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CURRENT IMPLEMENTATION OF FINANCIAL GUARANTEES AND EQUIVALENT INSURANCE IN ALL MEMBER STATES, INCLUDING AN IMPACT ANALYSIS

(D 2.1.4)

Task and Report elaborated by BiPRO

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Abbreviations

CA	Competent Authority
DE-BE	Berlin (Berlin)
DE-BR	Bremen (Bremen)
DE-HH	Hamburg (Hamburg)
DE-MV	Mecklenburg-Vorpommern (Mecklenburg-West Pommern)
DE-NI	Niedersachsen (Lower Saxony)
DE-NW	Nordrhein-Westfalen (North Rhine-Westphalia)
DE-SL	Saarland (Saarland)
DE-SN	Sachsen (Saxony)
DE-ST	Sachsen-Anhalt (Saxony-Anhalt)
ES-AND	Andalusia
ES-AR	Aragon
ES-AS	Asturias
ES-B	Basque Country
ES-CAN	Cantabria
ES-CAT	Catalonia
ES-G	Galicia
ESM	Environmentally sound management
ES-MAD	Madrid
ES-V	Valencia
IT-AL	Alessandria
IT-AV	Valle d'Aosta
IT-G	Geneva
IT-L	Livorno
IT-P	Parma
IT-PDT	Torino
IT-V	Verbania
LAGA	Länder Arbeitsgemeinschaft Abfall (Federal Government/Federal States Working Group on Waste)
MS	Member State
UBA	Umweltbundesamt (German Federal Environmental Agency)
UK-SC	Scotland
UK-NI	Northern Ireland

1 Background, objectives and methodology

With respect to transboundary transports of waste subject to prior written notification and consent procedures, Regulation 1013/2006/EC requests a financial guarantee or equivalent insurance for which the EU Commission is responsible to provide a method of calculation pursuant to Article 6, and to adopt corresponding measures (see recitals 17 and 40 and Article 59(1)(a) of the WSR).

Based on this background the major objectives of project work, is to provide an analysis and to assess current practice related to the mandatory financial guarantee or equivalent insurance required according to the European Regulation for all notified waste shipments in EU Member States and the advantages/disadvantages or costs/benefits thereof, and to develop a proposal for an EU Guideline on a method for calculating a financial guarantee, including a method for calculating the equivalent insurance, in a format consistent to previous correspondents' Guidelines (separate document).

The analysis of current enforcement practice of the above mentioned provision of the EU Waste Shipment regulation EC (No) 1013/2006 was based on answers from competent Member States authorities and industrial stakeholders to a questionnaire on implementation/enforcement of annex VII, article 18 and art. 49-50, on an evaluation of information reported by Member States to the European Commission pursuant to article 51 (Copy of Basel report and Annex IX) and on an evaluation of information where relevant (no more recent information available) compiled in the reports from awareness raising events performed during the past years.

The questionnaire was disseminated to the competent authorities in all 27 Member States. Apart from the national level, all competent regional authorities have been contacted directly in Spain, France, Germany and Italy with a questionnaire translated into the national language.

Furthermore, a wide range of industrial stakeholders has been contacted via European Associations, or via direct contact in particular cases (direct requests addressed to EC, participation in WSR events).

The feedback from Member States was very good and constructive. In total 20 Member States (AT, BE, CY, CZ, DE, EE, ES, FI, FR, GR, HU, IE, LU, NL, PL, PT, RO, SE, SI, SK) returned filled in questionnaires.

At regional level answers were provided from two regional authorities in the UK (Scotland and Northern Ireland), twelve German Länder (DE-HB, DE-BY, DE-HH, DE-HE, DE-SL, DE-MV, DE-NI, DE-NW, DE-SN, DE-TH) eight Spanish Regions (ES-AND, ES-CAT, ES-AS, ES-AR, ES-B, ES-G, ES-MAD, ES-V) and seven Italian provinces (IT-PDT, IT-AV, IT-AL, IT-G, IT-L, IT-P, IT-V). France provided one summary answer for the Ministry of Environment and the 26 competent regional authorities (DRIRE), so that details on differences in enforcement practice cannot be assessed.

LV, LT, MT, BG, DK, the national authority of IT, the majority of Italian Provinces (60) and several Spanish regions (8) did not provide information. In addition, the competent authority from the Walloon region in Belgium did not provide any information. Answers to the questionnaire are restricted to Flanders and the federal authority responsible for transit of waste.

Responses from industrial stakeholders were limited. In total industry responses were received from the European association of Chemical industry (CEFIC), National Members and or Member companies of European associations like FEAD (8) , BIR (1 association), EUROMETAUX (2 associations), ECSA (European Community Shipowners' Associations, one national Member association), and five individual companies active in either hazardous waste management or recycling of waste materials.

2 Current implementation of financial guarantees and equivalent insurance in EU Member States

Provisions for financial guarantee for notified waste shipments are set in Article 6 of Regulation (EC) No 1013/2006. The most important parameters for assessment of current practice relate to the calculation of the appropriate safety, the type of security accepted, the validity and the liberation procedures. Specifications on these issues as stipulated in the legal text are compiled in the box below.

Article 6

Financial guarantee

1. All shipments of waste for which notification is required shall be subject to the requirement of a financial guarantee or equivalent insurance covering:

- (a) costs of transport;
- (b) costs of recovery or disposal, including any necessary interim operation; and
- (c) costs of storage for 90 days.

3. The financial guarantee or equivalent insurance shall be [...] effective at the time of the notification or, [...], at the latest when the shipment starts, and shall apply to the notified shipment at the latest when the shipment starts.

4. The competent authority of dispatch shall approve the financial guarantee or equivalent insurance, including the form, wording and amount of the cover.

[...], in cases of import into the Community, the competent authority of destination in the Community shall review the amount of cover and, if necessary, approve an additional financial guarantee or equivalent insurance.

5. [...] The financial guarantee or equivalent insurance shall be released when the competent authority concerned has received the certificate referred to in Article 16(e) or, where appropriate, in Article 15(e) as regards interim recovery or disposal operations.

6. [...], if the waste shipped is destined for interim recovery or disposal operations and a further recovery or disposal operation takes place in the country of destination, the financial guarantee or equivalent insurance may be released when the waste leaves the interim facility and the competent authority concerned has received the certificate referred to in Article 15(d). [...].

7. The competent authority within the Community which has approved the financial guarantee or equivalent insurance shall have access thereto [...].

8. In the case of a general notification pursuant to Article 13, a financial guarantee or equivalent insurance covering parts of the general notification may be established, instead of one covering the entire general notification. [...].

Information collection and assessment in the following chapters is to be seen in the light of these provisions.

2.1 Form of financial guarantee requested

Based on the answers received from competent authorities and industry it can be stated that bank guarantees seem to be the generally accepted option for financial guarantee, but that current practice and requirements vary considerably as regards details.

In principal there are two major approaches for the guarantee:

- bank deposit/blocked account (in cash)
- bank guarantee (on a contractual basis with a monthly interest to be paid by the notifier; seems to be similar to what could/would be offered by an insurance)

Note: In case of guarantee¹ the bank assures the requested amount of money, on the basis of a contract, for which the notifier (similar to insurance police) is paying monthly or annual interests. As regards enforceability one has to differentiate between a standard guarantee (money will be accessible only under the condition that legal claims against the notifier himself have been exploited), and an irrevocable and unconditional on-demand-guarantee (where money can be claimed directly to the bank or insurance).

In case of deposit the requested amount of money is deposited in cash or as a closed account to the benefit of the CA and a bank or a deposit fund of the authority itself.

Equivalent insurances are the less popular financial tool, and are not accepted everywhere.

In part countries are quite flexible as regards the form of financial guarantee, and insurance and bank guarantee are principally accepted in a number of further Member States. Another group of Member States however, does only accept a bank guarantee, and an additional group of countries although in theory accepting insurance, in practice are very much in favour of a bank guarantee.

With respect to the type of guarantee requirements vary in particular as regards the type of accepted bank and of deposit (e.g. cash). A number of countries highlighted the importance of having exclusive access to the money on first request.

Details and specific requirements are partly specified in specific national legislation or guidance. Regional differences were reported to occur in Federal States namely in Spain. Further details on preferred options and requirements are described in the tables below.

¹ Also referred to as: pledge, surety, security, bond, bail, guarantee

Table 2-1: Overview of requirements related to form of financial guarantee in Member States

Form of financial guarantee	Competent authority
A guarantee by a bank or parent company	UK,
A bank deposit /bank guarantee	SK, IE, ES-G, ES-CAN, CZ (in practice), PL
Financial guarantee or deposit	HU, CZ, DE-SL,
Bank deposit or blocked account	ES-B, FI (in practice)
bank guarantee, blocked account, or equivalent insurance	SE, FR, FI,
bank guarantee, deposit, or equivalent insurance	NL, DE (SN, BY), BE, PL,
bank guarantees, or equivalent insurance (acc to Article 6 from WSR and Annex II, Part. 2 point 10)	SI, RO, PT, DE (TH, NI, MV, HE, HH, BE, BR), GR, ES, IT
Bank guarantee and/or insurance policy determined at national level in Ministerial decree DM n. 370 del 03/09/1998	IT
Bank guarantee, insurance, deposit in cash or any other form recognized as equivalent	LU

Additional specifications are partly made as regards the quality of the guarantee as illustrated in table

Table 2-2: Exemplary details on requested financial securities for notified waste shipments in MS

Details on requested bank guarantee	Competent authority
The guarantee must be from a well known bank and the beneficiary of the guarantee is the State of the Netherlands. Upon first request the guarantee must be payable.	NL,
A sum of money available in a bank to which only the competent authority has access	CZ, CY
Deposit in cash or as bank guarantee in our offices	ES-V
Bank or at a branch of a foreign bank by means of tying up funds for an indefinite period of time to the benefit of the Ministry.	SK,
Bank or parent company	UK
Deposit at the Consignation Fund of the Treasury of the State	LU
Bank guarantee issued in favour of the Italian State by bank or by undertaking duly authorized to provide security, in accordance with Article 1(b) and (c) and Law No 348 of 10 June 1982	
Export: Unlimited BANK GUARANTEE deposited in General Deposit Fund of the Government of Aragon; upon first request the guarantee must be payable.	ES-AR
On the other hand transporters must have the relevant Public Liability Insurance	ES-MAD
Liability insurance in force	ES-AND
Bank guarantee deposited at the Ministry of Finance of the CCAA.	ES-AS
Deposit in cash or bank guarantee deposited in the General Deposit Fund of the Government of Catalonia	ES-CAT
An absolute bank guarantee (irrevocable and unconditional on-demand-guarantees) or a corresponding guarantee in terms of deposit at an authority fund. The relevant legislation (décret and arrêté) are under development	FR

Details on requested bank guarantee	Competent authority
So far, the most commonly used bank guarantee types have been irrevocable and unconditional on-demand-guarantees, for which a sample text is available for notifier. For shipment from outside the EU, also similar texted Confirmed Letters of Credit (conformation through an approved Finnish bank) have commonly been used. The financial guarantee is accepted during the notification procedure or by making a separate decision of the acceptability of the guarantee (Certificate of Satisfaction with a Financial Guarantee).	FI
Details regulated in LAGA M25 Insurance or bank guarantee. LAGA specified the importance to request an irrevocable and unconditional on-demand guarantee in both cases; model templates are attached to the Manual.	DE

2.1.1 Procedural requirements

A number of competent authorities provided more details on current procedural requirements for the establishment and transmission of the financial guarantee as illustrated in Table 2-3.

Table 2-3: Overview on procedural requirements related to the financial guarantee in case of notification as reported by CAs in EU Member States

MS	Details on procedural requirements for financial guarantee
AT	Regarding the financial guarantee the following requirements have been agreed on: <ul style="list-style-type: none"> • Both in case of waste shipment from Austria or waste imports into the EU, the total notified amount of waste has to be covered by the financial guarantee • In case of waste shipment within the EU the regime requested by the countries of dispatch and destination is accepted by the BMLFUW • The acknowledgement of receipt of the BMLFUW is only given, when all documents – in case of import into the EU full financial guarantee – are available In principle, the total exported mass is secured. In the case of electronic messages, a subset of hedge will be accepted
BE	The C.A of transit is very tolerant for the financial guarantee. When giving consent to a notification, it is always under condition that a financial guarantee exists, but there is no supervision on that matter.
CY	Copy of the financial guarantee clarifying that a certain amount of money is available upon request to the competent authority of the dispatch country in order to cover requirements of article 6.1.
DE	§ 3(1) und (2) of the AbfVerbrG are including additional requirements for the financial insurance and the equivalent insurance. The authority shall request the financial guarantee or a copy of it with the notification documents. (Nr. 3.1.3.1). The authority may accept that the financial guarantee or the equivalent insurance is provided required at least together with the copies of the completed movement document at least 3 days before the shipments starts (Art. 3(1) of AbfVerbrG)
DK (report to EC)	Interim operation in DK: Copy of the financial guarantee must be presented for the EPA. If the waste after an interim operation will be shipped to another state for a non-interim operation a new notification and financial guarantee must be provided. Import from non-EU countries: EPA must receive information of the calculated amount per ton and a copy of the financial guarantee. If the EPA regards the guarantee as not sufficient it demands a proper additional financial guarantee to the EPA covering the costs of transport from Denmark to the originated nation of dispatch, 90-days-storage and recovery/disposal.

MS	Details on procedural requirements for financial guarantee
ES-AS	A deposit is required for each notification, authorization, usually granted for a period of one year
ES-AR	Import: Request original document of BANK GUARANTEE deposited in recognised entity valid until 3 months after the date of last authorised transport. Herewith the request to cover 90 days of potential storage is covered.
FI	<p>The financial guarantee is accepted during the notification procedure or by making a separate decision of the acceptability of the guarantee (Certificate of Satisfaction with a Financial Guarantee). As the competent authority of dispatch we allow to establish the financial guarantee at the latest about two weeks before the (first) shipment starts. This is also how we inform and guide the notifiers in Finland.</p> <p>A guarantee may also cover several notifications. In the decision to the notification or in the separate Certificate of Satisfaction we tell the maximum amount of waste in tonnes which under this or any other notification connected to this financial guarantee is allowed to be shipped at any one time. Compliance with the coverage conditions of the guarantee is followed-up promptly via the pre-notifications and certificates of recovery or disposal using our electronic register for transfrontier shipments of waste. If the coverage of the financial guarantee is insufficient, a pre-notified shipment will be stopped</p>
GR	The notifier submits to our service the original equivalent insurance or a validated copy of it. In case of submitting a financial guarantee then the validated copy of it is stored in our service.
HU	<p>The deposit or back guarantee has to specify: the beneficiary, mandatory, specification of the waste in question (codes, designation, total quantity), reference to Article 6 of the WSR, payable money, time period of validity</p> <p>Calculation method of the amount of the financial guarantee presented shall be attached to the notification</p>
IE	The notifier is then required to furnish an original document issued by the bank which states that the bank guarantees to pay for claims made by the NTFSO. The document must be signed and dated by the appropriate person acting on behalf of the bank, and must contain essential details relating to the notification and the terms and conditions of the financial guarantee.
IT	<p>The guarantee shall be provided by the notifier in accordance with the standard contracts in Annexes 1, 2 and 3 to DM 370, and for the amounts in the said Annexes. All shipments shall be accompanied by the original of the consignment note or, if the notification concerns more than one shipment, a copy of the consignment note with the original stamp and signature of the competent authority of dispatch. The certificate attesting that disposal or recovery of waste imported into Italy has taken place shall be sent to the competent authority of dispatch via the competent authority of destination within the time limits laid down in Regulation (EEC) No 259/93.</p> <p>The region or autonomous province of origin of the waste shipment, as competent authority of dispatch, shall check that the guarantee provided pursuant to paragraph 2 complies with the standard contracts and amounts in Annex 1, 2 and 3 and carry out the related monitoring activities.</p>
SI	In rare cases where our country is in the role of transit country also some other form of insurance can be accepted if this form of insurance is accepted by the country of origin and the country of destination (the transit country according to art. 6 normally has no right to approve the financial guarantee). In general however, we would not consider such other forms (e.g. a bill) as safe.
SK	Funds have to be valid not later than three days before the transport is carried out. The notifier shall submit the original document verifying that the insurance policy has been taken out to the Ministry before carrying out the transport

According to Industry responses received, bank guarantees are the standard forms of financial guarantee. Only one Finish company (in accordance with national provisions see above) reported about the alternative options blocked account and equivalent insurance. Some companies tend to use company banks for assuring the security. French industry highlighted that it is foreseen in French legislation (pending publication) to replace the guarantee with an "autonomous guarantee upon first request" and to exclude the use of a bond letter (indemnity guarantee).

One company highlighted the problematic practice that waste exporters are **requested to have the financial guarantee before the country of destination starts to check the notification documents** and potentially raise objections. (They raise objections – mostly, because the recycler has not appropriate allowances to perform recycling according R codes...). This leads to the situation that a considerable amount of money (e.g. > 12,000 EUR) is blocked over several months, during the notification procedure, only to be obsolete in the end because the notification is rejected.

The company suggested to therefore applying the following procedural approach:

- 1. Check all documentation, conformity of waste shipment and recycler, and after everything is found OK, than*
- 2. Request financial guarantee*
- 3. After receiving financial guarantee issue the notification...*

One of the major EU industry associations stressed the importance that bank guarantees or other kind of guarantees, approved in one Member State, should be accepted/allowed without further selection in others.

2.1.2 Acceptability of equivalent insurance

Following the answers provided by Member States and industry, the reported principal acceptance of an equivalent insurance, differs from the reported preferred option and daily practice of CA of dispatch as regards requested information.

From all Member States that answered, only SI, FI, the Italian Provinces except Verona and three of the nine Spanish Autonomous Regions reported to not accept an equivalent insurance for transboundary waste shipments. In case of Italian provinces it seems that the meaning "equivalent" was misunderstood.

France is sceptical and prefers a specific form of bank guarantee (see below). From Industry 3 companies and one national association reported that equivalent insurances would not be accepted by Member State authorities.

The major reason brought forward by Member State authorities refusing an equivalent insurance, are the quicker and easier availability of the guarantee in case needed (Spanish) regions, existing national legislation (Italy) or a more general scepticism, whether under existing law (insurance law), it would be possible to access and make use of the money if needed (France/Finland).

In detail the objections expressed are as follows:

- Finland: Concerning insurances we feel a bit sceptical of the complicated insurance legislation, we doubt whether we would be able to make use of the money. A company has taken insurance from an insurance company and SYKE has got the financial guarantee from the insurance company in the form of an on-demand-guarantee.
- France: Until the national legislation has been finalised and entered into force, the French Ministry of Environment recommends the competent regional authorities, to request the constitution of a contract of guarantee/guarantee agreement with explicit reference to the covered transboundary transports. Nevertheless it currently seems difficult to reject a deficiency guarantee/bond letter (caution solidaire) if the notifier has difficulties to subscribe to such an absolute (directly enforceable) guarantee (garantie autonome).
- The competent authorities currently reject equivalent insurances because – from the point of view of French authorities - none of them is compliant with the requirements of the WSR. An insurance company could not guarantee a specific disposition - exclusive and immediate access on request by competent authority. Insurances with civil responsibility (only) are not accepted.
- IT-AL : The current ability to control on banks and insurance companies would fail, increasing the risk of insolvent or false guarantees.
- Industry: The Swedish EPA claims that it's not fair to smaller companies that the larger companies could be provided guarantees by their parent company within a company group.

2.1.3 Major disadvantage of equivalent insurance

21 Member States, including for Germany 12 Länder, for Spain 5 Region and for Italy 4 Provinces, answered to the question on equivalent insurance for hedging of transboundary waste shipments.

The opinions on this issue vary, with a slight majority of Member States being sceptic (AT, BE, CY, 2 Spanish Regions) or against (GR, NL, FR, PL, PT) such an insurance. Four Member States, including the majority of German Länder, Slovak Republic Hungary and Scotland do not see a disadvantage. Five countries and one Spanish Region stated that they are lacking experience on the issue. Italy reported that acceptance of an equivalent insurance if forbidden by national law.

The major disadvantages raised in view of an equivalent insurance as option for the financial guarantee are:

- Complicated insurance law and time consuming negotiations with insurance companies.
- The fact that insurances have conditions that have to be fulfilled or exclusion clauses. Also an insurance company would need to provide the money to the competent authority on first demand and without any discussion on conditions.
- The fact that the insurance could be terminated without notification of the authority, unless an appropriate collateral clause is included,
- Insurance companies in general do not have the expertise for this kind of insurance. They do not know what costs might be
- It is difficult to check the terms set in the insurance contracts.

- Concern about potential additional administrative burden
- One disadvantage could be that the money will not be available immediately.
- Bank guarantee gives more flexibility in handling the guarantee.

Arguments in favour of the equivalent insurance are:

- The fact, delay or resistance in payment to the competent authority applies equivalently to bank guarantees and that generally illegal shipments under a notification are the exception.
- The waste shipment insurances used are reviewed with regard to the terms and conditions and largely correspond to the requirements.

The basic problem Member States are confronted with is the fact that in most cases of illegal shipments, there is no financial guarantee

2.2 Equation for calculation of financial guarantee

From the 23 Member States providing information on these aspects a majority of 16 Member States apply an addition of transport, treatment and storage costs on the basis of actual/estimated costs within their territory dependent on the type of waste in question. Safety factors between 1.2 and 1.5 are often applied.

In most countries calculation is done by competent authorities. Sweden and Scotland however has put responsibility for calculation to the producer, who is requested to provide all justified data to the authorities for control.

In Spain, regions follows a national approach based on transport, treatment and storage costs, but have somewhat differing formulas and safety factors applied.

Italy has specified fix factors or sums for transport and treatment (independent from the waste contained) both for land and sea transport (per container depending on destination and the intended treatment). The Netherlands use fix amount for recovery/disposal (€ 450 all included) with deviation for specific waste codes and in case of justified request by the waste producer and certain rates for storage and transport. Denmark uses corresponding fixed sums. Correspondingly German Länder such as Bavaria have set standard prices for treatment, transport and storage in dependency of waste types.

Based on data reported by MS costs for land transport range from € 0.09/km and ton (FI) to € 0.17/km and ton DE-BY. Storage varies between € 15/ton and € 70/ton for non-hazardous resp. solid waste and € 70/ton - € 350/ton for hazardous resp. liquid waste. Treatment ranges from € 240/ton to € 650/ton.

Ireland relates storage costs and fees to treatment and transport costs by setting it to 50% of the latter two.

Andalusia has set fix guarantee sums in dependence on the waste quantities transported.

Flanders according to information provided applies a system with a minimum amount and based on the waste quantity multiplied by certain factors depending on destination and classification of waste.

(Industry reported about a system with specific prices per ton of waste for transport, recovery and storage multiplied by a safety factor of 1.3).

Greece differentiates between non-hazardous and hazardous waste shipments subject to notification. For non-hazardous waste the calculation formula depends on estimated real costs as indicated in the legislation. For hazardous waste authorities request a lump sum of € 1,000,000.

Saxony-Anhalt (like other German Länder) applies the calculation formula set out in the German Guidance LAGA 25. For calculation of treatment costs the authorities make use of lists of average disposal costs are established and updated annually. If financial guarantees calculated on the basis of the formula differ considerably from the values in these lists, individual case-by-case decisions are taken.

In case of a general notification quite a number of competent authorities (e.g. ES-AR, ES-B, FR, IE, LU) limit the financial guarantee to the number of active shipments. Germany contains the possibility in LAGA 25 but leaves it to the Länder whether or not they make use of it. Prerequisite to partial guarantee in German law is the certification of accomplished treatment, before new transports are allowed to start.

Details on the applied formulas as reported are presented in Table 4-1 in the Annex to this report.

The answers received by industry in general relate to the Member States they are based in. Some additional information provided is compiled in Table 4-2 in the Annex to this report.

2.2.1 Procedures and conditions for release of financial guarantee

With respect to release of the financial guarantee, 25 Member States provided answers. In this context, article 15 and article 16 requirements as set in the WFD are commonly referred to as decisive factors. Liberation in general is on request of the notifier.

There are some differences as regards details of interpretation.

- Few authorities (Bavaria, Romania) refer to Article 6, in terms of 6(8) by Romania or Article 6 (5) and (6) (Bavaria).
- Some Member States highlight the need to be “satisfied that no claim can be made on the guarantee” (UK) or approval of the certificates/treatment by authority of destination in certain cases (e.g. Bavaria), before liberation.
- Various Member States state that the guarantee can be released on request, if all acknowledgements of processing (filled in box 19 of the movement document) are received.
- The Region of Madrid stresses the need to receiving together with the request for release individual copies of each of the realised transports with boxes 18 and 19 of the movement document filled and stamped.
- The Region of Aragon reports an information and automated release procedure, when the time covered by the notification/guarantee has been expired. Such information is communicated to the involved authorities of dispatch and destination. The General Deposit Fund (Caja general de depositos) of the competent authority or the bank receives the authorisation to proceed with the liberation, and the original document is returned to the notifier.

- NL specifies that, if there are missing acknowledgements of processing/certificates, the notifier is asked to provide them or to ask the authority of destination to provide a declaration that there will be no request to take any of the waste back.
- LU sees the expiration of the validity of the guarantee as an additional prerequisite for liberation.
- Ireland stresses that the bond is released when the NTFSO is satisfied that all recovery or disposal operations have been completed, due to a NTFSO letter sent directly to the bank and enclosing the financial guarantee document.
- Hungary and a number of Spanish regions state that the guarantee is released (expires) automatically at the date of expiration specified in the financial guarantee. A written request is only necessary if liberation is demanded in advance.

More details on general procedures in relation to the financial guarantee, e.g. duration, coverage, are presented in Table 2-4.

Table 2-4: Overview on specific requirements set by EU Member States for release of the financial guarantee

MS	Prerequisites for release of the financial guarantee
CY	Release of the financial guarantee is done after we receive the documents from recovery or disposal facilities indicating that the shipment has been received and recovery or disposal is completed.
CZ	When all certificates on recovery/disposal according to Art. 16 e) are received before the expiration date of the guarantee
DE	See LAGA 25 (chapter 3.1.3) The financial guarantee is released when a certificate for the non-interim recover or disposal is handed in to the authority. If the waste is treated in another country and a new notification is required by this country, the financial guarantee can be released if the country where the new notification is required agrees to this. Then the original country of dispatch is released from further take back obligations. (Nr. 3.1.3.4) In general the release of the financial guarantee should be given in cooperation with the country of destination. (Nr. 3.1.3.6) In general notifiers have to apply for release
DE-BY	See Article 6 (5) and (6) WSR. Final rules. Treatment certificates must be submitted and in some cases approval of the responsible authority in importing state.
DK	Shipped into DK as interim operation: The financial guarantee shall cover the shipment until the EPA has received documentation that all shipped wastes have been properly treated by a non-interim operation facility
FI	Lodging the guarantee only for the benefit of the competent authority of dispatch is sufficient in cases where waste is transferred inside the economic area of Europe. A document of the lodged guarantee shall be delivered to the competent authority of dispatch. When shipping waste to Finland from outside EU the Finnish Environment Institute must always be one of the beneficiary of the guarantee. In these cases, the authority of the dispatch must be changed to the authority of destination in the guarantee document
FR	As soon as the competent authority has received the certificate of disposal/recovery for the last shipment covered by the guarantee, given that the notifier provides a balance of the transferred and authorised quantities. In case less than the authorized quantity has been transferred the guarantee will be only released if the notification already has expired. The guarantee is released automatically (levée tacite) which implies the necessity to analyse thoroughly the transport periods

GR	The financial guarantee is released after the last shipment is completed and the recovery facility sent signed copies of the movement document containing the certificate according to article 16 (e) to the notifier and to the competent authorities concerned
IT-AV	The insurance companies autonomously release the guarantee, as long as they respect the requirements of the ministerial decree DM 370.
IT-PDT	The guaranty is released by the bank or the insurance company at conditions not in the knowledge of the authority
PL	Competent authority has to receive all the certificates regarding final recovery/disposal of the waste covered by guarantee. When all shipments were finished and the waste recovered/disposed, competent authority in Poland issues administrative decision in which the financial guarantee is released

Answers received from industry confirm the procedures reported by Member States.

2.2.2 Time period and number of shipments covered by financial guarantee in case of general notification

Validity of financial guarantee

Interpretation of the appropriate period for the financial guarantee is highly variable.

Whereas five Member States and a number of regional competent authorities report about a one year period as common time period covered by a financial guarantee in case of a general notification, other apply either shorter or longer periods.

Interpretation comprise "Time of notification plus one year or another additional period (e.g. 16 months) to "Time of notification", "Case-by-case decision depending on contract", "Not set", "Unlimited", "Limited by receipt of certificates for last covered transport", maximum one year", "three years for pre-consented installations", etc. Divergent interpretations can be observed at regional level within Member States. A compilation of reported periods, other than one year are compiled in Table 2-5.

Table 2-5: Overview of interpretations on validity of financial guarantee in EU member States

MS Competent Authority	Validity of financial guarantee in case of general notification
BE	Time of the notification + 1 year
CY	Time approved in the notification + 2 months.
CZ	16 months after the notification period expires
DE-BR	15 days to 1 1/2 years
DE- HE	Duration of the shipment or as long as the evidence of the final disposal has been agreed on in the contract. (maximal one year after receipt). A guarantee may be accepted for a shorter period if the sender and the recipient ensure that the waste will be disposed in a correspondingly short period. This must be contractually guaranteed and proven to the authority. as general rule
DE-HH/BY	Depending on specific situation; not determinable
DE-SL	Validity period of the notification plus 1-3 months
DE-ST	Weeks to 2 years (for short-term procedures up to the final disposal)
DE-MV	A minimum of 4-6 weeks - provided that it is contractually ensured that the certificates under Article 16e/15e are timely filed.
DE-NI	is in each case determined in accordance with the contractually agreed deadline for disposal
DE-NW	See LAGA 25 document. Determined by contract and including 1 month of safety period.
DE-SN	Validity of the notification + 1 year
DE-TH	Validity of the notification
DE	Case by case decision, depending on contract see LAGA document
ES-CAT	The notification period (in general one civil year (Art. 9.4) or three years in case of pre-consented installations (Art. 14.2). In any case the deposit has to be unlimited.
ES-AR	Up to three months after the authorised date for the latest transport
ES-B	If the guarantee has an expiry date, this needs to exceed the notification period by the time permitted to the operator of the treatment facility to issue the certificate of treatment. The end of the treatment interval should be included explicitly in the contract between the notifier and consignee).
ES-G	Unlimited; as indicated by the notifier
ES-MAD	Maximum one year
ES-V	One year after the authorisation
ES	From the first until the last transport of a notification
FI	The guarantee has to be valid for one year and four months after the intended last shipment. This period is based on an estimate of one month transport time, one year time for waste treatment and receiving the certificate of recovery or disposal and an additional three months for any measures to be taken for a possible return of the shipment. (see also 480 days after the last departure as indicated in block 6 of the notification)
FR	From start of the first transport until receipt of the certificate for the last transport covered by the notification. It is possible to do partial guarantees if the number of pending/active shipments is limited

MS Competent Authority	Validity of financial guarantee in case of general notification
GR	As indicated in the notification
HU	period of validity of the consents + expectable time period of completion of the treatment (usually 1 year)
IT	Where the guarantee is provided for more than one shipment, the period refers to receipt of the certificate for the last shipment of waste covered by the guarantee.
IT-AL	until the completion of shipments covered (issue of certificates in art. 16 D or E)
IT-AV	Not more than one year after the notification
IT-G	One to three year depending on status (pre-consent) of treatment facility
IT-P	The same as the notification
IT-PDT	Highly variable depending on the type and number of shipments and treatment performed
IT-V	Until four months after the receipt of the certificate pursuant to Art. 16 (e) EC n. 1013/2006
LU	Guaranties have to be unlimited according to Article 4.2 of the national regulation from 7 December 2007
NL	not fixed
PL	period of planned shipments (box 6 of notification document) plus 360 days
PT	Period of authorization of notification
RO	minimum shelf life of notification
SE	four weeks
SI	till issuing all certificates according to art.16(e) or 15(d) and (e)
SK	maximum one year
UK-SC/NI	Final shipment received at destination + at least one year for the recovery notes to be issued

Industry responses well reflect this situation. Answers comprise such divergent positions as:

- two years and one month,
- from first day of approval of the notification form two (2 1/4 years),
- maximum one year,
- one year (2),
- Valid nine months after last date of shipment on notification form, one week.

Number of shipments covered

Corresponding to the divergent interpretation of the duration of the financial guarantee the number of shipments covered varies widely. 22 Member States and 10 German Länder, 9 Spanish regions and 6 Italian provinces and Scotland and Northern Ireland provided answers.

It is common sense that the quantity indicated in the notification cannot be exceeded and hence the number depends on the notification.

Partial guarantees are offered by some of the Member States.

MS	Number of shipments covered by one financial guarantee
AT	depends on application
BE	All shipments of that notification. One general bank guarantee can be accepted for a number of notifications, thus reducing the administrative burden
CY	Maximum quantities per movement as declared by the notifier during the notification procedure. Supplementary financial guarantee is requested if the specified quantities are exceeded
CZ	partial guarantee acceptable; when CA checks continuously whether the waste quantity for which the certificate of recovery/disposal has not been received does not exceed the quantity covered by the guarantee
DE-BE	~ 12/year
DE-BR	2 to total amount of notified transports. In case the contractors commit themselves to a treatment in a shorter period than a year, the guarantee can be limited to a partial amount. The liberation of the guarantee however in any case will depend on the receipt of the treatment certificates.
DE-BW	In general, not the whole quantity notified by batches is covered at a time. The amount and thus the number of shipments covered depends on the type of waste, the periods foreseen until presentation of certificates for final treatment, as well as on the reliability of the notifier and the consignee or the disposal site
DE-HE	Variable, from a subset to the total quantity applied for. The value and duration are determined by the notifier himself and the authority checks for each shipment notification if the guarantee is sufficient. Sometimes the total number of shipments is covered by a guarantee.
DE-SL	all occurring within a four weeks period
DE-SLT	Variable, from a subset to the total quantity applied for. In Italy for example, a set number of accompanying documents is issued for a specific deposited sum. When the waste has been finally disposed, the next accompanying documents are issued.
DE-MV	transport by ship: a min. of one All shipments filled for in the agreed minimum period
DE-NI	Two alternatives are possible: 1. Insurance of a set number of shipments or 2. Insurance of the amount of waste that is transferred within the contractually agreed disposal deadline in the country of destination The alternatives are selected in each case in coordination with the notifier
DE-NR	Any quantity agreed on; depending on treatment contract.
DE-SN	The guarantee is usually valid for a total notification. On request the guarantee may be restricted to subsets
DE-TH	minimum 4-5 transports
DK	In case of general notification partial guarantees should be acceptable
EE	2-7 shipments
ES-AND	All shipments realised within the notification period as long as not exceeding the authorised maximum quantity
ES-AR	Up to exporter as long as within one natural/civic year
ES-AS	no limit set

ES-B	The notifier will decide the number of transfers covered by the financial guarantee (number of active transport). In the authorisations the number of active transports or/and the corresponding waste quantities are always indicated as a function of the deposited guarantee. If not indicated the guarantee is regarded as sufficient for the total amount of authorised waste transports.
ES-CAN	no limit set
ES-CAT	As indicated in box 3 of the notification form. As general rule they cannot exceed the quantity and number initially established. There is no legal limit for the number of transports/quantities in the notification forms, but in case of more than one transport daily this would need to be covered by the financial guarantee
ES-G	Without limit; as indicated
ES-MAD	Variable, depending on number of active or simultaneous transports covered
ES-V	One shipment
ES	The ones comprised in each notification, either as initially envisaged or a smaller number
FI	Calculated weight in tonnes.
FR	As indicated in notification
GR	As indicated in the notification
HU	between two and three
IE	as indicated in notification; financial guarantee covers always one active shipment
IT-AL	variable
IT-AV	Up to those covered by the notification. In general the notification will be presented in blocks of transports with a corresponding partial guarantee
IT-G	without limits in the framework of the consented period
IT-L	It depends
IT-P	Minimum 5, maximum all indicated in the notification
IT-V	As many as requested by notifier
LU	any number according to notification
MT	five
NL	Not fixed; the Netherlands calculate a minimum cost price per ton of waste in transition. The height of the financial guarantee indicates the number of tons that can be in transition. The notifier has the obligation to address the consignee to provide the acknowledgements of processing as soon as possible in order to have all shipments falling under the financial guarantee
PL	from min. 10% to 100% of planned shipments
PT	Number of shipment expected in Annex IA (notification document box 4)
RO	minimum one shipment
SE	The intended number of transports over a four-week period
SI	all
SK	according to each notification
UK	All shipments in transit + recovery at the receiving site to be covered (i.e. live loads)

Industry answers received confirm the large range of shipments covered, and the dependence from the notification and the contract as mentioned by Member State authorities.

In addition single responses highlight certain aspects of importance for industry:

- small companies do not have enough money to arrange a financial guarantee for all shipments of the notification forms only for a partial financial guarantee
- There can be problems with more than one shipment at a time...
- The advantage of partial guarantees are security for both sides
- Time and cost savings in Application process

Major risk or advantages of a partial guarantee in case of general notification

Opinion on partial guarantees (a financial guarantee that only covers batches of waste transports in case of a general notification), differ.

While roughly 9 Member States raised concerns, other 3 do not see any disadvantage. As regards Germany, Spain and Italy, opinions varied between the regions.

In Germany a small majority of the Länder would not object partial guarantees, whereas in Spain and Italy the majority of regions see related risks.

Major concerns expressed are as follows:

- Additional administrative burden and potential overload (constant control of incoming certificates and cross check with number of active transports)
- Risk of legal disputes with respect to authorisation of up-coming transports
- Risk of ongoing transports not covered any more by financial guarantee
- Less money available in case of need for take-back option
- Storage and mixing up, between the notification documents, problems (GR)

An exemplary case to illustrate the potential problems was provided by Poland.

Exemplary case 2008: company A from country B notified shipments of waste to Poland with partial guarantee. Too many shipments (exceeded partial guarantee) were carried out within very short period. Later it was discovered that waste transported were not the waste notified - illegal shipment. Cost of repatriation exceeded the amount of financial guarantee. Competent authority of country B had to cover additional costs.

The major argument in favour of the partial guarantee is a lower financial burden for notifiers.

Major arguments why concerns might not be necessary are as follows:

- In case of a partial guarantee simply no permit for further transports will be given until the certificates for the covered transports have been received.
- The risk that more transports than covered are underway can be avoided, when transfrontier transports shall be notified in advance and a computer system can be used to manage and control the number of "active" transports.
- The partial guarantee just requires a very consistent and timely control of the quantities.
- Control and cross check of transported amounts with certificate has to be done in any case
- The risk that more waste is transported than covered by the guarantee applies accordingly to a hedging of the full amount of waste notified.

Industry responses confirm the different point of view of Member States. From 7 answers received 4 could not see any disadvantages, whereas three reported potential problems.

These problems namely relate to the aspect, that

- Further transports will not be permitted as long as the certificates are not provided, thus potentially causing a blockage in case that the envisage schedule has changed (increased need of transport).

Member State authorities do not see a particular advantage of a partial financial guarantee in case of a general notification. Only one industrial respondent stressed the advantage of a lower financial burden at a time.

2.2.3 Average amount of money requested as financial guarantee

Financial guarantee

Member States agree that the financial guarantee itself depends on the hazardousness of the waste, quantity, transportation route, etc., and will be strictly calculated according to the national/regional formulas. The totals differ quite considerably, because the disposal costs and quantities for the waste vary greatly. In some Regions, as a rule, companies apply for partial guarantees, covering only a subset of transports at a time. Request will be accepted in general. Although average amounts are hard to estimate, some information has been provided from Member States and industry, which helps to assess the dimension of costs entailed.

Table 2-6: Overview of exemplary costs in terms of financial guarantee requested by EU Member States for notified waste shipments

MS	Average amounts of money requested as financial guarantee in case of transboundary shipment of waste
BE	Flanders (data from 2008 and 2009). General bank guarantee: average: € 67,797 (number of Bank guarantees: 22; minimum amount= € 3,000 maximum amount=€ 350,000). Under one bank guarantee more than one shipment can be handled Deposit: average: € 36,441.64 (number of deposits: 479; minimum amount= € 1,200 maximum amount= € 4,000,000).
CZ	Minimum is 10,000 CZK, maximum can be several millions CZK;
DE-BE	approximately € 117,000
DE-BR	For hazardous waste: from about € 18,000 (10 transports = 200 t) to € 265,200 (53 transports = 1,360 tonnes). For non-hazardous waste to third countries: € 72,000 (for 2 ship transport = 334 tons) to € 180,000 (for 2 ship transport = 834 tons).
DE-SL	€ 5,000 -€ 200,000
DE-MV	in the last few years between approx. € 10,000 - € 1,000,000
DE-NW	€ 5,000 to € 400,000
EE	average € 25,000
ES-AR	€ 6,000
ES-B	€ 27,300 is the average amount of financial guarantee deposited for a notification
ES-CAT	In the event that the amount of the bond is negative, a minimum amount of EUR 1,502.53 is set per trip
ES-G	€ 80,000
ES-V	€ 10,000
ES	The average financial guarantee requested for authorised transports in 2008 was € 418,558 per case.
FI	case-specific
FR	exemplary amount for dry flue gas treatment residues: € 89,742.73 for a transboundary transport of 5,500 tonnes
HU	min. € 1,800
IT-L	in average around € 1,500,000
IT-V	In 2009 around € 580,000
NL	the standard financial guarantee = € 450 (total costs of recovery or disposal, storage and transport)
RO	The average amount of money requested as financial guarantee is about € 10,000
SE	Range between around 10, 000 SEK and up to several millions SEK. Some notifiers has several notifications under one general current bank guarantee and presents to us how big part that will account for every notification. The value of the waste has an impact on the height of the guarantee
SI	Range from roughly € 260 to € 8,000,000
UK-SC	Varies from a few thousand pounds to millions of pounds

Responses from industry confirm the dimension of money requested as financial guarantee in case of notified waste transports received from competent authorities.

For hazardous waste the quantity per notification seems to range from € 30,000 – 100,000, with a reported average in the dimension of € 70,000 – 80,000.

In case of metal recycling (the reported examples range from € 5,000/notification to CHF 100,000.- CHF 1,000,000.-)

From Malta information on costs in the dimension of € 1,000/notification were received from a recycling company.

Insurance rate

Quite a number of Member States (7) reported to not have any experience with insurance and correspondingly rates are not applicable.

The other Member States agree that the insurance rates like the financial guarantee itself depends on the hazardousness of the waste, quantity, transportation route, etc., in accordance with the respective national calculation formulas. In this context the method of calculation is the same for bank and insurance guarantee.

The most important information is the message provided by one regional authority that, upon information received from notifiers the average insurance rate is almost as high as the costs of a bank guarantee.

Whereas many authorities do not feel in the position to give a range or an average amount for the related premium, Belgium, few German Länder and Italian Regions, Hungary, Estonia, d Slovenia and two industrial participants from Sweden and Latvia provided some data which allow to give at least a dimension of costs.

BE	Flanders(data from 2008 and 2009): € 4.218.266,67 (number of insurances: 3; minimum amount= € 4.800; maximum amount= € 12,500,000) (The insurance of € 12.5 million is a general company insurance which also covers the transboundary waste shipments of Regulation 1013/2006, other insurances can also cover more than 1 shipment).
DE-NW	Insurance rates tend to be relatively low; the maximum insurance rate requested is about 1,000 €
IT-PDT	0.25 % - 0.35 % calculated on the maximum amount guaranteed for a period of six months

Scarce industry answers reported on average rates of € 2,000 – 10,000 for each shipment, respectively € 4,000 – 12,000 depending on waste - the most expensive as far being fluorescent tubes.

2.2.4 General proposals and concerns with respect to calculation of the mandatory financial guarantee

A number of concerns or proposals for guidance were brought forward by Member State authorities and industry. Apart from a more general proposal to harmonise the deposit procedure including costs for storage within the EU and thereto related releases, comments and suggestions related to the implementation of the financial guarantee were received from a limited number of Member States and industry. Comments are interesting and helpful input into the discussion and for the drafting of a guidance document.

Table 2-7: Exemplary concerns and suggestions for guideline for calculation formula and procedural aspects

MS	Concerns and recommendations raised by MS and industry
BE	If the Commission and the Member States decide to introduce one formula for the EU, it should be a simple formula. This will result in a lower administrative burden for the authorities as well as for the companies. Ever since the introduction of the Bank guarantee in regulation 259/93, it has never been used in Belgium for the take back of waste.
DE-BY	There is a considerable disproportion between the benefits of security and the burden on all parties. In Bavaria, no case is recalled, in which the guarantee has been claimed. The transit State authorities are usually burdened by take back actions related to not notified but notifiable shipments (no guarantee!). For such cases, a sort of "European precautionary fund" or provision would be more than desirable.
GR	It is important to have a guidance document for joint calculating / accepting financial guarantees or equivalent insurance at an EU level
LU	<p>Regulation (EC) N° 1013/2006 indicates clearly, that only one competent authority (CA of dispatch for export out of and transports within the EU, and CA of destination for imports) is responsible for the financial guarantee. Furthermore, it fixes the costs that have to be included in the calculation method.</p> <p>As only one specific competent authority is responsible for the amount of the financial guarantee, each Member State should have the possibility to fix its own calculation method for the financial guarantee, while respecting the legal requirements. This gives every Member State a certain flexibility, which is not guaranteed with a unique calculation method.</p> <p>If however, the Commission insists on an identical calculation method, Luxembourg opts for the adaptation of a Correspondents Guideline.</p> <p>For that purpose, we would like to inform you on our formula which is applicable according to the national regulation which is in use since 1996 (except for the storage costs which have been added to the formula since 2007).</p>

2.3 Liberation of financial guarantee

Investigation on current practice as regards liberation of the financial guarantee focussed on the average time period until release of financial guarantee. Answers in part refer to the average period until release in relation to the validity of the notification and Articles 15 and 16 of Regulation 1013/2006/EC (e.g. DE, EE, AT, BE, GR, PT).

In accordance with the provisions of the WSR release of the financial guarantee as a rule is related to the receipt of certificates of interim or final disposal/recovery of the shipped waste. With respect to details of implementation and current practice, answers however slightly differ.

Whereas some authorities states that due to the variations in duration an average time period cannot be given, others from their experience or based on national rules provide specific information.

Besides absolute periods ranging in the majority of from one to two years, and exclusive association with the receipt of the certificates, some Member States relate the periods to the expiry of the notifications, such as:

- As a rule validity of notification
- When the guarantee is low it is usually released 16 months after the notification period expires; when the guarantee is high it is usually released as soon as notification period expires provided that all certificates of recovery/disposal have been received
- about 1/2 year after completion of the notification
- Will expire in 480 days (1 1/3 year) after the last day of shipment as indicated in block 6 of the notification.
- 1-3 months after last shipment notified

France reports about tacit release.

Few German Länder report on periods down to few weeks (overall period, for which money is blocked) in case of a fast certification of the final treatment.

The autonomous region of Aragon highlights the fact that the lack of definition of minimum validity of the financial guarantee in the WSR, leads to the effect, that some of the competent authorities consider it sufficient if it is valid until the date of the latest authorised transport, with the risk that a possible take-back transport and storage is not covered.

One Italian region, stresses the “statement of receipt of the certificates by the competent authority as additional prerequisite for release.

The range of periods until release of the financial guarantee, as reported by competent authorities is illustrated in Table 2-8.

Table 2-8: Overview of exemplary delays until release of a financial guarantee in EU Member States

MS	Response given by MS authorities, derived from MS reporting to EC and awareness raising
CZ	When the guarantee is low it is usually released 16 months after the notification period expires; when the guarantee is high it is usually released as soon as notification period expires provided that all certificates of recovery/disposal have been received
CY	One year (notification) and two months
DE-BE, DE-TH, ES-G	one year
DE-BR, ES-V, PL	Around 2 years
DE-SL	Four weeks after certification of recovery or disposal of the last transport to the facility
DE-SN	For partial guarantee: a few days for guarantee for total notification: about 1 / 2 year after completion of the notification
DE-ST	Weeks to 2 years (for short-term procedures up to the final disposal)
DE-TH	as a rule validity of notification
ES-B	20 months is the average time for return of a financial guarantee on a notification.
ES, SI	The average period is approximately 14 months
FI	They will expire in 480 days after the last day of shipment indicated in block 6 of the notification.
FR	Tacit release
IT-AV	The financial guarantee is released when the competent authority has received - and stated receipt – for all certificates on disposal/recovery
RO	1-3 months after last shipment notified

This dimension is confirmed by answers from industry, reporting about an average delay of 12 to 28 months.

Another group of answers relates to the period between request for release addressed to competent authorities by notifiers, and the actual release of the money.

Periods in this context, range from few days to several months. It is worthwhile to note that namely in the Mediterranean Member States the delay seems to be longer in average. In Italy a delay (4 months) is requested by national law for security reasons. Further details are presented in Table 2-9.

Table 2-9: Overview of exemplary delays until release of a financial guarantee in EU Member States after requests has been sent by notifier

MS	Response given by MS authorities, derived from MS reporting to EC and awareness raising
AT	After receiving all the necessary notifications about 4 to 5 days
BE	When all conditions are fulfilled when the requestor asks for the release: a couple of days.
ES-AR	one month
ES-AS	Once requested, and if all conditions are met, usually no more than two-three months
ES-CAT	If all certificates are received 1-3 months
ES-MAD	1-3 months after request for liberation
HU	~ 1 month
IE	Within 1 month following receipt of letter from notifier requesting bond release.
IT-AL	4 months from the date of receipt of the last certificate of disposal / recovery on the specific warranty
IT-G	In the national standards it is foreseen that the guarantee is kept until 4 months after the closure of the movements. On average, however, the release takes place within two weeks after all certificates have been received
IT-L	3 months
IT-P	The release takes place within 2-3 weeks after all certificates have been received
IT-PDT	After all certificates have been received 4 months
IT-V	In 2009, around 180 days (6 months) after submission to return them.

The reported delays are confirmed by industry answers received. In middle and Eastern Europe they appear to be in the range of 1-2 weeks, whereas a delay of 1-2 months seems to be more common in the Netherlands.

3 Assessment of current practice and proposals of options for improvement

3.1 Deficits and challenges as regards implementation of the financial guarantee for notified waste shipments

Based on the information provided by competent authorities and industry, it can be stated that challenges in relation to the enforcement of financial guarantee are generally due to divergences in current practice in terms of:

- Acceptance of equivalent insurance
- Request of specific bank
- Request of specific type of bank guarantee or deposit
- Acceptance of partial guarantee
- Liberation of financial guarantee
- Calculation of financial guarantee requested (height)

The observed differences in current practice in general do not impact on involved authorities, but have considerable implications for the notifiers, depending on where to or wherefrom they intend to export.

3.2 Advantages and disadvantages (costs/benefits) of current implementation practice

3.2.1 Type of guarantee acceptance of exclusion of equivalent insurance

Economic impacts and corresponding conclusions

Deposit in cash

A deposit in cash of the requested financial guarantee means that the entire sums of up to 1 million Euro is blocked over a period of up to two years or even longer. This has from an economic point of view impacts on the solvency of the notifier and also means a loss of interest income (direct or in the sense of opportunity costs). While in the current economic situation a loss of interests can be calculated with around 2%, opportunity costs might easily reach 10%. For the authority a deposit in cash means a maximum of safety to have access to financial resources if required.

The range of guarantees being huge, the assessment of the economic impacts is very difficult in absolute terms. In order to give an impression of the dimension a calculation, however, can be done on the basis of a fix price (as applied by NL) for an individual truck.

For the calculation we assume a fix rate of € 500/tonnes of notified waste and a standard truck load of 50 tonnes. Such a single notification transport would then amount to € 25,000 which seems highly realistic given the figures provided by CAs and industry. In case of a general notification the amount can increase manifold. For our calculation example we assume a notified load of 5000 tonnes/year, resulting in a potential financial burden of € 2.5 million for the notifier.

Any shares and rates (as described below) can be allocated to this “average standard” burden for EU waste exporters. *Absolute (irrevocable) bank guarantee and indemnity guarantee*

In case of an absolute (irrevocable) bank guarantee the annual interest depends on the credit-rating of the notifier. For a first class rating an interest of 2 % of the requested coverage (in the example above € 50,000) might be realistic. In case of an indemnity guarantee the annual interest could be significantly lower. A bank guarantee influences potential credit lines, therefore again opportunity costs might be relevant. For the authority an absolute bank guarantee provides similar security like a deposit in cash while an indemnity guarantee bears the risk of additional costs (e.g. going to court) before receiving the money.

Insurance Rates

Information reported on insurance rates ranges from 0.25 % for a single notification (€ 2,000 in the example above) to 0.75 % of the requested security in case of a general notification. An insurance does not affect the company’s solvency and its credit worthiness. Therefore no opportunity costs need to be calculated. For the authority an insurance provides more or less the same risk as a deposit in cash or an absolute bank guarantee, compared to an indemnity guarantee the risk seems to be lower.

Given these figures there should be a clear voting for accepting an equivalent insurance from the point of view of industry. According to current practice however, obviously bank guarantee and insurance are in the same dimension.

Request of a specific bank for establishment of the financial guarantee

Apart of the general request for either bank guarantee, deposit or insurance, a number of CAs have restrictions as regards the acceptance of individual banks (namely company banks are partly rejected). Due to the fact that conditions for guarantee commonly vary between institutes, implications on industry can be expected may be in a dimension up to a factor of two or three. In this context it would need to be considered, whether or not to reflect in the guideline the proposal of one of the major EU industry associations that bank guarantees or other kind of guarantees, approved in one Member State, should be accepted/allowed without further selection in others.

A major impact of procedural practices pursuant to article 6(3) has been raised by an industrial stakeholder. It has a considerable economic impact on notifiers whether or not the financial guarantee has to be established already when sending the application forms for the notification procedure instead of being established only few days prior to transport. Given the decision periods of minimum 30 days and the possibility of final objections, up to € 1,000,000 might be blocked or interests have to be paid in vain. The company suggested to therefore applying the following procedural approach:

1. Check all documentation, conformity of waste shipment and recycler, and after everything is found OK, than
2. Request financial guarantee
3. After receiving financial guarantee issue the notification

Environmental impacts associated risks

There are no environmental impacts of either the one or the other type of guarantee, because take back in case the shipment cannot be completed as intended or in case of illegal shipment will be ensured by legislation in any case. However risks for competent authorities bear the take-back costs for a longer period, and to be confronted with time-consuming negotiations and communication may arise as a function of the type of guarantee chosen.

This challenge according to our point of view and according to expert information however is less related to the alternative bank versus insurance but is a consequence of the type of contract set. Both for insurance and for bank guarantee an absolute irrevocable guarantee directly accessible to the CA on demand can be arranged.

3.2.2 Acceptance of partial guarantee

Economic impact

In case of a general notification commonly several thousands of waste a notified over a period of one or up to 3 years. On the other hand the individual transports do not cover more than 40 tons and the number of active transports at a time normally is limited. In addition transport schedule may vary over time with transports leaving only every few months. The coverage of individual shares of such transports e.g. monthly or quarterly considerably reduces the financial burden at a time for the notifier namely if he is requested to establish a deposit in cash.

Environmental impacts associated risks

As indicated above take back needs to be assured in any case, but the risk that an illegal transport might not be covered by a guarantee might need to be investigated. In this context it is important to note that the liability of notifier remains active with or without insurance as in any other case of illegal shipment. In this context it should be noted as highlighted by one CA, that since initiation of the financial guarantee in the beginning of the nineties, never use has been made of the guarantee, but take-back was always arranged by the notifier himself.

The risk minimises if new transports (new partial financial guarantee) are allowed only when all certificates of final/interim treatment have been received by the CA.

3.2.3 Liberation of financial guarantee

Economic impact

According to the information received, liberation of the financial guarantee in general is based on the receipt by the competent CA of the certificates of treatment. On the other hand however, there are some authorities which seem to accept an automated release after the notification period has elapsed. Current practice in addition seems to diverge as regards safety periods applied to the notification period and as regards flexibility to release the guarantee before the end of the notification period as long as the documents are provided. As a consequence the financial security seems to be blocked from several months to more than two years, which is a considerable impact for industry (for quantification of financial consequences see above).

Environmental impacts associated risks

Major risk associated with the release of the financial guarantee is an illegal disposal or recovery detected by competent authorities in the country of destination or a rejection of the load by the recipient. Given the fact that the CA implicitly approves a transport in conformity with the WSR when releasing the guarantee, the project team would consider it as important to stick to the receipt of the certificate as prerequisite for liberation of the money.

Against this background, liberation however should not be retarded more than necessary (if certificate arrives early liberation can be performed before end of the notification period). This applies in particular to the delay after the document has been received.

3.2.4 Calculation of financial guarantee

Economic impact

The formulae for the calculation of the financial guarantee have so far been defined by the CA of the country of dispatch. The calculation is generally made on the basis of national/regional market prices or on fix average costs for reasons of easier enforceability. In consequence the amount requested for a similar waste shipment may vary remarkably as illustrated in the example below:

Intended shipment of 5,000 tons of (non combustible) hazardous waste from three different CAs to a comparable destination:

- a) € 1.2 million for a partial guarantee of $\frac{1}{4}$ of the intended total transport
- b) € 500,000 for the total shipment
- c) € 40,000 for the total shipment

This example highlights the dramatic economic impact of the current practice. According to available data such differences are namely due to divergences in storage and treatment costs. The calculation of transport costs is less variable.

Environmental impacts associated risks

The environmental impacts and associated risks for the CA or the tax payers are as in the other cases discussed above. Given the fact that the notifier is commonly known is easily identifiable, the destination

is verified and approved (including the CA in the country of destination) in a way that financial guarantees need rarely or never be used, it seems to be tolerable to vote for a reduction in financial burden and a certain harmonisation of the procedures throughout the EU.

3.2.5 Economic impacts and associated risks at European scale

Impacts and implications as discussed above have to be further considered in the light of notified waste shipments to and particularly from the EU.

Data for notified waste exports and imports from and to the European Union are reported annually by the Member States following the requirements of Article 51 and Annex IX of the Waste Shipment Regulation and the obligation to report to the Basel Secretariat.

EEA Information

Based on the reporting on notified waste, the European Environmental Agency states in its latest report on transboundary shipments of waste [EEA 2009] that the export of notified waste including mostly hazardous and problematic waste, has increased during the last years. Latest data however is from 2005 [ETC/RWM, 2008].

What is important to note is the fact, that the vast majority of the notified waste is shipped within the EU (about 90 %) where treatment standards are known and can be controlled by CAs.

The increase in exports has been driven by a move towards incineration and recycling of organic and metal waste. The most significant exporters are the Netherlands, Ireland, Luxembourg, Belgium, Denmark and Lithuania. Significant importers are Belgium, Germany, Netherlands and Sweden [EEA 2009]. The majority of the shipped notified waste in 2005 was destined for recovery operations (80 %), mainly recycling and incineration with energy recovery, while the remaining part was destined for disposal (mainly incineration).

[EEA 2009] indicates that the statistical data reported to the Commission by the Member States show a growing number of illegal shipments. The reported annual numbers of illegal shipments vary between 6,000 and 47,000 tonnes. These are probably minimum figures, as many of the reports do not contain the information.

Information from the Basel Convention

The summary reports provided by the Basel Convention includes in its Compilation Part II, data reported by parties on generation and transboundary movements of hazardous wastes and other wastes. Additionally the report also includes information on disposals which did not proceed as intended and on accidents occurring during the transboundary movements and disposal.

Based on latest data from 2004, 2005 and 2006 [Basel Convention 2006], more than 48 million tonnes of hazardous waste was generated in 2006 in EU 27. About 6 million tonnes (12 %) of this waste is exported. Hazardous waste imported into EU 27 is in total about 6.5 million tonnes in 2006.

The main exporting countries are Malta (100 %), the Netherlands (60 %), Luxembourg (49 %), Slovenia (43 %) and Denmark (41 %). Member States with the highest import of hazardous waste are Germany (2.4 million tonnes), Italy (1.6 million tonnes), the Netherlands (830,000 t) and Belgium (180,000 t).

Major wastes types exported under notification procedures

Following Annex IV, the following major waste group have to be notified:

- Metal and metal bearing waste consisting of alloys or constitutes of metals with hazardous properties, e.g. alloys of cadmium, mercury or lead
- Wastes containing principally inorganic constituents, which may contain metals and organic materials, as e.g. glass, gypsum or asbestos waste
- Wastes containing principally organic constitutes, which ain contain metals and inorganic constitutes, as wastes from production processes, waste mineral oils, asphalt waste
- Waste which may contain either inorganic or organic constitutes, such as clinical and pharmaceutical waste, waste oils, waste from production pollution control

This list is completed by Annex III wastes subject to notification in case of exports to third countries pursuant to Regulation (EC) No 1418/2007.

4 Annex

Table 4-1: Overview on formulas applied for calculation of the financial guarantee for transboundary shipment of waste applied in EU Member States

MS	Description of calculation formulas for financial guarantee
AT	alternative treatment costs for the total amount, transportation costs for the total amount, storage costs for 90 days for the total amount
BE.	Flemish regulation: Requested total amount x2 (with a minimum of € 1,200). If it concerns dangerous waste this amount (including the initial € 1,200) will be multiplied by 4, when the destination is not a part of the EU/EVA, this amount will be multiplied by 2.
CY	Financial Guarantee = (Cost of movement + Cost of recovery or disposal + Cost for storing for 90 days).
CZ	$Z = M \times (A + T + S)$ A - alternative recovery/disposal costs T - transport costs S - 90 days storage costs M - waste quantity
DE	<p>The working group waste (LAGA) recommendation for calculation of the financial guarantee</p> $FG = (CT * D * ST + CRD * SRD + CS * SS) * M$ <p>FG = Height of bank guarantee or equivalent insurance [€] CT = Costs for take back transport [€/km * t] CRD = Costs for recycling/ disposal [€/t] CS = Storage costs for 90 days [€/t] D = Distance [km] M = Amount of waste [t] ST = Safety factor for take back transport (1,0 - 1,3) SRD = Safety factor for recycling/disposal (1,0 - 1,3) SS = Safety factor for storage (1,0 -1,3)</p> <p>There is also the possibility to take the average specific costs of similar wastes. Nr. 3.1.3.1 LAGA 25 includes specifications on the calculation of each factor</p>
DK	<p>Export: 404 €/t waste (Kr. 3,000); corresponds to 2 times real costs: transport, the 90-days-storage and value added tax (VAT) makes for a total cost of about 215 €/t (Kr. 1,600)</p> <p>The Danish EPA may decide to set the financial guarantee higher or lower (e.g. (e.g. for waste containing mercury 2,693 €/t (Kr. 20,000, or waste flue gas purification products deposit 155 €/t (Kr. 1,150). This may also occur upon the request of another country's competent authorities.</p> <p>Interim treatment in DK: The financial guarantee shall cover the shipment until the EPA has received documentation that all shipped wastes have been properly treated by a non-interim operation facility.</p> <p>Import from non-EU countries: covering the costs of transport from Denmark to the originated nation of dispatch, 90-days-storage and recovery/disposal.</p>
EE	<p>Case by case decision;</p> <p>The guarantee should cover the period from the date of first shipment until expiry date of the notification + 480 days</p>
ES-AND	<p>Bank guarantee for hazardous waste transports : x = authorised quantity for each transport $X \leq 500 \text{ Tm}$ (€ 6,000), $500 \text{ Tm} < X \leq 5,000 \text{ Tm}$ (€ 12,000), $X > 5,000 \text{ Tm}$ (€ 20,000)</p>

MS	Description of calculation formulas for financial guarantee
ES-AS	$1.4 (CT + CA + CEV) \times Q \times 90 \times Q$ CT: transport cost, CEV: cost disposal / recovery per kg, Q: The average amount carried in kg / trip, CA: storage cost per day and per kilo.
ES-AR	$1.4 * (CT + CEV + CA \cdot 90 \text{ DÍAS}) \times \text{number of simultaneous transports}$
ES-B	$Q = (Ct + Cs + Ca) \times N \times 1.4$ Q = Amount of the bond to deposit in Euros Ct = transportation costs per shipment or shipment Cg = Cost of treatment per shipment or shipment (The charge to move in each consignment would be obtained by dividing the total quantity, Section 5 of the notification, the total number of shipments under, Section 4 of the notification document) Ca = storage costs for 90 days. n = Number of active transport, i.e. the number of shipments or shipments that are covered by the guarantee. Active transport means that move started and in transit, or received by the manager or even treatment by them, but for which that operator has not yet certified their treatment by completing box 19 on the movement document / coaching on to such shipment.
ES-CAN	$1,4 * (2 * CT + CEV * Q)$ CT: Costs between producer and recipient CEV: Disposal/recovery costs per kg Q: average transport quantity kg/shipment
ES-CAT	$1'4 \times (CT + CEV \times Q + CA \times 90 \times Q)$ CT: transport costs CEV: Disposal/recovery costs per kg Q: average transport quantity kg/journey CA: storage costs per day and kilo
ES - G	$1.4 \times (CT + CEV) \times Q \times n$ T : transport costs/ton ; CEV costs for recovery/disposal per ton of waste ; Q waste quantity per journey in tons; n number of transports
ES	$1.4 \times (CT + CEV \times Q + CA \times 90 \times Q)$
ES-V	$1.5 \times (CT + CEV \times Q + CA \times 90 \times Q)$
FI	The amount of the guarantee = $0.09 \text{ €/km/t} (M * J) + (S * J) + (K * J)$ where: M = distance (km), S = storage cost for 90 days, K= cost for the alternative recovery or disposal (€ / t), J = weight of the shipment to be returned (t). Normally, a margin of 10 – 20 % is added to cover for administrative and unforeseen costs. This formula is used for truck trailers and standard 40'-container transports within Europe. Shipment costs between Finland and countries outside Europe and for transport types other than truck trailers and container shipments (e.g. bulk ships) are decided based on the offers given by the notifiers. Storage costs are based on harbour storage either in or outside of IMO-fields. For IMO-fields the costs can be considerable (e.g. http://www.portofhelsinki.fi/default.asp?docId=12612). The cost of the alternative treatment is decided case by case based on the costs of proper waste treatment in Finland, like the costs of landfill or hazardous landfill. In the case of hazardous waste, the list prices of the Finnish hazardous waste treatment plant Ekokem Oy Ab are normally used as a reference.
FR	Current formula (single transport) : $(CT + CTR + CS) \times Q$ With CT = transport costs/ton, CTR = treatment costs in country of destination/ton, CS = storage costs for 90 days in country of destination/ton The future formula will be similar with an additional factor of 1.2 in order to take into account imbalances in treatment and transport costs. $GF = (CT + CTR + CS) * Q * 1.2$

MS	Description of calculation formulas for financial guarantee
	<p>For export in the framework of a general notification the financial guarantee will be calculated as :</p> $GF = (CT + CTR + CS) * Q \text{ active} * 1.2$ <p>Q active = Maximum circulating waste quantity covered by a general notification in tons. (= sum of ongoing transports = Having left the production site, for which the competent authority has not yet received the certificate of final treatment.</p> <p>In case of intermediate treatment in France the financial guarantee can be released as soon as the certificate of the interim treatment has been received.</p> <p>French authorities however, can request a financial guarantee for the remaining transport to the final destination in France, and plan to do so systematically.</p> <p>In this case CT = transport costs from interim to final treatment facility</p> <p>Derogations will only be possible in case that it is physically not possible to assure a traceability of the wastes leaving the interim facility.</p>
GR	<p>Hazardous waste: insurance contract or equivalent financial guarantee of € 1,000,000 covering the costs damages to third parties and the restoration of the environment to its former state, with direct reference to the provisions of Article 6 of the Regulation 1013/2006.</p> <p>Non hazardous waste: shipped under the notification procedure, the financial guarantee has direct reference to the provisions of Article 6 of the WSR and it is estimated bearing in mind the cost: (a) of the trip of the shipped waste until the recovery facility and/ or (b) the trip of return to the importer in case of not receiving the waste by the recovery facility and (c) possible costs of storage for 90 days; there is no specific calculation type. However, it is obvious that the calculation of the financial guarantee has important correlation with the country of destination.</p>
HU	<p>The amount of financial guarantee/ shipment = $X1 + X2 + X3$, where</p> <p>$X1 = \text{costs of transport / shipment} = X \text{ tons of waste (usually } \sim 20\text{-}25 \text{ tons / shipment)} \times Y1 \text{ HUF/ ton} \cdot \text{km} \times Z \text{ km}$ (Z = distance between the place of origin and the treatment facility)</p> <p>$X2 = \text{costs of storage for 90 days / shipment} = X \text{ tons of waste (usually } \sim 20\text{-}25 \text{ tons / shipment)} \times Y2 \text{ HUF/ ton} \cdot \text{day} \times 90 \text{ days}$</p> <p>$X3 = \text{costs of recovery or disposal, including any necessary interim operation / shipment} = X \text{ tons of waste (usually } \sim 20\text{-}25 \text{ tons / shipment)} \times Y3 \text{ HUF/ ton}$</p> <p>Y1, Y2, Y3 = specified costs</p>
IE	<p>Ireland currently calculates and accepts a guarantee that covers a single active shipment at any time, Ireland would further welcome an opportunity to consult with the business community prior to final agreement on a calculation method,</p> <p>FORMULA: $[A+B+C] \times D$</p> <p>[A]: TRANSPORT COSTS, [B]: RECOVERY OR DISPOSAL COSTS FOR ONE SHIPMENT, [C] CONTINGENCY COSTS FOR STORAGE/LEGAL expenses (50% of A+B).[D]: NUMBER OF ACTIVE SHIPMENTS AT ANY ONE TIME.</p>
IT	<p>$G = T + S$ (based on DM n.370 del 03/09/1998, Annex 3)</p> <p>Land transport: $T = 0.155 \text{ €} * \text{tonne of waste} * \text{km between Italian border and treatment facility}$ (in case of foreign transport the km are calculated from the point of dispatch)</p> <p>Sea transport: $T = K1 * \text{number of container with}$</p> <p>$K1 = 774,69 \text{ €}$ for each container of 65 m³ or 40 feet on the route "Mediterranean Sea" and "North Europe",</p> <p>$K1 = 516,46 \text{ €}$/container of 32,5 m³ or 20 feet on the route "Mediterranean Sea" and "North Europe",</p> <p>$K1 = 1807,59 \text{ €}$/container of 32,5 m³ or 20 feet on the route "Tyrrhenian Sea -USA,</p> <p>$K1 = 826,33 \text{ €}$/each container of 32,5 m³ or 20 feet on the route Tyrrhenian Sea to Far East</p> <p>$S = K2 * \text{tonnes of waste transported with}$</p> <p>$K2 = \text{€ } 516 \text{ € (IT-PDT) - € } 1,032.91 \text{ (IT-V)}$ for waste sent to recovery,</p>

MS	Description of calculation formulas for financial guarantee
	<p>K2= € 1,032.91 € for non-hazardous waste sent to disposal</p> <p>K2= € 2,065.82 for hazardous waste containing organohalogen compounds < 5,000 ppm sent to disposal</p> <p>K2= € 4,131.65 € in case of hazardous waste containing organohalogen compound > 5,000 ppm</p>
LU	<p>$FG = (a + b + c) \times d \times h \times 1,2$</p> <p>with $h = g + 1$ (active transports available for the notification)</p> <p>and $g = g = e \times f$. (rounded down)</p> <p>a = treatment costs per ton</p> <p>b = transport costs per ton</p> <p>c = fixed prices for the storage of waste</p> <p>d = maximum amount of waste (in tons)</p> <p>e = treatment time (in days)</p> <p>f = number of transports per day</p> <p>The following indicates the value c of the formula:</p> <p>Waste amount in Euro</p> <p>in-house storage of dangerous waste 140</p> <p>in-house storage of non dangerous waste 70</p> <p>outside storage of dangerous waste 70</p> <p>outside storage of non dangerous waste 35</p> <p>The amounts are fixed in national legislation and are applicable for national and transfrontier shipments.</p>
MT	<p>The calculation method applied by Malta for the financial guarantee or equivalent insurance covering shipments of waste according to the Waste Shipment Record (WSR) is the following:</p> <p>Size of Guarantee* = $[(A1 + A2 + A3 + B) \times N + D + C] \times Q$</p> <p>Where, A1 - Cost of shipment (per tonne);</p> <p>A2 - Cost of take back (per tonne);</p> <p>A3 - Cost of re-shipment (per tonne);</p> <p>B - Cost of treatment (per tonne);</p> <p>C - Handling and administrative costs (per tonne);</p> <p>N - Number of active shipments;</p> <p>Q - Quantity of waste (tonne).</p> <p>D - Costs of storage for 90 days</p>
NL	<p>Standard: € 450/tonne waste (total costs of recovery or disposal, storage and transport). For the notifier it is possible to do a justified request for a lower fin. guarantee. The notifier needs to prove why a lower financial guarantee is reasonable. The Ministry can decide for a lower financial guarantee. In exceptional cases the Ministry can decide for a higher financial guarantee.</p> <p>Specific Basel codes: lower or higher than € 450 per tonne. It's not possible to do a request for a lower financial guarantee.</p> <p>Amount of the financial guarantee = $a + b + c$ (Taxes, e.g. VAT etc. are all included)</p> <p>Fixed/flat rate for Recovery or disposal = A</p>

MS	Description of calculation formulas for financial guarantee
	<p>Basel code Fixed rate in (€)</p> <p>A1030 (400); A1050 (400); A1060 (400); A1100 (125); A1160 (0); A1170 (125); A1190 (0); A2030 (400); A3020 (0); A3040 (500); A3050 (500); A3140 (0); A3150 (500); A3170 500; A3180 500; A3190 500; A4010 (500); A4030 (500); A4050 (500); A4060 (500); A4070 (500); A4080 (500); A4090 (400); A4120 (400); A4130 (500); Y46 (125); AB130 (125); AC070 (500); AC080 (400); AD090 (400); B1010 (0); B1040 (125); B1070 (0); B1100 (500); B1115 (0); B1250 (125); B2020 (125); B3010 (0); B3030 (125); B3140 (125)</p> <p>Costs of storage per tonne for 90 days = B</p> <p>Solid waste € 15</p> <p>Liquid waste € 100</p> <p>Costs of transport per tonne per unit of distance = C</p> <p>Waste by land (per km) € 0.105</p> <p>Waste per water (per nautical mile) € 0.02</p>
PL	<p>Ordinance of Minister of Environment of 21.05.2008 on the method of calculation of financial guarantee. (OJ of 05.06. 2008 no 96 item 618)</p> <p>Calculation method:</p> <p>$G = (D + T + M) \times A$, where:</p> <p>G - amount of guarantee;</p> <p>D - cost of recovery/disposal incl. interim operations of 1 tonne of notified waste ;</p> <p>T - cost of transport of 1 tonne of notified waste from place of dispatch to place of destination;</p> <p>M - cost of storage of 1 tonne of notified waste for period of 90 days;</p> <p>Cost of storage is fixed (per 1 tonne):</p> <ul style="list-style-type: none"> - solid non-hazardous waste - 200 PLN, - solid hazardous waste - 500 PLN, - liquid non-hazardous waste - 500 PLN, - liquid hazardous waste - 1000 PLN; <p>A - amount of notified waste covered by guarantee.</p>
PT	<p>$GF = (T+E+A) \times Q \times NI \times 1,4$ (acc. To Decree-law No 45/2008, 11 of March)</p> <p>GF= financial guarantee</p> <p>T= transport costs/ton</p> <p>E = elimination/recovery costs including potential intermediate operations/ton</p> <p>A= storage costs 90 days/ton</p> <p>Q= waste quantity in tons/transport</p> <p>NI = Maximum number of transports which may be effected</p>
SE	<p>Case by case calculation by the notifier, based on the amount of waste intended to be carried over a four-week period and covering the costs for the transport, the recovery/disposal and storage of the waste for 90 days. (no specific equation available)</p>
SI	<p>$C_t = C_r/d + C_{tr} + C_{str}$</p> <p>alternative treatment costs: $C_r/d = m \times s \times VAT$</p> <p>transport costs: $C_{tr} = m \times l \times 0,1$</p> <p>storage costs: $C_{str} = m \times z$</p> <p>m - total mass of waste</p> <p>s - costs/t for alternative treatment</p> <p>VAT - value added tax</p> <p>l- distance -longest route</p>

MS	Description of calculation formulas for financial guarantee
	0,1 - safety factor z- costs for storage /t for 90days
SK	1.5 x demonstrable costs of transportation, recovery or disposal including all preliminary activities necessary and the costs of storage up to 90 days.
UK	We usually look to the notifier to justify the level of guarantee they put forward based on transport costs, recovery/disposal ratios, etc but if the amount exceeds the following, we are generally satisfied: $FG = [(A + B) \times \text{number of active shipments}] + C$; where, A = the cost of shipment; B = the cost of disposal or recovery; and, C = administrative costs (including legal fees and charges). This amount should be £595 (Scotland)

Table 4-2: Overview of responses from industry

MS	Information on applied calculation schemes
BE	$FG = (CT * D * ST + CRD * SRD + CS * SS) * M$ CT = 0.06 €/t*km = return fee per km and per tonne D = Distance CRD = 0 €/t = recovery costs per tonne CS = 3.45€/ t = storage charges for 90 days, calculated per tonne ST /SRD/SS= 1,3 (safety factor for the return, 1to 1.3)
DE	The financial guarantee is generally related to the quantities of waste actually transported and not the total amount originally notified
FI	The basic equation is as following: $FG = 0.09 \text{ Euro/km/t} (M \times J) + (K \times J)$ M= the distance (km), J = amount of waste to be returned (tonnes), K = costs for the alternatively treatment process (Euro/tonne)
FI	a) Estimated max. amount of material (tons) shipped and still not recovered x total transport costs per ton b) Estimated max. amount of material (in tons) shipped and still not recovered x total transport costs per ton + costs for short-term (90 days) storage Total transport costs include: inland transport in country of import and export, sea transport and administrative costs.
LV	weight of shipment x price per recycling (or disposal) + transportation costs (take -back)
NL	Return transport and processing costs by third party in the Netherlands for the tons being transported in a certain period.

5 References

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