual schemes may result in better designed products, if manufacturers set up their own schemes and the incentive is sufficient (+)

Table 89: Summary of Impacts of Measure 3: Harmonised Requirement for Financial Responsibility of B2C Collection

Impact	Stakeholder								
	Producers				Consumers and Households	Public Sector Organisations		International Stakeholders	Environment
	Manufacturers	Importers / Distributors	Distance Sellers / Exporters	SMEs		MS	EC		
Competitiveness, trade and investment flows	0	0	0	0	0	0	0	0	0
Competition in the internal market	+	+	+	+	0	0	0	0	0
Operating costs	-	-	-	-	0	++	0	0	0
Administrative costs	0	0	0	0	0	0	0	0	0
Innovation and research	0	0	0	0	0	0	0	0	0
Crime, terrorism and Security	0	0	0	0	0	0	0	0	0
The macroeconomic environment	0	0	0	0	0	0	0	0	0
NET IMPACT	0	0	0	0	0	+2	0	0	0
Key:									
--- implementation of Measure may have major negative impact -- implementation of Measure may have significant negative impact - implementation of Measure may have slight negative impact 0 implementation of Measure may have no/negligible impact					+ implementation of Measure may have a slight positive impact ++ implementation of Measure may have a significant positive impact +++ implementation of Measure may have a major positive impact (+)/(-) potential slight positive/slight negative impact due to uncertainties on actual impact				

9.2.4.3. Measure 4: Harmonised Definitions of ‘Producer’ and ‘Put on the Market’

As indicated in Section 4, importers may currently bear the financial responsibility for WEEE. Under this Measure, the responsibility and the associated costs will transfer from importers to manufacturers, potentially resulting in a positive impact for importers within the EU (i.e. reduced operating and administrative costs) and a negative impact for manufacturers (i.e. increased operating and administrative costs). Overall, the potential impact on operating and administrative costs for industry should be neutral, and therefore detailed cost calculations have not been prepared.

The benefit of this Measure may be that competent authorities have fewer ‘producers’ to register and process, resulting in costs savings. However, producers will still be required to register in each Member State, therefore costs savings are likely to be negligible.

More importantly, by ensuring that it is the manufacturer that bears financial responsibility there may be a greater incentive for manufacturers to innovate and design products that provide environmental benefits.

The overall effect of this Measure may be positive, due to benefits being achieved across all stakeholders, from improvements in competitiveness, reduced costs for competent authorities and the potential for improvements in the environmental impacts of products. The overall impact on manufacturers is neutral, as both costs and benefits are likely to be incurred.

The potential impacts of Measure 4 are outlined in the tables below.

Table 90 Economic Impacts of Harmonised Definitions of 'producer' and 'put on the market' (Measure 4) for Businesses

Impact Category	Manufacturers	Importers / Distributors	Distance sellers/ Exporters	SMEs
Competitiveness, trade and investment flows	Consistent application of requirements across all producers compared to current situation would improve competitiveness (+)			
Competition in the internal market	Consistent application of requirements across all EU MS compared to current situation would improve competition in the internal market (++)			
Operating costs and conduct of business	Costs may increase where responsibilities are removed from importers etc. (--)	Costs may decrease where responsibilities are removed from importers etc. (++)	No specific impact identified (0)	No specific impact identified (0)
	Overall, this measure should be cost-neutral			
Administrative costs on businesses	Costs may increase where responsibilities are removed from importers etc. (--)	Costs may decrease where responsibilities are removed from importers etc. (++)	No specific impact identified (0)	No specific impact identified (0)
	Overall, this measure should be cost-neutral			
Innovation and research	Increased financial responsibility on the manufacturers may provide an incentive for improved product design (+)	No specific impact identified (0)	No specific impact identified (0)	Increased financial responsibility on the manufacturers may provide an incentive for improved product design (+)
Consumers and households	No net effect expected (0)			
Specific regions or sectors	No specific impact identified (0)			
Third countries and international relations	No specific impact identified (0)			
The macroeconomic environment	Little or no effect (0)			
Key:				
--- implementation of Measure may have major negative impact -- implementation of Measure may have significant negative impact - implementation of Measure may have slight negative impact 0 implementation of Measure may have no/negligible impact		+ implementation of Measure may have a slight positive impact ++ implementation of Measure may have a significant positive impact +++ implementation of Measure may have a major positive impact (+)/(-) potential slight positive/slight negative impact due to uncertainties on actual impact		

The Producer Responsibility Principle of the WEEE Directive
9. Impact Assessment

Table 91: Economic and Social Impacts of Measure 4 on Public Sector Organisations

Impact on Authorities	Public Sector Organisations
<i>Member State Competent Authorities</i>	
Public authorities (Economic impacts)	Reduced number of registered producers may decrease costs (+)
The macroeconomic environment	Limited impact (0)
Crime, Terrorism and Security	No impact (0)
<i>European Authorities</i>	
Public authorities (Economic impacts)	No impact (0)
The macroeconomic environment	No impact (0)
Crime, Terrorism and Security	No impact (0)

Table 92: Environmental Impacts of Measure 4

Impact on Environment	
The climate	No significant change from status quo expected (0)
Renewable or non-renewable resources	Greater emphasis on the manufacturer as the producer may result in more environmentally friendly goods and less use of non-renewable resources (+)
Waste production / generation / recycling	Greater emphasis on the manufacturer as the producer may result in better design for recycling and therefore increased recycling (+)
Mobility (transport modes) and the use of energy	No change from status quo expected
The environmental consequences of firm's activities	Greater emphasis on the manufacturer as the producer may result in more environmentally friendly goods (+)

Table 93: Summary of Impacts of Measure 4: Harmonised Definitions of 'producer' and 'put on the market'

Impact	Stakeholder								
	Producers				Consumers and Households	Public Sector Organisations		International Stakeholders	Environment
	Manufacturers	Importers / Distributors	Distance Sellers / Exporters	SMEs		MS	EC		
Competitiveness, trade and investment flows	+	+	+	+	0	0	0	+	0
Competition in the internal market	++	++	++	++	0	0	0	0	0
Operating costs	--	++	0	+/--	0	+	0	0	0
Administrative costs	--	++	0	+/--	0	0	0	0	0
Innovation and research	+	0	0	+	0	0	0	0	++
Crime, terrorism and Security	0	0	0	0	0	0	0	0	0
The macroeconomic environment	0	0	0	0	0	0	0	0	0
NET IMPACT	0	+7	+3	+4	0	+1	0	+1	+2
Key:									
--- implementation of Measure may have major negative impact -- implementation of Measure may have significant negative impact - implementation of Measure may have slight negative impact 0 implementation of Measure may have no/negligible impact					+ implementation of Measure may have a slight positive impact ++ implementation of Measure may have a significant positive impact +++ implementation of Measure may have a major positive impact (+)/(-) potential slight positive/slight negative impact due to uncertainties on actual impact				

9.2.4.4. *Measure 5: Harmonised Standards for Registering and Reporting*

The actual costs of this Measure will depend upon the precise nature of the standards agreed and the changes required in each Member State to meet these standards. These cannot be defined at this stage.

The greatest potential benefit of Measure 5 arises from the reduced administrative costs for businesses of harmonising procedures across the EU. This will improve competitiveness, due to the consistent application of requirements, and may result in some cost savings being passed on to consumers. Stakeholders suggest that any move to harmonise registration and reporting procedures should result in significant benefits, due to improved certainty of national requirements.

The net impact on Member State competent authorities will depend on the standards agreed, and is therefore uncertain. There are not expected to be any environmental impacts from this Measure.

The overall impact of this Measure is potentially very positive, but can only be determined once the standards themselves are clearer.

The potential impacts of Measure 5 are discussed in the tables below.

Table 94: Economic Impacts of Harmonised Standards for Registering and Reporting (Measure 5) for Businesses

Impact Category	Manufacturers	Importers / Distributors	Distance sellers/ Exporters	SMEs
Competitiveness, trade and investment flows	Consistent application of requirements across all producers compared to current situation would improve competitiveness (+)			
Competition in the internal market	Consistent application of requirements across all EU MS compared to current situation would improve competition in the internal market (++)			
Operating costs and conduct of business	Harmonised reporting standards more likely to affect administrative costs than operating costs (0)			
Administrative costs on businesses	Change in administrative costs will depend on content of standards, but likely to be positive due to harmonisation and therefore less actions required (producers have stressed the significance of costs resulting from the lack of standards) (++)			
Innovation and research	No net effect expected (0)			
Consumers and households	Change in costs may be passed on to consumers (+)			
Specific regions or sectors	No specific impact identified (0)			
Third countries and international relations	No specific impact identified (0)			
The macroeconomic environment	Little or no effect (0)			
Key:	--- implementation of Measure may have major negative impact -- implementation of Measure may have significant negative impact - implementation of Measure may have slight negative impact 0 implementation of Measure may have no/negligible impact		+ implementation of Measure may have a slight positive impact ++ implementation of Measure may have a significant positive impact +++ implementation of Measure may have a major positive impact (+)/(-) potential slight positive/slight negative impact due to uncertainties on actual impact	

Table 95: Economic and Social Impacts of Measure 5 on Public Sector Organisations

Impact on Authorities	Public Sector Organisations
<i>Member State Competent Authorities</i>	
Public authorities (Economic impacts)	Overall impact depends on standards defined (+)/(-)
The macroeconomic environment	Overall impact depends on standards defined (+)/(-)
Crime, Terrorism and Security	No impact (0)
<i>European Authorities</i>	
Public authorities (Economic impacts)	No impact (0)
The macroeconomic environment	No impact (0)
Crime, Terrorism and Security	No impact (0)

Table 96: Environmental Impacts of Measure 5

Impact on Environment	
The climate	No change from status quo expected (0)
Renewable or non-renewable resources	No change from status quo expected (0)
Waste production / generation / recycling	No change from status quo expected (0)
Mobility (transport modes) and the use of energy	No change from status quo expected (0)
The environmental consequences of firm's activities	No change from status quo expected (0)

Table 97: Summary of Impacts of Measure 5: Harmonised Standards for Registering and Reporting

Impact	Stakeholder								
	Producers				Consumers and Households	Public Sector Organisations		International Stakeholders	Environment
	Manufacturers	Importers / Distributors	Distance Sellers / Exporters	SMEs		MS	EC		
Competitiveness, trade and investment flows	+	+	+	+	0	0	0	+	0
Competition in the internal market	++	++	++	++	0	0	0	0	0
Operating costs and conduct of business	0	0	0	0	0	(+)/(-)	0	0	0
Administrative costs on businesses	++	++	++	++	+	(+)/(-)	0	0	0
Innovation and research	0	0	0	0	0	0	0	0	0
Crime, terrorism and Security	0	0	0	0	0	0	0	0	0
The macroeconomic environment	0	0	0	0	0	(+)/(-)	0	0	0
NET IMPACT	+5	+5	+5	+5	+1	0	0	+1	0
Key:									
--- implementation of Measure may have major negative impact -- implementation of Measure may have significant negative impact - implementation of Measure may have slight negative impact 0 implementation of Measure may have no/negligible impact					+ implementation of Measure may have a slight positive impact ++ implementation of Measure may have a significant positive impact +++ implementation of Measure may have a major positive impact (+)/(-) potential slight positive/slight negative impact due to uncertainties on actual impact				

9.3. 7.3 **Supra-national Approach**

9.3.1. The Issues

There are two key issues affecting the operation of the WEEE Directive with regards to EEE moving across borders within the EU. These are:

- accounting for EEE which is exported from one Member State to another, particularly the requirements placed upon **distance sellers**, which vary amongst Member States (as described in Section 4.7) and the movement of second-hand goods across borders, of which there is little, if any, monitoring; and
- the current requirement upon '**producers**' to register in all Member States in which their goods are sold (with a few exceptions).

9.3.1.1. *Accounting for EEE which is Exported – Distance Sellers*

As discussed above, there are currently two approaches for dealing with distance sellers:

- Approach 1: registration of distance seller in the seller's Member State; and
- Approach 2: registration of distance seller in the end user's Member State.

Based on the current variations between national legislation, these differences could result in a non-level playing field between competitors within the EU. However, there is no evidence of the impacts which may result from this. In addition, there are no data available on:

- the number of distance sellers operating in the EU as a whole or by Member States;
- the quantity or type of EEE sold by distance sellers in the EU;
- the extent of duplication of costs faced by distance sellers; or
- the extent of non-registration of distance sellers and/or the non-financing of WEEE.

Such information would be needed to determine any impacts of the current variations.

9.3.1.2. Accounting for EEE which is Exported – Second Hand Goods

There are currently no provisions in place to account for EEE which is sold second-hand across national borders within the EU. As with distance sellers, no data are available on:

- the number of second-hand exporters operating in the EU as a whole or by Member States; or
- the quantity or type of EEE sold second-hand across national borders within the EU.

It is not clear what currently happens with regard to financial guarantees and treatment costs when EEE is transferred across borders. However, it is possible that the lack of monitoring may result in the product being treated and recycled in a country where the producer is not present and/or financial guarantees being held in a different country to the product, resulting in treatment costs being financed by producers who have no responsibility for it. This is contrary to the principle of extended producer responsibility.

9.3.1.3. Producer Registration

As discussed above, 20 countries currently take a 'national approach', whereby the first importer of a product into a Member State is considered to be the producer if there is no manufacturer of that brand on the national market. This requires companies to register in each Member State where they sell their products, incurring costs for registration and reporting in each Member State.

9.3.2. Rationale for Intervention

It could be argued that there is a need to develop supra-national approaches for the coordination of national activities, cross-border payments and waste flows and uniform enforcement of certain requirements in the EU. This is because EEE products and producers are not constricted by national territories, unlike waste-related legislation and enforcement practices. However, supra-national institutions with such a profile do not yet exist and the legal situation of the European Union does not make it likely that such an institution could be established in a short-term.

9.3.3. Potential Measures

In order to assess the feasibility and impact of developing 'supra-national' approaches for improving the efficiency of the WEEE regulations, three measures are considered in this Report:

- **Measure 1:** the 'do nothing' measure, which essentially provides the baseline against which the other measures can be assessed. This Measure involves the maintenance of the status quo based on national approaches (with no communication between Member States) and no changes to the WEEE Directive to address the problems identified.

- **Measure 6:** creation of a European Clearing House for WEEE producer responsibility. This specifically refers to a formalised (electronic) network of national institutions across the EU-27, which will allow for supra-national communication about the registration of producers and the amount of EEE put on the market.
- **Measure 7:** a variation of the European Clearing House system, in which a European producer can register with a national register in a single Member State, with the registration, reporting and fees reflecting its activities across all other Member States. In this system, a supra-national communication system will be required for:
 - exchange of information about the registration of producers and the amount of EEE put on the market; and
 - the transfer of money and/or obligations related to cross-border transfers of products or WEEE.

The network described under Measure 6 will be used mainly for information purposes (and possibly, cost-balancing within companies), when goods which have been placed on the market in one MS (i.e the producer has registered and paid a financial guarantee for that product) are exported to another MS (either new or second-hand). The network described under Measure 7, by contrast, will be used for transferring data and money on all cross-border trades within the EU (since each 'manufacturer' will be registered and pay fees in a single Member State). In simple terms, while Measure 6 can work on the basis of a virtual financial arrangement (e.g. a banking system of credits), Measure 7 will require the actual transfer of money.

- **Measure 8:** establishment of a harmonised EU register of producers, which will serve mainly as a framework for information exchange and transfer of obligations. Under this Measure:
 - the registration of producers and the allocation of responsibilities to producers will be undertaken at the EU level, rather than at a national level as under Measures 1, 6 and 7;
 - data relating to the amounts of EEE placed on the market will be collected at EU level, with the data then differentiated by Member State;
 - national organisations will be responsible for money transfers relating to cross border transfers of products or WEEE and there will be communication between the EU Register and national institutions relating to the registration of producers and the amount of EEE placed on the market in each Member State; and
 - reporting on collection, recycling and recovery targets will be at the Member State level.

In practice, Measure 8 is likely to require the establishment of a physical structure at a given geographical location, while Measures 6 and 7 require only the establishment of an electronic network. However, it is possible that both approaches could be put in place simultaneously.

A sub-option to Measures 6, 7 and 8, is that a group of Member States undertake the actions described above, on a regional basis. Such countries may already have enforcement and/or money transfer agreements which can readily be used to implement WEE (with some adjustments); this may apply to the:

Nordic countries (Denmark, Finland and Sweden (Iceland and Norway));

- Benelux countries (Belgium, Netherlands and Luxembourg); and
- Baltic States (Estonia, Latvia and Lithuania).

No information is available to date to assess the impacts of such a sub-option. The costs (and benefits) would depend on the number of regional networks set up, their scope, and the proportion of cross-border activities that would be covered by such networks. However, it is likely that such networks would only be set up where existing infrastructure (e.g. data sharing) is already in place and thus the costs of super-national approaches would be lower than for an EU-wide super-national approach.

The following table sets out the actions required by different stakeholders under each measure.

Table 98: Actions Required by Stakeholders

Stakeholder	Measure 1 (Baseline - National Approach)	Measure 6 (EU Network of MS)	Measure 7 (EU Registration at one MS)	Measure 8 (EU Register/Institution)
Producers <i>Registration</i>	Each 'producer' must register in each MS where it sells EEE		Each producer registers with one MS and is deemed to meet requirements for all MS	Each producer registers at EU level (and the data is then sent to the individual MS)
<i>Importers</i>	Importers, distance sellers and/or distributors are likely to be obligated as 'producers'		Importers and distance sellers (acting within EU) and/or distributors are unlikely to be obligated as 'producers'. General issues relating to distance selling and movement of second-hand goods are also likely to be addressed (and possibly eliminated) by these measures	
<i>Guarantees</i>	Financial guarantees are paid in each MS where products are 'placed on the market'		Financial guarantees are paid in one MS only	Financial guarantees are paid at EU level
<i>Sales Data</i>	National sales data are reported to each MS individually		Sales data for all MS are reported to one MS only and can be requested from this MS by other MS	Sales data for all MS are reported at EU level (and the data is then differentiated according to MS)
<i>Other data collection</i>	Data on collection, recycling and recovery are reported to each MS individually		Data on collection, recycling and recovery for all MS are reported to one MS only	Data on collection, recycling and recovery are reported to each MS individually
Authorities (MS) <i>Reporting</i>	All 'producers' buying and/or selling EEE in a given MS report directly to national authorities or institutions		Only producers manufacturing EEE in a given MS will report to the national register in that MS	All 'producers' buying and/or selling EEE report directly to the EU Register
<i>Money Transfer</i>	Money transfer relating to cross border transfers of products or WEEE is not currently possible	Money transfer relating to cross border transfers of products or WEEE could be undertaken between national institutions (mechanism yet to be developed) MS which import EEE (or WEEE) after it has been placed on the market in another MS can request information and money to finance WEEE from the exporting MS MS which export EEE (or WEEE) after it has been placed on the market must respond to requests for information and money from the importing MS	Money transfer relating to cross border transfers of products or WEEE will be undertaken between national institutions Exporting MS are required to transfer producer and sales information and money to finance WEEE to all other Member States	Money transfer relating to cross border transfers of products or WEEE will be undertaken between national institutions
<i>Enforcement</i>	Registered companies are within Member State's legal jurisdiction - MS must enforce national WEEE requirements		Registered producers may be outside Member State's legal jurisdiction - each MS must enforce WEEE requirements on behalf of other MS	Each MS must enforce WEEE requirements on behalf of the European Institution (as it communicates this to them)
<i>Funding</i>	Member States currently incur their own costs	The Commission will have to facilitate (and fund paid from registration fees by producers?) the development of a network of national administrations	Member States will continue to incur their own costs for running the system	The Commission will have to facilitate (and fund paid from registration fees by producers?) the development of a centralised institution

9.3.4. Impact Assessment of Measures 6-8

9.3.4.1. Measure 6: Formalised Network of National Institutions

Cost Components

To assess the costs and benefits of a formalised network, the following data are required:

- the development and operating costs for a network; and
- the additional operating costs for competent authorities to exchange data with other Member States on the quantity of goods (or number of transactions) involved in distance selling and second hand goods;

This Measure will not impose significant costs on industry.

The key action required under this measure is the establishment of a formalised network, which could be funded by the Commission. The table below sets out the development and operating costs of a number of 'simple' databases, which may provide a proxy for the cost of this Measure. These have set-up costs which range from €120,000 to €477,500 and annual maintenance and operational costs of €40,000 per year.

Table 99: Costs Associated with Various Electronic Databases Associated with Other Regulatory Measures

Database	Scope or Objective	Development Costs	Maintenance & Operational Costs
Radio and Telecommunications Terminal Equipment One-Stop Notification (R&TTE 1-SN)	Development of a software/web based tool, to create a collecting point and conversion system - related to a data storage system - which allows the interchange of information through an "intelligent" electronic notification form. Parties concerned are the manufacturers (notifying party), Members States with their national databases and the service in charge of the Action (DG ENTR H5).	€120,000	Not available
European Database for Medical Devices	Development of a web-based application accessible to Competent Authorities to register manufacturers, medical devices, certificates and incident reports into a common database. The application enables Competent Authorities either to register manually the data into the central database record by record or to upload data from their national database into the central database using XML format.	€219,000	€40,000 per year
Database of Origin and Registration (DOOR)	Provision of a providing a modern IT system that will facilitate the management of PDOs, PGIs and TSGs (and that will allow to fulfil a legal obligation under Regulations 2081/92 and 2082/92) in terms of: 1. Member State Submission and follow-up of applications to the Commission; 2. Follow-up of Commission Internal Procedures; 3. Communication between Member States and the Commission; 4. Dissemination to the public of information on registered denominations.	€343,500	Not available
State Aid Electronic Notifications	A communication system for the State Aids Notifications between the Member States and the Commission. The system will allow the Member States to encode and submit the notifications using a web based interface and then offers the possibility to the Commission to manage these notifications. The project will also foresee a system of communication between the Member States and the Commission for the State Aids area.	€450,000	€40,000 per year
CAP-IDIM	Development of a web application allowing member states to submit their annual monitoring indicators through the Web interface or through the Excel/XML file upload module.	€477,500	Not available

The current operating costs of the Member State registers (and clearing houses, where appropriate) are summarised in the following table. These are based on actual data for eleven Member States (as set out in Table 32) and extrapolated to the remaining Member States according to the number of registered producers and the average operating cost per producer. This provides estimated annual operating costs of €18 million across all 27 Member States. However, no data are available on the number of distance sellers operating in each country, nor the quantity of goods sold by distance sellers or second hand.

Table 100: Estimated Annual Operating Costs for National Systems

Country	Annual Operating Costs (€)	Number of Registered Producers	Operating Costs per Producer (€)
EU-15			
Austria	670,000	1,450	462
Denmark	672,000	1,036	649
Finland	130,600	770	170
France	160,000	3,725	43
Germany	9,600,000	6,100	1,574
Portugal	350,000	950	368
Sweden	99,400	1,083	92
Average for EU-15 Member States for which actual data are available			480
<i>Estimated costs based on EU-15 average</i>			
Belgium	<i>1,122,781</i>	2,341	480
Greece	<i>306,954</i>	640	480
Ireland	<i>407,674</i>	850	480
Italy	<i>1,549,160</i>	3,230	480
Luxembourg	<i>201,439</i>	420	480
Netherlands	<i>853,716</i>	1,780	480
Spain	<i>456,115</i>	951	480
UK	<i>1,486,810</i>	3,100	480
Est. total EU-15	€18.07 million	28,426	
New Member States			
Czech Republic	43,095	3,060	14
Estonia	44,800	126	356
Hungary	10,131	704	14
Slovakia	16,500	763	22
Average for new Member States for which actual data are available (excluding Estonia)*			17
<i>Estimated costs based on new Member State average</i>			
Bulgaria	<i>11,022</i>	660	17
Cyprus	<i>9,686</i>	580	17
Latvia	<i>9,853</i>	590	17
Lithuania	<i>9,836</i>	589	17
Malta	<i>8,517</i>	510	17
Poland	<i>33,733</i>	2,020	17
Romania	<i>15,030</i>	900	17
Slovenia	<i>11,105</i>	665	17
Est. total new MS	€223,300	11,167	
Est. total EU-27	€18.29 million	39,593	
Source: Table 32. Figures in italics are extrapolated from data provided by other Member States * Estonia is excluded from the average due to its inconsistent costs compared with other new MS, which would skew the average.			

Total Costs of Measure 6

It is assumed that the set-up costs of the network occur in 2008 (year 0) and the annual operating costs are incurred from 2009-2020 (years 1 - 12). Discounting the annual costs of €40,000 at 4% to 2020 results in total present value costs of

€375,400 for operating the network at a European level over 12 years. Combining these with the potential set-up costs suggests that the **total present value costs of establishing and operating the network are in the range of €495,000 to €853,000**. As noted above, these costs may be incurred by the Commission.

This Measure will require an increase in activities by Member States to exchange information with other Member States on distance sellers and the export of second-hand goods. There is currently no information on the amount of EEE sold in this way. However, assuming that it results in an increase of 10% in the work of Member States, this could incur additional administrative costs of €1.83 million per year, equal to a **total present value of €17 million over 12 years (2009-2020)**.

Unquantified Impacts and Summary

This Measure is expected to have positive effects on intra-EU competition by providing a more level playing field amongst various stakeholders (particularly for distance selling) and aiding cross-border enforcement of the WEEE Directive. These benefits cannot be quantified because no data are available on the negative impacts of the existing system, due to the short time since implementation. There may be increased costs for distance sellers due to the requirement to register in each country they sell to, which was not previously the case. However, it is not known how many distance sellers this would apply to. This will enforce the 'national' approach across all countries, retaining the role of importers (operating within the EU) as the 'producer' and therefore limiting the extent to which the costs of collection and treatment may influence the design of EEE.

The total cost to public sector organisations (i.e. the Commission and national authorities) is estimated to be in the region of €18 million over 12 years.

The potential impacts of Measure 6 are discussed in the tables below.

Table 101: Economic Impacts of a Formalised Network of National Institutions (Measure 6) for Businesses

Impact Category	Manufacturers	Importers / Distributors	Distance sellers/ Exporters	SMEs
Competitiveness, trade and investment flows	No change for non-EU companies active in EU (0)		Non-EU distance sellers required to register in each MS to which they sell - this would improve the competitiveness of EU companies as DS would face similar requirements (- and +)	No specific impact on SMEs (0)
Competition in the internal market	Consistent application of requirements for distance sellers across all EU MS compared to current situation would improve competition in the internal market (+)			
Operating costs and conduct of business	Increase in costs for companies operating in 5 'European' approach MS; no change in costs for companies operating in 22 'national' approach MS (-)		Increase in costs for DS/Exp. operating in 11 Approach 1 MS; no change in costs for DS/Exp. operating in at least 12 Approach 2 MS (-)	No specific impact on SMEs (0)
Administrative costs on businesses	Reduced free riders/orphaned products - reduced costs of WEEE (+)			
Innovation and research	Increased responsibility of importers/distributors may remove incentive for manufacturers to improve EEE design (-)	Not applicable (0)	Not applicable (0)	Increased responsibility of importers/distributors may remove incentive for manufacturers to improve EEE design (-)
Consumers and households	Additional costs to distance sellers and some producers may be passed on to consumers (-)			
Specific regions or sectors	No specific impact identified (0)			
Third countries and international relations	No specific impact identified (0)			
The macroeconomic environment	Increased administrative requirements for companies may result in more jobs; however, this is likely to divert investment from elsewhere. Overall, there are significant uncertainties on actual impact (+)/(-)			
Key:				
--- implementation of Measure may have major negative impact -- implementation of Measure may have significant negative impact - implementation of Measure may have slight negative impact 0 implementation of Measure may have no/negligible impact		+ implementation of Measure may have a slight positive impact ++ implementation of Measure may have a significant positive impact +++ implementation of Measure may have a major positive impact (+)/(-) potential slight positive/slight negative impact due to uncertainties on actual impact		

Table 102: Economic and Social Impacts of Measure 6 on Public Sector Organisations

Impact on Authorities	Public Sector Organisations
<i>Member State Authorities</i>	
Public authorities (Economic impacts)	Increase in costs for 5 MS following 'European' approach MS(?); no change in costs for 22 MS operating 'national' approach (-) Increased interaction with other Member States may increase national administrative costs by 10%. Total present value of these costs over 12 years (2009-2020) may be in the region of €17 million (-)
The macroeconomic environment	Little net impact expected (0)
Crime, Terrorism and Security	Producers are within legal jurisdiction and requirements can be more easily enforced (+)
<i>European Authorities</i>	
Public authorities (Economic impacts)	Costs incurred to set up and operate a formalised network may be in the region of €475,000 to €853,000 over 13 years (2008-2020) (-)
The macroeconomic environment	Opportunity costs of investment in network (-)
Crime, Terrorism and Security	No specific impact (0)

Table 103: Environmental Impacts of Measure 6

Impact on Environment	
The climate	Status quo (with progressive reductions in negative impacts associated with EEE expected with time)
Renewable or non-renewable resources	Status quo (with progressive reductions in negative impacts associated with EEE expected with time)
Waste production / generation / recycling	Status quo (with progressive reductions in negative impacts associated with EEE expected with time)
Mobility (transport modes) and the use of energy	Status quo (with progressive reductions in negative impacts associated with EEE expected with time)
The environmental consequences of firm's activities	Increased emphasis on the importer/distributor may reduce the incentive to develop more environmentally friendly goods (-)

Table 104: Summary of Impacts of Measure 6: Formalised Network of National Institutions

Impact	Stakeholder								
	Producers				Consumers and Households	Public Sector Organisations		International Stakeholders	Environment
	Manufacturers	Importers / Distributors	Distance Sellers / Exporters	SMEs		MS	EC		
Competitiveness, trade and investment flows	0	0	+/-	0	(+)/ (-)	0	0	-	0
Competition in the internal market	+	+	+	+	0	0	0	0	0
Operating costs	0	0	-	0	-	0	-	0	0
Administrative costs	0	0	-	0	0	--	0	0	0
Innovation and research	-	0	0	-	0	0	0	0	--
Crime, Terrorism and Security	0	0	0	0	0	+	0	0	0
The macroeconomic environment	(+)/ (-)	(+)/ (-)	(+)/(-)	(+)/ (-)	0	0	-	0	0
NET IMPACT	0	+1	-1	0	-1	-2	-2	-1	-2
Key:					+ implementation of Measure may have a slight positive impact ++ implementation of Measure may have a significant positive impact +++ implementation of Measure may have a major positive impact (+)/(-) potential slight positive/slight negative impact due to uncertainties on actual impact				
---					implementation of Measure may have major negative impact				
--					implementation of Measure may have significant negative impact				
-					implementation of Measure may have slight negative impact				
0					implementation of Measure may have no/negligible impact				

9.3.4.2. *Measure 7: Formalised Network and Single Registration*

Cost Components

To assess the costs and benefits of a formalised network, the following data are required:

- the development and operating costs for a network that is capable of more extensive exchange of data than under Measure 6;
- the additional operating costs to competent authorities to exchange data with other Member States on the quantity of cross-border transactions;
- the reduction in the number of registrations resulting from allowing single registrations;
- the associated cost savings to national authorities of single registration; and
- the associated cost savings to industry of single registration.

Under this Measure, a formalised network which would enable producers to register in a single Member State whilst fulfilling their obligation across all Member States. The Commission may fund the development of this network. This would require a greater degree of data exchange than under Measure 6 and the network may therefore be more sophisticated and more costly. The table below identifies the costs associated with the databases/networks developed or planned for intra-EU trade (VAT and excise) and the registration of chemicals. The development costs range from €8.5 million to €35 million, with annual operating costs of €0.8 million to €3.25 million.

Table 105: Costs Associated with Databases for EU Trade and Other Regulatory Measures

Database	Scope or Objective	Development Costs	Maintenance & Operational Costs
REACH Database	The REACH database involves the development of IT to make information available to the public on the classification and labelling of chemicals and on the non-commercial aspects from the registration dossiers submitted for individual chemicals. The REACH database will need to be able to manage classification and labelling data and registrations for an estimated 30,000 marketed substances and for a similar number of intermediates. It will require on-going updating as registrations will be completed over an 11 year time period, and into the future as new substances are developed and placed on the market.	€8.5 million	€760,000 per year
VAT Information Exchange System (VIES)	The VIES system provides access from one national database to another in a formalised and/or interlinked manner; there is no central database. It allows VAT administrators to monitor the flow of intra-EU trade and companies can access the database through their central liaison office in their Member State. VIES is one of the largest trans-European systems in operation with over 8 million data exchanges per month between Member States;	N/a	€1.1 million per year
EMCS (computerising the movement and surveillance of excisable products)	Computerisation of the excise system, including: development, support and testing of the system and its management; establishing information and training activities; and the security plan for the system.	€35 million	€3.25 million per year

In relation to VIES, the Commission²¹⁸ indicates that the number of staff involved in the operation and development of VAT applications within a participating country are in the range of 3 to 7 people devoting roughly half of their time to this work (i.e., 1.5-3.5 full-time equivalents (FTE)). It is assumed that the operation of the WEEE network by Member States requires half the input of the VAT system. Taking an upper bound cost (i.e. VIES requires 7 people working half the time), this equates to 1.75 FTE for a WEEE network.

Eurostat provides average hourly labour cost data, which can be multiplied to provide annual wage figures (using a factor of 7 (hours) x 220 (working days)). The table below sets out the average hourly labour cost from Eurostat and the associated cost of 1.75 FTE by country.

²¹⁸ European Commission (2005): Mid-term Evaluation of the Fiscalis 2007 Programme, SEC(2005) 1045.

Table 106: Estimated Annual Costs to Member States of Operating the WEEE Network

Country	Average hourly labour costs (€) (2005 data)	Annual cost of 1.75 Full-time Equivalent (€)
Austria	25.36	68,351
Belgium	30.73	82,817
Denmark	31.98	86,186
Finland	26.39	71,121
France	29.29	78,937
Germany	26.43	71,229
Greece	25.36	68,351
Ireland	25.36	68,351
Italy	25.36	68,351
Luxembourg	31.10	83,815
Netherlands	27.41	73,870
Portugal	10.60	28,567
Spain	15.22	41,018
Sweden	25.36	68,351
UK	24.47	65,947
EU-15 Average	25.36	
Bulgaria	1.55	4,177
Cyprus	5.19	13,992
Czech Republic	6.63	17,868
Estonia	4.67	12,586
Hungary	6.14	16,547
Latvia	2.77	7,465
Lithuania	3.56	9,594
Malta	8.35	22,503
Poland	5.55	14,957
Romania	2.33	6,279
Slovakia	4.8	12,936
Slovenia	10.76	28,998
New Member State Average	5.19	
Total Cost		1,193,162

National competent authorities costs may also be reduced, due to the lower number of registrations resulting from the acceptance of a single registration.

The degree of 'duplicated' registrations across the EU-27 is not known; however, data from RPA (2005), shown in Table 107, suggests that an EEE manufacturer typically sells its products in 14 Member States. This suggests that a producer (or importers of its products) may be registered in 14 different Member States. Although this varies by size of company, it is not possible to apply these more detailed data at this time as it is not known how many companies of each size are registered in each Member State. These values can, though, be used to provide a range of costs. For example, if all producers were small companies they would each be registered in (an average of) six Member States. Therefore single registration would reduce the number of registrations by a factor of six, to 6,599 registrations across the EU ($=39,593/6$). This is the low estimate. Similarly, if all producers were large companies, they would each be registered in 18 MS. Therefore single registration would reduce the number of registrations across the EU-27 to 2,200 ($=39,593/18$) - the high estimate. These values have been used to estimate the reduction in the number of registrations by country resulting from this Measure. It is assumed that the distribution of single registrations would reflect the locations of manufacturing sites as found in RPA (2005), so that 17% of registrations are made in Germany (17.37% of 6,599 is 1,146; 17.37% of 2,200 is 382); 16% in the UK; 8% in Italy and France, etc. The resulting cost savings to the competent authorities, assuming the operating costs per producer, are set out in Table 100.

Table 107: Number of Manufacturing and Sales Locations by Company Size

Company	Average number of countries where manufacturing sites are located in EU-27 per manufacturer	Average Number of Countries where products are sold in EU-27 per manufacturer
Small Companies (turnover <€10m)	1	6
Medium Companies (turnover <€50m)	2	12
Large Companies (turnover >€50m)	3	18
Average	2.5	14.3
<i>Source: RPA (2005)</i>		

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Table 108: Estimated Number of Registrations Under Different Assumptions and Associated Costs Savings

	% of EU-27 manufacturing sites	Current Number of Producers Registered	Low Estimate		High Estimate		Average Estimate	
			Number of Producers Registered	Cost savings (€'000)	Number of Producers Registered	Cost savings (€'000)	Number of Producers Registered	Cost savings (€'000)
AU	3%	1,450	196	580	65	640	82	632
BE	3%	2,341	168	1,042	56	1,096	70	1,089
DK	2%	1,036	140	581	47	642	59	634
FI	3%	770	168	102	56	121	70	119
FR	8%	3,725	531	137	177	152	223	150
DE	17%	6,100	1,146	7,796	382	8,999	481	8,843
GR	1%	640	84	267	28	294	35	290
IE	3%	850	168	327	56	381	70	374
IT	8%	3,230	559	1,281	186	1,460	235	1,437
LU	0%	420	28	188	9	197	12	196
NE	4%	1,780	252	733	84	813	106	803
PT	2%	950	112	309	37	336	47	333
ES	6%	951	363	282	121	398	153	383
SE	6%	1,083	363	66	121	88	153	85
UK	16%	3,100	1,063	977	354	1,317	446	1,273
BU	0%	660	0	11	0	11	0	11
CY	0%	580	28	9	9	10	12	9
CZ	4%	3,060	280	39	93	42	117	41
EE	0%	126	28	35	9	41	12	41
HU	5%	704	336	5	112	9	141	8
LT	0%	590	28	9	9	10	12	10
LI	0%	589	28	9	9	10	12	10
MT	0%	510	28	8	9	8	12	8
PO	3%	2,020	224	30	75	32	94	32
RO	0%	900	0	15	-	15	0	15
SK	3%	763	196	12	65	15	82	15
SV	1%	665	84	10	28	11	35	11
EU-27	100%	39,593	6,599	14,861	2,200	17,147	2,769	16,851

Similar cost savings will be experienced by industry, resulting from reduced annual renewal costs (payable in seven MS) and reduced reporting requirements. Data from UNU (2007) (Table 83, p.138) suggests that an average of 7 hours is required to produce a report per Member State, whatever frequency of reporting is required. It is assumed that this increases to 10 hours per report under this Measure, as the report will include data for all Member States. Reports will still be submitted at different frequencies in different Member States, as in the current situation. The table below sets out the estimated costs savings for industry under a single registration system, providing low, high and average estimates. These scenarios use the same assumptions regarding the number of producers registered in each country as set out in Table 108.

Table 109: Estimated Cost Savings to Industry from Reduced Registration and Reporting Requirements

	Average Annual Renewal Costs per Producer (€)	Frequency of Reporting (No. per year)	Low Estimate		High Estimate		Average Estimate	
			Savings in Total Annual Renewal Costs (€'000)	Savings in Annual Reporting Costs (€'000)	Savings in Total Annual Renewal Costs (€'000)	Savings in Annual Reporting Costs (€'000)	Savings in Total Annual Renewal Costs (€'000)	Savings in Annual Reporting Costs (€'000)
AU	0	4	-	831	-	964	-	946
BE	0	4	-	1,808	-	1,946	-	1,928
DK	470	1	422	187	465	217	460	213
FI	130	1	78	98	93	127	91	124
FR	0	2	-	1,216	-	1,424	-	1,397
DE	0	12	-	9,907	-	12,331	-	12,017
GR	0	12	-	1,108	-	1,278	-	1,256
IE	1,000	12	682	1,300	794	1,641	780	1,597
IT	0	1	-	432	-	526	-	514
LU	0	1	-	83	-	89	-	88
NE	0	1	-	273	-	319	-	313
PT	940	2	788	117	858	133	849	131
ES	0	4	-	184	-	332	-	312
SE	300	1	216	100	289	162	279	154
UK	370	4	754	1,084	1,016	1,777	982	1,688
BU	0	1	-	7	-	7	-	7
CY	0	1	-	20	-	21	-	20
CZ	0	1	-	123	-	136	-	134
EE	0	1	-	3	-	4	-	4
HU	0	1	-	10	-	23	-	22
LT	0	4	-	43	-	45	-	44
LI	0	1	-	14	-	14	-	14
MT	0	1	-	27	-	29	-	29
PO	940	4	1,689	264	1,829	297	1,811	293
RO	0	1	-	15	-	15	-	15
SK	0	1	-	16	-	23	-	22
SV	0	4	-	164	-	188	-	185
Total Cost Savings EU-27			4,628	19,434	5,344	24,065	5,251	23,466

The assumptions made for the assessment of this Measure implicitly include the assumption that companies will choose to register in the Member State where their main manufacturing site(s) are located, regardless of the costs of registration renewal and reporting frequency. However, it is possible that companies may choose to register where these costs are lowest, thereby increasing the costs savings indicated above.

Total Costs of Measure 7

It is assumed that the set-up costs of the network occur in 2008 (year 0) and the annual costs are incurred from 2009-2020 (years 1 - 12). Discounting the annual costs of €0.8 million to €3.25 million at 4% to 2020 results in total present value costs of €7.1 million to €30.5 million for operating the network at a European level over 12 years. Combining these with the potential set-up costs indicates that the **total present value costs to the Commission of this Measure are in the range of €15.6 million to €65.5 million, over 12 years**. However, it should be noted that EMCS system is being developed to monitor the movement of products across borders; there may be the potential for a WEEE network to utilise this system in some way, thereby reducing the set-up and, potentially, the operational costs.

The annual costs for national competent authorities and businesses have been discounted at 4% over 12 years (2009-2012) and the total present values are given in the table below. This indicates that **Measure 7 could result in cost savings of €288 million to €410 million over 12 years**.

Table 110: Annual/One-off Costs and Total Present Value Costs of Measure 7 by Stakeholder

Stakeholder	Costs		Savings (Benefits)	
	Annual (or one-off) (€ million)	Total Present Value (discounted at 4% over Years 1-12) (€ million)	Annual (€ million)	Total Present Value (discounted at 4% over Years 1-12) (€ million)
Commission - set-up of Network (one-off)	(8.5 - 35.0)	8.5 - 35.0	-	-
Commission Operating costs of Network	0.8 - 3.3	7.1 - 30.5	-	-
MS - Operating Costs of Network	1.2	11.2	-	-
MS - Reduced Registrations	-	-	14.9 - 17.1	139.5 - 160.9
Industry - Reduced Registration Renewals	-	-	4.6 - 5.3	43.4 - 50.1
Industry - Reduced Reporting	-	-	19.4 - 24.1	182.4 - 225.8
Total	2.0 - 4.5	26.8 - 76.7	38.9 - 46.5	365.3 - 436.9
Net Present Value (€ million)			288.6 - 410.1	

Unquantified Impacts and Summary

An additional benefit of this Measure is that manufacturers will bear financial responsibility for their products which may result in improved product design and environmental benefits.

The potential impacts of Measure 7 are discussed in the tables below.

Table 111: Economic Impacts of a Formalised Network of National Institutions and Single Registration (Measure 7) for Businesses

Impact Category	Manufacturers	Importers / Distributors	Distance sellers/ Exporters	SMEs
Competitiveness, trade and investment flows	No change for non-EU companies active in EU (0)			No specific impact on SMEs (0)
Competition in the internal market	Consistent application of requirements across all EU MS compared to current situation would improve competition in the internal market (+)			
Operating costs and conduct of business	Reduced costs associated with reduced registration and reporting requirements for manufacturers active in more than one Member State. However, some may take on activities currently undertaken by importers/distributors, thereby increasing costs (+)	No longer considered to be a producer, reduced costs for companies operating within EU only. Importers of EEE from outside EU will still incur costs (+++)	Reduced costs for non-EU DS/Exp. operating in 12 Approach 2 countries; no change for non-EU DS/Exp. operating in Approach 1 MS (+)	Savings may be smaller for SMEs due to sales in fewer countries (+)
Administrative costs on businesses	Costs savings may be in the range of €226 million - €276 million over 12 years			
Innovation and research	Better application of responsibility on manufacturers may facilitate innovation and research (+)	Not applicable (0)	Not applicable (0)	Better application of responsibility on manufacturers may facilitate innovation and research (+)
Consumers and households	Reduced costs may be passed on to consumer (+)			
Specific regions or sectors	No specific impact (0)			
Third countries and international relations	No specific impact (0)			
The macroeconomic environment	Reduced administrative requirements for companies may result in job losses, however, more financial resources will be available for investment elsewhere (+)/(-)			

Table 112: Economic and Social Impacts of Measure 7 on Public Sector Organisations

Impact on Authorities	Public Sector Organisations
<i>Member State Authorities</i>	
Public authorities (Economic impacts)	Exchange of data with other Member States may cost approximately €11.2 million over 12 years (-) Reduced costs associated with reduced number of registrations may save approximately €140 million to €161 million over 12 years (++)
The macroeconomic environment	Greater administrative requirements likely to create jobs, but may be at the expense of other employment. Net efforts for all MS in EU are lower for registration and reporting. Use of electronic network should improve data exchange (+)/(-)
Crime, Terrorism and Security	Producers may be outside legal jurisdiction of individual MS and greater reliance on other MS to enforce national WEEE requirements (-)
<i>European Authorities</i>	
Public authorities (Economic impacts)	Costs incurred to set up and operate network are in the region of €15.6 million to €65.5 million over 12 years (-)
The macroeconomic environment	Opportunity costs of investment in network (-)
Crime, Terrorism and Security	No specific impact (0)

Table 113: Environmental Impacts of Measure 7

Impact on Environment	
The climate	No change from status quo expected
Renewable or non-renewable resources	Greater emphasis on the manufacturer as the producer may result in more environmentally friendly goods and less use of non-renewable resources (+)
Waste production / generation / recycling	Greater emphasis on the manufacturer as the producer may result in better design for recycling and therefore increased recycling (+)
Mobility (transport modes) and the use of energy	No change from status quo expected
The environmental consequences of firm's activities	Greater emphasis on the manufacturer as the producer may result in more environmentally friendly goods (+)

Table 114: Summary of Impacts of Measure 7: Formalised Network of National Institutions and Single Registration

Impact	Stakeholder								
	Producers				Consumers and Households	Public Sector Organisations		International Stakeholders	Environment
	Manufacturers	Importers / Distributors	Distance Sellers / Exporters	SMEs		MS	EC		
Competitiveness, trade and investment flows	0	0	+	0	(+)/ (-)	0	0	-	0
Competition in the internal market	+	+	+	+	0	0	0	0	0
Operating costs	+	++	+	+	+	++	-	0	0
Administrative costs	+	++	+	+	+	0	0	0	0
Innovation and research	+	0	0	+	0	0	0	0	++
Crime, terrorism and security	0	0	0	0	0	-	0	0	0
The macroeconomic environment	(+)/ (-)	(+)/ (-)	(+)/ (-)	(+)/ (-)	0	(+)/ (-)	-	0	0
NET IMPACT	+4	+5	+4	+4	+2	+1	-2	-1	+2
Key:					+ implementation of Measure may have a slight positive impact ++ implementation of Measure may have a significant positive impact +++ implementation of Measure may have a major positive impact (+)/(-) potential slight positive/slight negative impact due to uncertainties on actual impact				
---					implementation of Measure may have major negative impact				
--					implementation of Measure may have significant negative impact				
-					implementation of Measure may have slight negative impact				
0					implementation of Measure may have no/negligible impact				

9.3.4.3. *Measure 8: EU Harmonised Register*

Cost Components

To assess the costs and benefits of an EU harmonised register, the following data are required:

- the development and operating costs for a central body to manage the register;
- the reduction in workload for competent authorities, considering that some administrative work will still be required at a Member State level, and the associated cost savings;
- the reduction in numbers of registrations due to permitting single registrations; and
- the associated cost savings to industry of single registration.

It is difficult to accurately assess the costs associated with performing the necessary activities at an EU level to support a harmonised register, as no exact model exists. As a proxy, the costs of establishing and running the European Chemical Agency which was set up under the REACH Regulation, are considered. Under REACH, all manufacturers and/or importers of chemical substances will be required to register their substances electronically with the ECHA. Once registered for a particular use(s), the substance can be used throughout the EU for that use(s). The Extended Impact Assessment of the REACH Regulation (CEC, 2003) estimated the cost of the REACH system (i.e. cost of establishing and running the European Chemical Agency) at €400 million over 11 years (which includes €8.5 million to develop the REACH database identified in Table 105 above). It was expected that this cost will be met from the fees paid by industry (~€300 million) and the remainder from the Community budget. This equates to an annual cost of approximately €36 million, although this includes development costs and not just operating costs.

As set out in Table 100, the annual operating costs of the existing national registers across the EU-27 are estimated to be €18.3 million. These costs will be significantly reduced under this Measure, and it is assumed that the remaining costs to national authorities will be similar to those required under Measure 7 to exchange information with other Member States (in this case, however, the staff will liaise with the European Register). These costs are set out in Table 7-41 and amount to €1.2 million per year, a saving of €17.1 million per year.

The cost savings of this Measure for industry will be the same as for Measure 7, since the benefits of single registration will be similar whether companies are registered in a single Member State or with a single EU Register. These are set out in Table 109.

A further issue that has been raised is the fact that Member States have already invested considerable resources in developing national registers, which would no longer be required under this Measure. Therefore, this Measure is unlikely to be supported at a national level. Alternatively, it has been suggested that a European Register could be established to which new companies would register, with the national and European approaches running in parallel.

To assess the impacts of this alternative measure, it is necessary to know how many companies would be likely to register at an EU level (i.e. new companies and existing free-riders). At present, there are few data available on the total number of EEE manufacturers and importers, in order to assess the overall level of free-riding, nor time series data to suggest a likely trend in the number of new companies entering the EEE market. UNU (2007) suggests that the total number of potentially registered producers may be between double and five times more the current number registered in large European countries. This is supported by SFT (2007)²¹⁹ which indicates that the number of registered producers in Norway in 2006 was 2,260, whilst companies registered for the import and export of relevant electrical goods was 34,000. However, some of the companies import very few EEE goods; those that had saved 5,000 NOK (€630) by not registering were prioritised and numbered 2,800, i.e. the number of free-riders was similar to the number that had registered.

9.3.4.4. Total Costs and Summary

If it is assumed that the number of registered producers may double, the operating costs of national authorities would also double, as these are assumed to be proportional to the number of registered producers. Under the current situation, these costs would reach €36.6 million per year, however the current costs are associated with multiple registrations across the EU. Under Measure 7 and single registrations, the operating costs would be reduced to between €1.1 million and €3.4 million per year across the EU-27 (with additional coordination staff costs of €1.2 million). The number of registered producers would need to increase by at least a factor of 10 before the annual costs are comparable to those of an Agency, as discussed above.

If the costs of an EU harmonised Register are assumed to be similar to those for the European Chemicals Agency, it is therefore difficult to justify the additional costs of establishing an EU harmonised Register, either for all EEE producers or for those newly registering,.

Alternatively, it could be assumed that the operating cost of an EU Register would be no greater than the combined costs of 27 national systems, as the workload would be similar, and would potentially be reduced due to efficiency savings. However, there would still be a need for staff at a Member State level, due to the requirement for market surveillance. The costs of these staff may be similar as for Measure 7. However, Measure 8 would still incur some development costs and would still make newly established national registers redundant.

The potential impacts of Measure 8 are discussed the following tables.

²¹⁹ SFT (2007): Årsrapport EE Registeret 2006, available from www.sft.no.

Table 115: Economic Impacts of a Harmonised EU Register (Measure 8) for Businesses

Impact Category	Manufacturers	Importers / Distributors	Distance sellers/ Exporters	SMEs
Competitiveness, trade and investment flows	One-off significant effects may be felt, but with the potential for future benefits (+)/(-)			SMEs may incur cost burden (-)
Competition in the internal market	Consistent application of requirements across all EU MS compared to current situation would improve competition in the internal market (+)			
Operating costs and conduct of business	Reduced costs associated with reduced registration and reporting requirements for manufacturers active in more than one Member State. However, some may take on activities currently undertaken by importers distributors, thereby increasing costs (+)	No longer considered to be a producer, reduced costs for companies operating within EU only. Importers of EEE from outside EU will still incur costs (++)	Reduced costs for non-EU DS/Exp. operating in 12 Approach 2 countries; no change for non-EU DS/Exp. operating in Approach 1 MS (+)	SMEs less likely to be active in more than one member state, therefore less benefits obtained (0)
Administrative costs on businesses				
Innovation and research	Better application of responsibility on manufacturers may facilitate innovation and research (+)	Not applicable (0)	Not applicable (0)	Better application of responsibility on manufacturers may facilitate innovation and research (+)
Consumers and households	Reduced costs may be passed on to consumer (+)			
Specific regions or sectors	No specific impact (0)			
Third countries and international relations	No specific impact (0)			
The macroeconomic environment	Reduced administrative requirements for companies may result in job losses, however, more financial resources will be available for investment elsewhere (+)/(-)			

Table 116: Economic and Social Impacts of Measure 8 on Public Sector Organisations

Impact on Authorities	Measure 8 (EU Register/Institution)
<i>Member State Authorities</i>	
Public authorities (Economic impacts)	Reduction in costs, as registration of producers takes place at EU level (+)
The macroeconomic environment	Potential creation of jobs at EU institution, but potential reduction of jobs at Member State level (-)
Crime, Terrorism and Security	Single register will reduce opportunities for producers to 'slip through the net'; however, split between registration responsibility (at EU level) and enforcement responsibility (at MS level) may cause problems (-)
<i>European Authorities</i>	
Public authorities (Economic impacts)	Potentially large costs incurred to set up register/institution (but less than running 27 MS systems) (--)
The macroeconomic environment	Opportunity costs of register/institution (-)
Crime, Terrorism and Security	No specific impact (0)

Table 117: Environmental Impacts of Measure 8

Impact on Environment	Measure 8 (EU Register/Institution)
The climate	No change from status quo expected
Renewable or non-renewable resources	Greater emphasis on the manufacturer as the producer may result in more environmentally friendly goods and less use of non-renewable resources (+)
Waste production / generation / recycling	Greater emphasis on the manufacturer as the producer may result in better design for recycling and therefore increased recycling (+)
Mobility (transport modes) and the use of energy	No change from status quo expected
The environmental consequences of firm's activities	Greater emphasis on the manufacturer as the producer may result in more environmentally friendly goods (+)

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Table 118: Summary of Impacts of Measure 8: EU Harmonised Register

Impact	Stakeholder								
	Producers				Consumers and Households	Public Sector Organisations		International Stakeholders	Environment
	Manufacturers	Importers / Distributors	Distance Sellers / Exporters	SMEs		MS	EC		
Competitiveness, trade and investment flows	+/-	+/-	+/-	+/-	0	0	0	+	0
Competition in the internal market	+	+	+	+	0	0	0	+	0
Operating costs	+	++	+	+	+	+	--	0	0
Administrative costs	+	++	+	+	+	0	-	0	0
Innovation and research	+	0	0	+	0	0	0	0	++
Crime, terrorism and Security	0	0	0	0	0	-	0	0	0
The macroeconomic environment	(+)/(-)	(+)/(-)	(+)/(-)	(+)/(-)	0	-	-	0	0
NET IMPACT	+4	+5	+3	+4	+2	-1	-4	+2	+2
Key:					+ implementation of Measure may have a slight positive impact ++ implementation of Measure may have a significant positive impact +++ implementation of Measure may have a major positive impact (+)/(-) potential slight positive/slight negative impact due to uncertainties on actual impact				
---					implementation of Measure may have major negative impact				
--					implementation of Measure may have significant negative impact				
-					implementation of Measure may have slight negative impact				
0					implementation of Measure may have no/negligible impact				

9.4. Summary of the Impact of Individual Measures

Table 119 provides a summary of the impacts discussed in the previous Sections. As highlighted in Section 7.1.2, the combined values of '+' and '-' cannot be taken to represent an actual economic value of the Measure, but reflect the relative merits of different options. For example, Measures 4 and 5 are expected to have very positive benefits, particularly for industry, although it has not been possible to quantify these. Measure 7 may have financial benefits of approximately €289 million to €410 million over 12 years, and also scores highly, however there are other impacts, both positive and negative which it has not been possible to quantify.

The most costly Measure is Measure 2: Financial Guarantees, which could have significant costs of approximately €8.5 billion to €39.8 billion. The costs of Measure 6 are significantly less, but may not exceed the potential benefits.

Table 119: Summary of the Impact of Measures

Measure	Businesses (general)	SMEs	Member State Competent Authorities	European Commission	Consumers	International Stakeholders	Environment	Total
1: Baseline	0	0	0	0	0	0	0	0
2: Financial Guarantees	-€8.5 b to -€39.8 b		-€52 m	0	N/V	0	N/V	-€8.5 b to -€39.8 b
	-14	-3	-3	0	-5	0	+1	-16
3: Financing B2C Collection	-€448 m to -€1.4 b		+€448 m to +€1.4 b	0	0	0	0	0
	0	0	+2	0	0	0	0	+2
4: Harmonised Definitions	N/V	N/V	N/V	0	0	N/V	N/V	N/V
	+14	+4	+1	0	0	+1	+2	+22
5: Harmonised Standards	N/V	N/V	N/V	0	0	N/V	0	N/V
	+20	+5	0	0	+1	+1	0	+21
6: Formal Network	N/V	N/V	-€17 m	-€0.4 m to -€0.8 m	N/V	N/V	N/V	-€17 m to -€18 m
	0	0	-2	-2	-1	-1	-2	-7
7: Network + Single Registration	+€226 m to +€276 m		+€128 m to +€150 m	-€16 m to -€66 m	N/V	N/V	N/V	+€289 m to +€410 m
	+17	+4	+1	-2	+2	-1	+2	+17
8: EU Register	+€226 m to +€276 m		N/V	N/V	N/V	N/V	N/V	N/V
	+16	+4	-1	-4	+2	+2	+2	+15
Note: values in italics are not included in totals to avoid double counting								

9.5. Analysis of Scenarios

This Impact Assessment has examined a number of measures which are intended to improve the operation of the producer responsibility obligations under the WEEE Directive.

These measures have been grouped into the following scenarios, based on the requirements of the Specification:

- Scenario 1: Maintenance of the Status Quo - baseline scenario;
- Scenario 1A: Improvements in National Implementation - Harmonised Definitions and Procedures;

- Scenario 1B: Improvements in National Implementation - Harmonised Approaches;
- Scenario 2: Creation of a European Clearing House; and
- Scenario 3: Establishment of a Harmonised Framework.

The table on the next page shows how the measures discussed above are combined into these Scenarios. Indicative costs of the scenarios are provided; however, care should be given to avoid double-counting of impacts. For example, Measures 7 and 8, which include single registration, will achieve many of the benefits obtained from Measures 4 and 5 relating to harmonisation. Therefore, the scenarios which combine these Measures could double-count some of the benefits associated with reduced administrative requirements.

Based on the problems and issues identified relating to the implementation of the producer responsibility obligations under the WEEE Directive, any proposed amendments (or actions) should aim to:

- ensure that the principle of producer responsibility is effectively applied across the EU;
- address areas of variation in the national implementation of the WEEE Directive;
- address issues of cross-border trade within the EU (second-hand goods and distance selling);
- avoid duplicated actions and free-riders;
- clarify the obligation of actors to fulfil the administrative/financial responsibility of the producer (e.g. improve product design (as foreseen by the Directive));
- avoid variation in costs incurred by actors in different countries;
- remove unnecessary administrative burden placed on the EEE industry sector; and
- ensure co-ordination of national activities (including cross-border payments and waste flows) and uniform enforcement.

Table 120: Combination of Measures for Each Scenario

Measure	Scenario 1 (Status Quo)	Scenario 1A (Harmonised Definitions and Procedures)	Scenario 1B (Harmonised Approaches)	Scenario 2 (Creation of a European Clearing House)	Scenario 3 (Establishment of a Harmonised Framework)
1: Baseline	•				
2: Financial Guarantee			•		
3: Costs of Collection			•		
4: Harmonised Definitions		•	•	•	•
5: Harmonised Reporting Standards		•	•	•	•
6: Formal Network				•	•
7: Formal Network and Single Registration				•	
8: EU Harmonised Register					•
Summary of Impacts	Status quo	Major benefits for businesses, some benefits for other stakeholders. Few costs.	Major benefits for businesses but also costs, which may be passed on to consumers. Some costs and benefits for public authorities. Some environmental benefits	Significant benefits for businesses with potential savings for consumers. Major costs incurred by public authorities. Some environmental benefits	Significant benefits for businesses with potential savings for consumers. Significant costs incurred by public authorities. Some environmental benefits
Indicative costs/benefits	0	Benefits likely to be 100s of million € due to reduced administrative burden	The cost of individual guarantees would exceed the benefits obtained from other Measures. The costs of collective guarantees would exceed the benefits to a lesser extent.	Benefits likely to be 100s of million € due to reduced administrative burden	Benefits likely to be 100s of million € due to reduced administrative burden but may be exceeded by unquantified costs.

The various Scenarios identified in the table above have, therefore, been compared against these aims in order to determine which one provides the most benefits to all stakeholders.

Scenarios 1a and 1b may appear to be easiest to implement, compared with Scenarios 2 and 3. As Table 121 shows, though, these Scenarios do not address:

- cross-border trade within the EU (second-hand goods and distance selling);
- duplicated actions and free-riders;
- the obligation of actors to fulfil the administrative/financial responsibility of the producer (e.g. improve product design (as foreseen by the Directive));
- an unnecessary administrative burden placed on the EEE industry sector; and
- co-ordination of national activities (including cross-border payments and waste flows) and uniform enforcement.

By incorporating some of the measures required under Scenarios 1a and 1b, Scenarios 2 and 3 both meet all the aims of improving the Directive. However, while Measure 8 is likely to deliver significant benefits - particularly in terms of harmonising the internal market, enforcement and reducing administrative burden - the costs of Measure 8 (under Scenario 3) are likely to be significantly greater than those for Measures 6 or 7 (under Scenario 2). On this basis, Scenario 2 is considered as the option most likely to deliver the aims of improving producer responsibility obligations under WEEE. In addition, while Measure 6 may be potentially easy to set-up and operate compared with Measure 7, the benefits of Measure 7 are considered to be significant enough to merit further consideration as the more appropriate option.

Table 121: Benefits of the Scenarios

	Actions to improve operation of producer responsibility obligations under WEEE														
	Sc 1	Scenario 1A		Scenario 1B				Scenario 2				Scenario 3			
Aims of Improving Directive	Measure 1	Measure 4	Measure 5	Measure 2	Measure 3	Measure 4	Measure 5	Measure 4	Measure 5	Measure 6	Measure 7	Measure 4	Measure 5	Measure 6	Measure 8
Ensure that the principle of producer responsibility is effectively applied	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Addresses areas of variation in the national implementation of the WEEE Directive	0	✓	✓	✓	✓	✓	✓	✓	✓	x	x	✓	✓	x	✓
Addressing issue of cross-border trade within the EU (second-hand goods and distance selling)	0	x	x	x	x	x	x	x	x	✓	✓	x	x	✓	✓
Avoids duplicated actions and free-riders	0	x	x	x	x	x	x	x	x	✓	✓	x	x	✓	✓
Clarifies the obligation of actors to fulfil the administrative/financial responsibility of the producer (e.g. improve product design (as foreseen by the Directive))	0	✓	x	✓	x	✓	x	✓	x	x	x	✓	x	x	x/✓
Avoid variation in costs incurred by actors in different countries	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Removes unnecessary administrative burden placed on the EEE industry sector	0	✓	✓	x	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ensure co-ordination of national activities (including cross-border payments and waste flows) and uniform enforcement	0	✓	✓	x	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

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11. Appendices

11.1. National legislation transposing the WEEE Directive in Member States

The following table summarises the national laws of Member States which transpose the WEEE Directive in their national legal framework. The laws listed in the table are what we have managed to identify at the time of the study.

Table 122: Summary of National Implementing Measures Transposing the WEEE Directive²²⁰

Country	Implementing Legal Text	Date
Austria	An amendment to the Waste Management Law (Abfallwirtschaftsgesetz) was published in the Federal Law Gazette on 30/12/2004 Ordinance on Waste Prevention, Collection and Treatment of Waste Electrical and Electronic Equipment ("WEEE Ordinance") published in the Federal Gazette on 03/12/2004; amended 04/05/06 Ordinance on Waste Treatment Obligations published in the Federal Law Gazette on 03/12/2004	30/12/2004 04/05/2006 04/05/2006 03/12/2004
Belgium	(Brussels) Decree of the Council of the Brussels Capital Region of March 7, 1991 concerning the management and prevention of waste, Official Journal, April 23, 1991. Decree of the Government of the Brussels Capital Region of July 18, 2002 introducing an obligation to take back certain waste with a view towards its recovery or elimination, Official Journal, September 27, 2002. Decree of April 29, 2004 concerning the environmental policy agreements, Official Journal, May 27, 2004. Decree of the Council of the Brussels Capital Region of June 3, 2004 modifying, concerning waste electrical and electronic equipment, the Decree of the Council of the Brussels Capital Region of July 18, 2002 introducing an obligation to take back certain waste with a view towards its recovery or elimination, Official Journal, July 28, 2004 (partial transposition of Directive 2002/96/EG) Decree of the Government of the Brussels Capital Region of June 3, 2004 concerning the management of waste electrical and electronic equipment, Official Journal, June 3, 2005. (Flanders) Decree of the Flemish Council of July 2, 1981 concerning the prevention and management of waste products, Official Journal, July 25, 1981. Decree of the Flemish Council of June 15, 1994 concerning the Environmental Policy Agreements, Official Journal, July 8, 1994. Decree of the Flemish Government of December 17, 1997 enacting the Flemish regulations concerning the prevention and management of waste (VLAREA), Official Journal, April 16, 1998. Decree of the Flemish Government of December 5, 2003 enacting the Flemish regulations concerning the prevention and management of waste (VLAREA II), Official Journal, April 30, 2004 (PDF), as modified by the Decree of the Flemish Government of December 17, 2004, Official Journal, January 20, 2005. Decree of the Flemish Government of July 14, 2004 modifying the decree of the Flemish Government of December 5, 2003 enacting the Flemish regulations concerning the prevention and management of waste, Official Journal, October 8, 2004 (transposition of Directive 2002/96/EG). Ministerial Decree of July 18, 2005 on the determination of additional rules for charging collection costs on container parks by producers in the framework of the take-back obligation, Official Journal, August 31, 2005. (Wallonia) Decree of the Walloon Council of December 20, 2001, modifying the decree of June 27, 1996 concerning waste, Official Journal, February 6, 2002. Decree of the Walloon Council of December 20, 2001 concerning the Environmental Agreements,	

²²⁰ The list is based on the information obtained from: European Commission. (2007). Waste Electrical and Electronic Equipment. Contact. List. [On Line]. Available: ec.europa.eu/environment/waste/weee/pdf/weee_faq.pdf [30 March 2007]; Hong Kong Trade Development Council. (n.d.). WEEE/RoHS Implementation Summary. [On Line]. Available: www.tdctrade.com/alert/euweeenew.htm [6 March 2007]; and Perchards. (2007). WEEE and RoHS Legislation in Europe. Legislation and Compliance.

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Country	Implementing Legal Text	Date
	Official Journal, February 6, 2002. Decree of the Walloon Government of April 25, 2002 introducing an obligation to take-back certain waste with a view towards its recovery or management, Official Journal, June 18, 2002, (PDF) as modified by the Decree of the Walloon Government of March 10, 2005, Official Journal, April 18, 2005.	
Bulgaria	WEEE Ordinance, published 03/05/06	03/05/2006
Cyprus	Administrative Act No 668 of 2004, published in Official Gazette No 3888, Annex III (I), on 30/07/2004.	
Czech R.	Waste Act 185/2001 and amendment 7/2005 provided for transposition of WEEE & RoHS framework Decree 352/2005 on Details of Management of EEE and WEEE and its Financing	
Denmark	Act no. 385 (on producer liability for electronic waste) amending the Environmental Protection Act was adopted. The Act entered into force on 01/06/2005 Statutory Order 664 concerning the management of waste electrical and electronic equipment. Statutory Order 591, amending Statutory Order 664 of 27/06/2005 on the management of WEEE and entered into force on 24/06/2006. It contains, most importantly, a change in the system of fees, but also certain clarifications and a change in the obligation of producers to provide data.	25/05/2005 27/06/2005 09/06/2006
Estonia	Waste Act 2004, amended 2005 Government Regulation 376-2004 on WEEE of 12/04 Ministry of Environment Regulation 9-2005 on Treatment of WEEE Regulation on the Central Register of Producers, which was adopted on 19/01/2006 and will enter into force after its publication in the Estonian State Gazette 10/02/2006	24/12/2004 09/02/2005 10/02/2006
Finland	Act 452/2004 amending the Waste Act (1072/1993) was adopted on 04/06/2004 Government Decree on Electrical and Electronic Waste 852/2004 was adopted pursuant to the Waste Act on 09/09/2004	04/06/2004 09/09/2004
France	Decree 2005/829 of 20/07/2005 relating to the composition of electrical and electronic equipment and to the elimination of waste from such equipment was published in the Official Journal of the French Republic on 22/07/2005 A new Article L.541-10-2 was included in the Environment Code by a law of 30/12/2005 A ministerial order of 13/03/2006 was published in the Official Journal of the French Republic on 22/03/2006 in order to implement Article 23 of Decree 2005/829 the setting-up of a producers' register Ministerial order of 09/08/2006 granted authorisations to four collective organisations	22/07/2005 30/12/2005 13/03/2006 22/03/2006 09/08/2006
Germany	Act Governing the Sale, Return and Environmentally Sound Disposal of Electrical and Electronic Equipment (Electrical and Electronic Equipment Act, or ElektroG), published on 23/03/2005 Cost Ordinance to the Electrical and Electronic Equipment Act (ElektroGKostV), with list of fees for administrative acts, published on 12/07/2005 In 11/2006, a draft amendment ordinance to the ElektroGKostV was published. The draft ordinance is in the consultation phase.	23/03/2005 12/07/2005 11/2006
Greece	Presidential Decree No 117/2004, published in the Government Gazette No A82 on 05/03/2004 (as amended by Presidential Decree No 15/2006, which implements EC Directive 2003/108/EC on non-household waste, into Greek law). Presidential Decree 15/2006	05/03/2004 15/2006
Hungary	WEEE Management Decree 264/2004 Ministerial Decree 15/2004 of 08/10/2004 transposing the treatment provisions of the WEEE Directive the amendment 103/2004 to the Product Fee Act LVI	2004 08/10/2004
Ireland	S.I. No. 340 of 2005 WASTE MANAGEMENT (WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT) REGULATIONS 2005	06/07/2005
Italy	Legislative Decree No. 151 of 25/07/2005 (Italian Official Journal No 175 of 29/07/2005).	29/07/2005
Latvia	Law on Waste Management, as amended 19/02/2004, 02/12/2004 and 22/06/2005 Regulations of the Cabinet of Ministers No. 736 on Requirements for the Labelling of EEE and on Providing Information (adopted on 24/08/2004) Regulations of the Cabinet of Ministers No. 923 on the Management of WEEE (adopted on 09/11/2004) Regulations of the Cabinet of Ministers No. 1002 on the Registration of producers of EEE (adopted on 27/12/2005)	22/06/2005 24/08/2004 09/11/2004 27/12/2005
Lithuania	Amendment No. X-279 to the Law on Waste Management, adopted on 28/06/2005 Order of Minister of Environment No. D1-481 on Rules on Management of WEEE, adopted on 10/09/2004 Government Resolution No. 1252 on National Strategic Waste Management Plan, adopted on 05/10/2004 Order of Minister of Environment No. D1-555 on Rules on Registration of producers and importers, adopted on 17/11/2005	28/06/2005 10/09/2004 05/10/2004 17/11/2005

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Country	Implementing Legal Text	Date
	Government Resolution No. 61 on Rules on Financial Guarantees, adopted on 19/01/2006 Government Resolution No. 18 on Rules on Licensing of organisations of producers and importers, adopted on 11/01/2006 Order of Minister of Environment No. D1-57 on Rules on Annual reports of organisations of producers and importers, adopted on 30/01/2006	19/01/2006 11/01/2006 30/01/2006
Luxembourg	A – No. 13, 31 January 2005, WASTE FROM ELECTRICAL AND ELECTRONIC EQUIPMENT, Grand Duchy regulation of 18th January 2005 on waste from items of electrical and electronic equipment and the restrictions on the use of certain of their hazardous components	18/01/2005
Malta	Eco-Contribution Act (Act XII of 2004) of 01/09/2004 ENVIRONMENT PROTECTION ACT (CAP. 435) Waste Management (Waste Electrical and Electronic Equipment) Regulations, 2004	01/09/2004 20/03/2007
Netherlands	WEEE management decree, DECREE OF July 6, 2004, establishing rules for the management of waste electrical and electronic equipment and for the use of certain hazardous substances in electrical and electronic equipment (WEEE Management Decree) WEEE Management Regulations of 19/07/2004	06/07/2004 19/07/2004
Poland	On 29/07/2005, the Act on Waste of Electric and Electronic Equipment (the Act of 29/07/2005), was adopted Order of the Ministry of the Environment of 20/02/2006, providing a standard form on which entities putting EEE on the market, or collective schemes, must report annually on the product fees paid the previous year. Order of the Ministry of Economy of 09/03/2006, introducing a requirement for entities which introduce EEE onto the market to take out third party liability insurance to protect against any failure to fulfil collection, processing, recovery and recycling duties for WEEE Order of the Ministry of the Environment of 03/03/006 providing a standard form for reporting on the amounts of WEEE processed. The form is to be filled in by facilities which process WEEE, providing data with regard to the amount and type of WEEE processed. The form should be sent to the General Inspector of Environmental Protection	29/07/2005 20/02/2006 09/03/2006 03/03/2006
Portugal	Decree 230/2004 ("the Decree") transposing the WEEE and RoHS Directives was published in the Official Bulletin on 10/12/2004 Decree-Law 174/2005 amending Decree-Law 230/2004	10/12/2004
Romania	GOVERNMENT DECISION no. 448/19.05.2005 (OJ no 491/10.06.2005) on waste electrical and electronic equipment (WEEE) Ministerial Order 907/2005 on Rejection of WEEE Take-Back Ministerial Order 1223/2005 on Registration and Reporting Ministerial Order 1225/2005 on Collective Organisations Ministerial Order 556/2006 on Marking	10/06/2005
Slovakia	Act 733/2004, amending the Waste Act 223/2001, adopted on 02/12/2004 Government Ordinance 388/2005 setting targets for collection and recovery of WEEE, adopted on 17/08/2005 Ministerial Decree 208/2005 regarding the management of WEEE, adopted on 29/04/2005, containing details on RoHS exemptions Ministerial Decree 359/2005 on contributions to the recycling fund, adopted on 03/08/2005	02/12/2004 17/08/2005 29/04/2005 03/08/2005
Slovenia	On 01/11/2006, a new "Decree on treatment of waste electrical and electronic equipment" (Official Journal of RS, No. 107/06) entered into force. This new Decree of 01/11/2006 essentially contains the same main requirements as the Decree of 04/11/2004 (Official Journal RS, No. 118/04, 56/05), transposing the WEEE Directive into Slovenian law. Decree on the Tax for environmental pollution arising from WEEE published in Official Journal of RS No. 32/2006 (28/03/2006) ref. no.1314 introduced in Slovenia to penalise producers who failed to register	01/11/2006 28/03/2006
Spain	Royal Decree 208/2005, of 25/02/2005, on electric and electronic equipment and the management of waste thereof	25/02/2005
Sweden	Swedish Code of Statutes 2005:209, Ordinance on producer responsibility for electrical and electronic products issued on 14 April 2005.	14/04/2005
UK	2006 No. 3289 ENVIRONMENTAL PROTECTION, The Waste Electrical and Electronic Equipment Regulations 2006: 12 December 2006	12/12/2006

11.2. Legislation used for the Analysis of Transposition Outcome in this document

The table lists the national legislation whose English translation are reviewed for the analysis of the transposition outcome of MS in this document.

Table 123: Legal Text used for the analysis of Transposition Outcome in this document

Member State	Implementing Measures Reviewed
Austria	Ordinance of the Federal Minister of Agriculture and Forestry, Environment and Water Management on Waste Prevention, Collection and Treatment of Waste Electrical and Electronic Equipment (WEEE Ordinance), BGBl. (Federal Law Gazette) II No. 121/2005 [non-authorised translation]
Belgium	Belgium (Brussels): 18 JULY 2002.- Order of the Brussels Regional Government introducing a take-back obligation for some waste materials for the purpose of the useful application or elimination thereof [non-authorised translation] Belgium (Flanders): VLAREA – Consolidated Version (updated to 14 July 2004) Belgium (Walloon): 10 MARCH 2005. - Order of the Walloon government modifying the Order of the Walloon government of 25 April 2002 instigating an obligation of recovery of certain waste items with a view to their enhancement of value or management.
Bulgaria	DECREE No. 82 dated 10 April 2006, on the adoption of Regulation on the requirements to putting on the market of electrical and electronic equipment and treatment and transport of waste from electrical and electronic equipment
Czech Republic	106 THE PRIME MINISTER promulgates full wording of Act No. 185/2001 Coll., on waste and amending some other laws, as follows from amendments introduced by Act No. 477/2001 Coll., Act No. 76/2002 Coll., Act No. 275/2002 Coll., Act No. 320/2002 Coll., Act No. 167/2004 Coll., Act No. 188/2002 Coll., Act No. 317/2004 Coll. and Act No. 7/2005 Coll. ACT on waste
Cyprus	EU Par III(I)O. 3888 30.7.2004, KDP 668/2004, Number 668: The Hazardous Waste (Solid Waste from Electrical and Electronic Equipment) Regulations 2004, issued by the Council of Ministers under the provisions of article 5 of the Hazardous Waste (Solids) Act 2002, after submission to and approval by the House of Representatives, have been published in the Cyprus Government Gazette in accordance with article 3 (3) of the Approval of Parliament (Regulations) Act, statute 99 / 1989 as varied by statute 227 / 1990. [unofficial translation]
Denmark	Statutory order on management of waste electrical and electronic equipment (the WEEE Order) No. 664 of 27 June 2005 Act no. 385 of 25 May 2005, Act amending the Environmental Protection Act (Producer liability for electronic waste, etc.)
Estonia	Waste Act Passed 28 January 2004 (RT1 I 2004, 9, 52), entered into force 1 May 2004. Amended by the following Acts: 08.02.2007 entered into force 12.02.2007 – RT I 2007, 19, 94 (NB! Missing in that translation); 31.05.2006 entered into force 30.06.2006 – RT I 2006, 28, 209; 16.06.2005 entered into force 10.07.2005 – RT I 2005, 37, 288; 22.02.2005 entered into force 03.04.2005 - RT I 2005, 15, 87; 14.04.2004 entered into force 01.05.2004 - RT I 2004, 30, 208. Requirements and Procedure for Marking Electrical and Electronic Equipment, Requirements, Procedure and Targets for Collection, Return to Producers and Recovery or Disposal of Waste Electrical and Electronic Equipment, and Time Limits for Reaching Targets ¹ : Regulation No. 376 of the Government of the Republic of 24 December 2004 (RT2 I 2004, 91, 628), entered into force 1 January 2005
Finland	Waste Act (1072/1993; amendments up to 1063/2004 included) [unofficial translation Ministry of the Environment] Government Decree on Waste Electrical and Electronic Equipment (852/2004) [unofficial translation Ministry of the Environment]

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Member State	Implementing Measures Reviewed
France	Decree n° 2005-829 of 20 July 2005 relating to the composition of electrical and electronic equipment and to the elimination of waste from this equipment (Official journal of the French republic - 22 July 2005) NOR: DEVX0400269D [Ministry for Ecology and Sustainable Development translation]
Germany	Act Governing the Sale, Return and Environmentally Sound Disposal of Electrical and Electronic Equipment (Electrical and Electronic Equipment Act, or ElektroG) 1 of 16. March 2005
Greece	5 March 2004, PRESIDENTIAL DECREE No 117, Measures, terms and programme for the alternative management of waste electrical and electronic equipment in compliance with the provisions of the Council Directive 2002/95 "on the restriction of the use of certain hazardous substances in electrical and electronic equipment" and Council Directive 2002/96 "on waste electrical and electronic equipment" of 27 January 2003". Decree 15 amending Presidential Degree No. 117 (available only in Greek).
Hungary	264./2004 (IX.23.) governmental decree on taking back wastes of electric and electronic equipment [unofficial translation]
Ireland	S.I. No. 340 of 2005 WASTE MANAGEMENT (WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT) REGULATIONS 2005
Italy	Legislative Decree 25th July, 2005 – no. 151, Implementation of the Directives 2002/95/CE, 2002/96/CE and 2003/108/CE concerning the reduction of the use of hazardous substances in the electrical and electronic equipments as well as the disposal of wastes. [EcoR'it unofficial translation]
Latvia	Waste Management Act: [unofficial translation] The Cabinet of Ministers of the Republic of Latvia, Regulation No.736, Riga, 24 August 2004 (prot. No.50 29.§) Requirements for Labelling Electric and Electronic Equipment. formation Issued in accordance with Article 207 , Section two, Paragraph 1 and 4 of the Waste Management Law [unofficial translation: source unidentified]
Lithuania	Law on Waste Management. 1998 Nr. 61 and its amendments 2002, Nr. 72-3016; 2005, Nr. 84-3111 Rules for creating bank guarantees, collateral agreements and other agreements proving, that management of waste electric and electronic equipment will be financed, as well as rules for the accumulation, use and return of funds. approved by the Government of the Republic of Lithuania, Jan 19, 2006, Nr. 61 Licensing rules for the organization of product and/or packaging waste management. approved by the Government of the Republic of Lithuania Jan 11, 2006, decision Nr. 18 Rules of the management of waste electric and electronic equipment. new edition by the minister of environment, August 16, 2005, Nr. D1-395 Rules of registration of producers and importers. approved by the order of the Minister of environment, Nov 17, 2005, Nr. D1-555 amended 2006, Nr. D1-619 (the five pieces of legislation above are available only in Lithuanian) Extract from the Law on Waste Management of the Republic of Lithuania CHAPTER VIII(1) RIGHTS AND OBLIGATIONS OF PRODUCERS, IMPORTERS AND DISTRIBUTORS [unofficial translation: source unidentified]
Luxembourg	A – No. 13, 31 January 2005, WASTE FROM ELECTRICAL AND ELECTRONIC EQUIPMENT, Grand Duchy regulation of 18th January 2005 on waste from items of electrical and electronic equipment and the restrictions on the use of certain of their hazardous components. Page 214. [unofficial translation]
Malta	ENVIRONMENT PROTECTION ACT(CAP. 435) Waste Management (Waste Electrical and Electronic Equipment) Regulations, 2004 [
Netherlands	WEEE Management Regulations Directorate General for Environmental Management Chemicals, Waste and Radiation Protection Directorate Non-Hazardous Waste Department Regulations laid down by the State Secretary for Housing, Spatial Planning and the Environment, on 19 July 2004, under reference no. SAS\2004072357, relating to waste electrical and electronic equipment (WEEE Management Regulations)
Poland	Text of the Act concluded following the Amendments of the Senate Act of 29 July 2005 on Waste Electrical and Electronic Equipment
Portugal	Decree Law no. 230/2004, December 10
Romania	GOVERNMENT DECISION no. 448/19.05.2005 (OJ no 491/10.06.2005) on waste electrical and electronic equipment (WEEE)
Slovakia	733 ACT from December 2, 2004, by which the Act No. 223/2001 of Coll. On Waste and On Amendment of Certain Acts as amended by subsequent provisions and On Amendment of Certain Acts is amended
Slovenia	Decree of 04/11/2004 (Official Journal RS, No. 118/04, 56/05), transposing the WEEE Directive into Slovenian law.
Spain	ROYAL DECREE 208/2005, of 25 February, on electrical and electronic equipment and the management of the waste

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Member State	Implementing Measures Reviewed
	thereof.[unofficial translation]
Sweden	Swedish Code of Statutes 2005:09, Ordinance on producer responsibility for electrical and electronic products issued on 14 April 2005.
UK	2006 No. 3289 ENVIRONMENTAL PROTECTION, The Waste Electrical and Electronic Equipment Regulations 2006: 12 December 2006

11.3. List of interviewees (excerpt)

This table summarises, in chronological order, the list of stakeholders interviewed for this study and their affiliation. Except for the meeting with Tomas Tengå (in person) and Cristof Delater and Wolfgang Hahn (e-mail communication), all the interviews were conducted via telephone.

Table 124: List of interviewees

Timing (all in 2007)	Interviewee	Affiliation
22 January, 20 February, 16 March	Viktor Sundberg	Electrolux Home Products Corporation N.V.
14 February, 5 and 13 March	Raphael Veit	Perchards
24 February	Kieren Myers	Sony Computer Entertainment Europe
27 February	Bernhard Brackhahn	Danish Environmental Protection Agency/Danish TAC member
27 February	Tomas Tengå	Elektronikåtervinning Ekonomisk Förening (Electronics recycling economic association)
1 & 5 March	Frans Loen	Sony Deutschland GmbH
5 March, 28 June	Lars Eklund	Swedish Register
6 March, 10 April	Cristof Delater	Flemish Association of Municipalities
8 March	Ulf Gilberg	WEEE System Denmark
9, 16 March	Christianna Papazahariou	Euro commerce
12 March	Dominic Henry	WEEE Registers Society Ireland
20-22 March, 2 April	Wolfgang Hahn	SANYO-Fisher Sales (Europe) GmbH
22 March	Rasa Uslėte	Ekokonsultacijos
March	Jolanta Dvinelyte	Lithuanian Environmental Protection Agency
22 March	Emilie Prouzet	Carrefour
22 March	Pascal Leroy	CECED
26 March	Eelco Smit	Epson Europe B.V.
28 March	Per Dorfnäs	Telefonaktiebolaget LM Ericsson
29 March	Claudia Graziani	Bosch-Siemens
30 March	Matthias Aigner	Ingram-Micro
30 March	Rob Koppejan	Philips Lighting
4 April, 11 July*	Kirstie McIntyre Mark Dempsey*	HP
10 April	DI. Christian Ehrenguber	LAVU AG, Wels
11 April	Sylvain Chevassus	European Council of European Municipalities and Regions
24 April	Hans Kormacher	Procter & Gamble, ERP
7 May	Thomas Marinelli	Royal Philips Consumer Electronics
9 May	Margarita Gómez Moreno	IBM
25 June	Teemu Virtanen	Finnish Environmental Administration
26 June	John Hayes	ERP Ireland
27 June	Sean O'Suilleabhain	Department of Environment, Heritage and Local Government, Ireland
3 July	Conrad Leonard	WEEE Ireland
10 July	Christiane Schnepel	UmweltBundesamt German Federal Environmental Agency

11.4. Interview guide for producers

List of question items to companies

The following list of question items has been developed as a part of the study, entitled the Producer Responsibility Principle of Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE), that research teams from Ökopol, IIIIEE and RPA are awarded to conduct by the DG Environment of the European Commission. This is one of a number of studies being carried out by the Commission as part of the review of the Directive.

The objective of the study is to provide a thorough evaluation of the operation of the Directive's provisions relating to producer responsibility obligations for WEEE and to consider options to improve the operation of those obligations in the EU. Among the issues to be examined, of special relevance to the questions below are:

- the interactions between the systems set up by Member States (MS), the achievement of the Directive's objectives and the impacts on business; and
- the functioning of the register of producers that MS shall draw up and options for its further improvement, development and simplification.

We would be grateful if you could contribute to our studies by providing insights to the issues addressed below. Many of the questions are of qualitative nature; however, we are very interested to obtain any quantitative data that you may hold on the costs or benefits of the Directive for your business. We would like to learn from you your experiences in the any of these issues. Except for the first point, whose answer we need to know to obtain the general picture of your company, it is not necessary to provide us with answers to all the questions but please provide as much information as you can, as this will help to ensure that the revision of the Directive takes account of your experiences..

The insights provided will be utilised anonymously in the study report and if requested will be treated as confidential.

Please send your answers, by 30 March, to: **Naoko Tojo (naoko.tojo@iiiiee.lu.se, +46 46 222 0260)** and/or **Chris van Rossem (Chris.van.rossem@iiiiee.lu.se +46 46 222 0231)**. We would be also happy to contact you via phone.

a) General information about the company

1. Name of your company
2. Size of your company (# of employees, turnover)
3. MS in which your company or affiliate are registered as the producer
4. The WEEE categories 1-10 that your products fall under

5. Which of your products put on the EC market, and the percentage this comprises of the total products you produce (in sales value)

6. Contact information (your name, e-mail and telephone number)

b) Registering and Reporting

1. What are the administrative costs related to registering yourselves as a producer (per product), ideally in terms of person-days time required per year and costs per hour? (We would appreciate it if you could indicate data related to 1) initial set up cost and 2) operational cost once the system is set up.)

2. What are the administrative costs related to reporting products put on the market (per product) , ideally in terms of person-days time required per year and costs per hour? (We would appreciate it if you could indicate data related to 1) initial set up cost and 2) operational cost once the system is set up.)

3. What are the value and nature of any new investment made to develop/revise software/other tools to facilitate registering and reporting?

4. Do you have any examples of difficulties/drawbacks your company experienced with registering and reporting sales data (if related to specific MS, please specify which MS)?

5. Do you have any examples of how the ways in which sales data are reported leads to potentially disproportionate financial obligations for your company (please specify which MS, how this happened and the level of costs involved)?

6. Actions that your company has to take to deal with products move across the national boarder, estimated costs and other impacts experienced.

7. Could you provide examples of how the registers make distinction between B2B and B2C products? If you are part of a collective scheme, is the distinction made by the register corresponding to the distinction made by the collective scheme? If it is not, how are they different? (please specify which MS, how this happened and the level of costs involved)

8. Could you provide examples of how the products are regarded as they are “put on the market” in the MS you are operating? (please specify which MS, how this happened and the level of costs involved)

c) Definition of producers

Could you provide examples of any impacts your company has experienced in relation to the differences in the definition of producers among MS? Please quantify any costs incurred, if possible

d) Product labeling

1. Do you have any experience of re-labeling of your products by distributors: if yes, please provide examples and estimated cost per product re-labeled?

2. What might be the (potential) benefits of re-labeling from the company perspective?

3. What might be the (potential) disadvantages of re-labeling from the company perspective?

e) Cross subsidisation between product categories

Are you aware of any examples of cross-subsidisation between different product groups for the financing WEEE (please specify which MS, how it happened and the cost impacts for your company)

f) Paid incentives for retailers to participate

Do you have any examples of where retailers receive financial incentives to participate in collection activities (Please specify which MS, the scale of the payment, e.g. percentage of the fee, concrete arrangements by which the retailers are paid)?

g) Level of financial reserves to cover contingencies

Do you have any examples of the level of financial reserves available to collection schemes to cover contingencies (please specify the MS and the magnitude)?

h) Financial guarantees

1. How does your company provide financial guarantees for future WEEE?

- Participation in collective compliance scheme exempts my company from paying the financial guarantee
- Members of a collective compliance scheme insure the payment of the others
- Fees for the management of future WEEE are kept in a blocked bank account
- Fees for the management of future WEEE are paid to an insurance company
- others (please specify)

2. How are the financial guarantees calculated and what is the size of the guarantees paid?

3. Do you have any examples of how the current forms of financial guarantee that you and your competitors use might affect your business?

i) Research and development regarding alternative solutions

Could you provide us with examples of any alternative solutions your company, or the systems your company participates to handle WEEE, have investigated to improve the existing system? What does the new system aim to improve (cost efficiency, provision of design incentives, etc)? What is the estimated amount and value of resources spent on the R&D?

j) Information related expenditure

Could you provide us with examples of information related activities your company/ the systems your company participates in to handle WEEE. (Frequency of the activities, estimated amount and value of resources)?

- information on the web/commercials on TV (xx times in total, cost per time)
- commercials in movie theaters (xx times in total, cost per time)
- newspaper advertisement (xx times in total, cost per time)
- posters in the city hall (xx pieces in total, costs per piece)
- posters in public places (xx pieces in total, cost per piece)
- leaflet to households (xx pieces in total, costs per piece)
- Others (please specify)

k) Location of recycling activities

Where are WEEE of your company recycled (within the MS where WEEE is generated, outside of MS or outside European Union), and what are the cost implications of this?

l) Treatment requirements

What are your views on the specifications in Annex II of the WEEE Directive, including the implications for environmental impacts and costs of the specifications?

m) Individual producer responsibility

What are your views on individual producer responsibility and the manner in which it can be operationalised?

11.5. Impact categories

Economic impacts		Impact included?
Competitiveness, trade and investment flows	Does the option have an impact on the competitive position of EU firms in comparison with their non-EU rivals? Does it provoke cross-border investment flows (including relocation of economic activity)? Are the proposed actions necessary to correct undesirable outcomes of market processes in European markets?	Yes
Competition in the internal market	Does the option affect EU competition policy and the functioning of the internal market? For example, will it lead to a reduction in consumer choice, higher prices due to less competition, the creation of barriers for new suppliers and service providers, the facilitation of anti-competitive behaviour or emergence of monopolies, market segmentation, etc?	Yes
Operating costs and conduct of business	Will it impose additional adjustment, compliance or transaction costs on businesses? Does the option affect the cost or availability of essential inputs (raw materials, machinery, labour, energy, etc.)? Does it affect access to finance? Does it impact on the investment cycle? Will it entail the withdrawal of certain products from the market? Is the marketing of products limited or prohibited? Will it entail stricter regulation of the conduct of a particular business? Will it directly lead to the closing down of businesses? Are some products or businesses treated differently from others in a comparable situation?	Yes
Administrative costs on businesses	Does the option impose additional administrative requirements on businesses or increase administrative complexity? Do these costs weigh in relative terms heavily on SMEs (Small and Medium Enterprises)?	Yes
Property rights	Are property rights affected (land, movable property, tangible/intangible assets)? Is acquisition, sale or use of property rights limited? Or will there be a complete loss of property?	No
Innovation and research	Does the option stimulate or hinder research and development? Does it facilitate the introduction and dissemination of new production methods, technologies and products? Does it affect intellectual property rights (patents, trademarks, copyright, other know-how rights)? Does it promote or limit academic or industrial research? Does it promote greater resource efficiency?	Yes
Consumers and households	Does the option affect the prices consumers pay? Does it impact on consumers' ability to benefit from the internal market? Does it have an impact on the quality and availability of the goods/services they buy, and on consumer choice? (cf. in particular non-existing and incomplete markets – see Annex 2) Does it affect consumer information and protection? Does it have significant consequences for the financial situation of individuals / households, both immediately and in the long run? Does it affect the economic protection of the family and of children?	Yes
Specific regions or sectors	Does the option have significant effects on certain sectors? Will it have a specific impact on certain regions, for instance in terms of jobs created or lost? Does it have specific consequences for SMEs?	Yes
Third countries and international relations	Does the option affect EU trade policy and its international obligations, including in the WTO? Does it affect EU foreign policy and EU/EC development policy? Does the option affect third countries with which the EU has preferential trade arrangements? Does the option affect developing, least developed and middle income countries?	Yes

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Public authorities	Does the option have budgetary consequences for public authorities at different levels of government, both immediately and in the long run? Does the option require significant establishing new or restructuring existing public authorities?	Yes
The macroeconomic environment	What are the overall consequences of the option for economic growth and employment? Does it contribute to improving the conditions for investment and for the proper functioning of markets? Does the option have direct or indirect inflationary consequences?	Yes
Environmental impacts		Impact included?
Air quality	Does the option have an effect on emissions of acidifying, eutrophying, photochemical or harmful air pollutants that might affect human health, damage crops or buildings or lead to deterioration in the environment (polluted soil or rivers etc)?	Not directly
Water quality and resources	Does the option decrease or increase the quality or quantity of freshwater and groundwater? Does it raise or lower the quality of waters in coastal and marine areas (e.g. through discharges of sewage, nutrients, oil, heavy metals, and other pollutants)? Does it affect drinking water resources?	Not directly
Soil quality or resources	Does the option affect the acidification, contamination or salinity of soil, and soil erosion rates? Does it lead to loss of available soil (e.g. through building or construction works) or increase the amount of usable soil (e.g. through land decontamination)?	Not directly
The climate	Does the option affect the emission of ozone-depleting substances (CFCs, HCFCs, etc.) and greenhouse gases (e.g. carbon dioxide, methane etc) into the atmosphere?	Yes
Renewable or non-renewable resources	Does the option affect the use of renewable resources (freshwater, fish) more quickly than they can regenerate? Does it reduce or increase use of non-renewable resources (groundwater, minerals etc)?	Yes
Biodiversity, flora, fauna and landscapes	Does the option reduce the number of species/varieties/races in any area (i.e. reduce biological diversity) or increase the range of species (e.g. by promoting conservation)? Does it affect protected or endangered species or their habitats or ecologically sensitive areas? Does it split the landscape into smaller areas or in other ways affect migration routes, ecological corridors or buffer zones? Does the option affect the scenic value of protected landscape?	Not directly
Land use	Does the option have the effect of bringing new areas of land ('greenfields') into use for the first time? Does it affect land designated as sensitive for ecological reasons? Does it lead to a change in land use (for example, the divide between rural and urban, or change in type of agriculture)?	No
Waste production / generation / recycling	Does the option affect waste production (solid, urban, agricultural, industrial, mining, radioactive or toxic waste) or how waste is treated, disposed of or recycled?	Yes
The likelihood or scale of environmental risks	Does the option affect the likelihood or prevention of fire, explosions, breakdowns, accidents and accidental emissions? Does it affect the risk of unauthorised or unintentional dissemination of environmentally alien or genetically modified organisms? Does it increase or decrease the likelihood of natural disasters?	No
Mobility (transport modes) and the use of energy	Does the option increase or decrease consumption of energy and production of heat? Will it increase or decrease the demand for transport (passenger or freight), or influence its modal split? Does it increase or decrease vehicle emissions?	Yes
The environmental consequences of firms' activities	Does the option lead to changes in natural resource inputs required per output? Will it lead to production becoming more or less energy intensive? Does the option make environmentally un/friendly goods and services cheaper or more expensive through changes in taxation, certification, product, design rules, procurement rules etc.? Does the option promote or restrict environmentally un/friendly goods and services through changes in the rules on capital investments, loans, insurance services etc? Will it lead to businesses becoming more or less polluting through changes in the way in which they operate?	Yes

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Animal and plant health, food and feed safety	Does the option have an impact on health of animals and plants? Does the option affect animal welfare (i.e. humane treatment of animals)? Does the option affect the safety of food and feed?	No
Social Impacts		Impact included?
Employment and labour markets	Does the option facilitate new job creation? Does it lead directly to a loss of jobs? Does it have specific negative consequences for particular professions, groups of workers, or self-employed persons? Does it affect the demand for labour? Does it have an impact on the functioning of the labour market?	Partly; demand for labour included under economic impacts (i.e. macro-economic environment)
Standards and rights related to job quality	Does the option impact on job quality? Does the option affect the access of workers or job-seekers to vocational or continuous training? Will it affect workers' health, safety and dignity? Does the option directly or indirectly affect workers' existing rights and obligations, in particular as regards information and consultation within their undertaking and protection against dismissal? Does it affect the protection of young people at work? Does it directly or indirectly affect employers' existing rights and obligations? Does it bring about minimum employment standards across the EU? Does the option facilitate or restrict restructuring, adaptation to change and the use of technological innovations in the workplace?	No - WEEE options do not affect job quality
Social inclusion and protection of particular groups	Does the option affect access to the labour market or transitions into/out of the labour market? Does it lead directly or indirectly to greater in/equality? Does it affect equal access to services and goods? Does it affect access to placement services or to services of general economic interest? Does the option make the public better informed about a particular issue? Does the option affect specific groups of individuals, firms, localities, the most vulnerable, the most at risk of poverty, more than others? Does the option significantly affect third country nationals, children, women, disabled people, the unemployed, the elderly, political parties or civic organisations, churches, religious and non-confessional organisations, or ethnic, linguistic and religious minorities, asylum seekers?	Indirectly (may affect consumer prices and therefore equal access to goods - see Consumers and households)
Equality of treatment and opportunities, non-discrimination	Does the option affect equal treatment and equal opportunities for all? Does the option affect gender equality? Does the option entail any different treatment of groups or individuals directly on grounds of e.g. gender, race, colour, ethnic or social origin, genetic features, language, religion or belief, political or any other opinion, membership of a national minority, property, birth, disability, age or sexual orientation? Or could it lead to indirect discrimination?	No
Private and family life, personal data	Does the option affect the privacy of individuals (including their home and communications) or their right to move freely within the EU? Does it affect family life or the legal, economic or social protection of the family? Does the option involve the processing of personal data or the concerned individual's right of access to personal data?	No; category of no relevance to WEEE
Crime, Terrorism and Security	Does the option improve or hinder security, crime or terrorism? Does the option affect the criminal's chances of detection or his/her potential gain from the crime? Is the option likely to increase the number of criminal acts? Does it affect law enforcement capacity? Will it have an impact on the balance between security interests and the rights of suspects? Does it affect the rights of victims of crime and witnesses?	No; category of no relevance to WEEE

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<p>Governance, participation, good administration, access to justice, media and ethics</p>	<p>Does the option affect the involvement of stakeholders in issues of governance as provided for in the Treaty and the new governance approach? Are all actors and stakeholders treated on an equal footing, with due respect for their diversity? Does the option impact on cultural and linguistic diversity? Does it affect the autonomy of the social partners in the areas for which they are competent? Does it, for example, affect the right of collective bargaining at any level or the right to take collective action? Does the implementation of the proposed measures affect public institutions and administrations, for example in regard to their responsibilities? Will the option affect the individual's rights and relations with the public administration? Does it affect the individual's access to justice? Does the option make the public better informed about a particular issue? Does it affect the public's access to information? Does the option affect the media, media pluralism and freedom of expression? Does the option raise (bio)ethical issues (cloning, use of human body or its parts for financial gain, genetic research/testing; use of genetic information)?</p>	<p>Partly; impact on public administrations considered under economic impacts (i.e. public authorities)</p>
<p>Access to and effects on social protection, health and educational systems</p>	<p>Does the option have an impact on services in terms of their quality and access to them? Does it have an effect on the education and mobility of workers (health, education, etc.)? Does the option affect the access of individuals to public/private education or vocational and continuing training? Does it affect the cross-border provision of services, referrals across borders and co-operation in border regions? Does the option affect the financing / organisation / access to social, health and education systems (including vocational training)? Does it affect universities and academic freedom / self-governance?</p>	<p>No; category of no relevance to WEEE</p>

11.6. Calculation of Quantities Put on the Market

UNU (2007) indicates that two sources of data can be used to estimate the tonnage of electrical and electronic equipment put on the market: sales data and data supplied by national registries. However, publicly available sales data are limited and may be incomplete. UNU (2007) suggests that data from national registries may be better than individually reported sales data, and these data are currently available for 2006 from nine countries. The total weight of material put on the market in these nine MS was 4.07 M tonnes and these countries represent 44% of the total GDP of the EU-27. By extrapolating these data, UNU (2007) estimates that a total of **9.3 million tonnes of electrical and electronic equipment was put on the market in the EU-27 in 2006**.

Further analysis of the data collected by UNU (2007) has been undertaken for this study. The table below sets out the total weight of items put on the market in 2006 and the GDP for the nine Member States, and uses these data to calculate the tonnes of EEE per M Euro GDP. The ratio across the four EU-15 MS is consistent, and provides an average of 0.80 t EEE per M Euro GDP. For newer MS there is a greater range of values, with the figure for Estonia being particularly low. This is not consistent with GDP per capita (GDP per capita in Estonia is higher than in Slovakia and Lithuania and slightly lower than in Hungary) and the mostly likely explanation is under reporting in Estonia. For this reason, the value for Estonia is excluded from the average for the newer MS, which is 1.09 t EEE per M Euro GDP. This suggests that EEE is purchased at a higher rate in the newer MS than the EU-15, which is likely to reflect different levels of market saturation.

Table 125: Tonnes of EEE put on the market per M Euro GDP for nine Member States (2006)

Member State	Weight of items put on market in 2006 (tonnes)	2006 GDP at market prices (M Euro)	Tonnes of EEE on market per M Euro GDP
Finland	135,000	167,062.00	0.81
France	1,465,000	1,791,953.00	0.82
Spain	783,000	976,189.00	0.80
UK	1,483,000	1,906,358.80	0.78
EU-15 Average			0.80
Estonia	6,000	13,073.50	0.46
Hungary	85,000	89,883.90	0.95
Lithuania	33,000	23,746.40	1.39
Slovakia	48,000	43,945.40	1.09
Slovenia	28,000	29,741.80	0.94
New MS Average (excl. Estonia)			1.09
Total weight put on the market	4,066,000		

Source: based on UNU (2007) with GDP data from Eurostat (<http://epp.eurostat.ec.europa.eu>)

GDP data for each EU-27 MS has been obtained for 2006 from Eurostat and estimated to 2020. For consistency with UNU (2007) (p.66), we have assumed that the GDP in each country grows at a fixed annual rate to 2020, using average rates in 2005:

- 2.2% per annum for EU-15; and
- 5.4% per annum for newer Member States.

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Estimated GDP at market prices M Euro															
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
AT	257,897	263,571	269,369	275,296	281,352	287,542	293,868	300,333	306,940	313,693	320,594	327,647	334,855	342,222	349,751
BE	314,084	320,994	328,056	335,273	342,649	350,187	357,891	365,765	373,812	382,036	390,441	399,030	407,809	416,781	425,950
DK	220,163	225,006	229,956	235,015	240,186	245,470	250,870	256,389	262,030	267,794	273,686	279,707	285,861	292,150	298,577
FI	167,062	170,737	174,494	178,332	182,256	186,265	190,363	194,551	198,831	203,206	207,676	212,245	216,914	221,687	226,564
FR	1,791,953	1,831,376	1,871,666	1,912,843	1,954,925	1,997,934	2,041,888	2,086,810	2,132,720	2,179,640	2,227,592	2,276,599	2,326,684	2,377,871	2,430,184
DE	2,309,100	2,359,900	2,411,818	2,464,878	2,519,105	2,574,526	2,631,165	2,689,051	2,748,210	2,808,671	2,870,461	2,933,611	2,998,151	3,064,110	3,131,521
GR	195,213	199,508	203,897	208,383	212,967	217,652	222,441	227,334	232,336	237,447	242,671	248,010	253,466	259,042	264,741
IE	175,795	179,662	183,615	187,654	191,782	196,002	200,314	204,721	209,224	213,827	218,532	223,339	228,253	233,274	238,406
IT	1,475,401	1,507,860	1,541,033	1,574,936	1,609,584	1,644,995	1,681,185	1,718,171	1,755,971	1,794,602	1,834,084	1,874,434	1,915,671	1,957,816	2,000,888
LU	33,055	33,782	34,525	35,285	36,061	36,854	37,665	38,494	39,341	40,206	41,091	41,995	42,919	43,863	44,828
NE	527,916	539,530	551,400	563,531	575,928	588,599	601,548	614,782	628,307	642,130	656,257	670,694	685,450	700,530	715,941
PT	155,216	158,631	162,120	165,687	169,332	173,057	176,865	180,756	184,732	188,797	192,950	197,195	201,533	205,967	210,498
ES	976,189	997,665	1,019,614	1,042,045	1,064,970	1,088,400	1,112,344	1,136,816	1,161,826	1,187,386	1,213,509	1,240,206	1,267,490	1,295,375	1,323,873
SE	305,989	312,721	319,601	326,632	333,818	341,162	348,668	356,338	364,178	372,190	380,378	388,746	397,298	406,039	414,972
UK	1,906,359	1,948,299	1,991,161	2,034,967	2,079,736	2,125,490	2,172,251	2,220,041	2,268,881	2,318,797	2,369,810	2,421,946	2,475,229	2,529,684	2,585,337
CY															
CZ	14,522	15,306	16,133	17,004	17,922	18,890	19,910	20,985	22,118	23,313	24,572	25,898	27,297	28,771	30,325
EE	113,969	120,124	126,610	133,447	140,654	148,249	156,254	164,692	173,585	182,959	192,839	203,252	214,228	225,796	237,989
HU	13,074	13,779	14,524	15,308	16,134	17,006	17,924	18,892	19,912	20,987	22,121	23,315	24,574	25,901	27,300
LV	89,884	94,738	99,853	105,246	110,929	116,919	123,233	129,887	136,901	144,294	152,086	160,298	168,954	178,078	187,694
LT	16,180	17,054	17,975	18,946	19,969	21,047	22,184	23,381	24,644	25,975	27,377	28,856	30,414	32,056	33,787
MT	23,746	25,029	26,380	27,805	29,306	30,889	32,557	34,315	36,168	38,121	40,179	42,349	44,636	47,046	49,587
PO	5,096	5,371	5,661	5,967	6,289	6,629	6,987	7,364	7,762	8,181	8,623	9,088	9,579	10,096	10,641
SK	271,530	286,193	301,647	317,936	335,105	353,201	372,273	392,376	413,564	435,897	459,435	484,245	510,394	537,955	567,005
SV	43,945	46,318	48,820	51,456	54,235	57,163	60,250	63,504	66,933	70,547	74,357	78,372	82,604	87,065	91,766
BU	29,742	31,348	33,041	34,825	36,705	38,687	40,777	42,979	45,299	47,746	50,324	53,041	55,906	58,924	62,106
RO	25,100	26,455	27,884	29,390	30,977	32,650	34,413	36,271	38,229	40,294	42,470	44,763	47,180	49,728	52,413
EU-27	97,118	102,362	107,890	113,716	119,856	126,329	133,150	140,341	147,919	155,907	164,325	173,199	182,552	192,410	202,800

Assumption: GDP in each country grows at a fixed annual rate to 2020 (average rates in 2005 have been taken. These were 2.2% pa for W Europe (EU15) and 5.4% pa for the new Member States (EU 16-27)). (UNU, 2007, p.66)

The average ratios of tonnes of EEE put on the market per M Euro GDP have been applied to the EU-15 MS and the newer MS as appropriate, where actual data are not available or are deemed unreliable (i.e. including Estonia). These average values can be revised and replaced as actual data become available from other national registers. These values are assumed to be constant to 2020. Multiplying these values by the estimated GDP provides estimated amounts of EEE placed on the market from 2007 to 2020.

The following table shows that, using the above figures, **the estimated amount of EEE put on the market in 2006 was 9.5 million tonnes**. This is slightly higher than the UNU (2007) estimate of 9.3 million tonnes, due to the assumed difference between the EU-15 and the newer Member States' markets. The figures are also consistent with the UNU (2007) estimates of WEEE arisings. The average life of electrical equipment is around nine years, based on UNU (2007, p.62), and the calculated WEEE arisings in 2015 (i.e. nine years on from 2006) are 9.3 million tonnes, with 9.5 million tonnes in 2016.

For this analysis, it was initially considered that the 'per GDP ratio' in the newer Member States may reduce by 2020, reaching a similar level to the EU-15 markets (i.e. 1.09 reducing to 0.80 tonnes EEE per M Euro GDP by 2020). However, applying this assumption to the data resulted in only 0.5 million tonnes less of EEE put on the market in 2020. In order to err on the side of caution it has been assumed that the ratios remain the same, suggesting a higher level of sales, until there is sufficient evidence to prove otherwise.

To assess the options, it is also necessary to estimate the amount of different types of EEE put on the market. UNU (2007) provides the data presented in the following table, which shows the weight percentage of EEE put on the market, based on data from Estonia, Finland, Hungary, Lithuania, Slovakia, Slovenia, Spain and the UK (it is not possible to exclude Estonia from the data available from UNU (2007)).

Table 126: Distribution of EEE put on the market amongst categories

Category	Weight % household	Weight % non-household	Weight % of total market
1 Large household appliances	54.13%	1.67%	55.80%
2 Small household appliances	9.11%	0.19%	9.30%
3 IT and telecom equipment	7.08%	4.92%	12.00%
4 Consumer equipment	11.98%	0.12%	12.10%
5 Lighting equipment	0.54%	2.86%	3.40%
6 Electrical and electronic tools	3.08%	0.92%	4.00%
7 Toys, leisure and sports equipment	1.21%	0.99%	2.20%
8 Medical devices	0.05%	0.46%	0.50%
9 Monitoring and control instruments	0.12%	0.28%	0.40%
10 Automatic dispensers	0.00%	0.30%	0.30%
Total	86.0%	14.0%	100.0%
<i>Source: based on UNU (2007, p.57-58)</i>			

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Estimated Total EEE on market (tonnes)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
AT	203,328	207,802	212,373	217,045	221,820	226,701	231,688	236,785	241,994	247,318	252,759	258,320	264,003	269,811	275,747
BE	247,627	253,074	258,642	264,332	270,148	276,091	282,165	288,372	294,717	301,200	307,827	314,599	321,520	328,594	335,823
DK	173,578	177,397	181,300	185,288	189,365	193,531	197,788	202,140	206,587	211,132	215,776	220,523	225,375	230,333	235,401
FI	135,000	137,970	141,005	144,107	147,278	150,518	153,829	157,214	160,672	164,207	167,820	171,512	175,285	179,141	183,082
FR	1,465,000	1,497,230	1,530,169	1,563,833	1,598,237	1,633,398	1,669,333	1,706,058	1,743,592	1,781,951	1,821,154	1,861,219	1,902,166	1,944,013	1,986,782
DE	1,820,515	1,860,566	1,901,498	1,943,331	1,986,085	2,029,779	2,074,434	2,120,071	2,166,713	2,214,381	2,263,097	2,312,885	2,363,768	2,415,771	2,468,918
GR	153,908	157,294	160,754	164,291	167,905	171,599	175,374	179,232	183,175	187,205	191,324	195,533	199,835	204,231	208,724
IE	138,598	141,647	144,763	147,948	151,203	154,529	157,929	161,404	164,954	168,583	172,292	176,083	179,956	183,916	187,962
IT	1,163,219	1,188,810	1,214,964	1,241,693	1,269,011	1,296,929	1,325,461	1,354,621	1,384,423	1,414,880	1,446,008	1,477,820	1,510,332	1,543,559	1,577,517
LU	26,061	26,634	27,220	27,819	28,431	29,056	29,696	30,349	31,017	31,699	32,396	33,109	33,837	34,582	35,343
NE	416,214	425,370	434,728	444,292	454,067	464,056	474,266	484,699	495,363	506,261	517,399	528,781	540,415	552,304	564,454
PT	122,373	125,066	127,817	130,629	133,503	136,440	139,442	142,509	145,645	148,849	152,124	155,470	158,891	162,386	165,959
ES	783,000	800,226	817,831	835,823	854,211	873,004	892,210	911,839	931,899	952,401	973,354	994,768	1,016,652	1,039,019	1,061,877
SE	241,245	246,552	251,976	257,520	263,185	268,975	274,893	280,940	287,121	293,437	299,893	306,491	313,234	320,125	327,167
UK	1,483,000	1,515,626	1,548,970	1,583,047	1,617,874	1,653,467	1,689,844	1,727,020	1,765,015	1,803,845	1,843,530	1,884,087	1,925,537	1,967,899	2,011,193
CY	15,862	16,718	17,621	18,573	19,576	20,633	21,747	22,921	24,159	25,464	26,839	28,288	29,815	31,425	33,122
CZ	124,484	131,207	138,292	145,760	153,631	161,927	170,671	179,887	189,601	199,839	210,631	222,005	233,993	246,628	259,946
EE	14,280	15,051	15,864	16,720	17,623	18,575	19,578	20,635	21,749	22,924	24,162	25,466	26,841	28,291	29,819
HU	85,000	89,590	94,428	99,527	104,901	110,566	116,537	122,830	129,462	136,453	143,822	151,588	159,774	168,402	177,496
LV	17,673	18,627	19,633	20,694	21,811	22,989	24,230	25,539	26,918	28,371	29,903	31,518	33,220	35,014	36,905
LT	33,000	34,782	36,660	38,640	40,726	42,926	45,244	47,687	50,262	52,976	55,837	58,852	62,030	65,380	68,910
MT	5,566	5,867	6,184	6,517	6,869	7,240	7,631	8,043	8,478	8,936	9,418	9,927	10,463	11,028	11,623
PO	296,582	312,598	329,478	347,270	366,022	385,788	406,620	428,578	451,721	476,114	501,824	528,922	557,484	587,588	619,318
SK	48,000	50,592	53,324	56,203	59,238	62,437	65,809	69,363	73,108	77,056	81,217	85,603	90,225	95,098	100,233
SV	28,000	29,512	31,106	32,785	34,556	36,422	38,389	40,462	42,646	44,949	47,377	49,935	52,631	55,474	58,469
BU	27,416	28,896	30,457	32,101	33,835	35,662	37,588	39,617	41,757	44,011	46,388	48,893	51,533	54,316	57,249
RO	106,078	111,806	117,844	124,207	130,915	137,984	145,435	153,289	161,566	170,291	179,487	189,179	199,394	210,162	221,511
EU-27	9,374,607	9,606,510	9,844,901	10,089,998	10,342,025	10,601,221	10,867,828	11,142,104	11,424,313	11,714,734	12,013,654	12,321,375	12,638,211	12,964,489	13,300,549

It is assumed that the distribution of EEE amongst the ten categories remains the same to 2020, as there is no evidence to suggest otherwise. It is also highlighted that the assumed distribution of EEE between households and non-households is based on data from the Spanish register only. Therefore, as more data become available from national registers, estimates of the quantities and distribution of EEE can be revised and improved.