

Work Package 6: Recommendations

Deliverable 6.1

Recommendations Related to the European Legal Framework



Project	Countering WEEE Illegal Trade
Acronym	CWIT
Webpage	www.cwitproject.eu
Work Package:	Work Package 6
Work Package Leader:	CBRA
Deliverable:	Deliverable 6.1
Deliverable Title	Recommendations Related to the European Legal Framework
Deliverable Leader:	CBRA
Date of delivery due:	M 23 31 July 2015
Version:	1.0
Coordinator	Ms Ioana Botezatu, Environmental Security Sub-Directorate, INTERPOL
Email	i.botezatu@interpol.int
Scientific Coordinator	Dr Jaco Huisman, Scientific Advisor, UNU – IAS SCYCLE
Email	huisman@unu.edu

This project and the research leading to these results has received funding from the European Community's Seventh Framework Programme (FP7/2007-2013) under grant agreement n° 312605 (FP7-SEC2012-312605).

DOCUMENT CONTROL

Coordinator:	INTERPOL
Work Package Leader:	Cross Border Research Association (CBRA)
Deliverable leader	Cross Border Research Association (CBRA)
Due date:	31 July 2015
Date of submission:	14 October 2015
Dissemination level:	RE (Restricted)

Version history			
Ver. no.	Date	Reason for release	Responsible

Table of Contents

- EXECUTIVE SUMMARY4**
- 1 INTRODUCTION.....7**
- 2 IMPROVE WASTE CODIFICATION7**
 - 2.1 Description of the problem7
 - 2.2 Practical difficulties arising from inconsistent waste classifications12
 - 2.3 Benefits of improved waste codifications13
 - 2.4 Stakeholders affected13
 - 2.5 Suggested actions14
 - 2.6 Implementation timeline15
 - 2.7 Implementation limitations15
- 3 PRODUCE AND MAINTAIN CONSISTENT GUIDELINES15**
 - 3.1 Description of the problem15
 - 3.2 Benefits of consistent guidelines17
 - 3.3 Stakeholders affected17
 - 3.4 Suggested actions19
 - 3.5 Implementation timeline19
 - 3.6 Implementation risks/limitations20
- 4 ALL ACTORS REPORT20**
 - 4.1 Description of the problem20
 - 4.2 Benefits of improved reporting of WEEE flows22
 - 4.3 Stakeholders affected22
 - 4.4 Suggested actions26
 - 4.5 Implementation timeline28
 - 4.6 Implementation risks/limitations28
- 5 HARMONIZE AND ENHANCE PENALTY SYSTEMS28**
 - 5.1 Description of the problem28
 - 5.2 Benefits of a strong and harmonized penalty system32
 - 5.3 Stakeholders affected33
 - 5.4 Suggested actions33
 - 5.5 Implementation timeline34
 - 5.6 Implementation risks/ limitations34
- 6 OTHER SPECIFIC RECOMMENDATIONS35**
 - 6.1 Harmonize definitions for re-use practices36
 - 6.2 Set re-use targets37
 - 6.3 Enhance multi-stakeholder networks38
 - 6.4 Introduce ban on cash transactions40
- 7 CONCLUSIONS.....43**
- BIBLIOGRAPHY45**
- ANNEX A. CWIT FINAL CONFERENCE PARTICIPANT FEEDBACK SUMMARY.....49**

EXECUTIVE SUMMARY

With a multi-faceted insight into the current situation regarding waste electrical and electronic (WEEE) exports and mismanagement, the consortium developed a set of 16 clusters of recommendations tailored for different stakeholder groups that were split among four deliverables. Deliverable 6.1 largely covers recommendations related to the EU Legal Framework, Deliverable 6.2 covers recommendations for law enforcement organisations, Deliverable 6.3 comprises recommendations for the WEEE treatment industry, and Deliverable 6.4 outlines recommendations for the electronics industry. In order to ensure the full implementation of the proposed recommendations as well as to guide the European Commission's future research and development efforts, Deliverable 6.5 provides a roadmap for future research and technology development.

The 16 recommendation clusters are visualized in a roadmap diagram (Figure 1) – highlighting the ones which are relevant for this Deliverable D6.1. The approximate time required to implement these and the target stakeholders are illustrated in the diagram. In addition it distinguishes between the recommendations that are mostly support measures, support policies and those that are primarily focused at support for law enforcement.

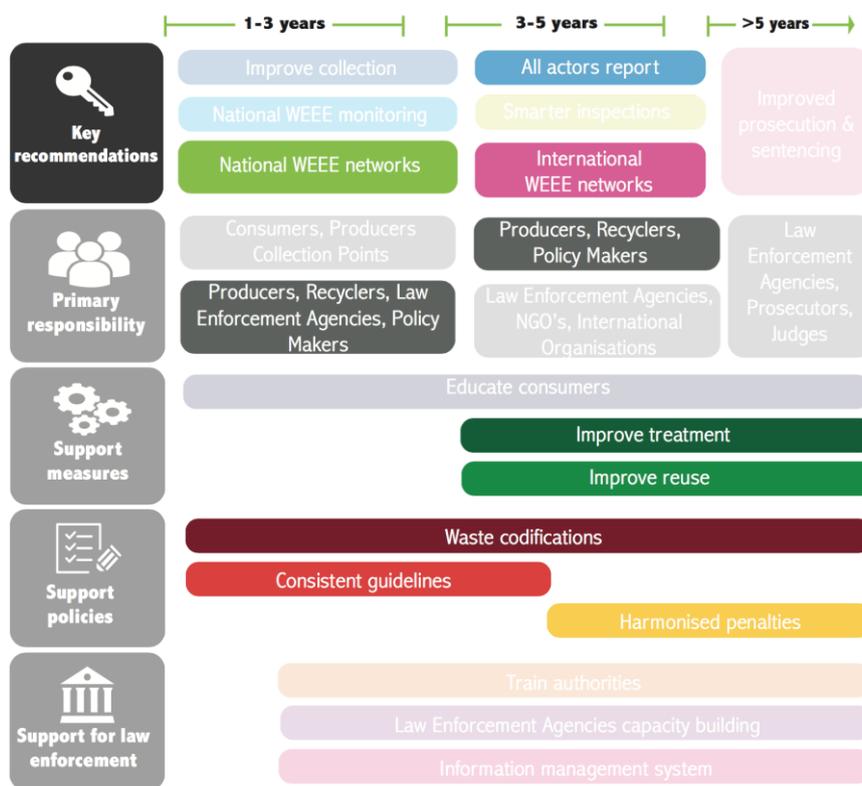


Figure 1. Roadmap diagram (recommendations appearing in D 6.1 are shown in bright colours)

This deliverable mostly deals with the WEEE legal framework and covers recommendations targeted to the legislative and judicial bodies at the national, supranational (EU) and international levels. The WEEE legal framework lays the groundwork for enforcement actions and for all actors along the WEEE value chain. The document provides four main recommendation clusters, which combined with other specific suggestions, constitute a complete set of recommendations aimed towards legal clarity and harmonizing the legal framework surrounding WEEE issues.

The four main recommendation clusters and related action plans for this D6.1 include:

- Improve waste codifications
 - Action: Import / export codes for WEEE and second-hand commodities;
 - Action: Develop a conversion table for converting customs codes into Basel codes and vice versa through adoption of the UNU Keys to improve waste codification; Action: Harmonize EU LoW with the EU WEEE Directive categories;
 - Action: Connect the EU Waste Shipment Regulation codes with the EU WEEE Directive categories/EU LoW)
- Produce and maintain consistent guidelines
 - Action: Agree scope of initiative & success metrics;
 - Action: Identify & select organization to own/sponsor new guidelines;
 - Action: Agree timelines & resources;
 - Action: Drafting and public consultation;
 - Action: Implementation)
- All actors report
 - Action: Establish reporting obligations for all actors collecting WEEE products;
 - Action: Detailed reporting;
 - Action: Improve reporting on treatment within and outside Europe;
 - Action: Establish common codification;
 - Action: Manage communication;
 - Action: Control data collected;
 - Action: Establish a coordinated approach from competent authorities and private management)
- Harmonize and enhance penalty systems
 - Action: Assess national penalty system;
 - Action: Increase penalties;
 - Action: Create a European database for all court decisions;
 - Action: Increase penalty level for natural person company representatives;
 - Action: Harmonise penalty types and levels;
 - Action: Adjust the penalty system related to organised crime;
 - Action: Support law enforcement activities by facilitating evidence gathering).

Additional recommendations covered by this D6.1 include:

- Harmonize definitions for re-use practices
- Set re-use targets
 - Action: Ensure compliance schemes promote reuse;
 - Action: Prioritise re-use in household waste collection;
 - Action: Grant access to WEEE via collective schemes or municipalities;
 - Action: Increase public awareness of re-use services and benefits;
 - Action: Report flows to re-use centres based on mass;
 - Action: Establish clear methodology for measurement;
 - Action: Extrapolate reliable data for re-use targets).
- Enhance multi-stakeholder networks
- Introduce ban on cash transactions

Without a clear and comprehensive legislative base, enforcement authorities and prosecutors are powerless to address illegal WEEE flows. At the very minimum, a clear and global definition of what constitutes WEEE is the basis for improving detection, inspection, enforcement, and sentencing rates related to illegal trade in WEEE. Consistent and proper reporting by all actors involved in the WEEE chain will enable the monitoring of WEEE being diverted to illegal channels. In addition the penalty systems related to WEEE violations call for more stringency and harmonization across the EU to act as a deterrent to crime and to avoid the shifting of illegal operations to those regions with weaker penalty systems, a practice commonly known as “port-hopping”. The recommendation clusters are designed to comprehensively address the main shortcomings identified in the existing legal framework as identified in the Deliverables 3.1, 3.2 and 3.3. The first and foremost step is to improve

the waste codifications by aligning the existing WEEE classification systems which do not correspond with the other at the moment. In parallel consistent guidelines that apply to all the EU Member States should be produced to enable the distinction between waste and non-waste without giving rise to ambiguities. The reporting by all actors in in the WEEE supply chain on the amounts of WEEE collected, treated and disposed of should become mandatory to improve collection rates and compile accurate national statistics. And finally more stringent and harmonized penalty systems across the EU will dissuade criminal activities and prevent port hopping. These four key elements covered in the four key recommendation clusters are deemed critical to form the basis of a robust legal framework. In addition, some supporting policy measures have been proposed that pertain to the European re-use industry, establishing multi-stakeholder networks, improving the traceability of WEEE flows and securing collection points- topics more extensively dealt with in Deliverables 6.2, 6.3 and 6.4.

1 INTRODUCTION

In order to reduce the volume of waste electrical and electronic equipment (WEEE) that is exiting formal streams of collection and reporting, a number of legislative mechanisms have been put in place at the European level to stem the illegal trade in WEEE, namely the recast WEEE Directive 2012/19/EU, the Regulation on Shipments of Waste 1013/2006 and so forth. Nevertheless, the findings of the Countering WEEE Illegal Trade (CWIT) research project reveal that only around 3.3 million tons of the estimated total of 9.5 million tons of WEEE was officially reported to authorities as collected and treated across Europe in 2012 (see CWIT Deliverable 4.3, Economic drivers). This clearly points to the fact that the existing legislative mechanisms are not robust enough to address the growing problem of illegal WEEE trade.

The research undertaken during the course of the CWIT project identified several ambiguities, loopholes and gaps in the current legal framework that are not only exploited by offenders but also hamper the ability of law enforcers and prosecutors to counter the WEEE flows outside the officially reported streams. The legislative ambiguities also prove to be unduly burdensome to legal operators involved in the WEEE chain. Additionally, the research findings identified a number of information gaps between stakeholders as well as vulnerabilities in the WEEE supply chain that can to a large extent be addressed by putting in place stronger legislative requirements.

The purpose of this deliverable is to provide an overview of the problems resulting from the weaknesses in the WEEE legislations and to propose recommendations to mitigate these issues. After the introductory chapter, the document is divided into five main sections, with each section being dedicated to specific recommendation clusters. Following a brief description of the issues and problems, the recommendations are presented along with some concrete action plans. The entire discussion is finally wrapped up with a few concluding remarks.

The stakeholders primarily addressed in this set of recommendations are:

- Policy makers (local, regional, national and European);
- Actors in the second stages of the WEEE chain such as traders, recyclers, reuse organisations, transport operators, exporters and additionally; and
- Enforcement agencies, inspectors of company sites and at ports, auditors of recycling and reuse standards.

2 IMPROVE WASTE CODIFICATION

2.1 Description of the problem

Accurate statistics set the basis for evidence-based policy-making on WEEE trade and management, and facilitate inspection work. The more accurate the statistics and the more harmonized the definitions, the more convincingly they highlight problem areas that call for further attention. In the life cycle from EEE (electrical and electronic equipment) to WEEE, the commodities (EEE) and waste (WEEE) are reported at various stages using different classification systems. Each registration event within this life cycle uses different classification codes that are incompatible with the other. Moreover, when waste is being transported through borders and/or reported to different authorities, different codes may be used for the same waste, which hampers traceability and hinders inspection and prosecution processes. Accurate and compatible codes are, thus, crucial to allow waste traceability. Improved waste codification is a key measure to enable distinction between EEE, used EEE (UEEE) and WEEE

In the EU, the most important registration events and the classification codes are:

- Customs codes used by customs authorities in the EU, in the case of EEE imports or UEEE/WEEE exports;
- Waste Shipment Regulation (EU translation of the Basel Convention) codes i.e. the Basel/OECD Codes from Basel convention) in the case of imports/exports of hazardous WEEE or hazardous components of WEEE;
- The European List of Waste (LoW) in most European countries when fulfilling the registration requirements coming from reporting standards of the EU WEEE-Directives and for administrative purposes, i.e. for permitting and supervision in the field of waste generation and management.

Currently we have about six classification systems on the international and European levels (including the UNU Keys, the WEEE Forum classifications the EU WEEE Directive categories not referred to above). The existing classification codes are described below.

Custom codes: Foreign trade (import and export) statistics for each product are registered under the Harmonized Commodity Description and Coding System (HS codes) developed and maintained by the World Customs Organization (WCO). The EU Member States use the extended version, the 8 digit Combined Nomenclature (CN). (The roughly 250 to 300 EEE relevant CN codes are described in detail in a 2014 report by Magalini et al., entitled “Study on collection rates of waste electrical and electronic equipment”). WEEE is not registered in a separate CN code. Thus in practice WEEE gets most likely reported using the same CN code as a new product or as its component. This lack of specific commodity codes for WEEE has been identified as a problem area by the European Commission (European Commission, 2014). It is a major impediment in the distinction between UEEE and WEEE for export shipments.

European List of Waste (LoW): The LoW defines 839 waste types, structured into 20 chapters, mainly according to the source of the waste (i.e. the economic sector or process of origin). Each waste type is characterised by a six-digit code. The allocation of wastes to the defined waste types is laid down in the introduction of Decision 2000/532/EC and explained in a separate section. There are 13 LoW codes that refer to e-waste. These are subdivided into hazardous and non-hazardous waste, and listed in Table 1 below. Fractions or components that can be generated during treatment of e-waste, such as metal scrap, plastics, and lead glass are not listed in this table. The codes give a general description of WEEE and are not aligned to other waste classifications.

Table 1. European List of Wastes (LoW) codes that refer to e-waste

Hazardous	
09 01 11*	Single-use cameras containing batteries included in 16 06 01, 16 06 02 or 16 06 03
16 02 09 *	Transformers and capacitors containing PCBs
16 02 10 *	Discarded equipment containing or contaminated by PCBs other than those mentioned in 16 02 09
16 02 11*	Discarded equipment containing chlorofluorocarbons, HCFC, HFC
16 02 12 *	Discarded equipment containing free asbestos

16 02 13*	Discarded equipment containing hazardous components other than those mentioned in 16 02 09 to 16 02 12
20 01 21*	Fluorescent tubes and other mercury-containing waste
20 01 23*	Discarded equipment containing chlorofluorocarbons
20 01 35*	Discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components
Non-hazardous	
09 01 10	Single-use cameras without batteries
09 01 12	Single-use cameras containing batteries other than those mentioned in 09 01 11
16 02 14	Discarded equipment other than those mentioned in 16 02 09 to 16 02 13
20 01 36	Discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35

Basel Codes

E-waste is included in Annex VIII of the Convention with the following entry for hazardous wastes:

“A1180 Waste electrical and electronic assemblies or scrap¹ containing components such as accumulators and other batteries included on list A, mercury-switches, glass from cathode-ray tubes and other activated glass and PCB capacitors, or contaminated with Annex I constituents (e.g. cadmium, mercury, lead, polychlorinated biphenyl) to an extent that they possess any of the characteristics contained in Annex III (note the related entry on list B, B1110).”²

E-waste is also included in Annex IX of the Convention with the following entry for non-hazardous wastes:

B1110 Electrical and electronic assemblies:

Electronic assemblies consisting only of metals or alloys;

Waste electrical and electronic assemblies or scrap³(including printed circuit boards) not containing components such as accumulators and other batteries included on list A, mercury-switches, glass from cathode-ray tubes and other activated glass and PCB-capacitors, or not contaminated with Annex I constituents (e.g., cadmium, mercury, lead, polychlorinated biphenyl) or from which these have been removed, to an extent that they do not possess any of the characteristics contained in Annex III (note the related entry on list A A1180);

Electrical and electronic assemblies (including printed circuit boards, electronic components and wires) destined for direct reuse,⁴ and not for recycling or final disposal.”⁵

Equipment will often contain hazardous components, examples of which are indicated in entry A1180 of Annex VIII. E-waste should therefore be presumed to be hazardous waste unless it can be shown that it does not contain such components and in particular:⁶

Lead-containing glass from cathode ray tubes (CRTs) and imaging lenses, which are assigned to Annex VIII entries A1180 or A2010 “glass from cathode ray tubes and other activated glass”. This

¹This entry does not include scrap assemblies from electric power generation.

²PCBs are at a concentration level of 50 mg/kg or more.

³This entry does not include scrap from electrical power generation.

⁴ Reuse can include repair, refurbishment or upgrading, but not major reassembly.

⁵In some countries these materials destined for direct reuse are not considered wastes.

⁶ The following list of components or constituents are non-exhaustive examples.

waste also belongs to category Y31 in Annex I, “Lead; lead compounds” and is likely to possess hazard characteristics H6.1, H11, H12 and H13 included in Annex III;

Nickel-cadmium batteries and batteries containing mercury, which are assigned to Annex VIII entry A1170 “unsorted waste batteries...”. This waste also belongs to category Y26 in Annex I, “Cadmium; cadmium compounds” or Y29 “Mercury, mercury compounds” and is likely to possess hazard characteristics H6.1, H11, H12 and H13;

Selenium drums, which are assigned to Annex VIII entry A1020 “selenium; selenium compounds”. This waste also belongs to category Y25 in Annex I, “Selenium; selenium compounds” and is likely to possess hazard characteristics H6.1, H11, H12 and H13;

Printed circuit boards, which are assigned to Annex VIII entry A1180 “waste electronic and electrical assemblies.....”, and entry A1020 “antimony; antimony compounds” and “beryllium; beryllium compounds”. These assemblies contain brominated compounds and antimony oxides as flame retardants, lead in solder and beryllium in copper alloy connectors. They also belong in Annex I, to categories Y31, “Lead; lead compounds”, Y20, “Beryllium, beryllium compounds” and Y27 “Antimony, antimony compounds” and Y45, organohalogen compounds other than substances referred to elsewhere in Annex I. They are likely to possess hazard characteristics H6.1, H11, H12 and H13;

Fluorescent tubes and backlight lamps from liquid crystal displays (LCD), which contain mercury and are assigned to Annex VIII entry A1030 “Mercury; mercury compounds”. This waste also belongs to category Y29 in Annex 1, “Mercury; mercury compounds” and is likely to possess hazard characteristics H6.1, H11, H12 and H13;

Plastic components containing brominated flame retardants (BFRs), in particular BFRs that are persistent organic pollutants according to the Stockholm Convention, which can be assigned to Annex VIII entry A3180 “Wastes, substances and articles containing, consisting of or contaminated with polychlorinated biphenyl (PCB), polychlorinated terphenyl (PCT), polychlorinated naphthalene (PCN) or polybrominated biphenyl (PBB), or any other polybrominated analogues of these compounds, at a concentration of 50 mg/kg or more.” This waste also belongs to category Y45 in Annex I, organohalogen compounds other than substances referred to elsewhere in Annex I and to category Y27 “Antimony, antimony compounds” and is likely to possess hazard characteristics H6.1, H11, H12 and H13;

Other components containing or contaminated with mercury, such as mercury switches, contacts and thermometers, which are assigned to Annex VIII entry A 1010, A1030 or A1180. This waste also belongs to category Y29 in Annex I, “Mercury; mercury compounds” and is likely to possess hazard characteristics H6.1, H11, H12 and H13;

Waste oils/liquids, which are assigned to annex VIII entry A 4060 “Waste oil/water, hydrocarbons/water mixtures, emulsions”. The waste belongs to category Y8 in Annex I, “Waste mineral oils unfit for their originally intended use” or Y9 in Annex I, “Waste oil/water, hydrocarbons/water mixtures, emulsions”, and is likely to possess hazardous characteristics H3, H11, H12 and H13;

Components containing asbestos, such as in wires, cooking stoves and heaters, which are assigned to annex VIII entry A 2050. The waste belongs to category Y 36 in Annex I, “Asbestos (dust and fibres)” and is likely to possess hazardous characteristic H 11.

Waste metal cables coated or insulated with plastics under A1190.

EU WEEE Directives: Currently, the Waste Electrical and Electronic Equipment (WEEE) Directive is in force in the EU Member States. The WEEE Directive lists 10 categories more or less according to industry sectors, in which data is collected for the amounts Placed on the Market and collected⁷.

⁷01. Large Household appliances, 02. Small Household appliances, 03. IT and telecommunications equipment, 04. Consumer equipment, 05. Lighting equipment, 06. Electrical and electronic tools (with the exception of large-scale stationary industrial

The recast of the EU-WEEE-Directive lists six categories, which should be reported for the WEEE-Directive and enter into force in August 2018. These categories are representative of the WEEE collection streams in practice⁸.

WEEE Forum Key Figures: The Key Figures platform (KF), managed by the WEEE Forum (WF), allows member organizations to benchmark their performance and to provide solid, comparable data to stakeholders. Every year, members are asked to provide their statistics and country data to a web-based software platform on the quantities of electrical and electronic equipment that their client producers have put on the market, the quantities of WEEE that they have collected, and the costs related to WEEE management. The platform is currently being upgraded; hence most of the data was collected via questionnaires.

The classification used by the WF comprises 17 categories for the products put on the market. The groups are a more detailed list based on the 10 WEEE categories defined in the original WEEE-Directive. The table below displays the list of KF categories and their correspondence to those in the WEEE-Directive.

Table 2. List of Key Figures categories

10 WEEE cat (Directive)	KF category	Description of KF category
	1a	Large household appliances (ex C&F's)
	1b	Cooling & freezing appliances (incl. air con.)
1	1	Total LHHA + C&F
2	2	Total Small Household Appliances
	3a	IT&T equipment (excluding monitors)
	3b	All monitors - IT&T
3	3	Total IT&T equipment + monitors
	4a	Consumer equipment (excluding TV's)
	4b	All TV's – CE
4	4	Total CE + Screens + PV
	5a	Luminaires
	5b	Lamps
5	5	Total Lamps & Luminaires
6	6	Electrical and electronic tools
7	7	Toys, leisure and sports equipment
8	8	Medical devices
9	9	Monitoring and control instruments
10	10	Automatic dispensers
	PV	Photovoltaic panels
	Other	"Other" WEEE

UNU-Keys: The UNU-KEYS is a classification that clusters appliances according to functionality and end-of-life characteristics, and is also used as the central classification in the statistical guidelines developed by the Partnership for Measuring ICT for Development. The classification is not intended as a new classification, but rather allowing compatibility between previous classifications. It is not in

tools), 07. Toys, leisure and sports equipment, 08. Medical devices (with the exception of all implanted and infected products), 09. Monitoring and control instruments, 10. Automatic dispensers.

⁸ Revised categories of WEEE in the Re-cast WEEE Directive: Temperature exchange equipment, (referred to as cooling and freezing in table 1, Screens and monitors (referred to as Screens), lamps, large equipment, small equipment, small IT and telecommunication equipment with no external dimension more than 50 cm (referred to as small IT).

use in practice in many countries yet, but has the main advantage to group and split according to many existing data formats that are used in practice. This enables data that was originally structured in different ways to comparable data that can be used as a basis for WEEE statistics. The products within a UNU category are homogeneous in weight, and they display uniform market behaviour. This allows very detailed assessments on future WEEE arising and allows to compile accurate statistics. The UNU Keys have been described in more details in CWIT Deliverable 2.3 (Database and WEEE classification listing).

2.2 Practical difficulties arising from inconsistent waste classifications

Several complications arise from the existence of two different code systems, i.e. European waste coding on the one hand and the international tariff codes used by customs authorities on the other. From a customs point of view, no over-arching definition of waste is included in the combined nomenclature (CN) or Harmonized System (HS) nomenclature. For the customs, the waste is defined by physical or chemical properties, and is testable in a laboratory. The nomenclature uses terminology: “wastes”, “residues”, “scrap”, “parings”, “used”, “unfit for their original intended purpose” due to, for example “damaged or discarded articles”, “goods definitely not usable as such because of breakage, cutting-up, wear or other reasons”.

In the European waste legislation, any substance or object, nearly every CN code, can in principle be a waste. The difference comes from the intention in waste legislation versus physical characteristics in customs. *For instance, a mobile phone without its battery is regarded by a customs officer as a mobile phone although it would not function when presented to customs and is from a waste legislation point of view clearly a waste. The inconsistencies in the current classification systems give rise to ambiguities in the interpretation of e-waste.* A 2013 joint audit report points out that the broad definition of waste used in the European Waste Shipment Regulation leads to differences in interpretation among stakeholders and countries, making law enforcement more complicated and affecting statistical reporting (EUROSAI, 2013). Furthermore, the allocation of the LoW codes based on hazardousness of the waste, has been identified as another point of unbalance among EU countries. For instance, a load of small household appliances collected from a civic amenity may be identified with the LoW code 201135* (hazardous) in France, but in Spain it may be codified as 200136, the corresponding non-hazardous code.

Relations between the classifications of EEE and WEEE

The main findings on the relations between the classifications are:

- The CN codes describe the products in great details but do not distinguish WEEE from EEE.
- The EEE of CN can be linked to the categories of the EU WEEE Directive.
- The Basel Codes and LoW codes, however, are difficult to relate to the CN codes. This mainly comes from the fact that the CN nomenclature defines waste as the residual streams.
- The LoW and Basel codes are currently also not linked to each other.
- The UNU classification system can be connected to other classifications, such as the ten categories in the WEEE Directive, the six categories in the recast of the WEEE Directive, the WEEE Forum Key Figures and the Harmonized Combined Nomenclature (CN) that is used by customs organisations in Europe.

These have been summarized in the table below.

Table 3: Relations between various classifications to gather or disseminate data for e-waste statistics (adapted from Baldé et al, 2015)

	UNU-KEYS	CN	LoW	Basel Codes	EU WEEE Recast Directive 6
--	----------	----	-----	-------------	----------------------------

					categories
UNU-KEYS					
CN	1 HS codes unique links to the UNU-KEYS.				
EU List of Waste (LoW)	Not directly correlated	Not directly linked, due to differing concepts of waste in HS classification and LoW			
Basel Codes / Waste shipment regulation	Not directly correlated	Not directly correlated	Not directly correlated		
EU WEEE Recast Directive, 6 categories	One UNU-KEY can be correlated to the 6 categories, with the exception of the size distinction	1 HS codes can be correlated to the 6 categories of the WEEE-Directive with the exception of the size distinction	Not directly correlated	Not directly correlated	
EU WEEE Directive, 10 categories	One UNU-KEY links to a category in the WEEE Directive	1 HS code can be correlated to the 10 categories of the WEEE-Directive	Not directly correlated	Not directly correlated	Not directly correlated

2.3 Benefits of improved waste codifications

Benefits of improved waste codifications include the following:

- Reduced cost of training: Consistent classification of WEEE for all registration events and cross-border flows would reduce the cost of training WEEE industry and government operators in waste codifications.
- Increased detection: Improved waste codifications will enable customs and other law enforcement personnel in identifying WEEE and thereby increase the rate of detection of illegal trade.
- Reduced cost of detection: Reducing the cost of training and increasing the effectiveness of LEA action will result in an overall reduction in the cost of detection.
- Increased prosecution. Increasing the rate of detection should contribute to increased rates of prosecution.
- Better utilization of inspection resources: Improved waste codifications, enabling reliable inspections and prosecutions could also result in more accurate benchmarking of indicators that could direct inspection resources (e.g. average percentage of shipments on route "X" containing undocumented WEEE).
- Improved information flow: Consistent waste classifications may be expected to facilitate information exchange between national and international LEAs resulting from the use of common classification systems.

2.4 Stakeholders affected

This recommendation cluster is primarily aimed at international bodies (EC, Basel, Rotterdam and Stockholm Secretariat etc.) and national LEAs (e.g. customs, police) and prosecution offices. These are the stakeholders that would be responsible for creating, implementing, adhering to the improved classification systems.

Other WEEE-chain stakeholders could also significantly benefit from these guidelines. Compliance schemes and collectors may have better information to distinguishing between used EEE and WEEE in the streams they handle.

Transporters may find it easier to make transport declarations, which in turn will facilitate more streamlined inspections and targeting of LEA resources towards prioritizing high-risk shipments.

Recyclers may be better placed to separate used EEE from actual WEEE. This in turn may enable recyclers to generate higher revenues due to the valuation of used EEE.

2.5 Suggested actions

Action: Import / export codes for WEEE and second-hand commodities

There is a need to have a commodity code for important exported types of equipment such as monitors, television sets, and refrigerators. Preferably, it should be differentiated between new and used equipment and WEEE in that appropriate codes are introduced into the combined nomenclature (CN) used by custom officers.

Amendments in CN coding can be achieved relatively fast (within a year). However it should be compliant with the overarching HS 6 digit codes that apply world-wide. Here, specifically for WEEE, clear limitations exist. According to the minutes of the meeting organized by DG TAXUD, held in Brussels (8-10 July, 2014), this is difficult at CN level without infringing the HS, which should be amended in the first place. Related possible new HS codes are not expected before 2022. Thus other alternative interim solutions need to be investigated.

Action: Develop a conversion table for converting customs codes into Basel codes and vice versa through adoption of the UNU Keys to improve waste codification

Developing a conversion table would help waste shipments to be identified from customs declarations. This could be facilitated using the UNU-KEYS.

The UNU-KEYS comprises of 54 product categories, and form the conceptual basis for compiling accurate WEEE statistics. The UNU-KEYS already connect the different classifications of the WEEE Directive to each other. Further alignment of EU waste classifications to the UNU-KEYS is essential for more harmonization. For instance, the WEEE related entries in the EU-List of Wastes (LoW) and in the waste shipment regulation could be interlinked and harmonized with the UNU-KEYS, to the extent possible. Such amendments might need adjustments of the entries in the EU List of Wastes and the EU Waste Shipment Regulation.

In fact, the European Commission had recognized the lack of relations between waste codes and customs codes in general, and had tasked DG TAXUD to construct correlation tables between the relevant waste and custom codes classifications (EUROSAI, 2013).

Action: Harmonize EU LoW with the EU WEEE Directive categories

Currently, the EU LoW codes and the EU WEEE Directive are not consistent. Working groups could be assigned to accommodate harmonization and come up with proposals on how and when waste codes could be changed. For instance, the EU LoW to WEEE Directive categories could be further harmonized by creating six codes to the 20th chapter of the EU LoW within the sub heading of 20 01 (separately collected wastes). A preliminary proposal for such codes could look like:

- o 20 01 50 * = WEEE containing of temperature exchange equipment, not containing chlorofluorocarbons, HCFC, HFC
- o 20 01 51* = WEEE containing of temperature exchange equipment, containing chlorofluorocarbons, HCFC, HFC
- o 20 01 52* = WEEE containing of screens

- o 20 01 53* = WEEE containing lamps (as defined in WEEE Directive)
- o 20 01 54* = WEEE containing large household equipment
- o 20 01 55* = WEEE containing small household equipment
- o 20 01 56 * = WEEE containing small IT

It should be further discussed which items are hazardous and which ones are non-hazardous, and also whether there are entries needed in the 16th chapter of the EU-LoW. The current WEEE related codes of the LoW could merge into those and become obsolete. The option of synchronizing the classifications by using (groups) of UNU-KEYS, may also be explored

Action: Connect the EU Waste Shipment Regulation codes with the EU WEEE Directive categories/EU LoW

Currently, the EU Waste Shipment Regulation codes and the EU WEEE Directive are not consistent. The codification in the waste shipment regulation could also be amended in order to become aligned to the other waste legislation, such as the EU LoW or the categories of the WEEE Directive.

Another option is to synchronize the classifications by using (groups) of UNU-KEYS.

In order to amend the classification systems, it is necessary to develop specific proposals for streamlining the definition of waste in customs and waste legislation and to amend codes of the Waste Shipment Regulation and/or EU List of Waste, with the goal to harmonize them further. Specific proposals are also required for the creation of specific WEEE codes in the custom codes, for the most important type of exported equipment. These initiatives can be realized by building political support, conducting pilot studies to further understand the details and setting up of (ad-hoc / temporary) task groups, including customs experts, waste experts, recyclers, government officials on national, EU level and global level with the goal to harmonize the codifications. In the 2013 joint audit report by EUROSAI, the European Commission (EC) is advised to support the development of proper guidelines for identifying and classifying waste, as well as the implementation of a conversion table (EUROSAI, 2013).

2.6 Implementation timeline

As regards implementation we should consider the improvement of current supporting documents and correlation tables between customs classifications and waste classifications (EU LoW, Basel Codes) to be relatively short term activities (approx. 1-3 years). However, a full implementation might be expected to run up to 5 years or beyond.

2.7 Implementation limitations

In general, progress towards more harmonized WEEE classifications and definitions calls for strong political will and close collaboration among stakeholders that have power to implement regulatory changes. However, progress in this arena is typically very slow and involves many stakeholders, such as governments, recycling industry, producers, compliance schemes etc, which can be viewed as a limitation to the implementation of the action plans.

3 PRODUCE AND MAINTAIN CONSISTENT GUIDELINES

3.1 Description of the problem

The observed difficulty in the distinction between waste and used goods is identified as a recurring cause that enables the illegal trade of WEEE in practice. The “absence of clarity in the definition of waste” has also been pointed out in EUROJUST’s Strategic Project on Environmental crime report as

“a major obstacle in the prosecution of cases of illegal waste trafficking”. This conclusion was confirmed in the CWIT project workshops, the final conference (see Annex A), questionnaires and in interviews with experts.

“An effective discussion on WEEE issues is not possible without precise and exact definitions.”
CWIT Final Conference, Lyon, June 2015

While distinctions between the different types of waste are provided in the annexes, formal (quantitative) measures do not exist. From a waste legislation point of view one single definition of waste is accepted: ‘waste’ means any substance or object, which the holder discards or intends or is required to discard (Art 3.1 Waste Framework Directive 2008/98/EC). However, there are no consistent guidelines and interpretations of what constitutes waste at regional and international level, and adoption of the same at a national level, could result in the poor utilisation of inspection and enforcement resources. This could in turn lead to reduced detection and prosecution rates. Low levels of detection and prosecution mean that the status quo would remain and the illegal trade in WEEE would continue and indeed increase. Moreover, there are no consistent guidelines on appropriate protection during transportation, which also means that legitimate shipments of used EEE are likely to be classified as WEEE, prior to examination for its potential for re-use. This could result in delayed shipments, and increased costs for all parties.

In general terms inconsistent guidelines for Law Enforcement Agencies (LEA) mean that:

- WEEE is not being identified as such during inspections, and:
- Information sharing is hampered due to different terminology, definitions, and interpretations (e.g. WEEE in some countries includes the weight of scrap metal, but not in other countries).
- Potentially reduced effectiveness of inspection & enforcement resources.

The current lack of consistent LEA guidelines primarily arises from differing legal systems, inspection resources, inspection training available at a national level, the cost of inspection and/or testing of used EEE. To address this, it is recommended that consistent guidelines be produced, maintained, and adopted by relevant national authorities to provide uniform definitions and interpretations and guidance on how to identify and distinguish WEEE from UEEE. Clarity and applicability of guidelines, definitions of WEEE and of what constitutes offensive behaviour, is vital for all personnel engaged in the fight against illegal trade in WEEE. This recommendation proposes to harmonise inspection training, inspection procedures, and, transport documents as they pertain to potential WEEE shipments. The proposed changes should lead to more effective resource utilisation. The adoption of guidelines would increase the effectiveness of law enforcement inspections, which could result in enhanced prosecutions, and overall affect the prioritization of WEEE related problems in the prosecution and the judiciary. A move towards consistent and continuously updated international guidelines should influence/assist national stakeholders responsible for implementing national guidelines. In particular, as a result of consistent guidelines across various LEAs, other WEEE supply chain stakeholders will be able to build their own tailored, and in some cases more detailed, guidelines and standards. It is common for industry players to drive the creation of detailed standards that ensure compliance with LEA guidelines. This recommendation is likely to be well accepted by LEAs. A number of respondents to CWIT surveys and interviews expressed an interest in having common criteria and agreement at European level as well as on having templates available for guidance and/or use within their own procedures. But it is important to conduct further research into understanding how the guidelines can be utilised in a complementary way to increase the capabilities of law enforcement agencies and prosecutors to fight cross-border WEEE crimes more effectively.

Technical guidelines⁹ aimed at clarifying the distinction between UEEE and WEEE is under development under the Basel Convention, which, if adopted, would reflect global agreement on this issue. At the recent Basel Convention COP 12¹⁰, the adoption of technical guidelines on WEEE faced a number of objections from member countries with the result that the guidelines have been adopted on an interim basis, on the understanding that they are of a non-legally binding nature and that the national legislation of a party prevails over the guidance provided within the technical guidelines. The eventual adoption of the UEEE Guidelines can be seen as a progressive step towards legal clarification. However, because technical guidelines are not legally binding, the instrument may only have limited effect in influencing national legislation and business practices, especially given that Basel Parties have historically determined their definitional boundaries for waste based on their respective domestic interests. For definitive legal clarity on the issue of reuse and in particular, in order to raise global environmentally sound management (ESM) capacity in the area of reuse, repair, refurbishment and upgrading, a legally binding approach is preferable.

3.2 Benefits of consistent guidelines

Benefits of consistent guidelines include the following:

- **Reduced cost of training:** Consistent definitions, methods, techniques, and procedures across multiple jurisdictions would reduce the cost of generating new materials (e.g. checklists, training videos, procedures, etc.). Effective procedures could be quickly amended and adopted due to identical definitions. This could be an important consideration for LEAs with fewer resources.
- **Increased detection:** Consistent definitions and the resultant skills development of personnel should increase the rate of detection of illegal trade in WEEE.
- **Reduced cost of detection:** Reducing the cost of training and increasing the effectiveness of LEA action will result in an overall reduction in the cost of detection.
- **Increased prosecution:** Increasing the rate of detection combined with consistent definitions should contribute to increased rates of prosecution.
- **Better utilization of inspection resources:** Consistent definitions and guidelines, enabling reliable inspections and prosecutions could also result in more accurate benchmarking of indicators that could direct inspection resources (e.g. average percentage of shipments on route "X" containing undocumented WEEE).
- **Improved information flow:** Consistent guidelines (e.g. definitions and recording procedures) could also facilitate increased information flows between national and international LEAs thanks to a common lexicon and approach to inspection and prosecution.

3.3 Stakeholders affected

This recommendation cluster is primarily aimed at international bodies (EC, Basel, Rotterdam and Stockholm Secretariat etc.) and national LEAs (e.g. customs, police) and prosecution offices. These are the stakeholders that would be responsible for generating, implementing, adhering to, and maintaining the necessary guidelines.

Even though the proposed guidelines are aimed at the LEAs and prosecution offices, other WEEE-chain stakeholders could also significantly benefit from these guidelines:

- **Compliance Scheme and Collectors** would benefit by following the inspection guidelines. They may have better information to mitigate the risk of mixing used EEE and WEEE in the streams they handle.

⁹<http://www.basel.int/Implementation/Ewaste/TechnicalGuidelines/DevelopmentofTGs/tabid/2377/Default.aspx>

¹⁰<http://www.basel.int/TheConvention/ConferenceoftheParties/Meetings/COP12/tabid/4248/mctl/ViewDetails/EventModID/8051/EventID/542/xmid/13027/Default.aspx>

- Transporters get advantages by following the appropriate protection for transport guidelines. They will be better informed on the correct packaging of EEE for re-use/recovery, thereby reducing the number of false negatives and hence disrupted shipments.
- In turn, correct packaging by transporters would also facilitate inspection by LEAs, thereby reducing the cost of inspection, and hence enforcement. Consistent transport declaration documentation would also facilitate more streamlined inspections as a result of LEA resources being prioritized to high-risk shipments.
- Recyclers will be better placed to separate used EEE from actual WEEE by following the inspection guidelines. This could enable recyclers to generate higher revenues due to the valuation of UEEE. The resultant increased interception of falsely documented WEEE shipments could result in in-country recyclers receiving more WEEE for treatment.

Best practices

- On the issue of WEEE, a number of training materials and guidelines have already been developed by a number of institutions at regional and international levels such as Basel, IMPEL, WCO, UNU, INTERPOL, StEP Initiative, OECD etc. Annex VIII of Regulation 1013/2006 already provides a list of guidelines on environmentally sound management adopted by a number of authorities (Basel Convention, OECD, International Maritime Organisation (IMO) and International Labour Organisation (ILO)).
- A number of EU countries have developed their own guidelines and these are available on the CWIT project's LibraWEEE site¹¹. EU Member States such as Austria, Belgium, and Nordic countries (Norway, Sweden, Denmark and Finland as the Nordic Waste Group) have some templates, definitions and guidelines under preparation. Other brochures and guidelines are also available on IMPEL's website¹².
- The recast Directive (and the Revised Correspondent's Guidelines #1)¹³ address the issue of distinguishing between WEEE and UEEE in its Annex VI (Minimum requirements for shipments)¹⁴, in which a functionality test is required to prove that the goods shipped are UEEE and not waste. The Directive also refers to several records that the holder of the traded goods must have available in order to clearly identify them either as waste or UEEE.
- The cost of comprehensive testing of UEEE to assess/certify functionality has been highlighted as a barrier to implementing inspection procedures sufficient to significantly reduce the illegal trade in WEEE. To address this barrier some respondent countries introduced short checklists to use a risk-based approach to inspection of shipments. Belgium currently has a code of good practice that includes functionality testing criteria, and it will soon be implemented in their national legislation (CWIT Deliverable 3.3, Comparative overview and observations).

¹¹See www.libraweee.eu

¹²See <http://impel.eu/>

¹³ These Correspondents' guidelines represent the common understanding of all Member States on how Regulation (EC) No 1013/2006 on shipments of waste (Waste Shipment Regulation) should be interpreted and are not legally binding. The guidelines were agreed by the correspondents at a meeting on 14/15 June 2007 organised pursuant to Article 57 of Regulation (EC) No 1013/2006. See <http://ec.europa.eu/environment/waste/shipments/guidance.htm>

¹⁴ Annex VI of the WEEE Recast sets out the Minimum Requirements for Shipments of UEEE to make exporters responsible for proving that goods are being shipped abroad for repair or reuse. Exporters are required to test and provide documents showing the shipment contains of UEEE and not WEEE. The minimum requirements include providing invoices, evidence of functionality, formal declaration by the holder and appropriate protection against damage during transportation. For details see <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32012L0019>

3.4 Suggested actions

Action: Agree scope of initiative & success metrics

The creation of new guidelines for LEAs is a significant undertaking in terms of the volume of communication, analysis, consultation, drafting, and testing required. To be able to generate a realistic plan of completion, it is first necessary to agree the scope of the work to be completed (e.g. collection, storage, inspection, testing, transporting, etc.).

It is proposed that the preparation of guidelines and definitions be staggered, and starting with the most critical guidelines (i.e. definitions and inspection). There two distinct elements to this body of work, first there is the generation of the new guidelines, then, there is the on-going maintenance of the guidelines. Each element requires investment, and must be appropriately resourced to ensure initial and on-going success. Once the scope of work is understood, it is then necessary to outline what will be the success metrics of the initiative and how the owner/sponsor will know if the initiative was successful.

Action: Identify & select organization to own/sponsor new guidelines

To ensure the success of consistent and continuously updated guidelines, an international body with substantial credibility in the area of WEEE should be the primary owners/sponsors. Such a body is required as it should have both the in-house talent to generate such guidelines, and, the ability to attract appropriate individuals to such an initiative. Also such bodies are capable of taking the longer-term view that is required to generate such guidelines.

In order to identify a potential owner/sponsor determine if there are initiatives currently underway that may already partially or completely address the concerns raised in this report (e.g. Basel draft guidelines, IMPEL etc.). Bodies that are already well advanced in this area of work would be ideally placed to drive such an initiative to completion.

Action: Agree timelines & resources

Once the owner/sponsor and scope have been agreed it will be possible to agree high-level timelines based on different resourcing levels. The output of this action should be a detailed project plan, incorporating the different elements of the initiative (e.g. stakeholder consultation, drafting, testing, etc.).

Action: Drafting and public consultation

Once the resources are in place to execute the agreed project plan, within the time allowed, then the real work takes place. This action will consist primarily of first principles research, drafting, and stakeholder consultations (e.g. surveys, workshops, conferences, trials, etc.).

Action: Implementation

Once the new guidelines have been drafted and agreed, the implementation programme should be rolled out. This should start on a trial basis with selected LEAs. Once the guidelines have been validated and any LEA feedback incorporated, appropriate training materials should be created to facilitate a larger roll out to other LEAs.

3.5 Implementation timeline

The timeline will depend entirely on the scope of work taken on by the owner/sponsor, and the resources available. It is estimated that to reach international consensus on definitions and guidelines for LEA will take 3 to 5 years.

3.6 Implementation risks/limitations

As with many international initiatives, there will be many stakeholders with competing incentives, this will make the consensus building slow. If consensus cannot be reached in a realistic timeframe then the process could become derailed.

Moreover, the current approach is not resource efficient for LEAs. The increased detection will increase the workloads of other actors (e.g. prosecutors) and generate new challenges such as:

- Who will pay for transport, treatment, & disposal of increased WEEE confiscated?
- Will false-positives significantly impact legitimate recycling and re-processing businesses?
- Will increased rates of detection result in WEEE being illegally dumped in-country?

These challenges will vary depending on the degree of implementation, and could be expected to be greater in the beginning but decrease in the course of time.

Further, the expected increased detection due to new consistent guidelines would increase the cost of illegal trafficking of WEEE, which reduces the profit margins and therefore makes it less attractive. In parallel, if guidance documents are public then would-be traffickers would be better able to predict the probability of being detected, and therefore adjust their behaviour. But the removal of ambiguity in testing used EEE and defining what constitutes WEEE will improve the consistency of detection rates.

If consistent guidelines are adopted in a phased manner across countries, there may be temporary incentives to re-route illegal WEEE through countries which have not effectively adopted the new guidelines. Better detection in the illegal trade of WEEE could also displace crime from WEEE to other types of devices. As an example, EUROPOL pointed out that “Organized Crime Groups, OCGs, are likely to attempt to profit from the trade in end-of-life green energy infrastructure as many of these installations contain the same metals and resources found in other WEEE products.” EUROPOL gives the example of solar panels which are increasingly widespread throughout the EU (EUROPOL, 2015, p.24).

4 ALL ACTORS REPORT

4.1 Description of the problem

Unreported and misreported WEEE flows are particularly prone to illegal trade and improper treatment. This recommendation cluster deals with the common problem of non-reporting, incorrect reporting and underreporting of collected and treated WEEE amounts. The objective is that through more stringent and focused regulations as well as through more frequent governmental audits, site inspections and other controls, the degree of proper reporting can be increased over the coming years.



Figure 2. Fridges at a recycling facility.

The research conducted under the framework of CWIT Work package 2 highlights the importance of accurate reporting statistics. Compliance schemes are required to regularly report to competent authorities the amounts of WEEE collected, including their origin and destination. However it has been observed that compliance schemes only monitor and control a part of the WEEE collected and treated, clearly pointing to the fact that a

large amount that is being collected and treated remains unreported to WEEE authorities, thereby resulting in the gaps in knowledge on the exact amounts, destination and treatment of such material. In addition to this, many holders and recyclers of WEEE already report, but not to a unified database on a national level. In certain EU countries, producers and compliance schemes on one side and treatment operators on the other, report WEEE collected to different competent bodies, sometimes using different and, worse, incompatible codifications.

In terms of reporting WEEE treated, one missing key element in the implementation of the EU legal framework is reporting on Annex VII of the WEEE Directive regarding selective treatment. Of vital importance is the strengthening of reporting requirements for amounts of environmentally hazardous substances removed from WEEE per Member State, for instance as part of revising Article 16 of the WEEE Directive or the addition of further requirements on such reporting in Annex VII itself. Reporting of Annex VII depollution results should currently be done in the context of the Waste Framework Directive general reporting (per waste code). However, also due to the codification issues as discussed earlier, there is no reporting on a national level and thus insufficient oversight and complete lack of benchmarking on treatment results. Since the de-pollution concerns are one of the primary objectives of the WEEE Directive, this crucial omission is recommended to be filled in new iterations of the WEEE Directive and/or in the national transpositions as an additional requirement.

Another specific issue to be dealt with in this cluster is the mixing of WEEE with mixed metal scrap (for example allowed in the UK as 'non-obligated LHA'). Improved reporting here will enable less pollution of non-desired appliances in these streams and much more accurate country- and EU-level statistics and other monitoring linked in particular to estimating the "true amounts of illegal WEEE" shipped annually from Europe to developing countries (see recommendation cluster on "improve waste codification").

Article 16 in Directive 19/2012 requires that Member States collect information on WEEE collected through all routes. Previous country studies performed in Italy (Magalini et al., 2012), France (ADEME, 2013), Belgium (Wielenga et al., 2013) and the Netherlands (Huisman et al., 2012), show that mis/unreported and flows recycled under non-compliant or substandard conditions are significant and happen in all EU countries. From the analysis in Deliverable 4.3, Annex C the following overview picture is derived:

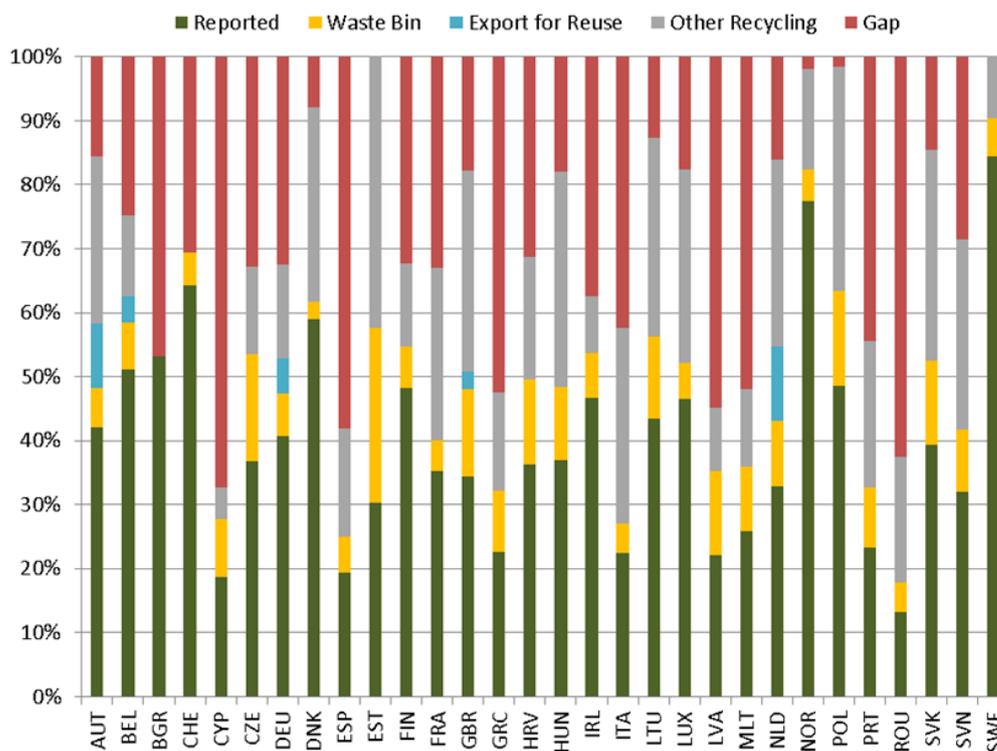


Figure 3. Collection of WEEE compared to WEEE generated in 2012 for all categories

4.2 Benefits of improved reporting of WEEE flows

Benefits of improved reporting of WEEE flows include the following ones:

- Easier to reach higher collection targets set by law: National and European WEEE registers lack adequate information due to inconsistent reporting in the WEEE chain. Mandatory reporting of all flows will prevent dubious actors from diverting WEEE to illicit streams.
- Better utilization of resources: Information that will be reported could be accessed by law enforcement agencies. This will contribute to a better utilisation of resources through a risk based approach to inspection and monitoring. Failure to report is directly related with waste traceability, invisible flows and tax evasion. Authorised facilities are the victims of this problem as they have to compete with non-authorised facilities treating unreported waste.
- Reduction of tax evasion by waste business (in the purchase of unreported WEEE). A report on the UK prepared by Eunomia corroborates that analysis and views derived from industry suggest that the real cost of tax evasion is likely to be considerably higher than previously thought. The report states that evidence on tax evasion is very limited, yet in the waste sector it is widely believed to be taking place on a very large scale.

Penalties for not reporting might be a proper incentive to enhance reporting. At the same time, incentives for each actor for reporting should probably be considered as a complementary recommendation.

4.3 Stakeholders affected

This recommendation cluster deals with the implementation of new policies and is addressed to government agencies setting the reporting requirement. LEAs have a key role to play on ensuring that all actors with access to WEEE report their collection. It has also direct impacts both on WEEE

chain companies as the main reporters. The private sector is also envisaged to play an important role in collaborating with LEAs to put in place actions to improve the performance of actors reporting.

Best practices

The French case study. The "observatory", registration requirement for entities that handle professional WEEE and collection and treatment operators likely to handle WEEE¹⁵.

The French Environmental Code – Regulatory Part – Article R543-202-1 reads as follows:

(...) Created by Decree No. 2014-928 of 19 August 2014 - Art. 6

A national database shall compile all information relevant to the observation of waste electrical and electronic equipment treatment, transmitted by collection operators other than local authorities, treatment operators and the users or handlers mentioned in Article R. 543199. The French Agency for the Environment and Energy Management (Agence de l'environnement et de la maîtrise de l'énergie, ADEME) shall be responsible for establishing, maintaining and exploiting the database. An order issued jointly by the Ministers for the Environment and for Industry shall set out the database registration procedure as well as the nature of the required information and the terms and conditions governing its transmission (...)

This text regulates the setting up of a database (also known as "observatory") meant to collect information on operators that treat WEEE, regardless of whether such treatment is carried out under a contract with an accredited take-back scheme of producers or approved individual system. The database must make it possible to identify all players involved in the collection or treatment of WEEE in France.

A supplemental order specifies the information that operators must transmit each year to ADEME. This information includes: tonnes of WEEE treated, origin of the WEEE, and the first destination of the fractions leaving the operator's site.

SYDEREP¹⁶ is the website gathering the Observatories and Registers of the following sectors:

- Electrical and electronic equipment -EEE-
- Batteries and accumulators -B&A-
- Fluorinated gases
- Tyres
- End of life vehicles -ELV-

It is an online tool currently under development and expected to be available in early 2016. The tool allows actors involved to register and provide the data requested. Ongoing reinforcement of cooperation between law enforcement and regional control authorities in France is expected to help ensure that the framework is effectively enforced.

Additional legislation is also anticipated. The Energy Transition for Green Growth bill contains a provision which broadens the obligation to return WEEE to take-back schemes of producers (extension of point 1 described above). Under this provision, waste management operators are not allowed to manage WEEE (household or professional) unless they have entered into waste management contracts with an accredited take-back scheme of producers or an approved or certified individual system put in place by a producer (adoption expected in March 2015).

The bill also includes a provision aiming to facilitate exchanges of information between customs officials and the Ministry of Environment in charge of risk prevention, including teams from the

¹⁵ If the bill on energy transition for green growth (see below "Additional legislation under examination") passes without any further changes to the current text, the observatory will become obsolete.

¹⁶ <https://www.syderep.ademe.fr/en>

decentralised services responsible for inspecting WEEE storage, transit and treatment sites. This bill was endorsed by the National Assembly at first reading on 14 October 2014 raising hopes for a fast adoption through a so-called fast-track procedure. However the proposal is still under discussion and approval is expected to take place before summer 2015¹⁷.

The Netherlands (W)EEE Register

The Dutch (W)EEE Register (hereinafter called: the Register) was delegated by the Dutch Government to organise the tasks related to the registration and reporting obligation stipulated in the Dutch implementation of the WEEE Directive. The Register is funded by the producers of electrical appliances and low-energy light bulbs (EEE). The Register's client is the Government. Producers of EEE and treatment operators of discarded electrical appliances and low-energy light bulbs (WEEE) register at and report to the Register.

Actors to report on this register, in addition to compliance schemes, are online shops and producers that individually meet their obligations in the WEEE Directive. For retailers and importers, the following rule of thumb applies: If the invoice from the supplier of electrical appliances and low-energy light bulbs (EEE) specifies a VAT zero rate or a foreign (not Dutch) VAT rate, then they are the producer unless that supplier has voluntarily transferred its responsibility to a Dutch legal or natural person by means of a mandate in accordance with Article 21. Producers which are members of a producer collective or to a collective system do not need to do anything because those organisations will take care of the registration and the reporting for them.

Treatment operators (and exporters) of discarded electrical appliances and low-energy light bulbs (WEEE) are legally obliged to register and report to the National (W)EEE Register, as well. Operators do not need to report WEEE that is collected by an individual producer or a collective system in the Netherlands and is processed at their premises: the producer or collective system will do that.

For treatment operators, registration is free. The costs of the register in the year 2014 were paid by the producer collectives. This means that in 2014 registration was free for producers that individually meet their obligations in the WEEE Directive. The Register itself contacts the collective systems to ensure the effective registration of the WEEE that has been collected and processed by them. Treatment operators (and exporters) that process Dutch WEEE outside the collective systems, can register directly on the website. Furthermore it is expected the setting up of a hotline on which interested parties can anonymously report parties suspected of being operators or exporters of WEEE. There is a public list of registered operators in the Netherlands with information on the possible report on name, chamber of commerce number and type of WEEE.

¹⁷ Energy Transition for Green Growth Bill (adopted by the National Assembly at first reading)

II. – The following sentence is to be added to the third paragraph of Article L. 541-10-2 of the French Environmental Code: "Waste management operators are not permitted to handle waste electrical and electronic equipment unless they have entered into contracts for the management of such waste with accredited take-back schemes or with individual systems put in place by the persons mentioned in the first paragraph; this provision shall apply only as from 1 January 2016 for professional waste electrical and electronic equipment".

III. – Article 59 octies is to be added to Title II, Chapter III of the French Customs Code (Code des douanes), as drafted below:

"Art. 59 octies. – Customs officials and officials from the Directorate-General for Risk Prevention and its decentralised services are authorised, for the purpose of performing their duty to control cross-border transfers of waste and to control chemical substances and products, to communicate to each other, upon request or of their own motion, all information and documents held or collected while performing their respective duties"

The Spanish WEEE management e-platform.

Article 55 of the Spanish Royal Decree 110/2015 (20 February 2015), envisages the creation of a national e-platform that will collect information from all operators working on the collection and management of WEEE. The information will be provided in the European Waste List codes extended to the WEEE categories (see example below), producing in total a list of 27 different types of codes (see also recommendation cluster 1 on waste codification). Companies dealing with the collection and management of WEEE are required to input information on a daily basis (whenever it is required). Competent authorities will have access in real time to the data input and a task force on WEEE will supervise, coordinate and monitor the performance of the platform. It is expected that the data collected will allow WEEE traceability and the allocation of collection responsibilities for EEE producers. The e-platform will be financed by public authorities (Environment Ministry at least) and EEE producers.

Tabla 1. Equivalencias entre categorías de AEE, fracciones de recogida (FR) de RAEE y códigos LER-RAEE

Categorías de AEE del anexo I	Categorías de AEE del anexo III	FR	Grupos de tratamiento de RAEE	Origen	Principales códigos LER - RAEE
1. Grandes Electrodomésticos 1.1. Frigoríficos, congeladores y otros equipos refrigeradores 1.2. Aire acondicionado 1.3. Radiadores y emisores térmicos con aceite 10.1. Máquinas expendedoras con gases refrigerantes	1. Aparatos de intercambio temperatura 1.1. Aparato eléctrico de intercambio de temperatura con CFC, HCFC, HC, NH ₃ 1.2. Aparato eléctrico de aire acondicionado 1.3. Aparato eléctrico con aceite en circuitos o condensadores	1	11*. Aparatos con CFC, HCFC, HC, NH ₃	Doméstico	200123*-11*
				Profesional	160211*-11*
			12*. Aparatos Aire acondicionado	Doméstico	200123*-12*
				Profesional	160211*-12*
			13*. Aparatos con aceite en circuitos o condensadores	Doméstico	200135*-13*
				Profesional	160213*-13*

Table 4. Example of combined codification EWC-WEEE (excerpt from Annex VIII, Spanish Royal Decree 110/2015, 20 February 2015)

Italian Coordinating Centre

According to Italy's WEEE transposition, Article 33 relates to the establishment of the coordinating centre to which owners of WEEE treatment plants must register and notify the WEEE quantities treated annually. Individual management systems of household WEEE and individual and collective professional WEEE management systems may also participate in the Coordination Centre.

Article 33 increases the role and responsibilities of the clearing house for the future and additional decrees will be published in time. It is intended that the clearing house will become the cornerstone of the entire system for stakeholder mapping and reporting.

The clearing house was already responsible for tracking all municipal collection points and retailers that were requesting take back services for household waste. The changes in the Italian transposition of the WEEE Directive mean that the clearing house is now responsible for tracking the plants (treatment operators) which process e-waste. All treatment operators are requested to register (for free) with the clearing house and report, by the 30th of April of each year, the total quantities of WEEE processed in the previous calendar year, irrespective of whether the quantities were handled on behalf of the compliance schemes or for individual customers.

The clearing house will also be responsible for tracking the WEEE collected by distributors. Amounts reported to the clearing house will be transmitted to the environmental agency and could be used as a basis for the official reporting to the European Commission and other Member States. In addition, the clearing house will be responsible for defining minimum treatment standards with recyclers associations and it is expected, in a specific decree yet to be published, to have an active role in monitoring compliance with those standards. In the past the compliance with minimum recycling

standards was only requested for recyclers processing household WEEE on behalf of compliance schemes. One of the key elements to be clarified is how the official reporting of waste collected and treated, usually done directly through the local chamber of commerce will now be shifted to a private entity for WEEE streams.

It is still not clear if treatment operators will have to report the amount of WEEE handled twice. The main difficulty might be linked to the format of reporting. Annual waste reporting was done in the past on the basis of European Waste Codes (EWC), used for national waste statistics, and the 10 product categories (Annex I of WEEE Directive). Tracking of WEEE flows (from collection points) is currently done by the clearinghouse on the basis of waste streams (collection categories). Each pick up is traced and monitored, but does not take into account the EWC of each individual load which might vary across the same collection category. It will have to be clarified how treatment operators will be required to report quantities handled and if mass balance with volumes handed over to each individual treatment operator by Compliance Schemes will be allowed or foreseen to avoid double counting of flows and ensure consistency in reporting.

4.4 Suggested actions

Action: Establish reporting obligations for all actors collecting WEEE products

The first and foremost step is to establish mandatory reporting requirements for all actors collecting WEEE.

“A harmonized reporting system is necessary making it mandatory for all actors to be registered, including private businesses, treatment plants, etc.”
CWIT Final Conference, Lyon, June 2015

These can be implemented in numerous ways. Several case studies and best practices have been illustrated in the above section as examples. The CWIT consortium concluded that certain items should be taken into account when setting up national registers, as explained below.

Action: Detailed reporting

The description of the WEEE reported should be unequivocal and understood by all reporters. For instance, the mixing of WEEE with mixed metal scrap is an issue of concern that impedes a clear accountability of the WEEE generated. A clear definition of WEEE to be reported should be prepared and shared with EU member countries, so that all types of WEEE are clearly recorded. In some countries, such as the UK, protocols have been developed by industry led groups to assist in determining the proportions of different categories of WEEE in mixed loads. These protocols can be applied to all small household appliances (SHA) and large household appliances (LHA) or large domestic appliances (LDA) as referred to in the National WEEE protocol of the UK) received from Local Authority DCFs (designated collection facility) for treatment. The environment agencies have set out in their guidance note (GN04) how the protocols should be used, including where they can be used for non DCF sourced WEEE (UK protocols¹⁸). The protocols remove the need for WEEE to be manually separated and categorised prior to processing (UK protocols²¹⁹). The protocols can also be used to apportion the materials derived from the treatment of WEEE. Other countries such as Germany²⁰ (EAR) and Austria apply statistical procedures to get detailed figures of WEEE collected.

¹⁸ UK protocols:

[http://www.360environmental.co.uk/documents/January%202011%20v2%20\(GN04%20guidance\).pdf](http://www.360environmental.co.uk/documents/January%202011%20v2%20(GN04%20guidance).pdf)

¹⁹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/292632/bis-14-604-weee-regulations-2013-government-guidance-notes.pdf

²⁰ <https://www.stiftung-ear.de/en/service-and-current-topics/figures/ordercomposition-of-mixed-collection-groups/>

Action: Improve reporting on treatment within and outside Europe

It is recommended that proper national reporting of treatment performance should be given high priority. Additional administrative burdens resulting from its compliance can be avoided by arranging the existing and upcoming reporting related to compliance with CENELEC²¹ standards as well as the existing reporting practices (like RepTool) to national authorities in a more streamlined manner. This would function best when accompanied by simultaneous restrictions like the discontinuation of licenses for non-compliant treatment operators, traders and recyclers also treating WEEE again accompanied by inspections and enforcement (this action plan is further developed in Deliverable 6.3).

WF-RepTool²² is a voluntary reporting tool developed by the WEEE Forum, to determine WEEE treatment results in a transparent, traceable manner and to achieve comparable results. It allows to calculate recycling and recovery rates in accordance with what is required in the WEEELABEX²³ standard, and record traceability of the WEEE treated until the end of waste status. The focus lies on the determination of de-pollution results of WEEE and – as main target - on the determination of recycling and recovery results to be able to compare results achieved with targets rates given by the legal requirements.

WF-RepTool builds on four ‘pillars’ of background lists (WF-RepLists).

- Input fractions
- Technologies used
- Output fractions
- WF-classification

The four background lists provide uniform names for the use of the tool and – as one of the key elements - the classification of the use of fractions (or its individual components) in final treatment processes applied. In addition to this, the tool allows treatment operators to record their treatment performance in a specific time period (annually, quarterly, treatment test performance etc.). Furthermore, a specific option in the tool is provided to submit “depollution reports” that allow regular recording of depollution performance, preferably to be done also at national levels allowing benchmarking of proper WEEE treatment. The use of this tool facilitates monitoring and supports inspection and enforcement of WEEE treatment activities.

Action: Establish common codification

In order to improve traceability and comparability, all actors should report using the same codes or codes that allow comparability. Preferably using a detailed set of codes that will allow traceability of the different types of WEEE (WEEE categories), and in particular WEEE that is likely to be illegally traded or mistreated (CFC containing appliances, CRTs etc.) (See the recommendation on improved codification for further information).

Action: Manage communication

Information to all actors is an essential factor for this tool to be successful as well for as targeted enforcement campaigns, which will take considerable coordination efforts but in exchange can be quite effective. A source of financing to set in place the e-tool, coordination, management and monitoring is necessary. The budget to implement this action may come from public authorities and EEE producers, according to the examples described above.

²¹ See <http://www.cenelec.eu/aboutcenelec/whoweare/>

²² See WEEE Forum WF-RepTool. <http://www.wf-reptool.org/index.php/home>

²³ See WEEELABEX. <http://www.weelabex.org>

Action: Control data collected

Controls that will assess consistency and reliability of the data reported by actors should be put in place. Quantities reported by actors may be audited regularly by enforcement agencies, national registers or WEEE compliance schemes. An annual mandatory audit for actors reporting products or waste beyond certain limits is a validation system already in place in some countries for waste such as packaging. In other EU countries, audits to producers are part of the requirements included in the WEEE Schemes permits.

Action: Establish a coordinated approach from competent authorities and private management Competent authorities should set the basic management rules; appoint the managers of the platform (public or private), define a financing solution; supervise the performance of the platform; and set in place actions to improve performance of actors reporting. Platform managers should build and manage the platform, liaise with interested parties, and monitor and report to competent authorities about the performance of the site.

4.5 Implementation timeline

Best practice shows that the implementation of the ‘all actors report model’ by a national reporting office may take from more than one year to three years as a minimum. A full implementation may, however, be expected to take longer than 3 years. Hence this can be considered a short to medium term action plan.

4.6 Implementation risks/limitations

Too detailed reporting may have major cost implications for some stakeholders who may oppose this piece of legislation. In addition, a strong coordinated approach among LEAs and private management is essential. A failure to do so may prevent the effective implementation of this recommendation.

5 HARMONIZE AND ENHANCE PENALTY SYSTEMS

5.1 Description of the problem

The stringency of a penalty system²⁴ affects how WEEE actors consider the risk of violations of WEEE regulations. Penalties should be considered here in a broad sense:

- confiscation of assets,
- temporary or permanent, total or partial closing of facilities,
- suspension/revocation of licenses,
- temporary disqualification from the executive offices of legal entities and enterprises and from public offices,
- publication of the criminal judgment of conviction,
- fees on return shipments,
- fines,
- restoration of environmental conditions / elimination of the damage or danger to the environment , and
- ultimately – imprisonment.

²⁴ In the context of this recommendation cluster, the terminology “penalty system” covers the type and definition of offences, as well as the type and degree of penalty

During the CWIT final conference it was stressed that in order to analyse penalties in EU, two factors had to be taken into account - the level of sanction indicated in the law (high/low); and the probability of sanctioning (high/low).

In the current system, the participation in WEEE illegal activities does not appear risky to offenders because the probability of being prosecuted and sentenced is low. And even if successfully prosecuted the penalties foreseen in legislation and/or penalties applied in court decisions are typically low. It has been reported to the CWIT project that often in administrative cases, the fines applied are not adequate to create a disincentive. Respondents from multiple countries reported that the fine is often less than the profit to be gained from a single shipment, while another reported that the fines imposed were even less than the costs for an official notification (CWIT Deliverable 5.4, Gap Analysis). Moreover, penalty levels determine the application of investigation techniques. As explained by EUROJUST, “another important issue to consider is that in many Member States the level of potential penalties corresponds to the investigative measures that can be used to investigate such offences. This means that if the penalty for the illegal trafficking in waste is not high enough or if the behaviour is not qualified as a serious crime, coercive or complex investigative techniques (e.g. interception of communications, video and audio surveillance) can potentially not be used” (EUROJUST, 2014, p.18). Also to be noted is that the classification of an offence as infraction, misdemeanour or felony determines the means available for investigation, which may facilitate or, in the opposite, limit Law enforcement activities. Changes in the classification of WEEE offences would also involve changes in the judicial priority and would influence prosecutors’ activities. For example, the legally-determined period a lawsuits may be initiated – known as prescription in civil law countries or ‘statute of limitations’ in common law countries – increase with the seriousness of the charge. Also, more means and resources are usually provided for felony cases.

Another bottleneck is the distinction made between natural and legal persons when it comes to the imposition of fines. Currently, when national legislations differentiate between the natural and legal person, the fines applied to the second category are always higher. The case of Slovenia reflects this issue, as penalties provided by law for legal persons range from €4.000 to €120.000, while ranging only from €120 to €1.200 for the responsible person of legal person (CWIT Deliverable 3.3, Comparative overview and observations). As a French Judge mentioned during the CWIT Final Conference, natural persons are very problematic in this type of crimes because they change their names or disappear and it is impossible to prosecute them. According to him, this is a very important point regarding fines and damages that should have been taken into account since in criminal procedures, judges have problems to determine damage caused to the environment and some solutions could be presented as best practices at European level. For example, in the case of the Spanish Judgement of 4 December 2014 on WEEE illegal disposal the damage was calculated taking into account the cost of the rights of emissions that the inadequate disposal of WEEE would have to cover.

The heavy burden of proof required to prosecute violators is also a recurrent issue faced by countries and a lack of sufficient evidence enables many criminals to go scot-free. However, lowering the burden of proof may not be acceptable from a legal point of view- a point reiterated in the CWIT final conference. In fact, in the case of Spain, the Constitutional Court has introduced stronger requirements for evidence provided after inspections of law enforcement agencies as shown in the Judgement of 4 December 2014 on WEEE illegal disposal.

Moreover, there is a lack of harmonization regarding the severity of the offence: some EU countries consider WEEE crimes as administrative and/or civil and/or penal. The diverse penalty systems across the EU was a point reiterated in the CWIT final conference (see Annex A). CWIT legal framework gap analysis (Deliverable 5.4) also revealed wide disparities between EU countries regarding the types of offences related to WEEE trafficking and the types and level of penalties provided by law. In fact, the type of offences provided by law in connection with the trafficking of WEEE may differ among

countries. As an example, some countries do not distinguish between waste and WEEE/hazardous waste or do not differentiate between offences related to the illegal collection and management of WEEE and offences related to the illegal shipment of WEEE. Also, some countries apply stronger penalties to offences considered as “serious” without explaining what makes it serious or not. In some countries, a threshold is set to be able to prosecute the illegal trade of WEEE. For instance, in Slovakia, the amount of the damage has to be over €265. Outcome from the mid-term workshop in Lyon on 16-17 October 2014 showed that an amount less than ten fridges transported is not considered a cause for prosecution in Austria. In Spain, thefts that do not imply the use of force and intimidation for goods below a value of €400 do not incur any type of punishing action (prison or penalty) as it is considered a misdemeanour. Further investigation of these limits should be recommended, because the establishment of thresholds may allow extended and repetitive collection of WEEE by non-regulated actors, which contribute to invisible flows.

Finally, the degree of penalties provided by national laws - in particular the financial penalties’ level and the prison term length - as well as the criteria upon which they are applied (e.g. based on the number of appliance, the weight, by container, etc.) varies greatly across Europe. EUROJUST highlights that EU countries have different interpretations of what constitutes “effective, proportionate and dissuasive criminal penalties”, as requested by the European regulation (see Article 5 of the on the protection of the environment through criminal law (Directive 2008/99/EC), Article 50 of the European Waste Shipment Regulation (Regulation (EC) No 1013/2006) and Article 22 of Directive 2012/19/EU) and that there are very different levels of penalties for the same offence in the Member States (EUROJUST, 2014). As an example, fines range from €100 in Belgium or €120 in Slovenia, to €1.75 million in Spain. Ireland and Norway envisage up to 3 months imprisonment, while in Germany the person responsible can be sentenced to up to 10 years in prison. The differences observed in the various pieces of legislation are partly conditioned by the hazardous or non-hazardous nature of the waste and/or the seriousness of the offence and/or the intention of the offender. Nevertheless, disparities in the responses against illegal collection and trading of waste/WEEE remain remarkable among EU countries. The CWIT analysis also underlined that the level of the penalties is not always foreseen in legislation (CWIT Deliverable 3.3, Comparative overview and observations). In that case, it probably depends on a Court decision which may increase the variation in the penalties applied and thus limit harmonisation across the EU.

These findings are supported by a joint report based on eight national audits (EUROSAI, 2013) which highlighted that “[t]his coordinated audit reveals wide discrepancies among the eight countries in the way in which infringements are penalised. The same infringement may be subject to a very different penalty in one country than in another. The findings also show that most countries make only limited use of sanction instruments” and concludes that “further information is needed to establish whether national sanctions policies are proportionate and dissuasive, as required by the EWSR” (European Waste Shipment Regulation).

However, as pointed out by the CWIT analysis on the penalty systems, there is no evidence that proper collection and recycling in a country is related to the level of penalties provided by law. For the record, the CWIT project has compared the level of fines and the recycling rate. This analysis looked at the level of fines and the amount of WEEE collected and reported per inhabitant in the European Union (in 2012) and concluded that there is no clear and irrefutable evidence of relationship/connection with those data. This would suggest that increasing penalties alone is not sufficient to improve the collection and recycling system in a country and to dissuade offenders to engage in illegal activities. (For a specific example, please see the case of Spain in CWIT Deliverable 3.3, Comparative overview and observations).

To increase the risk of facing repercussions in WEEE crime and to dissuade potential WEEE offenders, legislators should improve and harmonise (across Europe) the penalty systems with regard to WEEE crimes. More stringent penalty systems would increase the perceived risk of WEEE crime and thus

reduce illegal mismanagement and trafficking of WEEE. The legal framework should create a disincentive that is greater than the financial incentives driving illegal behaviours. The deterrent effect of any legislation requires that the risk of being prosecuted and sentenced and the level of penalties applied for running illegal business activities are higher than the potential economic benefits resulting from the offence.

“We should look for confiscation of assets, closing activities and sanctions”

CWIT Final Conference, Lyon, June 2015

However, as pointed out by one of the experts attending the CWIT final conference, the proposal to increase sanctions could be rejected by some Member States that are unwilling to increase sanctions of imprisonment. Nevertheless it could be emphasized that WEEE crime should be considered as a serious crime and accordingly law enforcement agencies, prosecutors and, specially, judges should avoid lenient judgments and convictions. In any case, harmonisation of sanctions of environmental crime to enhance judicial cooperation and enforcement at European level must be an objective. In the case of organised crime, this objective is more ambitious and difficult to achieve given the different approaches in the different legal systems. It should also be mentioned that WEEE crimes – as in the case of many environmental crimes- are treated by law enforcement agencies, prosecutors and judges as predicate offenses that are linked to fraud, theft, false statement, forgery of permits and licenses etc. More serious crimes such as money laundering that are difficult to detect, investigate and prove are being neglected due to lack of resources.

Of particular note in the CWIT crime analysis - based on case studies reported by national authorities, expert interviews and literature – revealed suspicion of organised crime involvement (see CWIT Deliverables 5.1 and 5.5) and further investigation and analysis needs to be done in order to gather evidence on this particular issue. At a legal level, the crime analysis highlighted a number of weaknesses, including in the penalty system, limiting investigation and prosecution of potential organised crime involvement cases. Experts explained that in some legislation, the organised crime definition cannot be applied to individuals in the illegal export of WEEE. In France and Italy, the legislation expressly mentions organised crime and the sanctions are increased when trafficking of waste is committed in the framework of organised crime (CWIT Deliverable 3.3, Comparative overview and observations). Also, international instruments on organised crime can be proved useless in case national legislation is not adapted to the situation. For example, the United Nations definition of organised crime requires a number of prerequisites to be applied.²⁵ If the offence committed does not meet all these requirements in the national legislation, then the UN definition cannot apply and the tools offered by the Convention cannot be used by LEAs (CWIT Deliverables 5.1, Definition of organised crime applied to WEEE and 5.5, Analysis of criminal activities and crime types associated with illegal WEEE trading). This is supported by a number of authors. According to Geeraerts et al. many offenders active in WEEE crimes “are part of loosely structured networks or groups which definitely can be considered as organised crime groups” but do not fall into the international legal definition of ‘organised crime’ of the Palermo Convention. Therefore, they recommend to broaden the definition “in order to incorporate environmental crime and illegal WEEE shipments in particular” (Geeraerts, Illes & Schweizer, 2015).

The issue of means available for LEAs previously highlighted also apply in this context, as investigators could be provided with specialised investigative techniques in case of organised crime

²⁵ Article 2 (a) of the United Nations Convention against transnational organised crime and the protocols thereto provides that: “‘Organized criminal group’ shall mean a structured group of three or more persons, existing for a period of time and acting in concert with the aim of committing one or more serious crimes or offences established in accordance with this Convention, in order to obtain, directly or indirectly, a financial or other material benefit”. Available online at: <http://www.unodc.org/unodc/treaties/CTOC/>

involvement. Allowing LEAs to properly investigate organised crime/criminal networks involvement require adjustment of the penalty system by redefining the offence that might be pursued under the scope of 'organised crime'.

Harmonisation of the penal system therefore appears as a priority recommendation as it would create a true disincentive for offenders and would facilitate investigation, prosecution and sentencing. Matching penalties would in fact limit the shift of illegal activity from one country to another, where the consequences are considered less severe, in particular it would reduce the amount of "port hopping", an activity in which WEEE criminals move their operations to countries where the penalties of WEEE crime are the lowest. At the international level, the need was expressed to harmonise the minimum standard on offences and provisions. This would simplify enforcement in transboundary cases, and would prevent criminals from simply shifting their activities to lower-risk countries within the EU (CWIT Deliverable5.4, Gap analysis).

This recommendation cluster falls into the deterrence and prevention security management stages as it aims to dissuade potential offender to invest in WEEE crimes through the implementation of stricter penalties. If acted upon it has the potential to disrupt the entire "illegal chain" active in WEEE illicit activities in the sense that a stronger (harmonised and strict) penalty system may limit the involvement of potentially new offenders and may also convince current offenders to stop their illegal activities related to WEEE.

5.2 Benefits of a strong and harmonized penalty system

Benefits of a strong and harmonized penalty system include the following ones:

- Dissuading current and potential offenders: Increasing the risk of facing repercussions is the better way to "disengage" individuals and companies involved in parallel illegal activities in order to earn or save money. The current system does not discourage offenders who know that the risk of being condemned to high penalties is much lower than the potential money to be earned or saved.
- Limiting the involvement of organised crime groups and networks: Higher penalties, targeting organised crime as such would send a strong message that WEEE-crime, and environmental crime at large, is no longer an easy area to target for groups involving in illegal activities.
- Offering adapted investigative techniques to the LEAs: Because of the nature of WEEE illegal trade, which are cross-border and usually involve a number of persons working in various activities and different levels of the supply chain, such investigative techniques are necessary to allow authorities to properly investigate and prosecute such illegal activities.
- Facilitating the exchange of information across authorities from different Member States: Coherent and harmonised definitions, as such as the creation of databases gathering past and current information on WEEE illegal cases would improve the detection and investigation of WEEE illegal activities and ensure a better rate of arrests and conviction. A European database on Court decisions would also allow authorities to apply proper sentencing to recidivists.

5.3 Stakeholders affected

The stakeholders that are mainly addressed in this set of recommendations are the legislators at the national and European levels. The changes in legislation would greatly facilitate the activities of the enforcement agencies, judicial and prosecution bodies.

Best practice

A few European countries have already implemented specific penalties to tackle organised crime involved in trafficking of waste (CWIT deliverable 3.3, Legal framework) and can serve as country model or reference to be expanded to other EU countries in which such adjustment would be necessary. Italy is a good example.

Article 260 of the Italian environmental code

In Italy, article 260 of the environmental code introduced in 2001, provides for the felony of “Organised activities for the illegal trafficking of waste”. This article sentences from 1 to 6 years of imprisonment “whoever, in order to achieve an unfair profit, with multiple operations and through the establishment of means and continuing organised activities, sells, receives, transports, exports, imports or otherwise improperly handles large quantities of waste”. As stated by the EFFACE project, “The qualification of this offence as a felony, and the range of sanctions, allow the adoption of effective investigative measures (i.e. wiretapping) as well as personal precautionary measures, which cannot be used for other environmental crimes because of their misdemeanour nature” (EFFACE, 2015). It is worth mentioning that this article does not require the involvement of a minimum number of offenders (contrary to the Palermo Convention) which facilitate the LEAs activities.

5.4 Suggested actions

Action: Assess national penalty system

Assess the national penalty system to establish whether national sanctions and policies are proportionate and dissuasive, as required by the EWSR. Each country, even within the European Union, conserve its own characteristics and face specific problems (geography and borders, economy, criminality, etc.). The scope of illegal activities related to WEEE varies among Member States, therefore a deep and accurate understanding of the European situation requires an analysis of the strengths, weaknesses, opportunities and threats at national level. The assessment should be based on comparative analysis, legal assessment and stakeholder consultations (surveys, interview, workshop, etc. with LEAs, prosecutions and judges) to evaluate the effectiveness of penalties in reducing the number of offences. The assessment aims at filling the gaps in the penalty system at national level before initiating the harmonisation at European level.

As an example, a number of experts and authorities recommend to disqualify exporting permit and to black list companies involved in WEEE illegal trade (Wang, 2009, p. 104 & EIA 2011, p. 13). The assessment would provide indication as to the efficiency of such penalties and its ability to reduce offences and, in particular, repeated offences.

Action: Increase penalties

WEEE criminals should face increased penalties if they found guilty and convicted. Heftier fines, more frequent revocations and longer suspensions of EEE trading licenses (black listing), more frequent restoration of environmental conditions, and longer prison terms would increase the overall risk of engaging in the WEEE crime. High penalties would limit the involvement of opportunistic small criminals (individuals and companies) and the prison terms would also keep individuals involved in criminal networks, out of the WEEE business. Penalties applied in case of repeated offences should also be increased in regulation.

Action: Create a European database for all court decisions

Given that offenders involved in illegal trade of WEEE are active in different countries, and can therefore be prosecuted and sentenced in different countries, proper application of higher penalties for recidivists requires better information sharing among authorities and in particular the possibility to access Court decisions from different countries. The creation of a European database collecting all Court decisions involving WEEE illegal trade would facilitate such exchange of information.

Action: Increase penalty level for natural person company representatives

Increasing individuals' personal responsibility for WEEE violations would dissuade individuals to commit WEEE crimes if they as individuals were held responsible for legal violations and faced sanctions, instead of the companies they represent.

Action: Harmonise offences related to WEEE crimes

Create a comprehensive set of WEEE-related offences at European level. Apply the same wording, the same definition and define the degree of severity for each type of offence. Harmonising offences is not only important to dissuade offenders across Europe but may also determine Law enforcement mean(s) as previously explained.

Action: Harmonise penalty types and levels

Create a comprehensive set of WEEE-related penalty, including the same type and level of penalty in all EU countries. Such harmonisation should be based on a comparative analysis at European level (based on national assessment). Harmonising the penalty types and levels requires first the harmonisation of the offences.

Action: Adjust the penalty system related to organised crime

In case of proven involvement of organised crime groups and networks in WEEE illegal activities, an adjustment of the penalty system is necessary in order to properly answer this specific threat. The case of Italy is exemplary of this.

Action: Support law enforcement activities by facilitating evidence gathering

The gathering of evidence is crucial to prosecute and sentence WEEE criminals. Better practices in inspections would provide better evidence. Special investigative techniques include, among other, interception of telecommunications, e-mail traffic and post/mail, listening devices, tracking and position devices, specific surveillance, covert real time monitoring of financial transactions, undercover infiltration and so forth. According to a participant in the CWIT final conference, other investigative means like whistle blowing may be considered. This has proved quite useful to fight environmental crimes in the USA.

"Everything is about evidence, and it is difficult to be provided in this particular type of crime"
CWIT Final Conference, Lyon, June 2015

5.5 Implementation timeline

This is a long-term action envisaged to take between five and seven years to develop and implement.

5.6 Implementation risks/ limitations

Some legal and political barriers might be expected that would prevent international harmonization of the penalty systems. Despite EU integration, European countries are still sovereign in criminal

matters and each country has preserved their prerogatives for deciding punishments for criminal acts. Police and judicial cooperation in criminal matters is regulated by the Treaty on the Functioning of the European Union (TFUE). Article 83 provides that the EU can adopt “minimum rules concerning the definition of criminal offences and sanctions in the areas of particularly serious crime with a cross-border dimension resulting from the nature or impact of such offences or from a special need to combat them on a common basis”.²⁶ Despite its character, trans-border element and particularly seriousness, environmental crime is not regulated by Article 83 TFUE.

There might also be cost implications associated with harsher sanctions for WEEE crimes. Putting more people into prison for WEEE offences is no doubt expensive. It would be easier and more cost effective for countries to introduce an obligation to repair environmental damage, and restore environmental quality and/or impose more dissuasive fines, although the relationship between the magnitude of the penalties and WEEE recovery rates and compliance cannot be confirmed in all circumstances, as previously explained. On the other hand, revenues from higher WEEE related fines might offset some of the expenditures of the increased imprisonments. After all, any change in the penalty systems is likely to take a long time due to associated political debates and legal preparations.

Finally, in case this recommendation is not implemented in all EU countries – meaning in case the harmonisation fails or is not complete - there is high risk of crime displacement with offenders moving their activities to countries where the penalties remain lower.

6 OTHER SPECIFIC RECOMMENDATIONS

Some additional recommendations have been set forth to strengthen the EU legal framework which are not directly related to the four central themes figuring in the above discussion. These policy recommendations are primarily aimed at improving practices in the reuse industry, enhancing collaboration among WEEE stakeholders and improving WEEE collection rates. Recommendations related to reuse of WEEE are dealt in greater details in Deliverable 6.3. The subject of enhancing networking among LEAs and other stakeholders has been more extensively covered in Deliverable 6.2. And improving collection rates is a key topic discussed in greater details in Deliverable 6.4. The following four recommendations are outlined below: 1) Harmonize definitions for re-use; 2) Set re-use targets; 3) Enhance multi-stakeholder networks; 4) Introduce ban on cash transactions.

²⁶ Consolidated versions of the Treaty on the Functioning of the European Union. Official Journal C326, 26/10/2012, P.0001–0390. Available online at: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:12012E/TXT>

Article 83.1: The European Parliament and the Council may, by means of directives adopted in accordance with the ordinary legislative procedure, establish minimum rules concerning the definition of criminal offences and sanctions in the areas of particularly serious crime with a cross-border dimension resulting from the nature or impact of such offences or from a special need to combat them on a common basis.

These areas of crime are the following: terrorism, trafficking in human beings and sexual exploitation of women and children, illicit drug trafficking, illicit arms trafficking, money laundering, corruption, counterfeiting of means of payment, computer crime and organised crime.

6.1 Harmonize definitions for re-use practices

The term “re-use” and its associated terminology has varying definitions in international legislations, norms and preparing for re-use practices, all embracing different contexts and not following a global standard for communication. The WEEE Directive, or the Waste Framework Directive respectively, define terms like reuse and preparation for reuse in the European context. Re-use, however, necessarily also has an international and public meaning due to the export and international trade in used EEE, mainly between industrialized countries and developing countries. It is important to note though that this offers a limited representation of the problem, implying discarded e-waste travels in a straight line from North to South signifying that all developed countries are exporters and developing and transition countries importers (Salehabadi, 2013). This situation requires a globally harmonized understanding of key terms.

The StEP Initiative (Khan 2014, UNU 2014, Duan et al, 2013) has discovered that mixed definitions of key terms in the context of reuse are barriers for solutions as well as creating confusion among academia, government and competent authorities, business and consumers, eventually hindering an efficient re-use market without or with limited involvement of illegal trade of WEEE. The lack of a clear detailed standardized definition for ‘goods’, ‘e-waste’, ‘recyclable materials’, ‘reuse’, ‘second-hand materials’, complicates the completion of the universal forms and decisions on the protocol of trade between countries. Currently depending on the destination of reuse equipment, some material may be considered waste and others not (Sander and Schilling, 2010). These differentiations in definitions and classification resulting from the varied interpretation and transposition in particular of the Waste Shipment Regulation, OECD Decision C (92)39/FINAL and the Basel Convention form a principal obstruction to trade for reuse operators. With such a diversity in legislations, it takes much longer to acquire a shipment license (Fitzpatrick, 2015). A reuse terminology based on a holistic approach cast into a “dictionary” of key terms, their definitions and underlying concepts is therefore indispensable for establishing a global standard for communication and a common understanding.



Figure 4. Terms in the glossary of the StEP initiative white paper “ One Global Understanding of Re-Use” (2009)

6.2 Set re-use targets

Another item for consideration pertaining to the reuse industry is the setting up of targets for re-use. This is explicitly mentioned in Article 11 of the WEEE Directive. The European Parliament and the Council are mandated to examine the possibility of setting separate targets for WEEE to be prepared for re-use by 14 August 2016. An EC report on Art. 11 of the WEEE Directive ("Recovery targets") concludes that an implementation of separate re-use/preparation for re-use targets faces several difficulties but re-use/preparation for re-use generally should be promoted due to its overall benefits BiPRO, BIO by Deloitte & UNU (2015).

Preparation for reuse activities are considered in some EU countries such as Spain, a sector with job creation opportunities, from a social and economic perspective. Spain has also set a preparation for re-use target in the transposition of the WEEE Directive. This measure may increase the values reported as prepared for re-use within Europe in the coming years. It remains to be seen if these policies supporting re-use will affect the exports of used EEE and WEEE in Europe.

It is important that the new WEEE Directive request Member States to promote access to WEEE to re-use organisations to ensure more re-use is done today. However it should be considered that waste prevention activities in the future may eventually limit the potential of preparation for re-use of equipment, for example, if companies switch to business models relying on functionality economy. A product might be rented and refurbished when needed till it reaches its end-of-life and have no re-use potential when this occurs. According to the study priority should be given to eco design and ensuring cooperation between the various players and the WEEE Directive today does not sufficiently promote preparation for re-use over recycling.

This study also highlights several issues have been identified with respect to the feasibility of implementing re-use targets. It is foreseen that the achievement of the target will be quite difficult to track unless preparation for re-use is limited to authorized re-use centres. On the other hand, the combined preparation for re-use and recycling target today is not easily measured as well. Many different players are responsible for achieving this. Moreover, reuse activities, which are mostly being done by re-use organisations, may, in the future, move over to producers who may not be as committed to the circular economy. Some difficulties related to implementing a target are also mentioned. Difficulties will arise in tracking flows given the blur distinction between UEEE and WEEE, the given logistics systems, the lack of visibility on what the future of the preparation for re-use sector will be and so forth. At the same time there will be clear economic, social and environmental benefits, which the sector would bring if properly developed. As it is not exclusively recommended to propose separate preparation for re-use targets, the report suggests other options than setting a target to promote re-use, listed as action plans below.

Action: Ensure compliance schemes promote reuse

Make sure that compliance schemes are approved on the condition that they demonstrate how they are promoting re-use.

Action: Prioritise re-use in household waste collection

Re-use should be prioritised at household waste collection sites. Where the site has sufficient free space, dedicated containers should be used at household collection sites.

Action: Grant access to WEEE via collective schemes or municipalities

Access to WEEE by re-use organisations need to be granted, either by collective schemes or directly by municipalities or other operators such as retailers.

Action: Increase public awareness of re-use services and benefits

Encourage consumers to bring back directly the WEEE that have a potential for re-use should to the re-use organisation (or collected by the latter by households) to ensure the re-use potential is preserved. Repair, before the product becomes waste, should also be strongly promoted and needs to be facilitated already in the product's design phase (eco-design).

Action: Report flows to re-use centres based on mass

All re-use centres should report on what goes into the re-use centre (both used EEE destined for direct re-use and WEEE to be prepared for re-use) and what goes out based on mass. It is already an obligation for many in the contracts with collective schemes.

Action: Establish clear methodology for measurement

Define a clear methodology to measure rates of preparation for re-use.

Action: Extrapolate reliable data for re-use targets

In the future, if a target is considered, it should take into account (1) the differences in development of approved re-use centres and network in Europe and (2) the differences in the amounts of reusable products which are discarded in the Member States. According to RRE-USE, repair-friendly criteria within the implementing measures of the Eco-design Directive and smart use of taxation (e.g. zero VAT on repair activities to make the sector more competitive) are examples of measures that would be useful beyond the waste legislation and should be supported. Another option would be to consider that both used EEE and WEEE collected by re-use centres are waste, in order to facilitate the tracking of flows and monitor the achievement of a potential target on their output. However, this would imply a different interpretation of waste and thus consideration shall be given to the possible implications of such an interpretation to the implementation of EU waste legislation.

6.3 Enhance multi-stakeholder networks

CWIT Work Package 4 reveals the complexity of the WEEE value chain with an extensive network of different types of actors covering multiple activities and affected by different levels of enforcement and legislation. Many types of stakeholders are involved in WEEE trade and in countering illegal trade in WEEE. The actors in the WEEE value chain, include consumers, traders, the WEEE industry, NGOs, EEE producers and compliance schemes, logistic companies etc. The competent authorities involved in countering illegal trade include police authorities, tax and customs authorities, special waste shipment units, state and regional environmental authorities and prosecution offices. These organisations need to cooperate, as police, customs and environmental authorities have different expertise and different tasks in addressing the illegal trade in WEEE. Specialized environmental authorities have expertise on WEEE crimes, but often do not have investigative powers, while as law enforcement authorities do have investigative powers, but do not always have specialized knowledge in WEEE related crimes. Poor cooperation results in a difficulty for police to identify the environmental crimes and the type of evidence required for prosecution. Illegal WEEE shipments are often dealt with as administrative offences by the environmental protection agencies, which does not provide the necessary information to investigative authorities (EUROJUST, 2014).

“Every country has to involve all stakeholders to be efficient”

CWIT Final Conference, Lyon, June 2015

Involving different types of stakeholders in programmes aimed at tackling WEEE illegal trade would enable coordinated information exchange and render their work more effective. While cooperation and communication across multiple agencies is primarily driven by the LEAs, embedding such a system of effort management into government policies will propel this activity into new levels.

An example of this approach was presented during the CWIT final Conference by a representative of the French ministry of sustainable development. The French government implemented during the past years a number of legislative texts affecting all types of stakeholders involved in the trade of WEEE. The commitment of the French authorities materialised in (see below):

- Environmental Conference (September 2013): Set up an inter-ministerial cell to exchange on practices, and to coordinate and strengthen actions. Ministries of Environment, Industry, Interior, Justice; Customs; Police services; OCLAESP (Central service fighting against infringements on environment and public health), OCLDI (Central service fighting against itinerant crime).
- Strategic program 2014-2017 for local environmental inspection forces (DREAL): Enforce synergies of action with police and gendarmerie, in particular to fight illegal activities. Quantified objective to visit at least 300 sites suspected to be illegal each year.
- Bill of energy transition for the green growth: The fight against illegal waste sorting and treatment sites as well as associated activities, in particular illegal exports, are intensified.

Policies to reinforce the current regulations upstream (on collection) involving different types of stakeholders such as compliance schemes and scrap dealers were put in place. The main goal of such policies is to collect more in legal networks

- EPR schemes: Higher collection rates required from PROs (producer responsibility organisations). In France, collective PROs are non-profit private companies, set up and governed by producers themselves and approved by the Government for periods up to 6 years). WEEE PROs are directly in charge of waste treatment and have direct relations with treatment operators.
- Obligation to organize specific collection events in dense urban centres (which have less permanent collecting points: idea = avoid dumping on the pavement).
- Obligation to develop new channels of collection (especially with scrap metal dealers which need to be professionalized)

Other policies affecting downstream, aiming at putting more pressure on illegal networks were also approved:

- Ban on cash payment for metal waste. Very relevant but have to be generalized in other member States to be more efficient.
- Minimum requirements for shipments (Annex VI WEEE directive) to distinguish UEEE from WEEE.
- Regulatory requirement for treatment operators (including sorting) to set up a contract with PROs, which will also contribute to professionalization of treatment operators.

Other measures to improve government organisation were implemented:

- Joint organization of inter-ministerial control operations at the local level. Maximize the action of public authorities by integrating all the points of irregularity (environmental, fiscal, illegal work, etc.) Committees under the joint authority of the Préfets and the prosecutors. Created synergies between administrative and penal actions.
- Creation of a centralized national unit (17 people) to implement the shipments of waste regulation. From 1st January 2016 (at the moment: in each local unit). Better efficiency in instruction and control (in association with customs). An opportunity to improve national strategic vision on control activities.

Enforcement activities were also included in the plan of actions.

- 2012 – 2014: National mobilization on ELV illegal treatment sites. Joint actions of environmental inspection services and police services with the support of OCLAESP. More

than 1260 inspections, identification of 500 illegal sites and removal of 225 sites. Action to reinforce the cooperation between the services and to develop a frame for effective control.

- 2015 – 2016: Extension to WEEE illegal treatment sites (interministerial note of April 2015). Organized through local interministerial committees (integrating all irregularity points – environmental, fiscal, illegal work, etc.)

Best practice

Crime stoppers

Crime Stoppers or Crimestoppers²⁷ is a program, separate from the emergency telephone number system or other standard methods of contacting police that allows a member of the community to provide anonymous information about criminal activity. This allows a person to provide crime solving assistance to the authorities without being directly involved in the investigation process. Crime Stopper programs are operated in many communities worldwide. As an example, in 2013/2014 over 100 volunteers joined the UK Crime stoppers organisation. They received 101103 pieces of useful information about crimes from the public and 6242 criminals were arrested and charged. Over 3 million pounds worth of stolen goods were recovered and 18.5 million pounds worth of illegal drugs were seized during this period (see also CWIT Deliverable 6.2 for further information).

In the context of e-waste, this is a good means for citizens to report dubious activities, for instance, reporting of WEEE dumped on roadsides or of “informal buyers” operating in civic amenities. Individuals have the possibility to anonymously report to authorities who might be able to trace back the person (s) dumping or diverting WEEE to illicit streams. The Northern Ireland Environment Agency has partnered with Crime Stoppers to target illegal waste business. In fact the government has devoted a webpage especially on waste crime to make citizens aware of and report illegal waste disposal and other infringements either directly to the Northern Ireland Environment Agency or through Crime Stoppers.²⁸

6.4 Introduce ban on cash transactions

Collection facilities are prone to regular WEEE thefts and its diversion to illicit, unreported streams. Improving security at collection points is a key measure to reach WEEE collection targets. Applying legislative measures that will reduce the profitability of illegal trade and the viability of cash transfers related to WEEE illegal trade is one way of securing authorised collection and improving traceability of transactions and ultimately WEEE flows. Introducing a ban on cash is a cost-effective and efficient way of improving WEEE security. The ban on cash and bank card transactions in metals implemented by France is a good example of this type of measures. The Monetary and Financial Code (Code monétaire et financier) – Legislative Part – Article L112-6 of the French legislative framework is articulated below:²⁹

“Article L112-6 Amended by Act No. 2014-344 of 17 March 2014 - Art. 24 (V) [...]

Where a professional purchases metals from a private individual or another professional, payment must be made by crossed cheque or by wire transfer to an account opened in the seller's name. Failure to comply with this obligation shall be punishable as a fifth-class minor offence. [...]”

²⁷ For more information see <https://crimestoppers-uk.org/>

²⁸ See <http://www.nidirect.gov.uk/report-waste-crime>

²⁹ Based on anecdotal evidence, similar measures have also been implemented in other countries like Finland, Austria and Latvia yielding positive results. However, literature sources which can shed more light on this were not available through open sources.

This text requires any professional who purchases metals from a private individual or another professional to do so by cheque or by wire transfer to an account in the seller's name. Cash transactions are no longer permitted. The purpose of this is to improve the traceability of transactions involving metals, particularly those which transit through WEEE recovery organizations, to identify such recovery organizations, and to ultimately tax these transactions.

Persons who fail to comply with this requirement may face a penalty for a fifth-class minor offence, (Article 131-13 of the French Penal Code):

- A fine of €1,500, which may be increased to a maximum of €3,000 in the case of a repeat offence;
- Possible additional restrictions, such as suspension of a driving license for one year or more, or immobilization of a vehicle for six months or more.

The Study on WEEE arising in France, assessing the arising and destinations of household and similar WEEE in France, conducted in 2013 by OCAD3E and ADEME, mentions an assessment of the impact of the ban on cash payments for metals (ADEME, 2013). The study indicates that the ban has had a significant impact on the increase in quantities collected at the national level. This assessment is based in particular on a 2011 OCAD3E study of a panel of 63 recycling facilities (27 local authorities) spread across France (and representing all types of environments: urban, semi-rural and rural), which showed an 18% increase in volumes collected between Q4 2010 and Q4 2011. As an example, the Landes department illustrates the measure's substantial positive impact: 27% increase in collections of non-cooling large household appliances at recycling facilities at the time the law took effect (Eco-systèmes). On the other hand, according to FEDEREC (Fédération des entreprises du recyclage), the volume of material received by French authorized facilities has fallen by at least 30% since the introduction of cashless transactions. One part goes to other countries, but most of this material goes to illegal facilities which have no authorization to operate and pay in cash to the sellers (FER, Federación Española del Reciclaje).

It was noted during the CWIT final conference that such a measure may have negative side effects like an increase in illegal WEEE trade in bordering areas with countries allowing cash transactions, and larger flows of WEEE to unauthorised facilities that ignore the ban and pay in cash to unidentified sellers. For instance, trade of WEEE to Spain and Belgium has been identified in France, which at the same time, decreased the activity of French regulated facilities in these areas. Introducing a Ban on cash transactions at the EU level would ensure a level playing field and prevent circumvention of the measure by unregistered scrap dealers crossing intra-EU borders.

In the conference it was suggested that the Ban on cash transactions at the national level should be implemented along with a policy of mandatory identification of sellers and enforcement campaigns to tackle illegal facilities. In parallel, informative campaigns on the risks of accepting WEEE coming from uncertain origins should be put in place. WEEE industry associations in cooperation with competent authorities may play a relevant role in the development of inspection programmes and implementation of communication campaigns. Mandatory identification of WEEE sellers was also suggested as a stand-alone recommendation, and it implies that WEEE traders must keep records identifying the origin of the WEEE accepted at their facilities.

In line with the above discussion and concerns expressed by participants in the WEEE conference it appears that the ban on cash legislation should be more effective when acting in tandem with three other legal requirements as suggested below. These requirements are expressly mentioned in the French legislation.

- Systematic taxation on transactions in metals. A Declaration with the French tax authorities and with the regional public finance directorate, aimed at ensuring that persons who purchase metals declare all transactions in metals carried out during the year so that the transactions can be taxed, as all purchases of metals are subject to tax.

- Obligation for metal buyback sites to keep a register of movable goods. The French legislation explicitly requires any person whose professional activity involves purchasing or selling movable property (including WEEE) to maintain a transaction register. All purchases must be entered in the register, with an indication of the type of item recovered and the identity of the seller. Among other things, the register allows all purchases made by WEEE recovery operators to be traced. Law enforcement officials conducting verifications of a metal recovery operator's activities must have access to the transaction register. They can then use the register to identify certain persons which engage in illegal activities. As an example of a best practice to be promoted, many recovery organizations email their registers to law enforcement authorities on a weekly basis. Failure to maintain such a register is punishable by six months' imprisonment and a fine of €30,000.
- Complementary specific enforcement campaigns targeted at non regulated facilities accepting WEEE in national territory. This action will counteract WEEE flows reaching unauthorized facilities.

One to three years should be a feasible period for implementing this recommendation. However, supervision and control are necessary for the successful execution of this rule. Advocates of such a ban claim that it is not merely effective for WEEE issues but will reduce all kinds of metal theft. In fact, there is general consensus that this measure will support a more professional metal trading industry (Recycling International, 2015).

7 CONCLUSIONS

The strength of the national and international regulatory regime is instrumental in setting up an effective enforcement system. Ambiguities and loopholes in legislation give rise to multifarious, conflicting interpretations and create opportunities for violators to circumvent regulations. A number of weaknesses in the current legal framework call for action by responsible authorities in order to effectively combat WEEE crime through prevention, detection and appropriate reactionary measures.

More stringent reporting obligations to a unified database for all stakeholders in the WEEE chain collecting and recycling WEEE is currently missing, leading to the common problem of non-reporting, incorrect reporting and underreporting of collected and treated WEEE amounts. Mandatory reporting of all flows will facilitate waste traceability and prevent potential offenders from diverting WEEE to illicit streams. Collection targets set by law will also be more easily reached. In addition, introducing a ban on cash transactions at the national or EU levels will improve collection rates. Applying this legislative measure will reduce the viability of cash transfers related to WEEE illegal trade and will help in securing authorised collection and improving traceability of transactions, thereby preventing illicit flows. Furthermore, setting up national targets for re-use may also increase the values reported as prepared for re-use within Europe. The WEEE Directive today does not sufficiently promote preparation for re-use over recycling. Such a measure has the potential of limiting illegal shipments being dispatched to non-OECD countries.

The different waste classifications in use pose as barriers to the successful detection of illegal exports. The Combined Nomenclature (CN) codes are used by the European customs authorities in the case of EEE imports or UEEE/WEEE exports and to register each product for maintaining foreign trade statistics. This classification system does not provide separate codes for WEEE. WEEE most likely gets reported using the same code as used EEE or a new product, a major obstacle in identifying WEEE in export shipments. The Basel/OECD Codes from the Basel Convention are used in the case of imports/exports of hazardous WEEE or hazardous components of WEEE. The European List of Waste (LoW) is used in most European countries when fulfilling the registration requirements coming from reporting standards of the EU WEEE-Directives and for administrative purposes. The thirteen LoW codes that refer to e-waste, give a general description of WEEE and are not aligned to other waste classifications. The EU WEEE Directive lists ten categories and the recast of the EU-WEEE-Directive lists six categories. These categories are representative of the WEEE collection streams in practice. Several difficulties arise from the existence of different waste classification codes. The Basel Codes and LoW codes are difficult to relate to the CN codes and the LoW and Basel codes are not linked to the other. The EEE of CN can be linked to the categories of the EU WEEE Directive but the CN does not distinguish between EEE and WEEE. A way out of this maze can be sought through the use of the UNU-KEYS- a detailed classification system that clusters appliances according to functionality and end-of-life characteristics. It also has the added advantage of being connected to other classifications, such as the categories in the WEEE Directives and the CN. Developing a conversion table for converting customs codes into Basel codes and through adoption of the UNU Keys would be a viable solution in addition to harmonizing the EU LoW with the EU WEEE Directive categories.

Another impediment to the detection of illegitimate flows is the absence of clarity in the definition of e-waste and consistent guidelines as to what constitutes waste and what not. The definitions provided are vague and do not help in distinguishing between used EEE and WEEE, preventing the identification of waste goods during inspections. The adoption of consistent guidelines will provide uniform definitions and interpretations and guidance on how to identify and distinguish WEEE from used EEE, considerably facilitating detection and resulting in enhanced prosecutions.

The definitional fuzziness also extends to the terminology associated with the term, “re-use” resulting from the varying definitions in international legislations, norms and preparing for re-use practices. While the WEEE Directive refers to re-use and preparation for re-use in the European context, re-use also has a wider international meaning due to the export and international trade in used EEE, mainly between industrialized and developing countries. In the present scenario some material are considered waste and some not depending on the destination of the re-use equipment. These differentiations in classification arising from the varied interpretations create significant barriers to trade for reuse operators and in the identification of waste from non-waste. A global standard for communication would enable the smooth flow of legitimate exports and facilitate the detection of WEEE in export shipments.

The effective response to the detection of WEEE violations is represented by a stringent penalty system that would also act as a deterrent to crime. The current system does not dissuade offenders to participate in fraudulent activities due to the limited possibility of prosecution and conviction. And in case of successful prosecution, the penalties foreseen in legislation and/or penalties applied in court decisions are typically low. Those countries which do apply stronger penalties do not provide sufficient disincentives as criminals can easily shift their operations to regions with weaker judicial sanctions. Wide disparities are known to exist between EU countries regarding the level of penalties provided by law. Strengthening and harmonization of the penal system is evidently a priority recommendation to facilitate investigation, prosecution and sentencing and to dissuade potential criminals.

And finally, all steps of the enforcement chain associated with the prevention, detection, prosecution and conviction of WEEE crime can be reinforced through appropriate communication and cooperation between the diverse stakeholders involved in WEEE trade and in countering illegal trade. The current absence of a coordinated information exchange system results in valuable information being held back, preventing the proper identification of WEEE crimes. Legislative provisions mandating information exchange would give the push needed and provide specific guidelines to enhance collaboration across stakeholders.

The implementation of the recommendations are, however, subject to some limitations. In particular, the harmonization of penalty systems is a specific challenge due to the sovereignty retained by the EU Member States in criminal matters, where punishments are decided at the national level, despite the trans-border element of environmental crimes. Generally speaking, consensus building might be slow due to competing interests among stakeholders and concerns on cost implications, derailing the process of implementation. Consensus building necessitates strong political will and close collaboration among stakeholders that have power to accomplish the desired regulatory changes.

BIBLIOGRAPHY

External literature

ADEME (2013) *Project for the quantification of Waste Electrical and Electronic Equipment (WEEE) in France*. OCAD3E-ADEME, December 2013. Available online at: http://www.weee-forum.org/sites/default/files/documents/2014_study_on_the_quantification_of_weee_in_france.pdf

Balde, C.P., Kuehr, R., Blumenthal, K., Fondeur Gill, S., Kern, M., Micheli, P., Magpantay, E. and Huisman, J. (2015). *E-waste statistics: Guidelines on classifications, reporting and indicators*. United Nations University, IAS - SCYCLE, Bonn, Germany.

BiPRO, BIO by Deloitte, UNU (2015). *Study on WEEE recovery targets, preparation for re-use targets and on the method for calculation of the recovery targets*.

Captains of copper say: It's time to adjust the sails. Recycling international. August 2015, Issue 6.

Duan, H., Miller, T.R., Gregory, J. and Kirchain, R. (2013). *Quantitative characterization of domestic and transboundary flows of used electronics: Analysis of generation, collection, and export in the United States*.

EFFACE (2015). *Fighting environmental crime in Italy: A country report*. Available online at: <http://efface.eu/country-report-italy-0>

EIA (2011). *System Failure: The UK's harmful trade in electronic waste*. EIA waste report.

EUROJUST (2014). *Strategic project on environmental crime report*. Available online at: <http://www.eurojust.europa.eu/press/pressreleases/pages/2014/2014-11-21.aspx>
[http://www.eurojust.europa.eu/doclibrary/Eurojust-framework/Casework/Strategic%20project%20on%20environmental%20crime%20\(October%202014\)/environmental-crime-report_2014-11-21-EN.pdf](http://www.eurojust.europa.eu/doclibrary/Eurojust-framework/Casework/Strategic%20project%20on%20environmental%20crime%20(October%202014)/environmental-crime-report_2014-11-21-EN.pdf).

European Commission (2014). *Report on the meeting of EU Waste Shipment Correspondents 7 October 2014*. Available online at: http://ec.europa.eu/environment/waste/shipments/pdf/report_07_10_14.pdf

EUROPOL (2015), *Exploring tomorrow's organised crime*.

EUROSAI Working group on environmental auditing (2013). *Coordinated audit on the enforcement of European Waste Shipment Regulation. Joint report based on eight national audits*. Available online at: <http://www.eurosaiwgea.org/rss/pages/environmentalaudits.aspx>

Fitzpatrick (2015). *Step Green Paper: effect of waste legislation on transboundary movements of EEE destined for reuse: Impact of E-waste Regulations on reuse organisations and proposed recommendations for improvement*.

Geeraerts, K., Illes, A. and Schweizer, J.P. (2015). *Illegal shipment of e-waste from the EU: A case study on illegal e-waste export from the EU to China*. EFFACE 2015. Available online at: <http://efface.eu/sites/default/files/publications/PB%204%20Case%20Study%20Policy%20Brief%20-%20e-Waste%20-%20IEEP.pdf>

Huisman, J., M. van de Maesen, R. J. J. Eijsbouts, F. Wang, C. P. Baldé and C. A. Wielenga (2012). *The Dutch WEEE flows*. Bonn, Germany, United Nations University, ISP-SCYCLE.

Khan, S.A. (2014). *Solving the E-Waste problem (StEP) Green Paper: Differentiating EEE products and wastes*.

Magalini, F., J. Huisman, F. Wang, R. Mosconi, A. Gobbi, M. Manzoni, N. Pagnoncelli, G. Scarcella, A. Alemanno and I. Monti (2012). *Household WEEE generated in Italy, analysis on volumes & Consumer Disposal Behavior for Waste Electrical and Electronic Equipment*. Bonn, Germany, United Nations University.

Magalini, F., Wang, F., Huisman, J., Kuehr, R., Baldé, K., Straalen, V.V., Hestin, M., Lecerf, L., Sayman, U. and O. Akpulat, O. (2014). *Study on collection rates of waste electrical and electronic equipment (WEEE)*.

Salehabadi, D. (2013), *Solving the e-waste problem (StEP) green paper: Transboundary movements of discarded Electrical and Electronic Equipment*.

Sander, K. and Schilling. S. (2010), *Transboundary Shipment of Waste Electrical and Electronic Equipment /Electronic scrap*. Umwelt Bundesamt.

UNU (2014). *Solving the e-waste problem (Step) White Paper: One global definition of E-waste*.

Wang, J. (2009). *Transboundary shipment of E-waste: regulations, systems, stakeholders and solutions*. Master thesis, Delft University of Technology.

Wielenga, K., J. Huisman and C. P. Baldé (2013). *(W)EEE mass balance and market structure in Belgium*. Study for Recupel, Brussels, Belgium.

CWIT Work Packages and deliverables

Work Package 2, *WEEE Actors and amounts*.

Work package 2, Deliverable 2.3, *Database and WEEE classification Listing*.

Work package 3, Deliverable 3.1, *Development and distribution of legal & policy questionnaire*.

Work package 3, Deliverable 3.2, *Synthesis of questionnaire responses*.

Work package 3, Deliverable 3.3, *Comparative overview and observations*.

Work package 4, *Market assessment*.

Work package 4, Deliverable 4.3, *Report on the dynamics of WEEE stream*.

Work package 5, Deliverable 5.1, *Definition of organised crime applied to WEEE*.

Work package 5, Deliverable 5.4, *Gap analysis*.

Work package 5, Deliverable 5.5, *Analysis of criminal activities and crime types associated with illegal WEEE trading*.

Work package 6, Deliverable 6.2, *Recommendations for law enforcement organisations*.

Work package 6, Deliverable 6.3, *Recommendations for the WEEE treatment and waste management Industry*.

Work package 6, Deliverable 6.4, *Recommendations for the electronic Industry*.

Work package 6, Deliverable 6.5, *Roadmap for future research and technology development*.

Websites

CENELEC. <http://www.cenelec.eu/aboutcenelec/whoweare/>

Crime Stoppers. <https://crimestoppers-uk.org/>

CWIT Project LibraWEEE. www.libraweee.eu

Eco-systemes. <http://www.eco-systemes.fr/>

FER. <http://www.recuperacion.org/Comun/Inicio.aspx>

IMPEL – EU Network for the Implementation and Enforcement of Environmental Law. <http://impel.eu/>

Nidirect Government Services. <http://www.nidirect.gov.uk/report-waste-crime>

SYDEREP. <https://www.syderep.ademe.fr/en>

Germany: Stiftung elektro-altgeräte register. <https://www.stiftung-ear.de/en/service-and-current-topics/figures/ordercomposition-of-mixed-collection-groups/>

United Nations Convention against Transnational Organised Crime. <http://www.unodc.org/unodc/treaties/CTOC/>

WEEELABEX. <http://www.weeelabex.org>

WEEE Forum WF-RepTool. <http://www.wf-reptool.org/index.php/home>

Legislations & guidelines

Consolidated versions of the Treaty on the Functioning of the European Union. Official Journal C326, 26/10/2012, P.0001–0390.

Available online at: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:12012E/TXT>

Development of Technical Guidelines on e-waste Available online at: <http://www.basel.int/Implementation/Ewaste/TechnicalGuidelines/DevelopmentofTGs/tabid/2377/Default.aspx>

Directive 2008/99/EC of the European Parliament and of the Council of 19 November 2008 on the protection of the environment through criminal law. Available online at: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32008L0099>

Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE). OJEU L 197/38 of 24.07.2012. Available online at: <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32012L0019&from=EN>

Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste. Available online at: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32006R1013>

The French Environmental Code – Regulatory Part – Article R543-202-1

Treaty on the functioning of the European Union: Available online at: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:12012E/TXT>

UK protocols. Available online at:

[http://www.360environmental.co.uk/documents/January%202011%20v2%20\(GN04%20guidance\).pdf](http://www.360environmental.co.uk/documents/January%202011%20v2%20(GN04%20guidance).pdf)

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/292632/bis-14-604-weee-regulations-2013-government-guidance-notes.pdf

Waste Shipments: Correspondents' Guidelines and other Guidance Documents. Available online at:

<http://ec.europa.eu/environment/waste/shipments/guidance.htm>.

Official meetings

CWIT Final Conference, Lyon, France, from 25 to 26 June 2015.

DG TAXUD's Meeting of the Customs 2020 Project Group concerning "other classification issues" (focus on waste: waste electrical and electronic equipment, end-of-life motor vehicles etc.), Brussels on 8-10 July 2014.

Twelfth Meeting of the Conference of the Parties to the Basel Convention Geneva, Switzerland, from 4 to 15 May 2015.

<http://www.basel.int/TheConvention/ConferenceoftheParties/Meetings/COP12/tabid/4248/mctl/ViewDetails/EventModID/8051/EventID/542/xmid/13027/Default.aspx>

ANNEX A. CWIT FINAL CONFERENCE PARTICIPANT FEEDBACK SUMMARY

**CWIT FINAL CONFERENCE PARTICIPANT FEEDBACK SUMMARY
25-26 June 2015**

Forty-two participants responded to our request for feedback on their personal views related to the recommendation clusters set forth by the CWIT consortium. The recommendation groupings constitute four main themes and a cluster of four recommendations under each theme listed in the table below.

Theme 1		Theme 2		Theme 3		Theme 4	
1.1	Educate consumers	2.1	Improve treatment	3.1	Waste codifications	4.1	Information management system
1.2	Improve collection	2.2	Improve reuse	3.2	Consistent guidelines	4.2	LEA capacity building
1.3	National WEEE monitoring	2.3	National WEEE networks	3.3	Train authorities	4.3	International WEEE networks
1.4	All actors report	2.4	Smarter inspections	3.4	Harmonize penalties	4.4	Enhance prosecution and sentencing

In the feedback form six questions were outlined in relation to the above framework. The questions and the corresponding answers are presented below.

A. Please select up to three recommendation clusters (of the 16 total) which you believe have the highest benefit-cost ratio (i.e. benefits exceed highly the implementation costs), as well as high likelihood of bringing sustainable improvements/positive results?

Listed below are the number of votes received for each recommendation in descending order.

- 1.1 Educate consumers (16)
- 4.3 Improve international WEEE networks (13)
- 1.2 Improve collection (12)
- 4.4 Enhance prosecution and sentencing capabilities (12)
- 3.2 Consistent guidelines (11)
- 2.4 Smarter inspections (10)
- 4.1 Enhance international information management (9)

- 3.4 Harmonize and enhance penalty systems (7)
- 4.2 Invest in capacity building for law enforcement agencies (7)
- 1.4 All actors report (7)
- 1.3 National WEEE monitoring (6)
- 2.3 Enhance national WEEE networks (6)
- 2.2 Improve reuse (5)
- 3.1 Improve waste codification (5)
- 2.1 Improve treatment (4)
- 3.3 Government capacity building, train authorities (3)

B. Please write brief justification about your top 3 choices (please indicate the recommendation cluster number).

The summary of the reasoning provided behind the selection of each recommendation is described below.

1.1 EDUCATE CONSUMERS

16 participants selected this as having highest priority with the following justifications.

- Education is the first step for a change.
- Consumers are the starting point for WEEE flows and hence need to be convinced about the importance of bringing old equipment to a legitimate collection point. Failure to do so will result in improper disposal and/or storing those in households.
- Consumers must understand how their discarded equipment lands up in illegal e-waste shipments. So awareness is essential for consumers to recognise their role in solving the WEEE problem.
- Consumers are not well informed about the externalities associated with the WEEE. An increase awareness raising would help improve better collection and eventually treatment efficiencies.
- It appears that a majority of offences are committed due to a lack of awareness in regulation and consequences, excluding criminal cases motivated by economic benefits. Raising awareness of collecting and treating WEEE in monitored system would bring positive results. This has to be in balance on the other end with efficient enforcement and dissuasive fines.
- Consumer awareness will lead to better sorting of WEEE.
- Consumer habits can determine if the equipment goes to legal or illegal streams.
- Proper disposal by consumers will increase collection rates and prevent leakage.
- The quickest win is provided if consumers bring WEEE materials to the appropriate channels.
- Creating consumer responsibility is one of the best improvement measures.

1.2 IMPROVE COLLECTION

12 participants selected this recommendation as having the highest priority with the following justifications and comments

- This is the beginning of the whole problem and is the first step in preventing leakages.
- It is the initial point in the process of disposal and securing these facilities is the basis to guarantee an efficient process.

- The example of Norway is cited, where leakages from collection points (private actors/shops) is highly visible and apparently the biggest vulnerability.
- There is a natural tendency for people to behave better under vigilance and securing collection points will result in better behaviour.
- This is important to prevent thefts and acts as an obligation to guarantee the consumer that the discarded equipment will be properly recycled and treated.
- This measure ensures that no material falls into the hands of scavengers. However take-back systems should not have monopoly.
- Proper collection (possibly regulator approved), is a big step in preventing illegal activity.
- Securing collection points is a relatively low-cost measure.
- This is a cost-effective measure.

Comments

One respondent indicates that security at collection points should include ban in cash transactions.

2.4 SMARTER INSPECTIONS

12 respondents indicated this as being highest priority with the following justifications and comments

- To use limited resources effectively, targeted inspection is essential. To implement this measure, it is important to acquire enough information on how to target the right shipments in order to use resources effectively.
- It is important for inspections to be targeted to (illegal) upstream waste sites for control purposes in order to prevent illegal activities going downstream.
- Because recycling companies in Germany report they are never inspected.
- Due to limited resources available this is a useful measure in terms of costs and benefits.
- It is a key measure for smarter selection.

Comments

Inspection strategies should include guidance on gathering and analysing intelligence data and requires a consistent and harmonized approach. The risk indicators developed in some countries can be used by others.

4.3 INTERNATIONAL WEEE NETWORKS

13 respondents marked this as having the highest priority with the following justifications and comments

- The current situation in this regard is very poor and definitely needs improvement. This positive step will also enable putting in place some other recommendation measures.
- Illegal networks have no borders.
- A global approach is the key towards solving the problem.
- Illegal WEEE export is an international concern and hence requires international cooperation to prevent this activity.
- It is an established fact that WEEE thefts are cross-border (within EU & beyond) organised crimes and hence reinforcing international cooperation is essential.
- This is crucial to coordinate internationally about the application of international regulations around WEEE.

- Co-operation among international agencies and governments is very important because the actions implemented within the European Union will be incomplete if no actions are taken in the destination countries of illegal WEEE shipments.
- One step in enhancing international cooperation is to strengthen existing networks (e.g. IMPEL). The networks include police, prosecutors, customs etc.
- Communicating and sharing information results in the creation of best practices.
- This is an important improvement measure as it will assist in learning from each other's experiences.
- There is a requirement for operational meetings for LEAs and operators at the EU level.

Comments

Cooperation between existing networks such as Interpol, Envicrimenet/ Europol and IMPEL TFS needs to be used (and linked) for exchange of modus operandi and if possible nominal data. This will lead to intelligence led enforcement/ policing/ inspections. The national desks at Europol can play an important role for the exchange and storage of this data.

4.4 ENHANCE PROSECUTION AND SENTENCING

12 respondents were in favour of this as being the first priority with the following justifications and comments.

- Currently there is a lack of awareness by judges and prosecutors leads which is the reason behind the infrequent and low sentences.
- There is a big gap in this area and the improvement step will support some of the other recommendation measures.
- The current legal system lacks a consistent and harmonized concept of appropriate sanctions.
- To achieve a level playing field, avoid port hopping, fight against fraud, forgery, etc .it is necessary that the last link in the enforcement chain, prosecutors and judges are being well trained and are aware of the specific issues in this complex working field. Initiatives as the IMPEL TFS prosecutors project, ENPE, Eurojust needs to be supported. It is important for the prosecution, sentencing and punishments to be more or less harmonized within the European Union.
- As this measure implies specialised training to tackle "specialised" environmental crimes, it is a necessary positive step.
- An effective enforcement regime requires specialized prosecutors and judges who are educated on the issues surrounding WEEE in order to enable them to effectively deal with WEEE related breaches and offences.
- As a positive step to deter and combat crimes, it is important to inform potential perpetrators about the consequences of criminal actions. This is both a preventive and reactive improvement measure.

Comments

In this context one respondent noted the need for enforcement to be strengthened by hiring more personnel, creating more efficiency, reducing bureaucracy, developing a more harmonized approach, increasing the exchange of information, and giving easy access for stakeholders to report suspicious or criminal acts. Another respondent indicated that enhanced prosecution and sentencing should

include swift and dissuasive penalties, not necessarily penal but substantial monetary penalties. The need for international cooperation among judges was also suggested as an improvement step. Finally, according to one participant Member States which do not comply with the targets of the WEEE Directive should be prosecuted as well.

3.2 CONSISTENT GUIDELINES

11 respondents supported this as being the highest priority with the following justifications and comments

- Distinguishing between what is legal and what is illegal in many cases is a big problem.
- More guidance is needed for Annex VI and getting a common understanding is essential.
- Many terms are ambiguous and in need of clarification.
- An effective discussion on WEEE issues is not possible without precise and exact definitions. Consistent guidelines will help standardisations and assist the development of clear notions and recommendations.
- Consistent interpretation of e-waste vs. used goods is necessary to prevent illegal shipments. Export for repair is still a grey area and there is a need for consistent interpretation.
- Following up on this recommendation will ensure a level playing field.
- This is a necessary step to facilitate all actions along the UEEE/WEEE chain.
- Consistent guidelines will facilitate legal trade.
- Consistent clear guidelines will make inspections and prosecutions easier and thereby increase the likelihood of conviction.
- This measure is essential as currently there is a large number of diverse practices. The existing system is hard to understand and implement for many actors in the value chain.
- Consistent guidelines would assist enforcement bodies and notifiers of waste.
- Proper knowledge and training are important and to reach this goal consistent guidelines are essential.

Comments

It is recommended for the guidelines to contain information for customs and exporters on how to distinguish between UEEE and WEEE (e.g which kind of test, what kind of packaging, what reports etc.), and include common and simpler procedures for notifications. Another suggestion is to cover information on how to calculate the economic value of offences related to illegal shipments/collections. The economic rationale will help draw attention from police, prosecutors and judges.

4.2 LEA CAPACITY BUILDING

7 respondents were in favour of this recommendation as having the highest priority with the following justifications and comments

- Inspecting WEEE is particularly difficult calling for more investment in capacity building in law enforcement agencies.
- There are fewer inspections and few specialized prosecutors due to the limited capacity in law enforcement agencies.
- Given the amount of waste produced it is necessary to increase resources (financial and personnel).
- More financial capacity is required to increase the risk of detection for illegal operators and exporters, which is a big measure to counter these activities.

- There is a need for more monitoring and enforcement, which requires increased capacity. Targeted enforcement by knowledgeable regulators will facilitate early detection and prevent crimes.
- Law enforcement authorities need more operators and operational meetings at the EU level.

Comments

Capacity building should include better cooperation across law enforcement agencies like police, customs, environment etc.

4.1 INFORMATION MANAGEMENT SYSTEMS

9 respondents indicated this to be the highest priority with the following justifications

- Currently there are strong knowledge gaps in the international arena.
- More information is required on what is happening and what the economic incentives are for people involved in illegal export of WEEE.
- An information sharing system for authorities is highly important. All company data in this information platform should be digitalized.
- Illegal trade is an international issue and the management of international information is crucial.
- E-waste trafficking requires a global approach. Improving information exchange as well as cooperation and collaboration with the international authorities and will help in the successful management of the e-waste stream.
- International information management and dissemination is crucial as this assists in building capacity and allows the member states to push the requirement for action /agenda of illegal e-waste shipments. Member states often do not see the global context of a problem.

Comments

The international information exchange needs to be improved and enhanced. This requires a channel which is secured and easy accessible. According to the amendments of the European Waste Shipment Regulation EU member states are obliged to draft inspection plans based on risk assessments. This obligation is an opportunity to connect the data between law enforcement agencies and supervision bodies. Within Europe there are networks which are useful for this like Envicrimenet, Europol, Interpol and Impel TFS.

3.4 HARMONIZE PENALTIES

6 respondents selected this as top priority with the following justifications.

- This is important because presently e-waste related crimes are not given the importance they deserve either by the police or by the public.
- Currently the legal system lacks a consistent and harmonized concept of appropriate sanctions.
- The penalties vary considerably across countries depending on the location where illegal waste shipments are detected. The diverse penalty systems are definitely in need of greater harmonization.
- Coordinated approach with other member states is necessary to hinder illegal exports.
- It is absolutely necessary to create global rules in this area.
- WEEE crime is a global issue and needs tough and harmonized responses. The general aim is to raise awareness on “victimless” environmental crimes, even if this crime may not actually fall into the “victimless” category.

1.4 ALL ACTORS REPORT

7 participants selected this as a top priority recommendation with the following justifications and comments

- It is important to take into account the data reported by WEEE managers (waste managers holding permits to collect and treat WEEE), distributors and take-back systems. Not only the data reported by the take-back systems.
- A harmonized reporting system is necessary making it mandatory for all actors to be registered, including private businesses, treatment plants etc.
- The more collection facilities (waste managers, municipal collection points, etc.) are authorized to collect WEEE, more WEEE will be collected properly in accordance with the WEEE Directive leading to an improvement in WEEE collection and recovery rates.

Comments

It is necessary to find incentives for legal/informal actors to report on collected WEEE and EEE for reuse. One option is to legalise WEEE collection in the informal sector although controlling the quality of WEEE treatment in these sectors will still be required.

2.2 IMPROVE REUSE

5 participants selected this as high priority with the following justifications

- Reuse is an upstream solution and should be done in a much higher degree.
- Improve reuse as this would help prolonging the lifespan of an equipment. However, the problem is people do not normally want a second-hand item even though it is environment friendlier.
- Prolonging the durability of electronic goods by improving reuse, facilitating repair (e.g. separation of components) can reduce the tsunami of e-waste and render the problem more manageable.
- Reuse will always be a driver because people in less developed countries need the technology. It is important to regulate but allow reuse in countries with low labour costs. This makes reuse feasible and will help grow micro economies in less developed countries.
- Reuse is the main business in the global south countries (non-OECD) for over 15 years. It is also one of the main drivers of U/WEEE shipments. Reuse is also an actual topic in Europe. So setting global standards is a viable option.

3.1 WASTE CODIFICATION

5 participants viewed this as being high priority with the following justifications

- Targeted TFS/WSR related inspections necessitate better information in the customs declarations (including waste codes) and following up on this recommendation is a fairly simple and concrete task.
- Harmonization of codes is intrinsic to assist in investigation and cross-collaboration between agencies/enforcement bodies.
- Common waste codes are necessary for all e-waste transports, including downstream flows from treatment plants. This will facilitate prosecution and enforcement and make the systems more efficient.
- This is the key measure to enable distinguishing between EEE, UEEE and WEEE.
- It is important to speak in the same language within the EU to help prevent illegal exports.

2.3 NATIONAL WEEE NETWORKS

6 respondents selected this as top priority with the following justifications and comments

- Strengthening networks is necessary for information sharing and collaboration.
- Operating within networks helps in finding common and agreed solutions.
- Enhancing WEEE networks would lead to a better exchange of experiences and best practices resulting in more intelligence led inspections, upstream site inspections, capacities building of relevant authorities. The ultimate result will be a simplification of legislation and reaching a common understanding we are the creators of the system which is well misused by criminals.
- Networking and bringing stakeholders together is essential to take common decisions.

Comments

Plenty of knowledge exists but we have to learn how to make use of it. It is recommended to use existing agencies rather than forming new ones.

1.3 NATIONAL WEEE MONITORING

6 respondents recommended this as being of high priority with the following justifications and comments

- A lack of homogeneity among the member states is prevalent with regard to WEEE collection and reporting. Reporting on a national level is required for obtaining better quality data and sound decision-making processes.
- It is important to make sure that all member states have an independent national register in place where “put on market” and WEEE treated volumes by producers and recyclers are recorded.
- Better data management helps decision makers to allocate resources.
- Monitoring system would be the most effective complement to enforcement. Monitoring would allow efficient inspection of upstream waste sites.

Comments

The EC should require that the monitoring systems in all Member States are uniform so that leakages could be more easily traced. The financing of monitoring should take into consideration the “polluter pays” principle.

2.1 IMPROVE TREATMENT

4 respondents noted this as being of high priority with the following justifications and comments,

- The main driver for WEEE collection and recycling is its economic value. WEEE is regarded as a promising secondary source of metals. High tech, green and sustainable technologies for metal recovery from WEEE would provide an incentive for improved collection and treatment efficiencies.
- This is an important measure to negate environmental damage and health risks to people working in the treatment sector.
- It is the key to minimizing risks to health and damage to environment.

Comments

Make CENELEC EN 50625- series legally binding either by the EC (implementing acts) or by legislator permits of take-back systems etc. in member states.

3.3 TRAIN AUTHORITIES

2 respondents indicated this as top priority with the following justification

- There is a big knowledge gap in the law enforcement agencies. Only a handful of specialists are operating in governmental administrations.

C. Please identify the least relevant recommendation cluster from the list of the 16 recommendation clusters Please also explain the reason for this (e.g. high cost; low impact; high risk of failure in terms of sustainable results etc.).

The least relevant measures identified by participants are listed below. The rationale behind the selection is listed in the table below. 1.1, 1.4, 4.2, 1.2 and 3.4 have the maximum selections as being low priority.

RECOMMENDATIONS	JUSTIFICATIONS
1.1 CONSUMERS EDUCATE (3 selections)	If the main problem is supposed to be thefts from collections points, educating consumers will not help. Moreover, the economic driver for illegal export is far more important than whether or not the consumer knows what to do.
	This is the last priority step as consumers are mostly aware or feel the need to behave in an environmentally friendly manner.
	Consumers are often aware of illegal practices but are not concerned. Economic incentives will only bring about a change.

<p>1.4 ALL ACTORS REPORT (3 selections)</p>	<p>No justification given by one participant.</p> <p>Notes are not legible.</p> <p>This measure appears to be a resource intensive and bureaucratic solution. Other recommendations are of higher priority.</p>
<p>4.2 LEA CAPACITY BUILDING (3 selections)</p>	<p>Investing in infrastructures (e.g. more buildings) is not the most essential step. Measures should be more action oriented.</p> <p>We should make better use of existing resources.</p> <p>Authorities to counter this illegal activity already exist but are not effective. More administrative costs will not solve anything.</p>
<p>1.2 IMPROVE COLLECTION (3 selections)</p>	<p>Illegal shipments do not start from the collection points but before.</p> <p>This is a low-impact measure</p> <p>The “ban on cash” recommendation is least relevant, because the analysis done is incomplete and some other possibilities and actions carried out in other countries have not been studied.</p>
<p>3.4 HARMONIZE PENALTIES (3 selections)</p>	<p>Highly unlikely to happen. Member States will not consent to this. It will therefore be a high-cost measure.</p> <p>Unrealistic as legal traditions vary greatly across European nations.</p> <p>Many differences exist between Member States. Harmonizing and enhancing the system would not be an efficient option.</p>
<p>2.1 IMPROVE TREATMENT (2 selections)</p>	<p>Other things have more priority in the EU. Outside the EU improving treatment is an essential step.</p> <p>The available technology for treatment is already very good.</p>

2.2 IMPROVE REUSE (2 selections)	<p>The gap between and criminal actions (illegal trade, inappropriate treatment) will continue to exist or even become larger.</p>
	<p>This is a long term project.</p>
4.4 ENHANCE PROSECUTION AND SENTENCING (2 selections)	<p>A useful but not very essential step. This is an internal issue for governments</p> <p>Notes are not legible.</p>
3.1 CODIFICATION (2 selections)	<p>WASTE</p> <p>This is relevant but not a priority. Harmonized interpretation is the key. Actors indulging in illegal activity will never code this as an "illegal activity".</p> <p>From the recyclers' point of view, this does not have a significant impact as the processing of various types of WEEE does not necessarily differentiate greatly.</p>
3.2 CONSISTENT GUIDELINES (1 selection)	<p>Consistent guidelines already exist in countries. Harmonization is more necessary.</p>
4.1 INFORMATION MANAGEMENT SYSTEMS (1 selection)	<p>It is difficult to talk to different authorities in the same country and outside. This is a next to impossible mission.</p>
4.3 INTERNATIONAL WEEE NETWORKS (1 selection)	<p>International cooperation between enforcement agencies is already successfully facilitated by INTERPOL (NCB), EUROPOL (Sicna), EUROJUST (J:T). What might be useful is to include more agencies like environmental agencies in these networks.</p>
1.3 NATIONAL WEEE MONITORING (1 selection)	<p>The national monitoring system is based mainly on the collected material in kilograms. One of the weaknesses is the leakage of washing machines in the metal scrap sector. This is a known issue but monitoring in kg instead of a proper using figures may be misleading. The leakages in terms of weight may be high but in terms of environmental impact this may be one of the less important streams.</p>
THEME 1 (2 selections)	<p>Integrity in WEEE collection sites is important but waste shipments must be regulated and controlled which is of higher priority as it is money driven. Focus must be given to TFS and data collection.</p>

	These are purely national issues.
THEME 4 (1 selection)	It seems many projects, activities, approaches already exist in this filed but few are aware of them. Hence, there is a greater need to improve coordination to execute what has already been developed.

Comment

One respondent considers all recommendations very relevant but harmonizing penalty systems maybe a difficult recommendation to start with. More awareness among legal entities is necessary before addressing penalty systems.

D. Have we missed one (or more) highly important recommendation cluster (s) from our current list? If yes, can you please indicate them, with a brief justification?

The additional recommendations provided are listed below. The first section outlines recommendations that have are covered in the CWIT recommendation clusters, either directly or indirectly. The second section comprises additional suggestions that have not been addressed in the CWIT deliverables. The last section lists the generic suggestions on the study methodology.

Suggestions covered in the CWIT deliverables

- Ban on cash transactions. It is the best means to reduce theft at borders if adopted in the EU (mentioned by 2 participants). One participant recommends ban on cash payment for metals specifically as it is the first step in black marketing.
- Make it more profitable to discard waste in the country or within EU.
- Working better with environmental friendly treatment outside the EU or in downstream activities.
- Share risk indicators-"what to look for".
- Hold operational meetings for intelligence officers at EU level in order to discuss tactics, current cases etc.
- Taxability of transaction would enable the financing of metal scrap dealers.
- Illegal shipments and other activities also take place from the take-back systems and within established systems and should be taken note of.
- Due to the relatively high profits gained from illegal waste trade, economic incentives for proper waste collection and treatment are crucial. One example is establishing a deposit system for e-waste and batteries.
- Waste prevention (including how to measure).
- Collaboration with receiving countries (mentioned by 2 participants). This is considered an important measure by one participant in order to address the problem of imports from the recipient countries' perspective.
- Consider how to facilitate flows within the supply chains between verified locations, e.g. establishing green lanes between pre-authorized or certified locations or put in place simplified procedures.
- In addition to "securing collection", add the importance of the location of collection points-e.g. shops.

- Ensure clear systems and description of tasks across authorities. Include what information can be disseminated and on what basis.
- Design policies in tandem with economic principles as money talks.
- Discuss the issue of "victimless" crime. Devise ways of finding ways of exposing victims (from pollution or from former owners of discarded WEEE) will facilitate potential prosecutions.
- Improve reuse of metals by producers. This is a difficult step in the circular economy because the reused material has to satisfy the producer and the product has to be competitive in comparison to new materials.
- Consider using CWIT or other organisation to initiate the process of establishing a central repository for storing data, listing best practices, successful prosecutions, etc. that should be accessible to all enforcement authorities in the 28 Member States. The repository should be simple. Establish ownership for post CWIT.
- Waste codifications should make distinctions between UEEE and product.
- Map downstream activities. Make unannounced audits internal control of take-back companies to be able to secure that the map downstream corresponds to the terrain.
- Mention the possibility of imposing a monitoring system considering the "polluter pays" principle as in France and Croatia.
- Stress the issue of capacity building in receiving countries although it is often a political decision.

Suggestions not covered in the CWIT deliverables

- Provide technical support to African countries.
- Planned obsolescence.
- Focus on upstream activities.
- Enforcement process approach and roles of actors.
- Give NGOs right to take legal actions against planned obsolescence etc.

Generic suggestions on study methodology

- Take into consideration just the French case study for topic 1 is not an inclusive approach. So it is recommended to include other case studies in other member countries and highlight good and bad practices.
- Participant sees a lack in prioritization of recommendations and to which entity it is targeted, i.e. who exactly needs to follow up on the recommendations. Further, it is not clear which areas need further investigations.
- It is essential to analyse in detail the model applied for WEEE in each Member State, assess the strengths and weaknesses, negative and positive aspects in each case. This project, with the implications and possible consequences, cannot focus only on a case study. All the possible models and options across Europe as the French case, need to be analyzed and taken into account in this project and its final recommendations.

E. Could you please note below, which of the four CWIT Themes/Topics you see of highest importance ("HIGH") and of lowest importance ("LOW")-again, with a brief justification.

Theme 3 and 4 are considered of the highest importance with 17 votes each. Theme 4 is considered of lowest importance with 6 votes.

Themes

High Priority

Low Priority

Theme 1	16	5
Theme 2	11	5
Theme 3	17	4
Theme 4	17	6

Justifications for high priority

Theme 1

- Producers don't reuse as the amount is not high enough.
- Improved collection rates will better control the e-waste streams and all related actors.
- It is one of the best methods to reduce illegal activities.
- Use only reliable operators with high operation standards.
- This is the most important measure to be taken in order to improve quality of data.
- It is an example of a best practice.

Theme 2

- To help identify where to direct investments and resources.
- Reuse means extending the life of EEE.
- Economy is the main driver.
- Recovery of materials from WEEE as a secondary source is the main driver for recycling.
- It is an example of a best practice.

Theme 3

- Needs clearer descriptions to be pictured as black and white and not grey areas.
- Clear and precise legal framework is the foundation for continuous work.
- Legal framework and prosecution/enforcement are essential.
- Important to implement the same regulations (but be careful with Basel Convention).
- Legal framework must be in place before enforcement takes place.
- Legal framework is well placed, but there is still need for improved implementation
- A level playing field is essential in all countries. This is also needed to accomplish the goal of WEEE legislation being implemented in all Member States.

Theme 4

- Legal framework and prosecution/enforcement are essential.
- Important to be managed with efficiency and in a cooperative manner.
- A same level playing field is essential in all countries.

Justifications for low priority

Theme 1

- Collection is not the main problem
- These are only upstream solutions.

Theme 2

- If other themes are well-managed this becomes less important.

Theme 3

- Proper networking would resolve this issue

Theme 4

- Fines would be more effective than prison sentences.

- Criminal actors will always devise new means of violating.
- This is more of a long-term issue.
- If the system only relies on enforcement and prosecution, the same is already lost before it even started.
- Since priority is an issue, the other three clusters are of more importance.
- Preventive measures should include incentives rather than prosecutions.
- Because of different national judicial systems, exchanges of experiences is not efficient in such major incidents.

F. When it comes to the follow-up dissemination, detailed implementation planning and the actual implementation of the CWIT recommendation clusters (after August 2015), do you think your organization could play some role in this process? If yes, can you please provide some practical details (and, the name of your organization, if possible)?

Several participants have extended their willingness to support the CWIT project in a number of ways.

Austria

The Austrian working group on reducing illegal trade with wastes has expressed willingness to support.

Croatia

The environmental administration of Croatia is willing to take part in the implementation of the project recommendations. Croatia has established a national monitoring system for WEEE. However, the request needs to be formally submitted for approval from the management of the Ministry for Environmental and Nature Protection of Republic of Croatia.

France

The French Environmental Office (OCLAESP) has to run this request in the office. A second attendee from this administration expressed willingness to support Cluster 4.

Eco-systèmes, France is ready to organise press relations.

The University of Poitiers, France could help in disseminating the information for educational purposes and create guidelines/recommendations for e-waste collection at the university.

A PhD. Student researching on the WEEE sector has offered general support.

Germany

The regional government of South Hessen (Land Hessen/Regierungspresidium Darmstadt), Germany is interested in CWIT.

The Institute for Structural Policy and Economic Development (ISW), Germany, is part of the WEEE MODELS Project consortium, which carried out a best practice study on WEEE logistic solutions and legal frameworks in 3 regions. ISW is also involved in CWIT findings and recommendations and future WEEE projects.

A German agency in Baden-Württemberg has offered help if required from a German competent authority for transfrontier shipments and take-backs.

SAA Sonderabfallagentur Baden-Württemberg GmbH

Norway

The Norwegian Environmental Agency has expressed interest in contributing without referring to details.

The Norwegian Environmental Agency wants to be informed when the recommendations are more concrete.

Spain

ECOASMEUES, Spain has offered general support.

The Spanish Federation of Recovery and Recycling (FER) has offered help.

Sweden

A contact person from the Swedish police force has offered help depending on the final scope.

Switzerland

The Swiss Federal Office for Environment (FOEN) can provide information on: Information exchange between enforcement agencies, best practices, repatriation cases and guidelines on waste and used products.

The Netherlands

One contact detail has been given without indicating any support for the recommendation clusters.

The Dutch Environment and Transport Inspectorate has expressed interest in contributing to CWIT. Human Environment and Transport Inspectorate, Intelligence and Investigation Division (ILT-IOD),

United Kingdom

The Environmental Agency, England is willing to extend support.

Other

EPA has offered support in disseminating in the US, especially government agencies and stakeholders.

A PhD researcher focussing on metal recovery from WEEE via sustainable biological technologies, has expressed interest in contributing to CWIT in the area of sustainable metal recovery technologies. The institute is looking for partner to collaborate in our metal recovery technology to scale up to a pilot scale.