

Reuse flows according to the implementing decision (EU) 2021/19

Information on the database structure and use
Database version 1



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1 About the database

1.1 Reporting obligation

Directive 2008/98/EC lays down an obligation for Member States to take measures to encourage reuse as part of their waste prevention programmes, and to monitor and assess the implementation of their measures on reuse by measuring reuse in accordance with a common methodology, to be established by the Commission. Directive 2008/98/EC also lays down an obligation for Member States to report data on reuse to the Commission every year in a format to be established by the Commission.

From 2023, Member States are required to report data on reuse to the EEA in accordance with implementing decision (EU) 2021/19. The first reference year is 2021. The EEA's Reportnet-3 digital infrastructure for data collection is used for the reporting. In accordance with implementing decision (EU) 2021/19, Member States are obliged to report data on reuse and submit a quality check report concerning the implementation of Article 9(4) of Directive 2008/98/EC (following the format laid down in the Annex of the decision).

According to (EU) 2021/19, Member States shall report the **qualitative data (Annex A)** every following year, and **quantitative data (Annex B)** at least every three years.

1.2 Objective of the Reporting obligation

During the discussions and development of the decision a main concern from the Member States was the expected administrative burden to collect and report data on reuse. In order to monitor reuse and to gain a better understanding of the reuse sector, it was decided that the reporting should include a combination of qualitative and quantitative data. In the annexes, the format for reporting includes a section on quality of the data. Member States are required to identify and describe which public authorities that are responsible for the adoption and implementation of measures on reuse, which products these measures address, which reuse operators are addressed by the measures and which actions Member States take to assess reuse through indicators and targets. Additionally, Member States are obliged to report on any measures they have implemented to support reuse operators, e.g., economic instruments, educational campaigns. By combining quantitative and qualitative aspects, the reported data on reuse will give a good understanding of the reuse sector and the impacts of the measures that the Member States have taken on waste prevention.

2 Metadata

2.1 Reporting obligation

Measurement of reuse - <https://rod.eionet.europa.eu/obligations/807>

Temporal coverage: 2021

Units: Amounts of reuse (tonnes/per year).

Geographic coverage: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Norway.

Notes:

- a) This product includes data reported by Norway on a voluntary basis.
- b) Bulgaria and Cyprus didn't report by the cutoff date of the dataset presented.

2.2 Information concerning reported data

Quantitative reuse data was produced by measuring amounts generated by reuse operators or households using methods defined in the decision or other equivalent methods. The methods defined in the decision are:

- a) direct measurement of reuse by using a measuring device to determine the mass of reused products;
- b) mass balance calculation of reuse on the basis of the mass of inputs and outputs of products in reuse operations;
- c) questionnaires and interviews of reuse operators or households;
- d) diaries of individuals keeping a record or log of information on reuse on a regular basis.

Annex C of the reporting provides details on the approaches employed by each reporting country. Reporting countries were free to select the approach that seemed most suitable for their purposes and to use a combination of approaches if necessary. Therefore, the dataset comprises data gathered using different approaches, and so **it is critical that no inter-country comparisons are made using this dataset.**

It is also noted that this first cycle of reporting represents a novel exercise in collecting and calculating reuse amounts and so the relative accuracy and robustness of the approaches is not yet clear. As the reporting process matures, it is expected that this data will strengthen but for now caution is advised in drawing insights from the dataset.

Finally, users should note that reported zero amounts may represent a declaration that no reuse activity occurred, or otherwise may represent a declaration that these data were unavailable for reporting. This issue will be clarified for future reporting cycles, but for now caution is needed in interpreting zero entries within the dataset.

2.3 Country specific aspects related to the initial reuse reporting

Specific aspects and feedback on the initial reporting provided by countries on a voluntary basis.

2.3.1 Spain

The data reported by Spain has been obtained through surveys addressed to companies dedicated to the second-hand sector, both physical and online shops; to social enterprises and social economy entities and to public administrations that develop initiatives related to reuse.

In order to differentiate between reuse and preparation for reuse, those products/materials that have become waste and are treated in authorised waste management facilities have not been counted.

As a significant part of the data was reported in units rather than in weight, conversion factors have been used, mainly those provided by the EEA which are derived from previous experiences carried out by other Member States. However, in the case of electrical and electronic equipment, the weight data included in the report "E-waste Statistics: Guidelines on Classifications, Reporting and Indicators, second edition" of the United Nations University has been used, as it presented a broad breakdown into subcategories for this type of equipment and was therefore more specific.

The main factor that may affect the accuracy of the data is the low participation by the sector, which is related to the difficulty in identifying those entities who carry out reuse operations and the lack of regulatory support at EU level establishing the obligation to report the information to the Member States. Thus, it must be understood that the data reported by Spain are most probably underestimated.

Additionally, the difficulty to differentiate whether an item is a product or a waste, i.e. whether it is reuse or preparation for reuse, or the lack of standardised unit-to-weight conversion factors, also leads to a loss of accuracy in the data and hampers comparability between Member States.

2.3.2 Belgium

In Belgium, environmental policy is the competence of the 3 regions (Brussels, Wallonia and Flanders). Belgian data on reuse are thus the sum of the data of these 3 regions, but all regions used the same methodology.

For reuse of textiles, EEE, furniture, household goods and bicycles, the regions applied an extrapolation methodology developed by the CE Center. This methodology consists of extrapolation of the yearly statistics on reuse by the accredited reuse shops in the regions to estimate total reuse (reuse through all reuse channels, including informal channels like friends & family). The accredited reuse shops in Brussels, Wallonia and Flanders have a good monitoring system in place and report yearly statistics about collection and sale of different product categories to the regional government. Extrapolation is based on the share of the reuse shops in total reuse and is asked for in an online survey of a representative sample of the population. Limitations of this methodology are that the statistics of the reuse shops are based on

multiplying the number of items with an average weight (risk of over- or underestimation) and the use of survey data to determine the share of the different reuse channels.

Since building materials and products are only collected (and sold) in very small quantities by the reuse shops, we used a different methodology to report about their reuse. We used data on the stock of reclaimed building materials owned by Belgian dealers collected by the Interreg project FCRBE and converted them into flow data using stock turnover rates. To determine stock turnover rates, we combined expert advice with information about stock turnover rates taken from the BigREc survey in the UK. A limitation of this methodology is the use of the FCRBE dataset which is a one-off dataset.

2.3.3 France

The reuse data reported by France only includes reuse data for which a legally regulated information feedback channel exists. This data covers the extended producer responsibility (EPR) sectors in order to guarantee the quality and reliability of the quantitative reuse data reported. French regulations (ordinance on data or "arrêté données" of 12 December 2022 : <https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000046733575>) require eco-organizations and producers in individual systems to declare their data each year via a dedicated ERP Sector Reporting System (SYDEREP), managed by ADEME, the French environment agency.

The reuse data declared by eco-organizations comes from reuse operators (private stakeholders and the social and solidarity economy) with whom they have partnership agreements. Via these agreements, eco-organizations financially support the quantities of products actually reused by the reuse operators. These players implement traceability of their flows of reused products by following the prescriptions of the eco-organizations (generally monitoring the number of products, then converted into tonnage via charts produced by the eco-organizations).

Therefore, reuse taking place outside these agreement contracts (sales between individuals directly or via internet platforms; sales by reuse centers, resellers or deposit sales centers etc.) are not counted for the reuse flows of France for the year 2021.

Regarding the "textiles" category, the ERP sector in France only covers household textiles. Professional textiles are therefore not counted. For the "construction materials and products" category, and the "other products" category, there was no data collection relating to their reuse in 2021 (the ERP scheme of this sector was put in place in 2022). It is therefore indicated as zero in accordance with the instructions given in the reporting manual.

2.3.4 Czechia

Czechia used primarily data from administrative reporting on the preparation for re-use for the year 2021 reported by operators of facilities for preparation for reuse covering relevant waste for textiles, for electrical and electronic equipment and for construction material and products. These data were summed up with the data obtained from operators of re-use centres and re-use points, municipalities and for textile also with the data from social enterprises, charities and private companies collecting textile for re-use which were gained from surveys with questions on the amounts of selected re-used products that were sent to operators of re-use centres and re-use points, selected municipalities (that introduced projects for re-use) and social

enterprises, charities and private companies collecting textile for re-use. The data from surveys were then recalculated on weight (in tonnes) and extrapolated on the whole population of the Czech Republic and summed up with the data from administrative reporting.

The main issue when gathering the data on re-use was a very low response from the operators for re-use on the surveys and questions on the amounts of re-used products. For this reason, Czechia used the data from administrative reporting on the preparation for re-use for the year 2021 despite the fact that these do not provide accurate data on re-use of selected products. During gathering the information on re-use Czechia also didn't manage to get any data from online platforms and online second-hand shops as well as physical flea markets and physical second-hand shops. Which means that data on re-use from online platforms and online second-hand shops as well as physical flea markets and physical second-hand shops were not included in the Czechia's reporting on re-use of certain products.

2.3.5 Italy

Italy's first approach to Reuse data reporting, has been to involve stakeholders from the second-hand shop's universe. One of the main networks of thrift store associations ([ReteONU](#)) in the country has agreed to freely share their data.

The association estimates a national market with a density of, approximately, one second-hand shop every 20,000 inhabitants, with a total of around 3,000 shops throughout the country (2,906 shops for 2021). Data were available for a sample of 1453 shops censused by the association's member. This has been assumed as a reasonably representative sample (about 50%).

Thanks to the use of a sales traceability management software by the member of the association, data from the shop's records were analysed and the average weight per type of product sold was estimated. By extending this estimate to the total number of shops present in the country, the weight volume of sales by product type was obtained. Furthermore, additional data obtained from a study developed years ago by two companies of the association was used. Through the analysis of several years of store documentation, the study selected a basket of used goods grouped into 36 categories, considering their volume and weight, and determining a specific average reference weight for each category. In conclusion, number of shops, companies' turnover, and weight/cost per category of items, were used to estimate the total weight of items sold.

The data obtained represent only a part, albeit a large part, of the universe of second-hand shop sales. Other sales or donation channels could not be taken into account at the time of the first reporting, so the overall value is definitely underestimated. Moreover, the method used is a broad approximation for both product categories and the reuse market and should be taken with caution. Better precision can be achieved with further analysis in the coming years. Other source of information would also be explored for the next reporting.

2.3.6 Sweden

Summary of qualitative data collection and reporting (annex A)

The qualitative data collection was done by an online survey that was sent to all Swedish municipalities and counties. An online search was also done for other initiatives taken by public entities.

There was an adequate response rate however it was difficult for Swedish EPA (SEPA) to identify all public initiatives due to the fragmented nature of reuse in Sweden. SEPA does not regulate or manage any reuse activities and there is no nationwide program for reuse. Reuse activities tend to be local and on a small scale so there is a risk that some programs and initiatives have been missed. It was also a challenge for respondents to report on activities that took place in 2021 and a timelier survey is preferred. SEPA would be happy to share the survey with EEA although it is in Swedish.

Summary of quantitative data collection and reporting (annex B)

Data about product reuse was collected via contacting actors on the second-hand market. The data collection targeted 111 second-hand operators with a standardised set of questions regarding reuse. The actors represented the four reuse channels with the expected largest product flows.

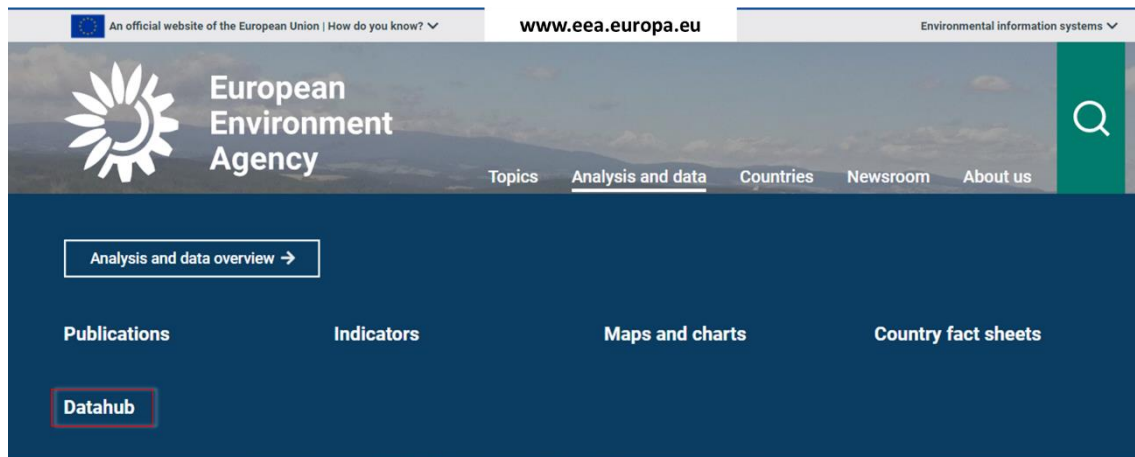
The data collection was complemented with data from the Swedish Waste Management Association and the information was matched with the survey data in order to avoid double-counting, and as well as to generate conversion factors to define actual reuse instead of collection for reuse.

Following reuse channels were left outside the scope of the study:

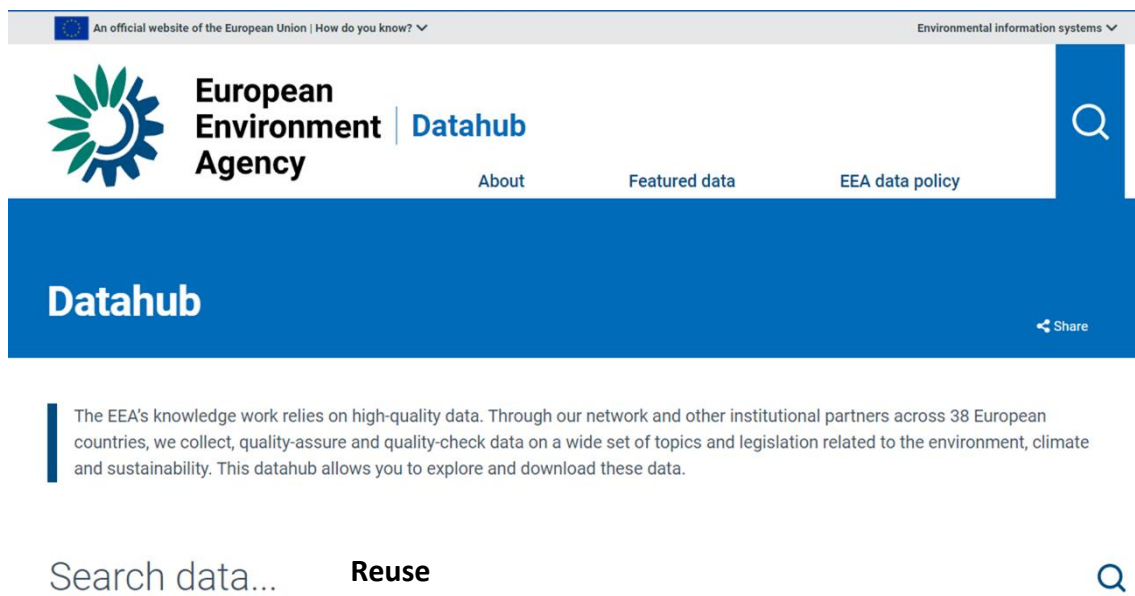
- charity organisations collecting for the only purpose of export (i.e. in effect any without a physical and/or an online store for domestic market);
- shops / auctions specializing in selling antiquities and items other than textiles, furniture, construction products, electrical and electronic products.
- flea markets and other informal sectors, incl. e.g., private donations and gifts that do not have monetary interactions (among friends, relatives etc.);
- Actors selling new items as their core business and retailing some of reused items.

3 Content of the EEA Datahub entry

The EEA Datahub (<https://www.eea.europa.eu/en/datahub>) is the section of the EEA website where datasets are available to the public.



Through the Datahub the user can search for any relevant dataset by using keywords. In order to get the latest version of the Reuse database, try using the keyword “reuse”.

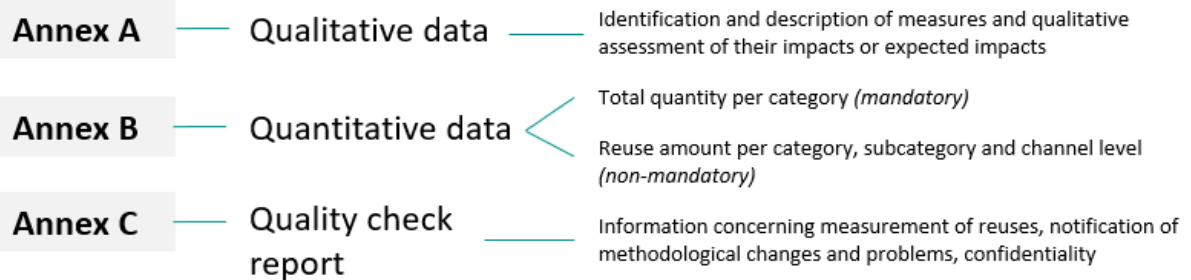


Through the Datahub it is possible to download the latest version of the dataset. The user will be able to download the various files that are offered as displayed in Figure 1.

4 Format of the published data

The reported data is divided into three different annexes: Annex A: Qualitative Data; Annex B: Quantitative Data; and Annex C: Quality check report.

Reuse dataflow



All the reported data is presented in an **Excel (.xlsx) file**, with a tab dedicated to each one of the annexes. To be noted that for Annex B (Quantitative data) there are two different tabs: one for the total quantity per category (mandatory data) and one for the amount per category (non-mandatory data).

AnnexA_Qualitative	AnnexB_TotalQuantity	AnnexB_AmountAtCategory	AnnexC_QualityCheck
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4.1 Format of the “Annex A – Qualitative Data” tab

In the “Annex A” tab, it is presented the information regarding the identification and description of measures as well as the qualitative assessment of their impacts or expected impacts. This data is presented in the form of the following columns:

Public authorities mainly responsible for the adoption and implementation of the measures
Products addressed by the measures
Reuse operations addressed by the measures

<p>Content of the measures:</p> <p>Logistic measures aimed at supporting reuse operations (e.g. identification and addressing of barriers and possibilities, help with the improvement of collection models for reusable products)</p> <p>Economic and fiscal measures, including public procurement</p> <p>Educational measures, including information and awareness raising campaigns (e.g. target groups, population covered, territory covered, frequency)</p> <p>Other measures such as support to or establishment of accredited repair and reuse-centers and networks or support to new business models such as sharing schemes, repair, and remanufacturing.</p>
<p>Actions taken to monitor and assess reuse through qualitative or quantitative indicators and targets in accordance with Article 9(3) of Directive 2008/98/EC</p>
<p>Other</p>

Countries are separated by rows. In particular cases, a country may have multiple rows where measures are identified as *Measure A*, *Measure B*, (...), and therefore for different measures there are dedicated rows.

3	SE	2023	Measure A: Municipality and public authority	Measure A: Furniture, interior design, sports and leisure, toys, textiles, shoes, bicycles, building materials, construction materials, office furniture, wooden pallets, ground facility materials and sand.	Mei rec dist
4			Measure B: Government	Measure B: Textiles, bicycles, shoes, clothes, leather goods, appliances, electronics, furniture and interior design.	Mei
5			Measure C: Municipality, public authority and government.	Measure C: Clothes, shoes, textiles, furniture, furnishing, appliances, electronics, bicycles, sports and leisure, toys, construction and demolition and packaging.	Mei can
6			Measure D: Municipality and public authority.	Measure D: Building materials, construction materials, ground facility materials, office furniture, furniture, electronics, computers, car parts, excavated materials, clothing, shoes, sports and leisure, textiles, appliances.	Mei Net

Data that has been reported in the countries' respective languages has been translated to English and is presented coloured in blue.

4.2 Format of the “Annex B – Quantitative data” tabs

4.2.1 Reuse per product category

For “Annex B”, total amounts in tonnes have been reported by countries for the product categories as shown in the table below and is presented in the form of a tabular dataset in the tab “AnnexB_TotalQuantity”.

A	B	C	D	E	F	G
countryCode	year	textile	electric	furniture	construction	other
EE	2023	5459	12984	20856	71849	9601
SE	2023	4213	2695	2726	5100	8319
BE	2023	44314,31	26852,02	112807,25	326614,53	112145,41
SK	2023	0	0	0	0	0
AT	2023	28447,37	18148,15	58165,84	26,7	37452,31
LT	2023	15966	32623	45444	115886	0
PL	2023	0	4,8	34,93	0	0
LU	2023	2729,3	87,3	700	0	0
FR	2023	3937	16228	35372	0	0
FI	2023	16110,3	3063,7	15536,5	785,2	0
IE	2023	3771	16778	14915	14729	4615
NO	2023	13203	33979	153692	209810	108641
NL	2023	44849	112376	294407	53851	215906
LV	2023	13469	20495	71107	29203	0
IT	2023	13933	63434	119067	0	35280
PT	2023	915	6378	8474	393	38
HU	2023	14270	2608	14631	13164	0
DE	2023	204267	319900	907171	1352529	233405
CZ	2023	3942	252	2229	1150	139
ES	2023	4777,23	21189,41	32331,81	213,64	0
HR	2023	2349,94	7166,8	11491,58	168710,85	9176,84
DK	2023	5000	27000	46000	13000	0

Information on subcategories was provided if available and is presented in a different tab “AnnexB_AmountAtCategory”. The channel through which product changed ownership has also been indicated. It follows the following template:

Product category	Channel through which the reused products changed ownership				Total reuse (tonnes)
	Physical shop/ market (tonnes)	Online platform (tonnes)	Private gift/ donation (tonnes)	Other channel (to be specified) (tonnes)	
Textiles					
Information on subcategories was provided if available (Subcategories: Accessories (bags, gloves, hats & caps etc.); Clothes; Home textiles (curtains, blankets, towels, bed linen etc.); Shoes)					

Electrical and electronic equipment					
Information on subcategories was provided if available (Subcategories: Lamps; Large electric and electronic equipment (with any external dimension more than 50 cm); Screens; Small electric and electronic equipment (external dimension less than 50 cm); Temperature exchange equipment)					
Furniture					
Information on subcategories was provided if available (Subcategories: Home/household furniture; Office furniture)					
Construction material and products					
Information on subcategories was provided if available (Subcategories: "Flooring surfaces," wooden floor, linoleum; Bricks; Internal wall claddings; Lights fixtures; Paver; Plumbing and sanitary fittings (bathtubs, toilets, sinks, basin, taps etc); Radiators; Roofing tiles; Thermal insulation; Timber and joists; Ventilation ducting and fittings; Windows & doors, including frames)					
Other products for which measures were adopted					
Information on subcategories was provided if available					

Shaded boxes: the provision of data was voluntary.

4.3 Format of the "Annex C – Quality Check Report" tab

The objectives of the quality check report were to evaluate the methodologies for measurement of reuse; evaluate the quality of data reported on the amounts of reuse; evaluate the quality of data collection processes, including the scope and validation of administrative data sources and the statistical validity of survey-based approaches; give reasons for significant changes in reported data between reporting periods and ensure confidence in the accuracy of that data.

Such data is presented in the “AnnexC_QualityCheck” by country with dedicated columns for the following information:

Information concerning measurement of reuse

- **General description of the sources of information and data used for reporting on measures on reuse in accordance with section A and of the sources of data used for reporting on the amount of reused products in accordance with Section B**
- **Detailed description of the methods used for reporting on measures on reuse in accordance with section A and for reporting on the amount of reused products in accordance with Section B. The description includes the following:**
 - (a) a description of the reuse operations that are included within the scope of reuse for the purposes of the measurement;
 - (b) a brief description of the methods used;
 - (c) a description of the methods used to identify the reuse operators;
 - (d) an indication of the entities providing data reported in Section B of the report;
 - (e) in case of sampling or scaling, information about the size and selection of the sample or scale and a description of the methods used for such sampling or scaling;
 - (f) in case a conversion table was used to calculate the amount of products reused in tonnes, information on the conversion factors used;
 - (g) where qualitative or quantitative indicators or targets referred to in Article 9(3) of Directive 2008/98/EC were used, information on those indicators and on the level of that target and the products covered by it;
 - (h) a description of the main issues affecting the accuracy of the data, including errors related to sampling, coverage, measurement, processing, and non-response;
 - (i) a description of the data validation process, including possible sources of uncertainty and their likely impact on the results reported.

Notification of methodological changes and problems

- **Description of methodological changes (if applicable)**

A description of significant methodological changes in the calculation method for the reporting period in relation to the previous reporting period, if any. A description of the changes separately for the reporting in accordance with section A and the reporting in accordance with section B.

- **Explanation of tonnage difference (if applicable)**

An explanation of the causes of the tonnage difference (which product categories or estimates have caused the difference, and what the underlying cause is) where the variation is greater than 20 % compared to the data submitted for the previous reporting period.

- **Notification of problems (if any)**

In case problems were experienced with the collection of the requested data, a description of those problems is provided.

Confidentiality

Justification for withholding the publication of specific parts of this report, if necessary. For each case, the precise location of those parts (the respective cell or cells).