Interreg Aurora

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LANDSCAPE OF WASTE SHIPMENT LEGISLATION:

Finland, Sweden, and Norway

Arctic Waste Forum

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Introduction

This report focusing on waste shipment legislation has been prepared as part of the NOWA - Nordic Waste Management Vision project funded by Interreg Aurora Programme. The report, including interviews, was carried out during autumn 2024 - early 2025 and has been prepared in cooperation with NOWA project partners and is part of a series of reports produces in the project.

The NOWA project selected three waste fractions for investigation: hard plastics, incineration ash and food waste. The legislation and other information have been selected for this report at a general level, considering the selected waste streams and target countries as well as the recovery of waste (not disposal). The report brings together international and Finnish, Swedish and Norwegian national legislation, as well as other agreements, decisions, and target programs that also have an impact on future waste shipments. The information for Finland, Sweden and Norway is presented in appendices 1-3.

The report contains results on the opportunities offered by transboundary waste shipment legislation and the challenges identified in them. The report highlights the main issues in assessing the nature of waste and presents the codes of conduct related to waste shipments. The report also provides an overview of the waste permit process related to waste shipments, the responsibilities of the exporter, consignee and carrier, the control of waste transportation, and the difference between green and amber waste. The report also considers the renewed legislation and transition periods for changes that are essential for the project and links changes to future perspectives in legislation, target and action programs and global meetings. The report also contains recommendations for further action.

The report was based on qualitative research using interviews and questionnaires. NOWA experts analyzed, assessed, and drew conclusions from the responses. The interviews were conducted from three different perspectives to identify all the challenges and problems related to waste transport between the countries. The interviewees represented the following groups: authorities, municipal waste organizations, and waste transport companies. The challenges arising from the responses were tabulated from the interviews. The challenges were partly divided according to different respondent groups, but common challenges were also found. The responses were classified into four different possible perspectives (impact categories), which were divided into three different impact levels: mild, medium, and major. The proportion of medium challenges rose to the highest. However, even major challenges do not necessarily require changes to legislation; with training, cooperation, and agreement on common practices, most of the legislative challenges identified in the report can be eliminated.

1. General waste transfers legislation between Finland, Sweden, and Norway

It is essential to organize and regulate the supervision and control of waste shipments in a way that protects the environment and human health, ensures uniform application of rules across the European Union, and supports the transition to a circular economy by considering proximity, material efficiency, and reducing waste's environmental footprint. (1)

International regulations and agreements control the movement of waste from one country to another (1). The commitment of states to international organizations and agreements also determines which legislation is used in waste transfers between countries. In particular, in transfers within EU countries and in the European internal market, waste transfer legislation is more liber-al compared to, for example, between countries that are members of the EU and non-OECD countries. (2)

In Finland, Sweden and Norway, waste shipments are regulated by EU directives, national laws, and international and national agreements. Although Norway is not a member of the EU, the same legislation is followed in waste shipments between Finland and Sweden, as Norway has committed to comply with the EU Waste Shipment Regulation as part of the OECD Council and Basel Convention decisions (3). Table 1 shows that Norway is also part of the European single market as part of the EEA area, which facilitates, in particular, shipments of food waste between countries.

Table 1. Presents the cooperation organizations that influence waste shipment legislation, to which Finland, Sweden and Norway are committed.

Cooperation organisation	Finland	Sweden	Norway
European Union (EU)	✓	✓	
The European Economic Area (EEA)	✓	✓	✓
European Free Trade Association (EFTA)			✓
Basel Convention	✓	✓	✓
OECD Council decision	✓	✓	✓
United Nations (UN)	✓	✓	✓

1.1. General international waste transfer legislation

The main EU laws on waste shipments are the EU Waste Shipment Regulations (2024/ 1157 and 1013/2006), the Commission Implementing Regulation (EU) 2016/1245) and the EU Waste Directive (2008/98/EC). The EU Waste Shipment Regulation incorporates the Basel Convention on Shipments of Hazardous Waste and the OECD Council Decision on regulatory requirements for shipments of waste for recovery. Please note that the provisions of the older Waste Shipment Regulation (EC) No 1013/2006 will largely apply until 21 May 2026 (4).

The EU legislation affecting shipments of waste between Finland, Sweden and Norway is presented in Table 2. The primary provisions are highlighted in orange, the supplementary provisions in green, and those that only apply to certain waste materials or stages of waste shipments in blue.

Table 2. The main EU legislation concerning international shipments of waste between Finland, Sweden, and Norway.

Relevant legislation	Summary
Waste transfer regulation (EU) 2024/1157 NOTE! (EC) No. 1013/2006 mainly applies until 21 May 2026	International shipments of waste are governed by the EC Waste Shipment Regulation, which acts as directly applicable legislation in the EC and EEA Member States. The Regulation contains detailed provisions on how exports, imports and transit of waste are controlled and what kind of authorizations are required for these operations. The regulation indicates the correspondence between the Combined Nomenclature customs codes (CN codes) laid down in Council Regulation (EEC) No 2658/87 and the waste headings listed in Annexes III, IV and V to Regulation (EC) No 1013/2006.
Waste transfer regulation (EC) N:o 1013/2006	
Commission Implementing Regulation (EU) 2016/1245	
EU Waste Framework Directive 2008/98/EC	The Directive provides for the reduction of waste generation and the ad-verse impacts of waste and waste management by improving efficiency and reducing the overall impact of resources (waste hierarchy), with the aim of moving towards a circular economy. It defines waste and its characteristics. Includes waste hazard codes, recovery, and disposal operation codes (R/D).
Commission Regulation (EU) No 1357/2014	Replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives (Properties that make the waste hazardous).
EU waste regulation, list of waste code (2000/532/EC)	List of waste referred to in article 7 of directive 2008/98/EC

By-products Regulation (EC) No 1069/2009	Regulation lays down public health and animal health rules for animal by-products and derived products, to prevent and minimize risks to public and animal health arising from those products, and to protect the safety of the food and feed chain.
Commission Regulation (EU) No 142/2011 implementing the by-products regulation	Applies to the implementation of Regulation (EC) No 1069/2009. Includes, among other things, restrictions on the use and approval of treatment plants (incineration, biogas, and composting) and requirements for permit applications for alternative treatments.
REACH regulation (EC) 1907/2006	Regulation foresees the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) and the establishment of a European Chemicals Agency.
POP regulation (EU) 2024/590	Regulation lays down rules on waste consisting of, containing, or contaminated by POPs. The aim is to protect human health and the environment by prohibiting the manufacture, phasing out or restricting the manufacture and placing on the market of substances containing POPs.

1.2. International agreements and decisions of waste management

In addition to the legislation, transfers of waste are regulated by several international agreements and decisions (5). Some agreements and decisions may cover a wide range of international shipments of waste, while others are more specific and regulate only one type of waste material. Table 3 lists agreements and decisions influencing waste transfers between Finland, Norway, and Sweden. Primary ones are highlighted in orange, those concerning specific transfers in green, and others in blue.

These international agreements are important because they also serve as a basis for legislation and provide flexibility, for example, to accommodate the needs of new waste materials and practices before legislation is reformed, e.g., new provisions for packaging plastics and electronic waste. (6)

Table 3. The main agreements/decisions concerning shipments of waste between Finland, Sweden, and Norway.

Agreement/decision	Summary
Basel convention, text of the convention	The Basel Convention applies to the control of transboundary movements of hazardous waste and their treatment. Included categories of waste to be controlled or requiring special consideration (Y and A/B codes), list of hazardous characteristics and list of disposals (D code) and recovery (R code) operations.
OECD Decision of the Council on the Control of Transboundary Movements of Wastes Destined for Recovery Operations	The OECD control system facilitates the control of transboundary shipments of waste destined for recovery. The system uses a risk-based approach to assess the level of control of waste (green and amber systems).
EEA Agreement; European Economic Area (Internal market)	Nordic co-operation seeks to safeguard Nordic and regional interests and principles in the global community. The Helsinki Treaty agreed on Nordic cooperation in areas such as transport, legislation, and environmental protection.
Nordic Co-operation (The Helsinki Treaty)	The Nordic Council is the official body for Nordic inter-parliamentary co-operation. The Nordic council gathers information, produces publications and guidelines, and takes joint decisions on matters concerning the Nordic region.

1.3. Inter-country agreements

Article 31 of the EU Waste Shipment Regulation (EU) 2024/1157 "Transfrontier agreements" allows for agreements between countries sharing a common border area. The possibility for neighboring countries to enter into their own agreements has also been recognized in international agreements, such as the Basel Convention Article 11 "Bilateral, multilateral and regional agreements".

The agreements offer different conditions for shipments of waste between countries, for example by speeding up notification and permit procedures and allowing for longer periods of validity of waste shipment permits (7). The National agreements between Finland, Sweden and Norway are presented in Annexes 1-3.

1.4 Influence programs, strategies, and goals

In addition to legislation, many international action programs, goals, and strategies affect waste and the circular economy (8). These commitments act as drivers of national and international legislation, also providing measures and statistics to support the legislation. In a changing world, targeted programs can also change practices faster than legislative reform. (9)

Finland (10), Sweden and Norway are committed to several international economic, environmental, and circular economy programs, which are summarized in Table 4. Programs that have a large im-pact on waste and the circular economy are highlighted in orange. Action programs and strategies that have a clear impact on the waste transfer or circular economy market are highlighted in green. Others are noted in blue.

At national level, target programs and strategies are developed not only by the state, but also by cities and municipalities and individual companies. Programs and strategies at national level in Fin-land, Sweden and Norway are presented in Annexes 1-3.

Table 4. Key international circular economy strategies and targets to which Finland, Sweden and Norway are committed.

Strategies/goals	Summary
United Nations Environment Assembly (UNEA)	The United Nations Environment Assembly is the world's highest-level decision-making body for matters related to the environment. It sets priorities for global environmental policies and international environmental law. Understanding these challenges and preserving and rehabilitating our environment is at the heart of the 2030 Agenda for Sustainable Development. UN Agenda 2030
The United Nations Environment Programme (UNEP)	UNEP is a leading global programme that works in partnership with governments, the private sector, civil society, and UN agencies to address the most pressing environmental challenges and promote a green economy. UNEP helps countries transition to resource-efficient and low-carbon economies, protect ecosystems, strengthen environmental governance and legislation, and provide evidence-based information for policymaking.
The European Green Deal	The European Green Deal aims to create a more competitive, sustainable, and climate-neutral society. The Green Deal is a broad set of measures covering all sectors of the economy. One of the measures is voluntary agreements.

European Strategy for Plastics in a Circular Economy	A vision for Europe's new plastics economy. Contains a list of future EU measures to implement the Strategy.
A new Circular Economy Action Plan (CEAP) "For a cleaner and more competitive Europe"	The new action plan announces initiatives along the entire life cycle of products. It targets how products are designed, promotes circular economy processes, encourages sustainable consumption, and aims to ensure that waste is prevented, and the resources used are kept in the EU economy for as long as possible.
New Circular Economy Action Plan 2020/2077 (INI)	Topics include raw materials, waste management, household waste, packaging, light industrial waste, and sustainable development.
A New Industrial Strategy for Europe	The strategy aims to lay the foundations for an industrial policy that supports both the green and digital transition. The aim is to create an industry that promotes climate neutrality and a digital future. The strategy considers the internal market and the circular economy, as well as industrial investment and financing.
EU Action Plan: 'Towards Zero Pollution for Air, Water and Soil'	The EU aims to achieve climate neutrality by 2050 and transition to a clean circular economy model that prioritizes restored ecosystems, biodiversity preservation, and a toxic-free environment. The action plan integrates measures aimed at a pollution-free future into a unified strategy, emphasizing pollution prevention.
EU Strategic agenda 2024–2029	The Strategic Agenda sets out the EU's priorities and strategic guidelines for the years 2024-2029. It guides the work of EU institutions. The goals are a free and democratic, strong, and secure, and prosperous and competitive Europe.
Environment action programme to 2030 (EAP)	The 8th EAP calls for active engagement of all stakeholders. The programme reiterates the EU's long-term vision to 2050 of living well and within planetary boundaries. It sets out priority objectives for 2030 and the conditions needed to achieve these.

2. Is the material waste or a product?

Procedures for international waste shipments do not apply to materials classified as products. However, the exporter must provide evidence, if necessary, to prove that the material is not waste (11).

'Waste' means any substance or object which the holder discards or intends or is required to discard (2008/98/EC, Article 4(1).

2.1. End of Waste and by-product

Waste can "stop being a waste", through the End of Waste (EoW) definition. It is notable that The EU EoW criteria are only valid within the EU and national EoW decisions only in the country where the criteria are defined for the waste in question. For international shipments of waste, the operator must ensure that all authorities in the countries concerned have the same interpretation of the end of waste classification. (12)

In addition to the main product, production processes may also generate by-products that can be directly recovered. By-products are also not covered by the Waste Directive and the provisions adopt-ed under it. In the case of by-products, the exporter must also find out whether the material is also accepted as a by-product by the authority of destination, or whether it will be interpreted as waste, in which case the shipment must follow the waste shipment procedure. (13)

Both the EOW procedure and the by-product definitions are enshrined in the EU Waste Directive 2008/98/EC and are also reflected in the EU Waste Shipment Directive.

2.2. Disagreements on classification of waste

In some cases, authorities in different countries may have differing interpretations regarding classification. In such cases, the strictest regulatory guidelines are always followed. Disagreements on the classification of waste are addressed in Article 29 "Classification issues" of the EU Waste Shipment Regulation (EU) 2024/1157.

1. *When deciding whether an object or substance resulting from a production process the primary aim of which is not the production of that object or substance shall be considered to be waste, Member States shall apply Article 5 of Directive 2008/98/EC.*

   When deciding whether waste which has undergone a recycling or other recovery operation is to be considered to have ceased to be waste, Member States shall apply Article 6 of Directive 2008/98/EC.

When deciding whether an object or substance is to be considered as a used good and not as waste, Member States shall ensure that at least the following conditions are fulfilled:
(a) further use or reuse of the object or substance is certain;
(b) the object or substance can fulfil its intended function without significant pre-processing;
(c) where relevant, the object or substance is tested to ensure its full functionality;
(d) further use is lawful, that is to say that the object or substance fulfils all relevant product, environmental and health protection requirements for the specific use and will not lead to overall ad-verse environmental or human health impacts;
(e) the object or substance is properly preserved and protected against damage during transport, loading and unloading.

2. If the competent authorities of dispatch and of destination cannot agree on the classification as regards the distinction between waste and non-waste, taking into account the provisions in para-graph 1, and any conditions or decisions taken at Union level or by Member States pursuant to Article 5 or 6 of Directive 2008/98/EC, the object or substance shall be treated as if it were waste for the purpose of the shipment. This shall be without prejudice to the right of the country of destination to deal with the shipped material in accordance with its national legislation, following arrival of the shipped material and where such legislation is in accordance with Union or international law.

3. Recovery and disposal operations

The waste hierarchy described in the EU Waste Directive (2008/98/EY, article 4) is applied as a priority in waste prevention and management legislation and policy.

In applying, The Member States must take measures to achieve the best overall environmental outcome. However, lifecycle thinking and consideration of the overall impact of waste management may require deviations from the hierarchy for certain waste streams. (14)

Figure 1 Waste hierarchy (European Commission, n.d.)

Notable, in waste shipments, recovery refers to all other activities in the waste hierarchy except disposal. The definitions of recovery and disposal in the EU Waste Directive (2008/98/EC), article 3 “Definitions”, section 15 and 19:

15 ‘recovery’ means any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy. Annex II sets out a non-exhaustive list of recovery operations.
19) ‘disposal’ means any operation which is not recovery even where the operation has as a secondary consequence the reclamation of substances or energy.

3.1. Recovery operations

Part B of Annex IV to the Basel Convention defines recovery operations (R). These are operations that can lead to resource recovery, regeneration, recycling, direct reuse, or alternative uses. Recovery operations cover all operations that use hazardous wastes that would otherwise be destined for disposal (operations listed in Part A). (15) The operations are listed below.

R1	Use as a fuel (other than in direct incineration) or other means to generate energy
R2	Solvent reclamation/regeneration
R3	Recycling/reclamation of organic substances which are not used as solvents
R4	Recycling/reclamation of metals and metal compounds
R5	Recycling/reclamation of other inorganic materials
R6	Regeneration of acids or bases
R7	Recovery of components used for pollution abatement
R8	Recovery of components from catalysts
R9	Used oil re-refining or other reuses of previously used oil
R10	Land treatment resulting in benefit to agriculture or ecological improvement
R11	Uses of residual materials obtained from any of the operations numbered R1-R10
R12	Exchange of wastes for submission to any of the operations numbered R1-R11
R13	Accumulation of material intended for any operation in Appendix 5.B

3.2. Disposal operations

Part A of Annex IV to the Basel Convention defines disposal operations (D). These operations include the practical disposal operations carried out at the end of the product's useful life that do not lead to resource recovery, recovery, recycling, direct reuse, or alternative uses. (15) The operations are listed below.

D1	Deposit into or onto land, (e.g., landfill, etc.)
D2	Land treatment, (e.g., biodegradation of liquid or sludgy discards in soils, etc.)
D3	Deep injection, (e.g., injection of pumpable discards into wells, salt domes or naturally occurring repositories, etc.)
D4	Surface impoundment, (e.g., placement of liquid or sludge discards into pits, ponds, or lagoons, etc.)
D5	Specially engineered landfill, (e.g., placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)
D6	Release into a water body except seas/oceans
D7	Release into seas/oceans including sea-bed insertion
D8	Biological treatment not specified elsewhere in this Appendix which results in final compounds or mixtures which are discarded by means of any of the operations in Appendix 5.A
D9	Physico-chemical treatment not specified elsewhere in this Appendix which results in final compounds or mixtures which are discarded by means of any of the operations in Appen-dix 5.A, (e.g., evaporation, drying, calcination, etc.)

D10	Incineration on land
D11	Incineration at sea
D12	Permanent storage (e.g., emplacement of containers in a mine, etc.)
D13	Blending or mixing prior to submission to any of the operations in Appendix 5. A
D14	Repackaging prior to submission to any of the operations in Appendix 5. A
D15	Storage pending any of the operations in Appendix 5.A

4. Waste Codes

Waste codes help to identify the type of waste, its treatment requirements, and the applicable regulations. Uniform and precise codes help to minimize risks, especially in the management of hazardous waste (H codes) and ensure proper treatment during transport. It is important to use the correct code, as they are also used as a basis for waste statistics and are updated as necessary. (16)

The waste identification code shall be determined in accordance with the Basel Convention, the OECD Decision, or other recognized systems. When moving waste between OECD countries, only one code (either from the Basel or OECD system) is required according to the OECD Decision, but when the waste falls under Y46 or Y47 (Basel Convention "group requiring special attention"), the Y code and other codes and identifiers shall be added. If the waste is not listed in the Basel Convention or the OECD Annexes, the term "not listed" shall be used. When moving waste between the Member States of the EU, the European Community List of Waste should be used. The properties of the waste shall determine the final code. (17)

Since the waste codes defined in the Basel Convention and the OECD Council Decision may correspond to several codes defined in different EU legislation, no single table of equivalence can be established. Furthermore, especially in the case of mixed waste, the codes may differ between the exporting and importing countries, depending on the composition or treatment of the waste. Therefore, in addition to the waste codes, a verbal, general description of the waste may also be required in the movement documents (17). NOTE! The descriptions of the codes are taken directly from the relevant section of the Regulation, so all references are to the relevant legal act (Tables 4.1. to 4.4.).

4.1. EU/EC code

LOW "List of Waste" (formerly EWC "European Waste Codes") is defined in the EU Waste Regulation 2000/532/EC. Wastes classified as hazardous are marked with an asterisk (*). These codes are commonly used in national waste classifications, activities, and their authorizations. (18) Examples of EU codes, relevant to the NOWA Project, have been compiled in the Table 5.

Table 5. presents a description of the heading level and the wastes under it with their codes.

Waste from construction and demolition	
17 02 03	plastic
17 02 04*	glass, plastic, and wood containing or contaminated with dangerous substances
Wastes from incineration or pyrolysis	
19 01 11*	bottom ash and slag containing dangerous substances
19 01 12	bottom ash and slag other than those mentioned in 19 01 11
19 01 13*	fly ash containing hazardous substances
19 01 14	fly ash other than those mentioned in 19 01 13
Wastes from mechanical treatment of waste (such as sorting, crushing, baling, and pelletizing) not otherwise specified	
19 12 04	plastic and rubber
Municipal waste (residential and similar commercial, industrial and other institutional waste), including separately collected fractions	
20 01 08	biodegradable kitchen and catering (canteen) waste
20 01 39	plastics
20 03 07	large objects (bulky waste)
EU codes used instead of Basel codes for international shipments of waste	
EU3011	Plastic waste (is used instead of Basel entry B3011 when waste is shipped within the Union. Note the related entry AC300 in part II of Annex IV, and the related entry EU48 in part I of Annex IV):
EU48	Plastic waste not covered by entry AC300 in OECE Appendix 4, part II or by entry EU3011 in part I of Appendix 3, as well as mixtures of plastic waste not covered by point 4 of Annex IIIA. (EU48 is used instead of Basel entry Y48 when waste is shipped within the Union).

4.2. Basel code

The Y codes are defined in Annexes I and II of the Basel Convention. Y-code wastes are subject to controlled shipments. For code Y 48 (in force from 1.1.2021), the Contracting Parties may set strict-er requirements, which may deviate from international regulations. (19) The Y code can include several different types of waste, as shown in Table 6.

Table 6. shows examples of Y codes and their descriptions.

Y	Wastes having as constituents	
	Y19-Y45	are list of constituents
	Categories of wastes requiring special consideration (“other wastes”)	
	Y 46	Waste collected from households

	Y 47	Residues arising from the incineration of household wastes
	Y 48	Plastic waste, including mixtures of such waste, except for the following: Plastic waste that is hazardous waste, Plastic waste listed below, provided it is destined for recycling in an environmentally sound manner and almost free from contamination and other types of wastes (see B3011 below).

A code wastes listed in Annex VIII of the Basel Convention are classified as hazardous and shipments of waste are subject to the amber control procedure. The inclusion of wastes in this Annex does not mean that the use of Annex III does not prevent the waste from being marked as non-hazardous, although it may contain components classified as hazardous, as shown in Table 7. (19)

Table 7. shows examples of A codes and their (part of) descriptions.

A	A3180	Wastes, substances, and articles containing, consisting of, or contaminated with polychlorinated biphenyls (PCBs), polychlorinated terphenyls (PCTs), polychlorinated naphthalene (PCN) or polybrominated biphenyls (PBBs) or any polybrominated derivatives of these compounds in concentrations equal to or greater than 50 mg/kg (1)
	A3210 (AC300)	Plastic waste, including mix of such waste, containing, or contaminated with Annex I constituents, to an extent that it exhibits an Annex III characteristic (note the related entry B3011, in list B of this Part, and entry Y48, in list A of Part 3). Code AC300 is used in the controlled procedure instead A3210.

B code wastes listed in Annex IX of the Basel Convention are not "hazardous wastes" and will be included in the green control procedure unless they contain Annex I substances (wastes whose constituents are Annex III hazardous substances) to the extent that they have Annex III hazardous properties, e.g., B3011 may contain PVC, as shown in Table 8. (19)

Table 8. shows examples of B codes and their (part of) descriptions.

B	B3011	Plastic waste (note the related entry A3210, in list A of this Part, and entry Y48, in list A of Part 3). Plastic waste listed below, provided it is destined for recycling in an environmentally sound manner and almost free from contamination and other types of wastes: Plastic waste almost exclusively consisting of one non-halogenated polymer, including but not limited to the following polymers: PE, PP, PS, ABS, PET, PC, Polyether, Urea

		Phenol/melamine formaldehyde resins, epoxy/alkyd resins, FEP, PFA, MFA, PVF, PVDF, PTFE, and PVC
	B3060	Wastes arising from agro-food industries provided it is not infectious, e.g., wine lees, fish waste and other wastes from the agro-food industry excluding by-products which meet national and international requirements and standards for human or animal consumption.
	B3065	Waste edible fats and oils of animal or vegetable origin (e.g., frying oils), provided they do not exhibit an Annex III characteristic.

4.3. OECD code

The OECD Convention decisions provide for a two-tier system of control for cross-border transfers. The systems are the green and amber control procedures. The procedures have their own waste lists and codes. Generally, the green and amber lists of wastes use the codes defined in the Basel Convention. In addition to this, the codes decided by the OECD Convention are used, examples of which are given in the Tables 9 and 10 (Appendix 3 and 4). (20)

Table 9. shows an example of a waste fraction in Appendix 3 that is subject to the green control procedure.

Solid Plastic Wastes	
GH013	Polymers of vinyl chloride NOTE! No consensus has been reached among OECD Member countries to incorporate Basel entry Y48 into this Decision. Also, no consensus has been reached among OECD Member countries on whether GH013 continues to apply in this Decision. As a result of this situation, each Member country retains its right to control waste of polymers of vinyl chloride in conformity with its domestic legislation and international law. Basel entry Y48 covers the waste covered by entry GH013.

Table 10. shows an example of a waste fraction listed in Appendix 4 that is subject to the amber control procedure.

Wastes Containing Principally Organic Constituents, Which May Contain Metals and Inorganic Materials	
AC300	Plastic waste, including mixtures of such wastes, containing, or contaminated with Appendix 1 constituents, to an extent that it exhibits an Appendix 2 characteristic. (Note the related entry EU3011 in part I of Annex III, and the related entry EU48 in part I)

4.4. CN custom code

The Commission Implementing Regulation (EU) 2016/1245 establishes an indicative table of equivalences between the tariff and statistical nomenclature (CN codes) (EEC) No 2658/87 and the waste headings (waste codes) listed in Annexes III, IV and V to Regulation (EC) No 1013/2006. The waste codes chosen to correspond to the Annexes to the Regulation (EC) No 1013/2006 are those defined in international agreements, in particular the Basel Convention or the OECD Council Decision. (21)

Due to the differences between wastes and goods, a complete or clear equivalence cannot always be established. In such cases, the equivalence of the codes shall be determined on an approximate basis. The waste codes listed in the Annex IIIB and Annex V, Part 2 of the Regulation (EC) No 1013/2006 (green waste and EC codes) are generally not included in the correlation table. These codes are mainly used for waste shipments within the EU and customs often do not find it necessary to intervene. (21)

The regulation presents two Tables (Tables A and B), from which correspondences can be searched using both the Basel/OECD codes and the CN codes, since the correspondence includes several different codes for the same waste item, as shown in Table 11. (21)

Table 11 is an example of the view of Table A, where waste codes are used as the search code.

A3180	*ex 2710 91 00, ex 2710 99 00, ex 3824 82 00, ex 3824 90 92, ex 3824 90 93, ex 3824 90 96, ex 3825 10 00, ex 3825 20 00, ex 3825 41 00, ex 3825 50 00, ex 3825 61 00, ex 3825 69 00, ex 3825 90 90
B3060	ex 0506 10 00. ex 0506 90 00, ex 0511 91 10, ex 1213 00 00, ex 1404 90 00, ex 1522 00 10, ex 1522 00 31, ex 1522 00 39, ex 1522 00 91, ex 1522 00 99, ex 1802 00 00, ex 2301 10 00, ex 2301 20 00, ex 2302, ex 2303, ex 2304 00 00, ex 2305 00 00, ex 2306, ex 2307 00 11, ex 2307 00 19, ex 2308 00 11, ex 2308 00 19, ex 2308 00 40, ex 2308 00 90, ex 2401 30 00, ex 3825 61 00, ex 3825 90 90
B3065	ex 15
GH013	ex 3904 10 00, ex 3904 21 00, ex 3904 22 00, ex 3904 30 00, ex 3904 40 00, ex 3915 30 00
Y46	ex 3825 10 00
Y47	ex 2621 10 00

** The abbreviation 'ex' before a CN code implies that only part of the CN code is concerned. Such CN codes may also cover goods other than the waste(s) covered by the respective waste code(s).*

Finnish Customs uses the Fintaric customs nomenclature service (FI/SE/ENG), which allows users to browse customs nomenclatures and supplementary codes, and to calculate import taxes based on estimated values.

5. Principles of waste classification; green or amber waste

The OECD control system includes two different levels of control procedures for shipments of waste, which are listed in Annexes 3 and 4 of the OECD Council Decision:

1. The green control procedure is for waste posing a low risk to human health and the environment, which is subject only to the same normal controls as commercial operations.
2. The amber control procedure is for waste for which controls are justified based on a sufficient risk. (22)

The list can be found at: VVA-Konsolidierte- Abfalllisten-EN-2025.pdf

Regardless of whether waste is included in this green waste list, it may not be subject to the general information requirements laid down in Article 18 of the EU Waste Shipment Regulation 2024/1157 if it is contaminated by other materials (even if they are clean, separately collected materials) to the extent that:

a) increases the risks associated with the waste sufficiently to make it suitable for being subject to the prior written notification and consent procedure, considering the list of wastes referred to in Article 7 of the Waste Directive 2008/98/EC and the hazardous properties listed in Annex III to that Directive; or

b) prevents the environmentally sound recovery of the waste (23).

The purity of green waste should generally be above 90% by weight. Some wastes may also be subject to stricter requirements and specific national requirements (24), for example restrictions on certain constituents for plastic waste codes B3011 up to 2% and for code EU3011 up to 6% of the weight of the consignment. (25) The threshold values for "green waste" contaminants set by the Member States can be found here: Circabc. The Nordic Council of Ministers has published "Green-listed waste (GLW) exports from the Nordic countries" in 2020.

Green wastes pose a minimal risk to the environment and human health. Waste is considered non-hazardous and usually involves recyclable materials. These shipments require minimal regulatory oversight, facilitating smoother transport across countries. No control-measures other than those normally used in commercial transactions are applied to them. Waste on the Green Waste List can be exported under the notification procedure (certain waste codes). Note! The process will be tightened after the transition period!

Typically, green waste may include materials such as paper, plastics, metals (including certain types of electrical and electronic equipment), composite packaging, and glass fiber waste intended for recycling.(24)

FACT SHEET: GREEN LIST WASTE SHIPMENTS

Amber waste also involves other preliminary measures, in addition to the waste shipment permit process. Samples must be taken from the waste to verify the concentrations of harmful substances in the waste. The exporter and recipient of the waste must enter into an agreement on the shipment and treatment of the waste. Also, the exporter or importer must provide a financial guarantee, either in accordance with international or national legal requirements. (26)

A more detailed procedure in the supervised waste permit process is described in Chapter 6.

Amber wastes pose a sufficient risk to people or the environment. Amber waste refers to materials that have hazardous characteristics. Green waste that is contaminated with other substance or materials so that it cannot be handled in an environmentally acceptable way is considered as amber waste. The controls of waste shipments are conducted by national authorities and Customs Offices as appropriate. (27)
This category includes e.g., "unlisted waste", hazardous waste, hard-to-recycle plastics, some residues from incinerations or waste, which can’t be recovered and are meant for disposal. (28)

6. Overview of the waste shipment process

International shipments of waste generally require a waste shipment permit. If a material or object is classified as waste, a waste shipment permit is required by the authorities of the countries of destination, origin, and transit. (29)

An exception is the movement of so-called "green waste", which is subject to a lighter notification procedure when moving within the EU or OECD. When transporting waste to another country for disposal, a permit is always required, even if the waste does not have hazardous properties. In some cases, the export or import of waste may also be prohibited entirely. (29)

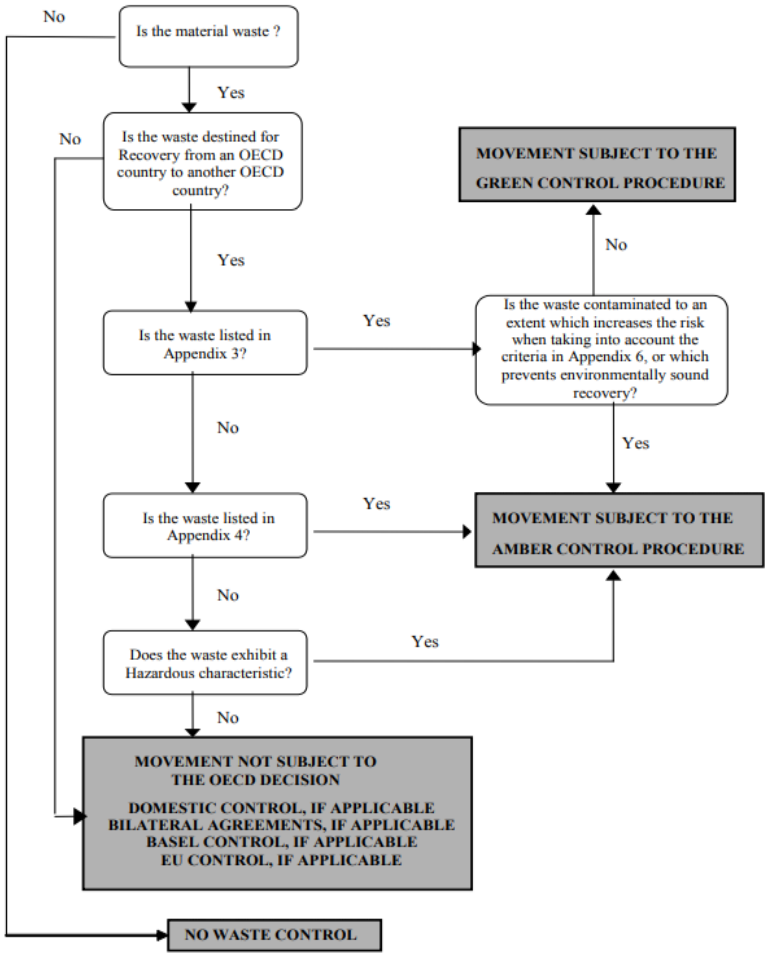


Table 12 shows the identification of wastes covered by the OECD Decision in the shipment process. (30)

Choosing the right procedure for a waste shipment (green or amber procedure) is not straightforward, because the country of destination, the membership (EU/ OECD/non-OECD, etc.), the waste contamination, the quantities and properties of hazardous substances are assessed through several different perspectives of the law, as shown in Table 12. (30)

The EU Waste Shipment Regulation (EU) 2024/1157 Article 4, section 5 also provides for the possibility of shipping a maximum of 250 kg of waste for laboratory analysis. In these cases, green waste documents are used. The organizer of the shipment may request permission from the authorities of the exporting and importing countries for a larger quantity by completing the information required in Annex VII and providing an explanation of the necessity of the quantity. (23)

For international shipments of waste, the notification and authorization process are carried out in cooperation with the control authorities of the exporting (transit) and importing countries. The ex-porter and consignee must also conclude an agreement on the shipment, treatment/disposal of the waste. The exporter is primarily responsible for obtaining the necessary permits for the shipment. Permits are applied through the national system of each country. The authorization process sets deadlines for the authorities to respond and fulfil their obligations. During the process, the authorities either approve or reject the transfer. (31)

6.1. Responsibilities of the exporter (notifier), consignee and transporter

Shipments requiring a waste shipment permit involve obligations for the notifier, consignee, and carrier. (31) Generally, the notifier is the original producer of the waste, but a collector or a registered broker may also act on behalf of the producer (EU) 1013/2006, Article 2, section 15). (27) Both the sender and the recipient have obligations after transfers, e.g., in reporting and data retention (32).

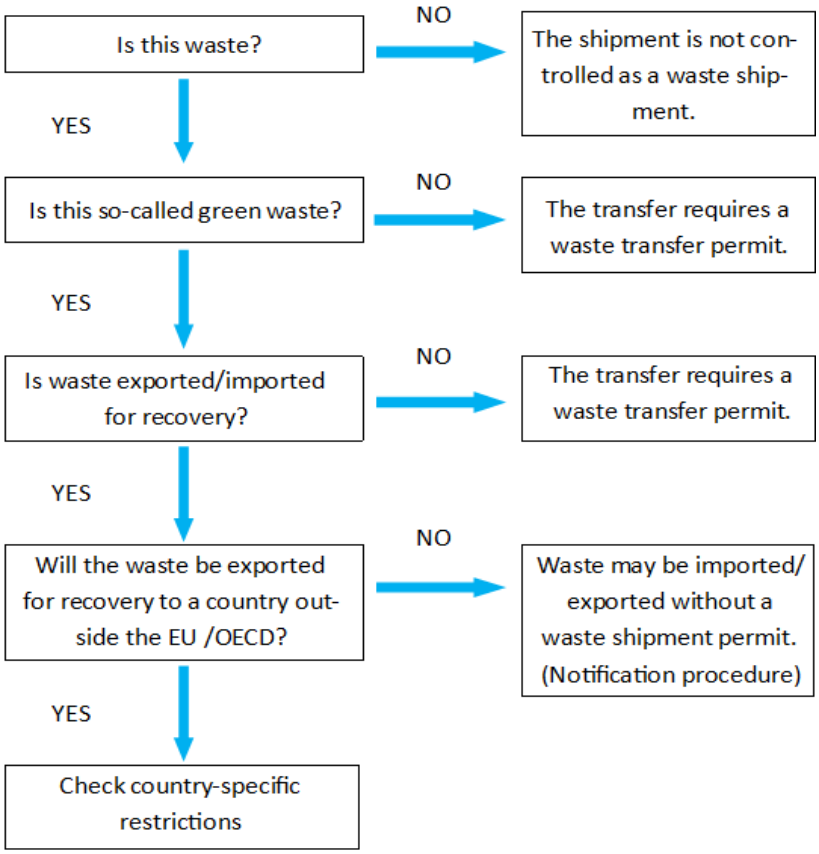
The notifier is obliged to find out whether a permit is required for the shipment of the waste, a notification procedure (green waste) or whether the waste may be shipped to the country in question at all. In addition, the notifier is responsible for the validity of the permits, including the financial guarantee, before the shipment begins. The notifier and the consignee must always conclude an agreement on the receipt and processing of the waste. In addition to the notifier, the consignee must also follow the movement document procedure. (31)

The waste carrier must have a permit to transport the waste to be shipped. In addition, each shipment (transport vehicle) must contain copies of all decisions issued by the authorities. At least in Finland, the carrier must also be registered in the waste management register (ELY Centre). (31)

6.2. Monitoring of waste transfers

Waste shipments are monitored to ensure that waste does not end up in inappropriate treatment and that there is no risk associated with them. Diagram 13 describes the control of waste transfer from the point of view of the need for a waste permit. The law also allows countries to ban or re-strict shipments. These bans or restrictions may also be based on national legislation, which may be stricter than international rules and agreements. (33)

Table 13. By answering the questions in the diagram, the need for a waste permit is determined. (The diagram has been modified and translated into English from the original). (33)



Each country has a designated authority to monitor international shipments. Monitoring is carried out in accordance with national inspection plan, which is stipulated in the EU Waste Shipment Regulation. At the border, in addition to the national authority, customs, police and regional authorities cooperate in monitoring shipments. (34).

The report "Supervision to combat waste crime - A study of the Nordic countries' supervision systems and working methods", prepared by the Swedish Environmental Protection Agency and published in February 2024, focused on understanding the Nordic countries' (Iceland, Norway, Sweden, Faroe Islands, Finland, Iceland, Norway, Denmark, and Sweden) supervision systems and ways to combat illegal waste management. The study aims to showcase best practices, foster collaboration, expand knowledge, and facilitate the exchange of experiences, thereby strengthening the Nordic countries' ability to effectively combat waste-related crime. (35)

The report also interviewed waste shipment authorities. Finns mentioned problems such as incorrect classification of waste as either green or end-of-life. In addition, incorrect customs codes and documents were found. Companies whose business idea is to violate or circumvent the rules were also identified. Norwegian and Swedish experts also emphasized incorrect waste classification in interviews; waste is transported across the border as a product or with a classification that differs from the actual waste. The Swedes also mentioned the lack of necessary permits. (35)

The most common problems are the lack of documentation and necessary authorizations, as well as incorrect classification, which are mostly due to ignorance or lack of information.

These violations take time to resolve, which also makes it difficult to identify real and intentional criminal acts. (35)
The Finnish Environment Institute (SYKE) and Finnish Customs inspected waste shipments leaving the country in October 2024 as part of the global DEMETER inspection operation. The inspection found minor deficiencies in the documentation for all shipments with waste shipment obligations. Two shipments were found that had to be stopped due to missing documents. Unfortunately, violations are always found in the inspections, both in intra-EU shipments and export-EU shipments and two suspicions of illegal waste shipments were also found in this operation. (36)

It is evident that only a small proportion of environmental crimes come to the attention of investigative authorities. Estimates of the hidden extent of such crimes are primarily based on comparative analyses of crime statistics in Finland, Sweden, and Norway. Finland's national environmental crime monitoring group has repeatedly highlighted the low risk of detection for environmental crimes in its reports. A significant concern is that this low risk of detection may, in the future, in-crease the prevalence of environmental crimes carried out as organized business activities with the aim of financial gain. Furthermore, the sentencing practices adopted in courts for environmental crimes appear relatively lenient (34).

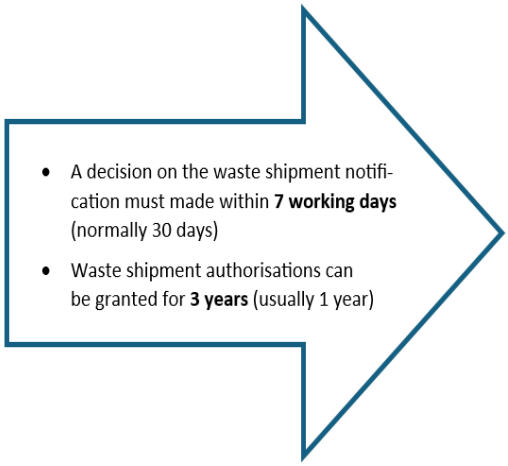
7. Options to streamline waste shipments

Smooth permitting and reporting processes promote waste shipments and lower the threshold for applying for permits. The Waste Shipment Regulation (EU 2024/1157) provides two options to facilitate waste shipment processes: Prior approval of installations and Border-area agreements.

7.1. Prior approval of installation

The EU Waste Shipment Regulation (EU) 2024/1157, article 14) provides for the possibility of granting so-called "prior authorization" to waste recovery installations, which allows them to derogate from certain provisions of the notification procedure (37).

In general, a prior authorization can be granted if the operator has the necessary permits for the treatment activity (2008/98/EC, Article 23), applies best available techniques in accordance with Directive 2010/75/EU and has sufficient expertise in international transport. In practice, the operator must also have an environmental management system in accordance with EMAS Regulation (EC) No 1221/2009 or equivalent regulation. In addition, the operator must comply with all obligations concerning international shipments of waste without infringing the regulations. (38)



The prior authorization concerns the reception of waste from another EU or OEDC country. It is temporary and valid for a maximum period of ten years. Prior authorization is not granted for experimental activities or for the temporary recovery of waste. (38)

The OECD database on transboundary movements of waste destined for recovery operations contains information on recovery facilities already authorized, as well as information on the waste authorized, the recovery method, the validity of the authorization, and other relevant information.

Updated information on pre-approved waste can be found on the OECD website "Transboundary movements of waste". A comparison between the Finnish and Norwegian Environmental Protection Agencies and the Swedish Environmental Protection Agency on the number of pre-consented facilities shows that the number of facilities in Sweden is considerably higher than in Finland and Norway (Table 14), which makes it easier to export waste to Sweden due to the simpler and faster permitting process. This gives an advantage to the Swedish facilities. For the waste fractions selected in the NOWA project for plastics 4 pre-approved plants were found in Sweden (17 02 03 and 20 01 39).

Table 14: Pre-approved facilities in Finland, Sweden and Norway extracted from the OECD database and their data. Data retrieved 10 December 2024.

Country	Pre-approved installations	Validity of pre-consent	R Code	Part of the waste to be received	Waste t/year
FI	2	5 or 10 years	R1 R4	03 01 05, 11 01 06*, 11 01 09*, 11 01 98*, 15 01 03, 16 08 02*, 16 08 06*, 17 02 01, 19 12 07, 20 01 38	100 600
NO	8	5 or 10 years	R1 R5 R12	160104*, 160121*, 160215*, 160303*, 160605, 170405, 1704 07, 190101*, 190102, 191001, 191002, 190113*, 191202, 1912 03, 191210, 191211*, 191212, 200133*, 200135*, 200136, 200140	1 143 000
SE	77	10 years	R1 R3 R4 R5 R8 R11 R12 R13	020103, 020107, 020304, 030101, 030105, 030105, 030301, 0801 11, 080119, 100207*, 100210, 100211, 100215, 100906, 100908, 101006, 101008, 120102, 120117, 120199, 150103, 160209, 1602 10, 160213*, 160215*, 160602*, 160606*, 160708, 160802*, 1702 01, 170204*,**170203**, 170902, 170903, 170904, 190805, 191001, 191005*, 191204, 191206*, 191207, 191207, 191210, 191211*, 191212, 191212, 191297, 200101, 200121*, 200123*, 200135*, 200137*, 200138, **200139**, 200201, 200301, 200399, etc.	6 034 810
Total	**87**	**psc.**		**t/year**	**7 278 410**

7.2. Border-area agreements

The possibilities for border countries to conclude agreements with each other are recognized in the Basel Convention (article 11) “Bilateral, multilateral and regional agreements” and in the EU Waste Shipment Regulation (Article 31) (EU) 2024/1157, "Agreements between border regions” (below):

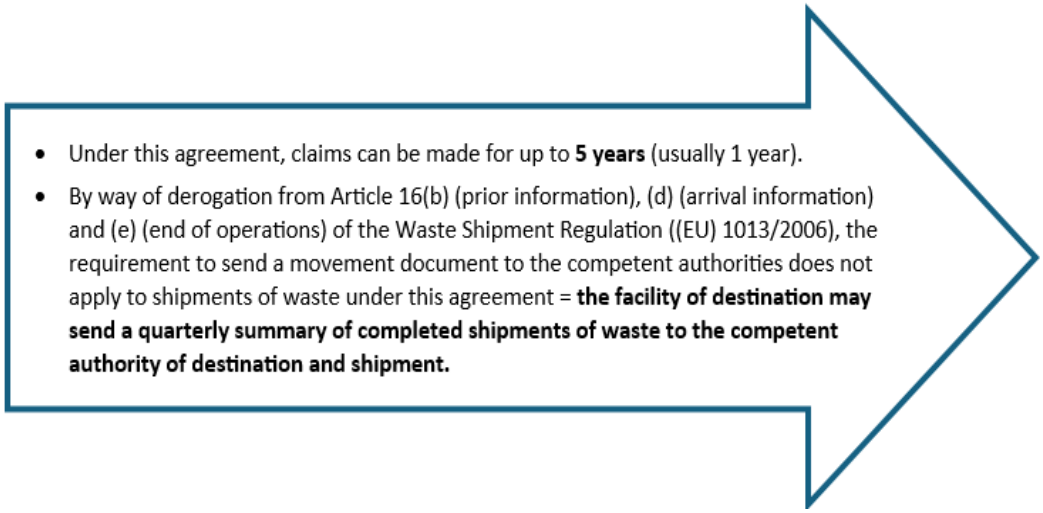
1. *In exceptional cases and where the specific geographical or demographical situation warrants such a step, Member States may conclude bilateral agreements making the notification procedure for shipments of specific flows of waste less stringent in respect of cross-border shipments to the nearest suitable facility located in the border area between the two Member States concerned.*

2. *Bilateral agreements as referred to in paragraph 1 may also be concluded where waste is shipped from and treated in the country of dispatch but transits through another Member State.*

3. *Member States may also conclude bilateral agreements as referred to in paragraph 1 with countries that are members of the EFTA (European Free Trade Association).*

> *Agreements concluded pursuant to the first subparagraph shall require that the waste be managed in the EFTA country concerned in an environmentally sound manner in accordance with Article 59. (39)*

Below is an example of an agreement between Finland and Sweden. Annex 1 gives more details on the waste fractions covered and the purpose of the agreement.



8. Challenges identified in the process

Challenges in international waste shipment processes continue to be identified and efforts are being made to address them, including through legislative reform. Annual inspections by authorities reveal deficiencies in permits, incorrect or incomplete declarations and shipments of waste subject to an export ban, some of which are due to ignorance and some to deliberate criminal activity. (40)

Potential challenges in waste transport between Finland, Norway and Sweden must also be identified to promote a circular economy that utilizes a common waste market and the best technology. For this purpose, a qualitative study was conducted in the NOWA project, which was carried out using interviews and questionnaires. **Analysis of the interviews; assessments and conclusions are made by the NOWA project experts.**

The interviews were conducted from three different perspectives to identify all the challenges and problems related to the shipment of waste between our countries. The interview groups selected were authorities, municipalities, municipal waste companies/waste processors and waste transport companies. In addition to national companies, Nordic company groups that carry out international waste transport were also interviewed. These companies are listed in the "international" column in Table 15.

Table 15. Numbers of groups interviewed broke down by country.

INTERVIEWED GROUP	FI	NO	SE	INTERNA-TIONAL	TOTAL AMOUNT
Authorities	3		1	2	4
Municipalities and municipal waste companies	3	1			4
waste transport companies	1				1
Total amount	7	1	1	2	11

Despite our efforts, fewer responses were received from Sweden and Norway than from Finland, mainly due to time constraints faced by companies and authorities. Nevertheless, while the Finnish perspective is strongly present, the responses from all countries highlighted consistent challenges and ideas.

8.1. Challenges from the authorities' perspective

Every year, shipments of waste without proper waste transfer permits are regularly detected at Finnish borders. This is due to misunderstanding, unawareness, or solely criminal purposes. This is-sue was also raised in interviews with the authorities supervising waste transport; some exporters are not aware of the need for a permit and the waste is mixed up with the green waste declaration or is seen as a product.

According to the Finnish Environment Institute (SYKE), which supervises waste transport, the control of green waste transport is particularly problematic; transfers do not need to be reported to SYKE or customs but are reported to the permitting authority based on the environmental permit (in Finland, notifications are made to the municipal environmental authorities or the Ministry of Economic Development, Transport, and the Environment). Therefore, there is also no accurate in-formation on the amounts of green waste transported.

In Finland, Sweden and Norway, the processing times for waste shipment permits are currently longer than normal. According to the Finnish Waste Shipment Authorities (SYKE), the permit process is currently congested and takes approximately three months despite the statutory deadlines. The same is true in Norway, where the permit authority recommends applying for a permit 3-4 months in advance. According to the Swedish authority, they also currently have a significant backlog of applications, with a delay of approximately 6-7 weeks from submission of the application to the actual processing of the application, although the time taken to process the application itself has remained the same.

Delays are often due to lack of information in the application, especially in case of first timers. According to the Swedish authority, the processing time can be from a few days to a few months, de-pending on the details of the application, e.g., the type of waste and the applicant's experience. The authority sends the information to other authorities only after

all the information has been filled in. The authorities also recognized the problems in using the correct waste codes and the R/D codes. Both the authorities of export and destination need to agree on the waste codes to be used. Not only control but also the determination of customs duties depends on the correct transport codes.

Waste transport supervisory authorities are also advisory organizations, and their websites contain a lot of information on waste transport and current issues. The Finnish Waste Shipments Control Authority (SYKE) holds regular training courses and up-to-date guidance is available on its website. They are particularly worth contacting at the beginning of the process for first-time transporters.

The challenges identified in the interviews and their impact levels are presented in Table 16.

8.2. Challenges from the exporter's perspective

The interviews highlighted the importance of choosing the right waste codes and differences of opinion with national authorities. The interpretation of the codes or green waste by the authorities of the country of destination may also differ from the interpretation of the company and the experts in the country of export. According to waste shipment legislation, the stricter view always prevails, i.e., if there is no consensus between the authorities, the waste is classified according to the stricter party's view. The challenges identified in the interviews and their impact levels are presented in Table 16.

The authority is also required to understand the technology used in the waste treatment, the laboratory results, and the composition of the waste to avoid unnecessary control procedures or addition-al analyses and reports. Checking and reconcile codes and to clarify waste compositions and technologies used is time consuming. The interviews also revealed the experience of inconsistent reasoning by the permitting authorities, making it uncertain whether waste shipment permits can be obtained at all. It was also pointed out that the law was always interpreted "most strictly" and that there was no dialogue with the authorities.

Interviews with municipalities, municipal waste management companies and other waste management companies also highlighted the difficulties experienced by "first-timers". The waste shipment processes, and the interpretation of the related legislation require expertise that is not avail-able, and this requires either outsourcing or hiring in-house resources and increases costs. In Sweden, municipal waste management companies most often use external companies specialized in waste transfer and do not do it themselves, especially for "difficult waste fractions". In Finland, companies specialized in waste transfer are also used or the waste handler transfers the waste abroad. In addition, tendering for procurement processes and linking them to the possibility of waste shipment was perceived as difficult, at least by Finnish municipalities and municipal waste companies.

In particular, the Finnish Waste Act (646/2011, § 109, point 3) requires that the treatment of municipal waste must be cheaper than in Finland for a shipment of waste to be authorized.

SYKE has interpreted that the treatment must be 60 % cheaper, including transport and official permit fees. This interpretation should be reconsidered. Several Finnish interviewees hoped that authorities would consider more flexible, pragmatic approaches to allow for more cost-effective waste treatment—particularly in cases where a foreign facility is geographically closer and applies more advanced technology than the nearest Finnish plant.

Table 16. Challenges raised in the interviews presented by interview group.

Identified challenges and problems	Interviewed group			Harm rate			Summary
	Authorities	Municipalities/waste companies	waste companies	Mild	Medium	Major	
Using the right codes and harmonising codes	1	2					3
Lack of resources, knowledge and/or experience (authorities and applicants)	3	1	1				5
Different policies between exporting and importing countries, e.g. when importing country's authorities require additional documents, laboratory analyses or clarifications, views differ from those of the exporting country (waste, permits, technology)	3	2	2				7
National decision-making policy related items, such as perception of overly strict interpretation of the law by public authorities, lack of cross-sectorial dialogue, difficulty/unwillingness to change previously adopted decicion-making policies		3	1				4
Absence of pre-approved establishments			1				1
Incorrect waste classification; product, EOW, by-product/waste, green/controlled, etc.	1						1
Unwillingness to start the authorization process due to expectation of its complexity		2	1				3
Incomplete application documents, such as lacking permit documents, due to negligence or intention	2		1				3
Costs of collateral, permit and batch documents			1				1
Short period of validity of permits		1	1				2
Scattered and out dated information of waste shipments due to overlapping regulations and authorities (e.g. in case of waste shipped under environmental permit)	2						2
Summary	**12**	**11**	**9**				**32**

Companies that ship a lot of waste, consider the permitting processes as relatively straightforward, although too time-consuming, especially as the deadlines for processing are not currently met. In addition, there was a perceived disparity between the costs decided by the authorities in the ex-porting and importing countries, or the different criteria for determining the costs, which could also have a significant impact on the costs of waste shipments. An interviewed Norwegian entity representing municipal waste companies expressed disappointment with the change in the permit process and the fact that each application must have its own permit, which increases the work of the environmental authority and lengthens the processing times.

The challenges raised in the interviews were assessed based on their impact on international waste transport and the emergence of common circular economy markets. The potential impacts were divided into four different categories, which are presented in Table 17. The table shows the level (intensity) of the impacts in different colors. There is a separate table on the impact levels in Chapter 10 (Table 20).

Table 17. Possible impacts of the challenges are divided into four different categories.

Possible impacts				
Extend processing times	increases costs/resources	Reduced trust/understanding between authorities and companies, frustration towards authorities, can contribute to crime	Slows down or may prevent the emergence of circular economy markets	Summary
21	25	26	25	97

9. Upcoming legal changes

The European Green Development Agenda and the new Circular Economy Action Plan (CEAP) emphasize efficient recycling, preventing waste export problems to third countries and combating illegal waste shipments. These actions aim to improve the EU's waste management capacity, reduce dependence on imports of raw materials and move towards a circular economy. (41)

The new Waste Shipment Regulation (WSR) (2024/1157) puts these objectives into practice. It also aims to ensure that waste reaches sites where it can be treated sustainably, supporting a clean and circular economy. The new EU Waste Shipment Regulation also aims to streamline, facilitate, and digitalize waste permit processes. This will also reduce illegal shipments of waste and prevent environmental pollution. (42)

These new requirements also apply to mixed waste collected and treated from households, the characteristics of which have not undergone any significant changes, such as waste fuels recovered from such waste (EWC code 19 12 10). Shipments of such waste for disposal are prohibited. The Member States shall ensure that the generation of such waste is prevented and that it is collected and treated by separating all recoverable fractions. Final treatment should only be considered for residues that cannot be treated by any means other than disposal. (43)

Furthermore, appropriate waste classification must be kept up to date to reflect new innovations, ensuring that transport is carried out in accordance with environmental and health requirements. (44) However, to ensure a genuine transition to a circular economy, waste management must also consider material efficiency, the proximity principle, and the reduction of the environmental footprint (45). The EU is also committed to facilitating waste shipments, which are essential for strengthening key value chains. This will increase the Union's resilience and strategic self-sufficiency in the internal market. (46)

Guidance documents published by different countries on the implementation of the provisions of the new EU Waste Shipment Regulation (WSR) are available on the European Commission website: Implementation of the Waste Shipment Regulation - European Commission.

The challenges identified in the waste shipment process (section 9) have already been partly ad-dressed in the new EU Waste Shipment Regulation. The reforms aim to streamline the permit process, including moving to a common electronic permit system across the EU (47). Another important reform is the obligation to report green waste in real time (48). Table 18 summarizes the main changes concerning the waste fractions reviewed within the NOWA Project (food waste, hard plastics, and ashes) and Table 19 upcoming changes regarding plastic waste.

Table 18. The new EU Waste Shipment Regulation will tighten the requirements for green waste shipments after a transitional period.

GREEN WASTE	
(EU) 1013/2006 / (EU)2024/1157	**(EU)2024/1157**
Current legal requirements	**Enter into force on 21 May 2026**
Generally **do not require a waste shipment permit** within the EU, nor for shipments between EU and OECD countries.	Conditions for certain waste, e.g. plastic waste, are becoming stricter.
The exporter will ensure that the necessary documentation is completed and that the **green movement form** (Annex VII of EU 1013/2006) **and the movement document** accompany the shipment. The export **does not have to be notified to the authorities in advance** (Article 18 of EU 1013/2006).	Waste shipments **must be notified to the authorities in real time** (at least 3 days before the shipment), and the **receipt and prosessed of waste must also be notified as planned.**
Notifications are made in the receiving **authority's own applications**. Paper declarations may be used.	**Electronic reporting** to the EU's common electronic reporting system for internal shipments (DIWASS), **also for waste shipments requiring authorisation procedures!**

Table 19. The new EU Waste Shipment Regulation tightens the requirements for shipments of plastic waste in particular at several stages. Shipments between the EU and EEA countries use partly different codes and conditions than shipments be-tween the EU/EEA countries and the OECD.

<table>
<tr><th colspan="2">PLASTIC WASTE (Between EU/EEA and EU/OECD)</th></tr>
<tr><th>EU)1418/2007/(EU) 2020/2174(EU)2024/1157</th><th>(EU)2024/1157</th></tr>
<tr><td><u>Current legal requirements</u></td><td><u>Enter into force on 2026 - 2029</u></td></tr>
<tr><td><u>Plastic waste may be green waste, require a waste shipment permit or be banned from export altogether. New codes have been introduced.</u></td><td rowspan="4">Exporting plastic waste, including clean, non-hazardous waste (which is destined for recycling) (B3011) will be subject to the “prior notification and consent procedure”. Enter into force 21 May 2026.
Exporters of plastic waste, as for other waste, must demonstrate that the exported waste will be properly treated in the facility to which it is sent. The exporter must ensure that the treatment facility has been audited and that the audit is not more than two years old. Enter into force 21 May 2027.
The Commission will monitor exports of waste to such countries, paying particular attention to plastic waste. If there are concerns that exports are increasing and likely to cause environmental damage in a given country of destination, the Commission will engage in a dialogue with this country. Ultimately, such exports will be suspended if the waste is not managed in an environmentally sustainable manner.</td></tr>
<tr><td>All intra-EU shipments of non-hazardous plastic waste intended for recovery (EU3011) are subject to general information requirements.</td></tr>
<tr><td>The “prior notification and consent procedure” applies also to intra-EU shipments of hazardous plastic waste (AC300), and of non-hazardous plastic waste, which is difficult to recycle (EU48).</td></tr>
<tr><td>Exporting hazardous plastic waste (AC300) and plastic waste that is hard to recycle (Y48) from the EU to OECD countries is subject to the “prior notification and consent procedure”. Under this procedure, both the importing and exporting country must authorise the shipment.</td></tr>
</table>

10. Outlook for the future

Turbulent global changes and pandemics are intensifying competition for natural resources. The collapse of European interdependencies and supply chains has influenced the development of new technologies in the pursuit of climate neutrality. In the global economic competition, recycled materials and a single market for waste play an important role, which is also reflected in the new Circular Economy Act. (49) International target programs, such as the Green Deal, also require increasingly proactive measures to reduce and utilize waste and investments in the best available technology (50). All of this also affects the future prospects of waste transport.

However, there are indications of future circular economy decisions that will also have an impact on waste transport. These include, for example, the EU Ecodesign Regulation, amendments to the EU Waste Directive, Updating the 2020 New Industrial Strategy, EU Clean industrial Deal and the Green Deal Industrial Plan for the Net-Zero Age. (51)

International negotiations, such as the UNEP INC-5 session held in Busan, South Korea in 2024, under the theme “Intergovernmental Negotiating Committee on Plastic Pollution”, also play a significant role in shaping circular economy markets. If virgin material-based plastics remain cheaper than recycled ones and there are no requirements for recycled content in plastic products, circular economy markets for plastics will struggle to emerge. (52)

In Finland, the Finnish Environmental Industry Association (YTP) reported on the topic in 2021 in its article "Circular economy does not work if there is no demand for recycled materials - how to grow the market", which highlights the diversity of the EU and national-level legislation (e.g., procurement legislation), political programs (e.g., Green Deal), user obligations and financial instruments that can promote the emergence of functioning circular economy markets. (53).

A statement by representatives of the Nordic private recycling industry published in March 2025 al-so highlighted the importance of functioning waste markets for resource-efficient waste management. Nordic cooperation, open waste markets, fair competition and reduced administrative burdens in international waste shipments enable new investments in treatment plants, waste infra-structure and the circular economy. There must be a common view on the implementation of the European Waste Management Regulation (WSR) in the Nordic countries, so that the region can get the best waste management solutions (54).

The same view emerged from the business interviews conducted in the NOWA project; 'as long as virgin materials are cheaper and there is no obligation to use recycled materials, no market will emerge, and no circular economy business will be created'.

As Ursula von der Leyen stated in her presentation “Political Guidelines for the Next European Commission 2024–2029”, the development of an EU circular economy market is key to maintaining security of supply, EU competitiveness and combating climate change.

11. Conclusions

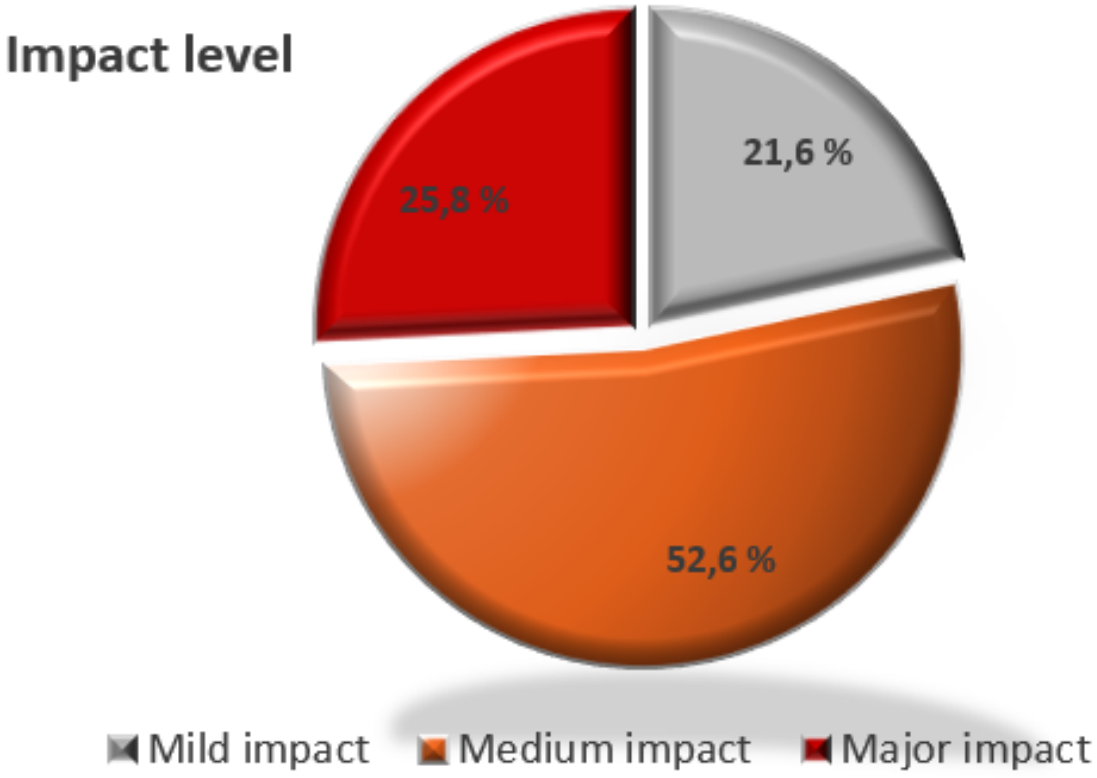
The findings of this work revealed different perspectives of the authorities and the exporter. In the waste shipment permit process, the aim of the authorities and legislation is to protect the environment and health. On the other hand, the cost-effective organization of municipal waste management and the requirements of the law and strategies regarding material recycling and the circular economy strongly tip the balance. For waste transport companies, the issue is largely a matter of business. In the future, national security of supply and self-sufficiency, as well as proximity principles affecting the number of waste treatment facilities, must also be considered more than ever.

The increase in processing times is due to several reasons, both on the part of the authorities and the applicants. In Sweden and Norway, paper applications will be replaced by the EU's common electronic system after a transition period. This will likely have a temporary negative impact on permit processing times. Once practices are established, the system will speed up the process. In Finland, the electronic system will remain in place after the transition period (interface to the EU electronic system).

The challenges and problems raised in the interviews were divided into four possible different im-pact perspectives, and the intensity of the impacts of these perspectives was further analyzed at three different levels, where two different perspectives (yellow and

orange) were combined into a medium level. Table 20 shows that about a quarter of the challenges are significant in level and affect in particular the emergence of a common circular economy market. The impacts of the majority, almost 53%, are medium. In some cases, eliminating these challenges requires a lot of work and will to harmonize the licensing procedures and interpretations of laws by authorities in different countries, and even legal changes may be necessary. Some challenges can be eliminated by improving information sharing and offering more training. Future EU and national legal reforms and interpretations can also play a significant role in the development of waste management and circular economy markets.

Table 20. The impact of the challenges and problems found in the interviews, divided into three different levels.



However, it is positive that there is good communication between the authorities in Finland, Sweden, and Norway. According to the *Swedish Naturvärdsverket*, discussions are also taking place be-tween the Nordic countries on waste transport. For example, discussions are currently underway on bottom ash, which is related to Article 11 of the new EU Regulation ((EU) 2024/1157).

12. Recommendations

Predicting the future development of waste transport is challenging, as it is not only influenced by legislation and the goals set in the strategies, but also by various global factors, such as the political climate, conflicts, climate change and the availability of raw materials. Local and cross-border agreements between neighboring countries can significantly contribute to the development of cost-effective and best-practice waste and circular economy markets, as well as ensuring energy supply and strengthening general security of supply, especially in the northern parts of the countries.

Challenges were also identified in the current waste transport processes that can be significantly resolved without reforming the law. To achieve future circular economy goals and prepare for legislative reforms, it is important to enhance cooperation between the countries and also ensure the development of target region's waste market and circular economy area through a smooth and easy waste transfer process.

In some cases, it may be more cost-effective to treat the waste on-site before transporting it for further processing or recovery—especially if national legislation creates challenges or opportunities. For example, Finnish regulations may affect the hygienization or plastic-free treatment of exported food waste (as biowaste collection methods are defined by municipal waste regulations or collection guidelines), or the processing of plastic fractions as recycled material without waste status.

The ultimate goal is to create a common vision for our region's waste management, recycling markets and necessary treatment facilities.

Recommended follow-up actions

- Organize dialogues between different stakeholders in Finland, Sweden, and Norway, as appropriate (authorities, municipal waste companies and waste transport companies), with the aim of solving problems identified in waste shipment processes, speeding up waste shipment processes and creating a common understanding of the situation and needs in the region.

- Clarification of the security, permit and specific charges for shipments of waste imposed by national authorities and the principles for setting them (interpretation of the EU Waste Shipment Act). How do the different charging principles affect the cost of waste shipments to the company?

- A comparison of the decisions taken by the Finnish, Swedish and Norwegian authorities on the technologies of the pre-approved plants and the characteristics of the waste to be received. Can the authorities' views be harmonized, and the number of pre-approved plants increased, especially in Finland and Norway?

- Share the experiences and observations gained in this project, especially to co-operation bodies operating in the region, and also take the message to the EU level, for the effective development of the circular economy in the region and to secure the opportunities offered by the legislation in the region.

Attachments

1. Finland
2. Sweden
3. Norway

Sources and additional information

Picture 1. European Commission, n.d. Waste Framework Directive - European Commission

All the links have been referred to on 14th August 2025.

1. Finland's environmental administration: Transfrontier shipments of waste
2. European Commission: Waste shipment rules
3. Nordic Council: Shipments of green-listed waste
4. Finland's environmental administration: Waste shipment legislation
5. The Finnish Ministry of the Environment: The EU and international cooperation
6. European Commission: New Rules on E-Waste
7. EUR-Lex: Document 32024R1157, Regulation (EU) 2024/1157 of the European Parliament and of the Council of 11 April 2024
8. WECOOP: EU Policies & Regulations
9. European Council: Letter from President Michel on the next Strategic Agenda
10. Finnish Ministry of the Environment: International environmental agreements
11. Finland's environmental administration: Termination of the classification as waste (End of Waste, EoW)
12. European Commission, Waste Framework Directive: End-of-waste criteria
13. European Commission, Waste Framework Directive: By-products
14. European Commission, Waste Framework Directive: Targets
15. Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal: Text of the Convention
16. European Commission: Implementation of the Waste Framework Directive, European List of Waste
17. OECD: Decision of the Council on the OECD Legal Instruments Control of Transboundary Movements of Wastes Destined for Recovery Operations
18. EUR-Lex: Document 02000D0532-20231206, Commission Decision of 3 May 2000

19. Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal: Text of the Convention
20. OECD Legal Instruments: Decision of the Council on the Control of Transboundary Movements of Wastes Destined for Recovery Operations
21. Commission Implementing Regulation (EU) 2016/1245 of 28 July 2016
22. OECD: Decision of the Council on the Control of Transboundary Movements of Wastes Destined for Recovery Operations, Appendix 3
23. EUR-Lex: Document 2016/1245, Commission Implementing Regulation (EU) 2016/1245 of 28 July 2016
24. Nordic Council: Shipments of green-listed waste
25. European Commission: Correspondents' guidelines, N:o 12
26. OECD: Decision of the Council on the Control of Transboundary Movements of Wastes Destined for Recovery Operations
27. EUR-Lex: Document 32024R1157, Regulation (EU) 2024/1157 of the European Parliament and of the Council of 11 April 2024
28. European Parliament: Revision of the EU's Waste Shipment Regulation
29. Finland's environmental administration: Transfrontier shipments of waste
30. OECD: Guidance Manual for the Control of Transboundary Movements of Recoverable Wastes
31. Finland's environmental administration: Dispatch, reception and transport of waste batches
32. Finland's environmental administration: Annual reporting on certain waste exports
33. TULLI: Jätteiden kansainväliset siirrot, jätesiirtojen valvonta (FIN)
34. Poliisi: Keskusrikospoliisin, Suomen ympäristökeskuksen ja Tullin ajankohtaiskatsaus (FIN)
35. Nordic Co-Operation: Supervision to combat waste crime
36. TULLI: Suomesta lähtevissä jätekuljetuksissa puutteita asiakirjoissa jätekuljetuksissa puutteita asiakirjoissa (FIN)
37. EUR-Lex: Document 32024R1157, Regulation (EU) 2024/1157 of the European Parliament and of the Council of 11 April 2024, Article 14
38. Finnish Ministry of Environment: Pre-consent of waste recovery facilities
39. EUR-Lex: Document 32024R1157, Regulation (EU) 2024/1157 of the European Parliament and of the Council of 11 April 2024, Article 31
40. Katie Olley, "Illegal waste shipment: an overview", Field Actions Science Reports [Online], Special Issue 23 | 2021, Online since 23 November 2021, connection on 13 August 2025.
41. European Parliament: Revision of the EU's Waste Shipment Regulation
42. European Commission: New Regulation on waste shipments enters into force
43. EUR-Lex: Document 02024R1157-20250109, Regulation (EU) 2024/1157 of the European Parliament and of the Council of 11 April 2024
44. EUR-Lex: Regulation (EU) 2024/1157 of the European Parliament and of the Council of 11 April 2024, recital 20
45. EUR-Lex: Regulation (EU) 2024/1157 of the European Parliament and of the Council of 11 April 2024, recital 11
46. EUR-Lex: Regulation (EU) 2024/1157 of the European Parliament and of the Council of 11 April 2024, recital 26

47. EUR-Lex: Regulation (EU) 2024/1157 of the European Parliament and of the Council of 11 April 2024, recital 28
48. European Commission: POLITICAL GUIDELINES FOR THE NEXT EUROPEAN COMMISSION 2024–2029
49. European Commission: Waste and recycling
50. EU Monitor: How the EU wants to achieve a circular economy by 2050
51. European Commission: EU regrets inconclusive global plastics treaty
52. Kierrätysteollisuus ry: Kiertotalous ei toimi, jos kierrätysmateriaaleille ei ole kysyntää – näin markkinat saataisiin kasvuun (FIN)
53. A collective of Recycling Industries in the Nordics: Nordic position paper - Waste shipments