

WEEE calculation tool Manual

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Abbreviations

CN codes	: Combined Nomenclature codes
CRT	: Cathode Ray Tubes
EEE	: Electrical and electronic equipment
EU-6	: Classification of electrical and electronic equipment under the six categories as set out in Annex III of the Directive 2012/19/EU on WEEE
EU-10	: Classification of electrical and electronic equipment under the ten categories as set out in Annex I of the Directive 2012/19/EU on WEEE
WG	: Waste Electrical and Electronic Equipment Generated
HS Codes	: Harmonized System Codes
LCD	: Liquid-crystal display
POM	: Placed on Market
PRODCOM codes	: community production system classification codes
WEEE/E-Waste	: Waste Electrical and Electronic Equipment

1. Introduction

The “WEEE calculation tool” is an integral part of the methodologies for the calculation of the weight of electrical and electronic equipment (EEE) placed on the market of each Member State and for the calculation of the quantity of WEEE generated by weight in each Member State established by the Commission Implementing Regulation 2017/699.

The WEEE calculation tool is customised for each Member State and is set up and made available by the Commission. This means that in practice 28 WEEE calculation tools are developed based on the same methodology but are pre-populated with specific data from each Member State. Therefore, the user of the tool who wants for example to calculate the total quantity of WEEE generated in a Member State needs to use the tool customised for this specific Member State.

The goal of this manual is to help users to operate, calculate and adapt the data in the Tool and to address possible questions on how the tool works. Chapter 2 of this manual presents an overview of the WEEE calculation tool with a description of its different sheets. In Chapter 3, the manual provides a guideline to the user on how to operate the Tool to perform different tasks.

The pre-filled data on the quantities of EEE Placed on Market (POM) is done using the ‘apparent consumption methodology’. The calculation routines have been developed by United Nations Institute for Training and Research (UNITAR), and its script, as well as data from the Member States that were extracted from Eurostat databases, is published in open source format. All the scripts and calculation steps are published at: <https://github.com/Statistics-Netherlands/ewaste>¹.

The WEEE calculation tool as described in chapter 3.3 can assist to insert the POM data coming from the ‘apparent consumption methodology’, or the POM data from the national registers to calculate the relevant quantities of EEE placed on the market per categories of EEE set out in Annexes I and III to Directive 2012/19/EU, and to calculate WEEE Generated. The methodology to calculate the total quantity of WEEE generated in a given year in the territory of a Member State is based on:

- the amount of EEE placed on the market (POM) in the preceding years, and on
- the corresponding product lifespan.

The tool uses POM data and product lifespans from 1980 until 2018 which have already been provided into it to calculate the quantity of the WEEE generated in any year as described in chapters 3.4 and 3.6. The calculation uses a disposal rate (Weibull distribution) to determine the product lifespan which can be presented in the tool as describes in chapter 3.5.

¹ Github has not been updated at the development of the manual, once the feedback from Member States has been provided will be updated.

2. Overview of the WEEE calculation tool

The WEEE calculation tool contains 27 different sheets. All of them are essential for the proper functioning of the tool. Most sheets are hidden by default to prevent accidental changes which will cause wrong calculations. The table below presents the different sheets of the WEEE calculation tool and explains their purpose:

Table 1- Overview of the sheets of the WEEE calculation tool

Sheet name	Description/purpose
FrontPage	User interface.
Indicators	A table displaying a summary of the quantities for each indicator (POM and WEEE generated).
ResultPOM	A table displaying the amounts of EEE POM per EU-6 and EU-10 classifications. In addition, a table showcasing the average Benchmark of countries with similar economy using EU-6 and EU-10 classifications is also provided.
ResultWG	A table displaying the amounts of WEEE generated per EU-6 and EU-10 classifications.
GraphLifespan	A graph illustrating the lifespan of the selected UNU Key.
GraphPOM_EU6	A graph illustrating Placed on Market data of a specific country in Collection category 6.
GraphWG_EU6	A graph illustrating WEEE generated data of a specific country in Collection category 6.
POM	A table that can be used to insert a country's Placed on Market data.
Benchmark	A table displaying POM <i>kpi of countries with similar economy</i> and a table displaying the POM average benchmark of countries with the similar economy.
GraphPOM_EU10	Graph illustrating WEEE 10 Categories per country.
GraphWG_EU10	Graph illustrating waste generated in 10 Categories per country.
<i>The following sheets are hidden but can be made visible by clicking the "Show sheets" button</i>	
ResultDetail	A table displaying the calculated amounts of WEEE generated per UNU-KEY classification.
UNU-Keys	A table used to convert the POM input of EU-6 and EU-10 categories into the UNU-KEY
CN Codes-UNU-Key	Table showcasing the user the link of CN Codes and the UNU-Key Classification per year.
POMFlag	Table showcasing the user the source of POM data using the UNU-Key classification per year is provided as well as a table containing a description of the POM flag.
Shape	Shape parameters used for the Weibull distribution for your country (per UNU-KEY). Do not modify.
Scale	Scale parameters used for the Weibull distribution for your country (per UNU-KEY). Do not modify.
Weibull	Used for product lifespan calculations. Do not modify.

POM_copy	Copy of the original POM data in the POM sheet. Do not modify.
Shape_copy	Copy of the original Shape parameters in the Shape sheet. Do not modify.
Scale_Copy	Copy of the original Scale parameters in the Scale sheet. Do not modify.
InputEU6	Used for entering POM data based on the EU-6 classification.
InputEU6PV	Used for entering POM data based on the EU-6 classification with a separate input for PV panels.
InputEU10	Used for entering POM based on EU-10 classification.
InputEU10PV	Used for entering POM based on EU-10 classification with separate input PV panels.
InputUNUkey	Used for entering POM data based on the UNU-KEY classification.
inputUNUkey_Lifetime	Used for entering equipment Lifetime data (in years) based on the UNU-KEY classification.

Do not relocate, insert, or change the individual order of the first seven sheets in the WEEE calculation tool. This will result in the malfunction of the **Show Sheets** action button on the “FrontPage”. All other sheets are used for data storage, calculations and intermediate results and **must not** be modified by the user.

The user may edit the data in the “POM,” sheet as well as the parameters of the lifespan of the product (Weibull distribution) in the “scale” and “shape” sheets. However, keep in mind that entering an invalid or incorrect parameter will result in incorrect or unexpected results for the amount of WEEE generated. Edited cells in the above-mentioned sheets will be marked in red. It is recommended to keep the original copy of the WEEE calculation tool with the default values as a separate file, in case a restore to original settings is needed.

The WEEE calculation tool is developed in Excel 2013 as a “.xlsm” spreadsheet. It is designed as basic as possible to operate across different platforms and is downward compatible with all versions of Excel.

3. Using the WEEE calculation tool

The "FrontPage" sheet (the first sheet of the WEEE calculation tool and user interphase) contains six buttons that will allow the user to perform all necessary actions.

The screenshot displays the 'FrontPage' of the WEEE Calculation Tool. The title 'WEEE Calculation Tool' is centered at the top. To the right, there are 'Hide Sheets' and 'Show Sheets' buttons. Below the title, the 'Country' is set to 'NLD'. Four large buttons are arranged vertically: 'Input POM data', 'Calculate WEEE generated', 'Update Lifetime', and 'Export results'. At the bottom, the 'Comissioned by' section features the European Commission and UNITAR logos. The footer includes text about the study and logos for the United Nations and UNITAR. The bottom navigation bar shows 'FrontPage' as the active sheet, with other sheets like 'Indicators', 'ResultPOM', etc., listed.

Figure 1. The "FrontPage" sheet of the WEEE calculation tool (Example: Netherlands)

3.1 Hide/Show sheets

In order to prevent accidental changes to certain sheets, the tool has a total of 16 sheets hidden. However, it is possible to make these sheets visible by clicking on the **Show Sheets** button. Clicking on the **Hide Sheets** button will hide the sheets again and only 11 of the 27 sheets will be unhidden.

3.2 Enter data on EEE Placed on Market (POM)

The POM data can be entered either manually or by using the **Input POM data** button in the "Front Page" of the Tool. To enter the data manually, the user is required to click on the POM sheet (unhidden sheet) and include the information by year per UNU Key.

To enter POM data employing the Tool, click on the **Input POM data** button in the "FrontPage".

When the user clicks on the **Input POM data** button, the user is asked for the year of the data he would like to feed into the Tool. The year should be entered as a four-digit number (e.g. 2016). Valid years are from 2016 to 2030.

The user will then be requested to choose the preferred type of classification for data entry. The following classifications are available:

1. EU-6 categories: 6 categories of EEE as set out in Annex III of the WEEE Directive 2012/19/EU
2. EU-10 categories: 10 categories of EEE set out in Annex I of the WEEE Directive 2012/19/EU; or
3. UNU categories: 54 categories of EEE developed by the United Nations University (UNU) and defined as 'UNU-KEYs'.

If the user chooses the EU-6 or EU-10 classification, the option of inserting the amount of PV panels individually will be provided. This is highly recommended given the impact of PV panels on the quantities of EEE placed on the market in recent years. It should be noted that for category 4 'large equipment, from 2020 data shall be reported under two sub-categories, namely '4a: Large equipment excluding photovoltaic panels' and '4b: Photovoltaic panels' as established in Art. 2 of the Commission Implementing Decision (EU) 2019/2193.

If the user chooses the data per UNU-KEY, it is necessary to make some calculations to convert the data on domestic production, imports and exports into UNU-KEYs. The user shall:

1. extract the data on the domestic production of EEE by weight reported under the community production system classification (PRODCOM codes),
2. extract the data on imports and exports of EEE by weight reported under the Combined Nomenclature codes (CN codes),
3. use the correlation table set out in Annex IV to this manual to convert data on domestic production, imports and exports of EEE into UNU-KEYs.

The user can use an open source script developed by UNITAR (in programming language R) to calculate the quantity of EEE placed on the market based on production and trade statistics. This script, named "Waste over Time (or WOT) script" uses the 'apparent consumption methodology' and extracts from Eurostat the relevant statistical data of a Member State to calculate the quantity of EEE placed on its market. The POM outcomes coming from this open source tool can be inserted as the POM data in the WEEE calculation tool. The script and the extracted data from Eurostat are aligned with the methodology developed by UNIATR. The script and further information about it can be found here:

<https://www.cbs.nl/engb/our-services/methods/statistical-methods/throughput/throughput/waste-overtime-script>²

The WEEE calculation tool can automatically convert the data on the weight of EEE placed on the market per UNU-KEYs into quantities of EEE placed on the market either per EU-6 or per EU-10. For this purpose, the WEEE calculation tool uses the table set out in Annex II, part C of this manual correlating UNU-KEYs with both EU-6 and EU-10. After the selection is done the sheet for data entry will appear.

The user should enter the EEE POM amounts in tonnes. If the amount is zero or unknown please enter zero, do not leave the cell empty.

² However the link has not been updated at the development of the manual, once the feedback from Member States has been provided will be updated, the link specified above refers to the data that prepopulated the old version of the WEEE Generated Tools.

EU-6	Full name	Weight (tonnes)
1	Temperature exchange equipment	
2	Screens, monitors, and equipment containing screens (..)	
3	Lamps	
4a	Large equipment (excluding photovoltaic panels)	
4b	Photovoltaic panels (incl. converters)	
5	Small equipment	
6	Small IT and telecommunication equipment	
TOTAL (calculated)		0

Please fill in a number for each category.
If a value is not known, or is zero, please enter a 0

Continue

Cancel

FrontPage | Indicators | ResultPOM | ResultWG | GraphLifespan | GraphPOM_EU6 | GraphWG_EU6 | POM | Benchmark | **inputEU6PV** | GraphPOM_EU10 | GraphWG_EU10

Figure 2. Example of a POM input sheet using EU-6 + PV Panels classification

To cancel data inputs click on the **Cancel** button.

To confirm POM data in the WEEE calculation tool, click on the **Continue** button. The data is then verified for completeness and valid numbers. If an invalid input is found, the input cells will be highlighted and the user will be required to correct the highlighted cells and press the **Continue** button again. If the data is correct, it will be added to the “POM” sheet.

After adding or editing POM data, the calculated amounts of WEEE generated are no longer up to date and need to be re-calculated (see section 3.4 below on how to calculate WEEE generated).

When the user selects to proceed with data entry using the EU-6 or EU-10 categories, the data will be converted into the 54 UNU-KEYs automatically by the WEEE calculation tool and the data per UNU-KEYs will also be available in the “POM” sheet.

The standard data input is foreseen to be from 2016 until 2030. If the user wishes to modify data prior to 2016, this should be done directly in the “POM” sheet. It is strongly recommended to keep the percentage breakdown per UNU-KEY the same as the original data for that year (see section 3.3).

3.3 Enter POM data from a classification other than EU-6 or EU-10

Users of the WEEE calculation tool might wish to insert POM data from a different classification (for instance a national clustering of products). In such a case, two options are available:

1. National clustering is usually linked to EU-10 (as all Member States ultimately report to Eurostat in such a format) and the EU-6 clustering. The first alternative is thus to consolidate the national clustering accordingly and proceed with data entry selecting the EU-10 or EU-6 classification.

2. National clustering can also be linked to the UNU-KEY classification and data entry could be done at the UNU-KEY level via the button **Input POM data** for POM data selecting the pop-up window “enter with UNU categories”. This ensures better traceability of calculations and results.

Linkage of national clustering to UNU-KEYs can be done by following the basic steps explained below with an illustrated example where IT appliances (Cat. 3 in Annex I of the WEEE Directive) are divided into three different categories:

- Each category of national clustering should be linked to one or more UNU-KEYs, from the detailed list provided in Annex II, section C.

Table 2: Example of EU-10 classification link with UNU-Key classification

EU-10	National Clustering	UNU-KEY linked
3	IT Appliances	0301, 0304, 0305, 0306, 0307
	Personal Computer (Desktop, Laptop...)	0302, 0303
	Screens (CRT, LCD...)	0308, 0309

- Once the mapping between individual national clustering and UNU-KEYs is done, and data is inserted in EU-10 or EU-6 classification, individual fractions are calculated in the background based on the latest POM data available for the country in the “POM” sheet of the WEEE Calculation Tool. This data allows calculating the corresponding share in UNU-KEYs for each national cluster.
- The calculated fractions are used to break down the national POM data in a UNU-KEY level and this data is saved into the WEEE Calculation Tool (hidden ResultDetail sheet) as shown in the example in the table below:

Table 3: Example of background calculations

EU-6	National Clustering	Amount of national data	UNU-KEY linked	POM data in WEEE calculation tool (2016)	Resulting fractions	Amount national data according to UNU-KEY
2	IT Appliances	5.000t	0301	500t	7,5%	373t
			0304	1.500t	22,4%	1.119t
			0305	1.250t	18,7%	933t
			0306	250t	3,7%	187t
			0307	3.200t	47,8%	2.388t
	Subtotal	5.000t		6.700t	100%	5.000t
	Personal Computer (Desktop, Laptop...)	15.000t	0302	5.500t	37,9%	5.685t
			0303	9.000t	62,1%	9.315t
	Subtotal	15.000t		14.500t	100%	15.000t
	Screens (CRT, LCD...)	7.500t	0308	2.500t	38,5%	2.888t
			0309	4.000t	61,5%	4.612t
	Subtotal	7.500t		6.500t	100%	7.500t

3.4 Calculate WEEE generated

Once the user has entered the POM data for the reference year, the Tool can calculate the quantity of WEEE generated. The calculation of WEEE generated will start by clicking on the button named **Calculate WEEE Generated** on the "FrontPage" sheet.

Once the WEEE generated is calculated the user will get a notification that the calculations are completed. The results will then be available in the tables and graphs in different sheets as described in section 3.8.

3.5 Enter and Calculate Lifespan parameters

The WEEE Calculation Tool includes pre-defined lifespan parameters calculated by UNITAR resulting from various European countries' studies (e.g. Belgium, the Netherlands etc.) (see Annex III). However, if the Members States wish to modify the lifespan parameters, they may do it manually or by using the **Update Lifetime** button in the "FrontPage" sheet.

If the user has information on the "shape" and "scale" parameters, they may insert them manually in the corresponding sheets (Shape and Scale sheets) per year and UNU Key by unhiding the sheets pressing the **Show Sheets** button. Once the information has been included in the Scale and Shape sheets, the user should press the **Calculate WEEE Generated** button to update the WEEE generated data.

When the user has information on the lifetime of an EEE, they may enter the date by clicking on the **Update Lifetime** button in the "FrontPage" sheet. Once the **Update Lifetime** button has been clicked, the user is asked to specify **from what year on** the data would be fed into the tool. This means that from the year the user specifies the lifetime parameters, all following years will be updated automatically. For example, if the user wishes to update the lifespan of a product from the year 2010 onwards, all lifetime parameters from 2010 to 2030 will be updated. If the user wishes to update all years, then the user should specify the year 1980 when requested "*from what year on he wishes to update the lifespan parameters*" and in doing so, the information will be updated from 1980 until 2030. The year should be specified as a four-digit number (e.g. 2016). After the selection is done, the sheet for data entry will appear.

The user should enter the EEE lifespan amounts in years for a specific product using the UNU-Key classification developed by the United Nations University (UNU). If the user doesn't have lifetime information for all UNU Keys, they should be left empty.

	A	B	C	D	E	F	G	H	I	J	K	L
1	Input Lifetime Data according UNU-key Categories from year 2016 onwards.											
2	If you have scale and shape please insert data in the shape and a scale sheet											
3												
4												
5	UNU-KEY	Full name	New Lifetime (yrs)									
6												
7	0001	Central Heating (household installed)										
8	0002	Photovoltaic Panels (incl. inverters)										
9	0101	Professional Heating & Ventilation (excl. cooling equipment)										
10	0102	Dishwashers										
11	0103	Kitchen equipment (e.g. large furnaces, ovens, cooking equipment)										
12	0104	Washing Machines (incl. combined dryers)										
13	0105	Dryers (wash dryers, centrifuges)										
14	0106	Household Heating & Ventilation (e.g. hoods, ventilators, space heaters)										
15	0108	Fridges (incl. combi-fridges)										
16	0109	Freezers										
17	0111	Air Conditioners (household installed and portable)										
18	0112	Other Cooling equipment (e.g. dehumidifiers, heat pump dryers)										
19	0113	Professional Cooling equipment (e.g. large air conditioners, cooling displays)										
20	0114	Microwaves (incl. combined, excl. grills)										
21	0201	Other small household equipment (e.g. small ventilators, irons, clocks, adapters)										
22	0202	Equipment for food preparation(e.g. toaster, grills, food processing, frying pans)										
23	0203	Small household equipment for hot water preparation (e.g. coffee, tea, water cookers)										
24	0204	Vacuum Cleaners (excl. professional)										
25	0205	Personal Care equipment(e.g. tooth brushes, hair dryers, razors)										
26	0301	Small IT equipment (e.g. routers, mice, keyboards, external drives & accessories)										
27	0302	Desktop PCs (excl. monitors, accessoires)										
28	0303	Laptops (incl. tablets)										
29	0304	Printers (e.g. scanners, multi functionals, faxes)										
30	0305	Telecommunication equipment (e.g. (cordless) phones, answering machines)										
31	0306	Mobile Phones (incl. smartphones, pagers)										

Please fill in the lifetime value for the corresponding UNU Key.

Figure 3. Example of a Lifetime input sheet using UNU Key classification

To cancel data inputs click on the **Cancel** button.

To confirm the Lifetime data in the WEEE calculation tool, click on the **Continue** button. The data is then verified for completeness and valid numbers. If invalid inputs are found, the input cells will be highlighted and the user will be requested to correct the highlighted cells and press the **Continue** button again. If the data is correct and once the user selects to proceed, the WEEE calculation tool will automatically convert the lifetime data entered into the lifespan parameters used when estimating the WEEE generated for a specific country.

After adding or editing the Lifetime data, the calculated amounts of WEEE generated are no longer up to date and need to be re-calculated by pressing the **Calculate WEEE Generated** button (see section 3.4). As a result, all calculations, as well as the Graphs and Tables, will be updated using the new lifespan parameters. The standard data input is foreseen to be from 1980 until 2030.

Changing the lifetime parameters will affect the WEEE Generated calculations and results, therefore, users should **only modify** these parameters when having **reliable** information.

3.6 View results

The WEEE calculation tool shows the results of the POM input and calculation of the WEEE generated both as tables (sheets "ResultPOM" and "ResultWG" in the EU-6 and EU-10 classification) and as graphs (sheets "GraphPOM_EU6", "GraphWG_EU6", "GraphPOM_EU10" and "GraphWG_EU10") as seen in **Errore. L'origine riferimento non è stata trovata.**

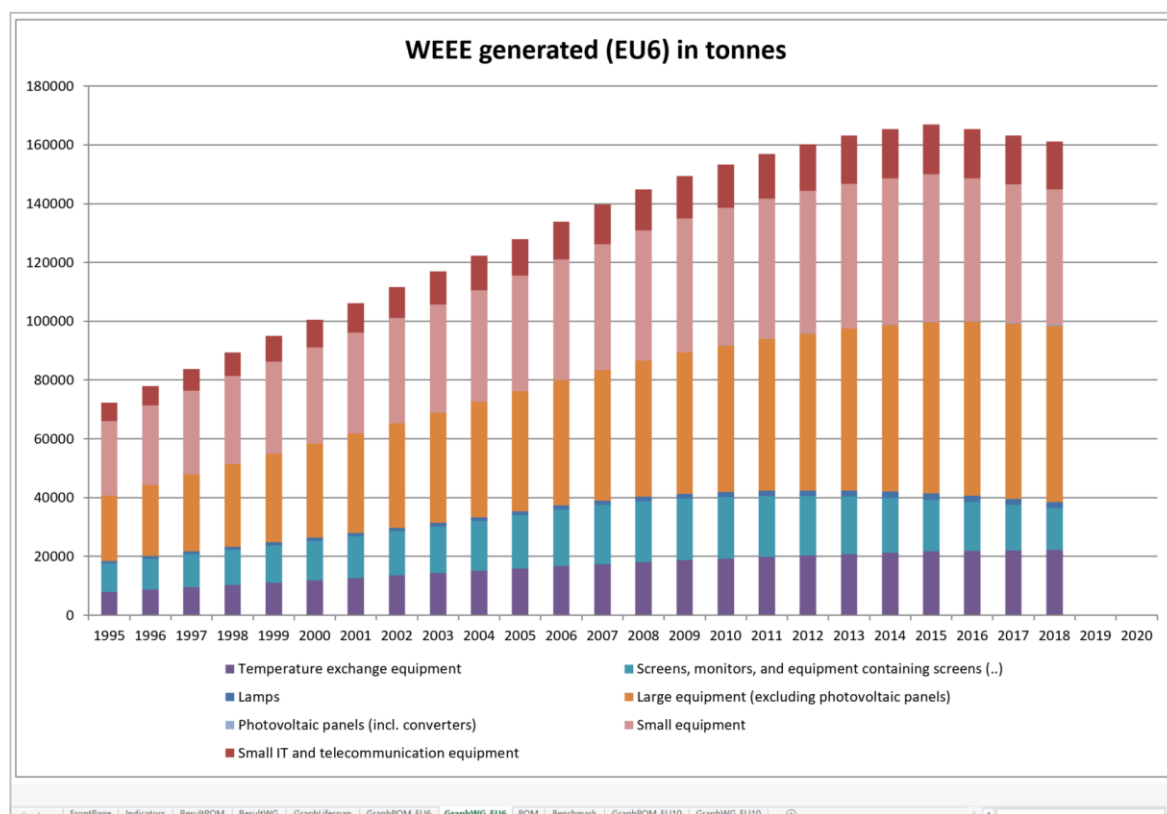


Figure 4. Example of a graph representing WEEE generated for a sample country

3.7 View lifespan graphs

The sheet “GraphLifespan” provides a graphical representation of the lifespan of a selected product group per UNU-KEY.

After selecting a UNU-KEY and a reference year in the corresponding dropdown the graphs will illustrate the percentages (both per year and cumulative) of WEEE generated as well as the average lifespan.

The first graph, as shown in

Figure 5 below, illustrates the percentage of products Placed on the Market in the reference year that are being discarded in each of the following years. In this example, it is shown that 6% of the products Placed on the Market in 2012 will be discarded in 2020. The second graph illustrates the cumulative amount, expressed as a percentage, of products discarded, showing that by 2030, 90% of the products Placed on the Market in 2012 will be discarded and 10% will still be in use.

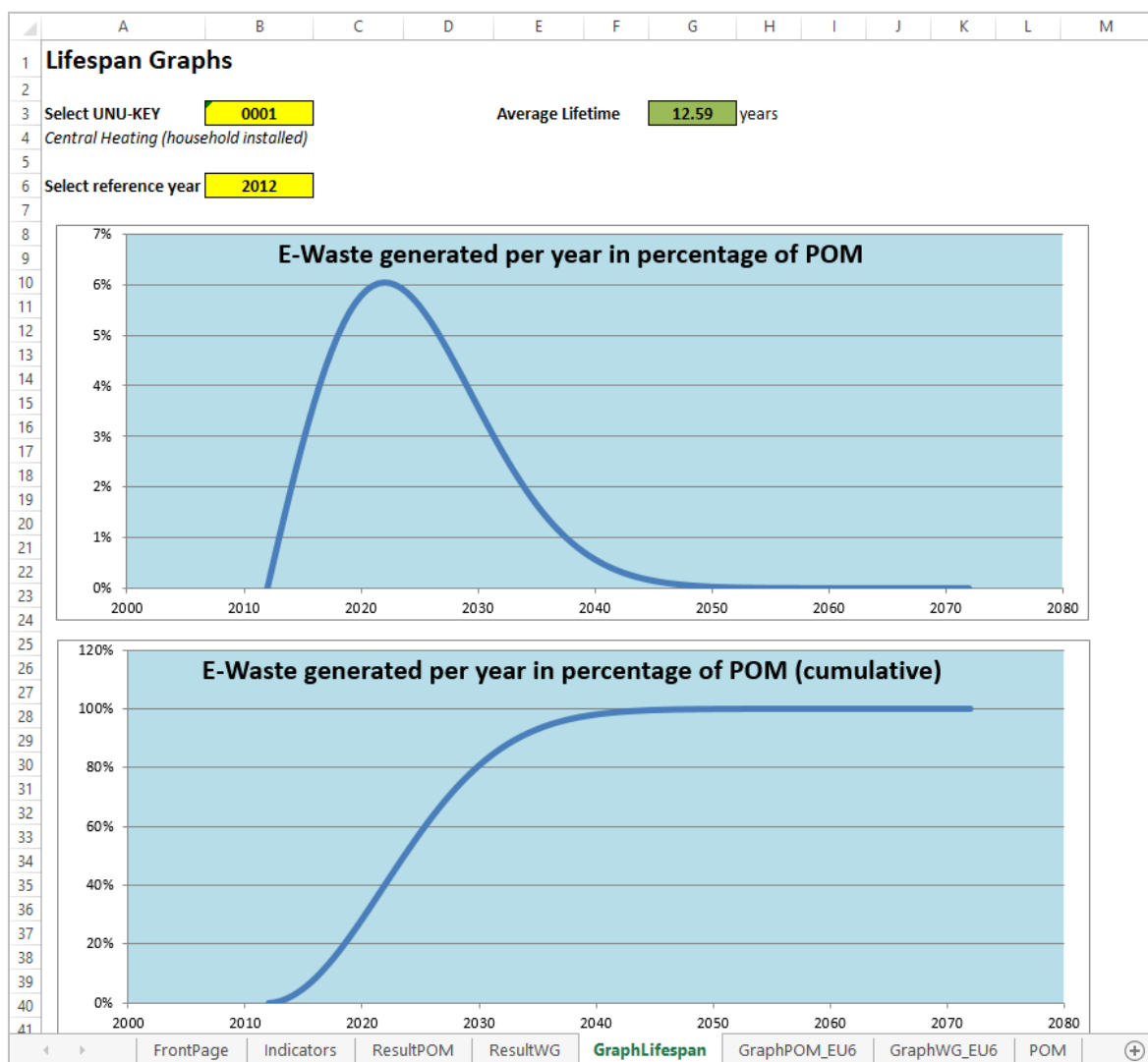


Figure 5. Example of a Lifespan graph

Calculations and data used for the graphs are displayed from cell A50 onwards. The user might check the effects on lifespan and the average lifetime of the “Shape” and “Scale” parameters of the Weibull distribution by editing the parameters in cells A52 and B52. Before selecting another product group (UNU-KEY) or changing the reference year from the dropdown, the user should restore the original values of cells A52 and B52 in the “GraphLifespan” sheet. For several UNU-KEYs, the Weibull distribution parameters are the same for every year. Selecting another reference year will, therefore, do not affect the graphs.

3.8 Benchmark data

The benchmark data is calculated by aggregating the results for countries that have a comparable economic condition in terms of Purchasing Power Parity (PPP). The countries have been classified into three groups:

- Stratum 1: High-income level
- Stratum 2: Medium income level
- Stratum 3: Low-income level

In the benchmarking sheet, it is presented the average for the stratum applicable to the country in question to allow comparison of country data with the average referred to the countries within the same stratum.

3.9 Export results

The user can export the results by clicking on the **Export Results** button on the “FrontPage” sheet. A new spreadsheet will be created and named “Result.xlsx”. This filename is fixed and cannot be changed. The spreadsheet will be saved in the same directory where the WEEE calculation tool is stored.

The following sheets will be exported:

1. Benchmark
2. Indicators
3. ResultPOM
4. ResultWG
5. CN Codes-UNU Key
6. GraphLifespan
7. GraphPOM_EU10
8. GraphWG_EU6
9. GraphWG_EU10
10. GraphPOM_EU6

If an Export file already exists, the user will be asked to overwrite it and should then select “Yes”.

If the user selects “No” or “Cancel”, the Export procedure will be aborted.

If the user wishes to keep an earlier version of the Exported file, then this should be renamed before running the Export functionality again.

References

1. DIRECTIVE 2012/19/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 on Waste Electrical and Electronic Equipment (WEEE) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02012L0019-20180704>).
2. COMMISSION IMPLEMENTING REGULATION (EU) 2017/699 of 18 April 2017 establishing a common methodology for the calculation of the weight of electrical and electronic equipment (EEE) placed on the national market in each Member State and a common methodology for the calculation of the quantity of waste electrical and electronic equipment (WEEE) generated by weight in each Member State (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32017R0699>).
3. Commission Implementing Decision (EU) 2019/2193 of 17 December 2019 laying down rules for the calculation, verification and reporting of data and establishing data formats for the purposes of Directive 2012/19/EU (<https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1584719987321&uri=CELEX:32019D2193>).
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6. Magalini, Federico et al. 2014. European Commission Study on Collection Rates of Waste Electrical and Possible Measures to Be Initiated By the on Waste Electrical and Electronic Equipment (WEEE). POSSIBLE MEASURES TO BE INITIATED BY THE COMMISSION AS REQUIRED BY ARTICLE 7(4), 7(5), 7(6) AND 7(7) OF DIRECTI.

Annex I: Terminology

EEE	Electrical and Electronic Equipment or EEE means equipment that is dependent on electric currents or electromagnetic fields to work properly and equipment for the generation, transfer and measurement of such currents and fields and designed for use with a voltage rating not exceeding 1 000 volts for alternating current and 1 500 volts for direct current (Directive 2012/19/EU, Article 3(1)(a));
EEE Placed on Market (POM)	“Placing on the market” means the first making available of a product on the market within the territory of a Member State on a professional basis (Directive 2012/19/EU, Article 3(1)(k));
Weight of EEE	The gross (shipping) weight of any EEE within the scope of Directive 2012/19/EU, including all electrical and electronic accessories, but excluding packaging, batteries/accumulators, instructions, manuals, non-electric/electronic accessories and consumables. (COMMISSION IMPLEMENTING REGULATION (EU) 2017/699, Article 2(a));
Lifetime	Is the period after a product has been sold and stays in households or businesses until it is disposed of. The lifetime includes the dormant time in sheds and the exchange of second-hand equipment between households and businesses within the country. The lifetime is expressed as a Weibull function per type of product. You can visualize them in the sheet “GraphLifespan” in the WCT;
Shape and Scale parameters	The Weibull function is defined by a time-varying shape parameter $\alpha(t)$ and $\beta(t)$ a scale parameter. For further information and mathematical equations please refer to (Magalini et al. 2014);
WEEE	Waste Electrical and Electronic Equipment or WEEE means electrical or electronic equipment which is waste within the meaning of Article 3(1) of the Waste Framework Directive 2008/98/EC, including all components, sub-assemblies and consumables which are part of the product at the time of discarding (Directive 2012/19/EU, Article 3(1)(e)). According to Article 3(1) of the Waste Framework Directive 2008/98/EC “waste” means any substance or object which the holder discards or intends or is required to discard;
WEEE generated (WG)	‘WEEE generated’ in a Member State means the total weight of WEEE resulting from EEE within the scope of Directive 2012/19/EU that had been placed on the market of that Member State, prior to any activity such as collection, preparation for reuse, treatment, recovery, including recycling, or export (COMMISSION IMPLEMENTING REGULATION (EU) 2017/699, Article 2(b));
UNU-KEYs	The classification of “UNU-KEYs” has been developed by the United Nations University (UNU). It’s organized based on three essential perspectives: product type, waste management and legislative relevancy. This classification list is divided into 54 categories by linking all possible WEEE items (about 660 product types in all) to various conventional categorizations. Additionally, a link between statistical codes has been developed, aligning the classifications applied in trade statistics, custom authorities and national statistical offices. This categorization enables consistent performance comparison between regions and compliance schemes. Most of the UNU-KEYs align with one or more PRODCOM and CN codes enabling a relationship with harmonized and internationally accepted statistical data. UNU-KEYs can address various classification methods, such as the EU-6 and the EU-10 categories (Magalini et al. 2014);
Combined Nomenclature (CN)	The Combined Nomenclature (CN) is a tool for classifying goods, set up to meet the requirements both of the Common Customs Tariff and the EU's external trade statistics. The CN is also used in intra-EU trade statistics (European Commission

	2020). The Combined Nomenclature (CN) is the EU's eight-digit coding system, comprising the HS codes with further EU subdivisions. It both serves the EU's common customs tariff and provides statistics for trade inside the EU and between the EU and the rest of the world. All relevant EEE related combined nomenclature (CN) codes as they are applied in international trade and customs reports are linked (The correspondence table between UNU-KEYS and CN codes is presented in Annex III).
Prodcom (PCC)	Provides statistics on the production of manufactured goods carried out by enterprises on the national territory of the reporting countries (EUROSTAT 2020). All relevant EEE related Prodcom (PCC) as they are applied in production statistics are linked.

Annex II: Classifications

A. Classification of EEE under the six categories (EU-6) as set out in Annex III of the WEEE Directive 2012/19/EU

EU-6	Full name
1	Temperature exchange equipment
2	Screens, monitors, and equipment containing screens (...)
3	Lamps
4	Large equipment
5	Small equipment
6	Small IT and telecommunication equipment

B. Classification of EEE under the ten categories (EU-10) set out in Annex I to the WEEE Directive 2012/19/EU

EU-10	Full name
1	Large household appliances
2	Small household appliances
3	IT and telecommunications equipment
4	Consumer equipment and photovoltaic panels
5	Lighting equipment
6	Electrical and electronic tools
7	Toys, leisure and sports equipment
8	Medical devices
9	Monitoring and control instruments
10	Automatic dispensers

C. Classification of EEE under the UNU-KEYs and correlation of UNU-KEYs with the categories under EU-10 and EU-6 classification

UNU KEY	Description	EEE category under EU-6	EEE category under EU-10
0001	Central Heating (household installed)	Large equipment	Large household appliances
0002	Photovoltaic Panels (incl. inverters)	Large equipment	Consumer equipment
0101	Professional Heating & Ventilation (excl. cooling equipment)	Large equipment	Large household appliances
0102	Dishwashers	Large equipment	Large household appliances
0103	Kitchen equipment (e.g. large furnaces, ovens, cooking equipment)	Large equipment	Large household appliances
0104	Washing Machines (incl. combined dryers)	Large equipment	Large household appliances
0105	Dryers (wash dryers, centrifuges)	Large equipment	Large household appliances
0106	Household Heating & Ventilation (e.g. hoods, ventilators, space heaters)	Large equipment	Large household appliances
0108	Fridges (incl. combi-fridges)	Temperature exchange equipment	Large household appliances

0109	Freezers	Temperature exchange equipment	Large household appliances
0111	Air Conditioners (household installed and portable)	Temperature exchange equipment	Large household appliances
0112	Other cooling equipment (e.g. dehumidifiers, heat pump dryers)	Temperature exchange equipment	Large household appliances
0113	Professional cooling equipment (e.g. large air conditioners, cooling displays)	Temperature exchange equipment	Large household appliances
0114	Microwaves (incl. combined, excl. grills)	Small equipment	Large household appliances
0201	Other small household equipment (e.g. small ventilators, irons, clocks, adapters)	Small equipment	Small household appliances
0202	Equipment for food preparation (e.g. toaster, grills, food processing, frying pans)	Small equipment	Small household appliances
0203	Small household equipment for hot water preparation (e.g. coffee, tea, water cookers)	Small equipment	Small household appliances
0204	Vacuum Cleaners (excl. professional)	Small equipment	Small household appliances
0205	Personal Care equipment (e.g. toothbrushes, hairdryers, razors)	Small equipment	Small household appliances
0301	Small IT equipment (e.g. routers, mice, keyboards, external drives & accessories)	Small IT	IT and telecommunications equipment
0302	Desktop PCs (excl. monitors, accessories)	Small IT	IT and telecommunications equipment
0303	Laptops (incl. tablets)	Screens and monitors	IT and telecommunications equipment
0304	Printers (e.g. scanners, multi-functional, faxes)	Small IT	IT and telecommunications equipment
0305	Telecommunication equipment (e.g. cordless phones, answering machines)	Small IT	IT and telecommunications equipment
0306	Mobile Phones (incl. smartphones, pagers)	Small IT	IT and telecommunications equipment
0307	Professional IT equipment (e.g. servers, routers, data storage, copiers)	Large equipment	IT and telecommunications equipment
0308	Cathode Ray Tube Monitors	Screens and monitors	IT and telecommunications equipment
0309	Flat Display Panel Monitors (LCD, LED)	Screens and monitors	IT and telecommunications equipment
0401	Small Consumer Electronics (e.g. headphones, remote controls)	Small equipment	Consumer equipment

0402	Portable Audio & Video (e.g. MP3, e-readers, car navigation)	Small equipment	Consumer equipment
0403	Music Instruments, Radio, Hi-Fi (incl. audio sets)	Small equipment	Consumer equipment
0404	Video (e.g. Video recorders, DVD, Blue Ray, set-top boxes) and projectors	Small equipment	Consumer equipment
0405	Speakers	Small equipment	Consumer equipment
0406	Cameras (e.g. camcorders, photo & digital still cameras)	Small equipment	Consumer equipment
0407	Cathode Ray Tube TVs	Screens and monitors	Consumer equipment
0408	Flat Display Panel TVs (LCD, LED, Plasma)	Screens and monitors	Consumer equipment
0501	Small lighting equipment (excl. LED & incandescent)	Small equipment	Lighting equipment
0502	Compact Fluorescent Lamps (incl. retrofit & non-retrofit)	Lamps	Lighting equipment
0503	Straight Tube Fluorescent Lamps	Lamps	Lighting equipment
0504	Special Lamps (e.g. professional mercury, high & low-pressure sodium)	Lamps	Lighting equipment
0505	LED Lamps (incl. retrofit LED lamps)	Lamps	Lighting equipment
0506	Household Luminaires (incl. household incandescent fittings & household LED luminaires)	Small equipment	Lighting equipment
0507	Professional Luminaires (offices, public space, industry)	Small equipment	Lighting equipment
0601	Household Tools (e.g. drills, saws, high-pressure cleaners, lawnmowers)	Small equipment	Electrical and electronic tools
0602	Professional Tools (e.g. for welding, soldering, milling)	Large equipment	Electrical and electronic tools
0701	Toys (e.g. car racing sets, electric trains, music toys, biking computers, drones)	Small equipment	Toys
0702	Game Consoles	Small IT	Toys
0703	Leisure equipment (e.g. sports equipment, electric bikes, jukeboxes)	Large equipment	Toys
0801	Household medical equipment (e.g. thermometers, blood pressure meters)	Small equipment	Medical devices
0802	Professional medical equipment (e.g. hospital, dentist, diagnostics)	Large equipment	Medical devices
0901	Household Monitoring & Control equipment (alarm, heat, smoke, excl. screens)	Small equipment	Monitoring and control instruments
0902	Professional Monitoring & Control equipment (e.g. laboratory, control panels)	Large equipment	Monitoring and control instruments
1001	Non-cooled Dispensers (e.g. for vending, hot drinks, tickets, money)	Large equipment	Automatic dispensers

Annex III. Life-time profiles of various EEE in the Netherlands, France, Belgium and Italy

UNU_KEYS	Weibull Lifetime distribution in the Netherlands, France and Belgium		Weibull Lifetime distribution in Italy	
* Data refers to 2016	α	β	α	β
0001	2.00	14.21	2.00	14.21
0002	3.50	25.00	3.50	25.00
0101	1.95	17.52	1.14	16.07
0102	1.64	14.20	1.37	14.28
0103	2.47	18.04	1.31	19.35
0104	2.20	15.16	2.20	13.65
0105	2.58	15.73	2.58	15.73
0106	2.00	13.47	1.22	18.80
0108	2.20	16.43	2.36	18.50
0109	2.74	24.20	1.28	18.55
0111	2.69	14.52	1.05	7.53
0112	2.39	13.56	1.29	8.29
0113	2.44	20.56	2.50	18.02
0114	1.90	14.07	1.33	9.05
0201	1.25	8.17	0.83	6.53
0202	2.06	11.22	1.15	9.57
0203	1.73	7.80	1.18	7.61
0204	1.45	10.25	1.22	10.59
0205	1.26	10.67	1.20	8.09
0301	1.25	5.91	1.30	6.15
0302	1.58	8.95	1.57	8.91
0303	1.60	6.57	1.66	6.81
0304	1.68	9.91	1.53	6.88
0305	1.24	7.22	1.32	7.70
0306	1.56	6.26	1.52	5.62
0307	1.46	7.78	1.46	7.78
0308	2.41	12.53	1.40	15.94
0309	2.33	7.39	2.33	7.39
0401	1.30	9.87	1.30	9.87
0402	0.79	7.97	1.11	5.56
0403	2.09	15.54	1.25	13.99
0404	1.67	10.47	1.14	8.33
0405	1.49	10.78	1.13	12.54
0406	1.41	8.12	1.19	6.75
0407	2.49	12.08	2.49	12.08
0408	2.01	11.75	2.01	11.75
0501	1.42	8.72	1.42	8.72
0502	1.60	8.43	1.60	8.43
0503	1.93	8.43	1.93	8.43
0504	1.60	6.90	1.60	6.90
0505	1.42	11.00	1.42	11.00

0506	2.34	16.59	2.34	16.59
0507	2.00	11.84	2.00	11.84
0601	1.82	11.28	1.82	11.28
0602	2.50	15.50	2.50	15.50
0701	1.43	4.56	1.43	4.56
0702	1.14	4.78	1.14	4.78
0703	2.40	11.56	2.40	11.56
0801	1.99	13.46	1.99	13.46
0802	2.41	13.52	2.41	13.52
0901	1.55	5.89	1.55	5.89
0902	1.92	11.56	1.92	11.56
1001	2.00	10.06	2.00	10.06
1002	2.00	10.06	2.00	10.06

Annex IV: Correspondence table between CN codes and UNU_KEYS for the year 2018³

CN Codes	Description	UNU-KEY
84031010	Central heating boilers, non-electric, of cast iron (excl. vapour generating boilers and superheated water boilers of heading 8402)	0001
84031090	Central heating boilers, non-electric (excl. of cast iron, and vapour generating boilers and superheated water boilers of heading 8402)	0001
85414090	Photosensitive semiconductor devices, incl. photovoltaic cells	0002
84511000	Dry-cleaning machines for made-up textile articles	0101
84513000	Ironing machines and presses, incl. fusing presses (excl. calenders)	0101
84221100	Dishwashing machines of the household type	0102
84221900	Dishwashing machines (excl. those of the household type)	0102
85166010	Electric cookers incorporating at least an oven and a hob, for domestic use	0103
85166080	Electric ovens for building in, for domestic use	0103
84501111	Fully automatic household or laundry-type front-loading washing machines, of a dry linen capacity <= 6 kg	0104
84501119	Fully automatic household or laundry-type top-loading washing machines, of a dry linen capacity <= 6 kg	0104
84501190	Fully-automatic household or laundry-type washing machines, of a dry linen capacity > 6 kg but <= 10 kg	0104
84501200	Household or laundry-type washing machines, with built-in centrifugal drier (excl. fully-automatic machines)	0104
84501900	Household or laundry-type washing machines, of a dry linen capacity <= 6 kg (excl. fully-automatic machines and washing machines with built-in centrifugal drier)	0104
84502000	Laundry-type washing machines, of a dry linen capacity > 10 kg	0104
84211200	Centrifugal clothes-dryers	0105
84512100	Drying machines, of a dry linen capacity <= 10 kg (excl. centrifugal driers)	0105
84512900	Drying machines for textile yarns, fabrics or made-up textile articles (excl. machines of a dry linen capacity <= 10 kg and centrifugal driers)	0105
84146000	Hoods incorporating a fan, whether or not fitted with filters, having a maximum horizontal side <= 120 cm	0106
85162100	Electric storage heating radiators, for space-heating	0106
85162910	Liquid filled electric radiators, for space-heating and soil-heating	0106
85162950	Electric convection heaters, for space-heating and soil-heating	0106
85162991	Electric space-heating and soil-heating apparatus, with built-in fan (excl. storage heating radiators)	0106
85162999	Electric space-heating and soil-heating apparatus, without a built-in fan (excl. convection heaters and liquid-filled radiators)	0106
84181020	Combined refrigerator-freezers, of a capacity > 340 l, fitted with separate external doors	0108
84181080	Combined refrigerator-freezers, of a capacity <= 340 l, fitted with separate external doors	0108
84182110	Household refrigerators, compression-type, of a capacity > 340 l	0108
84182151	Household refrigerators, compression-type, table model	0108
84182159	Household refrigerators, compression-type, building-in type	0108

³ The links for other years can be downloaded from the GitHub (file htbl_CN_Match_Key.csv) <https://github.com/Statistics-Netherlands/ewaste#preparing-source-data-sets-of-prodcom-and-international-trade>

84182191	Household refrigerators compression-type, of a capacity <= 250 l (excl. table models and building-in types)	0108
84182199	Household refrigerators, compression-type, of a capacity > 250 l but <= 340 l (excl. table models and building-in types)	0108
84182900	Household refrigerators, absorption-type	0108
84183020	Freezers of the chest type, of a capacity <= 400 l	0109
84183080	Freezers of the chest type, of a capacity > 400 l but <= 800 l	0109
84184020	Freezers of the upright type, of a capacity <= 250 l	0109
84184080	Freezers of the upright type, of a capacity > 250 l but <= 900 l	0109
84151010	Air conditioning machines designed to be fixed to a window, wall, ceiling or floor, self-contained	0111
84151090	Air conditioning machines designed to be fixed to a window, wall, ceiling or floor, "split-system"	0111
84158100	Air conditioning machines incorporating a refrigerating unit and a valve for reversal of the cooling-heat cycle "reversible heat pumps" (excl. of a kind used for persons in motor vehicles and self-contained or "split-system" window or wall air conditioning machines)	0111
84158200	Air conditioning machines incorporating a refrigerating unit but without a valve for reversal of the cooling-heat cycle (excl. of a kind used for persons in motor vehicles, and self-contained or "split-system" window or wall air conditioning machines)	0111
84186100	Heat pumps (excl. air conditioning machines of heading 8415)	0112
84186900	Refrigerating or freezing equipment (excl. refrigerating and freezing furniture)	0112
84158300	Air conditioning machines comprising a motor-driven fan, not incorporating a refrigerating unit but incorporating elements for changing the temperature and humidity (excl. of a kind used for persons in motor vehicles, and self-contained or "split-system" window or wall air conditioning machines)	0113
84185011	Refrigerated showcases and counters, with a refrigerating unit or evaporator, for frozen food storage	0113
84185019	Refrigerated showcases and counters, with a refrigerating unit or evaporator, for non-frozen food storage	0113
84185090	Refrigerating furniture with a refrigerating unit or evaporator (excl. combined refrigerator-freezers, with separate external doors, household refrigerators, refrigerated show-cases and counters)	0113
85165000	Microwave ovens	0114
63011000	Electric blankets of all types of textile materials	0201
84145100	Table, floor, wall, window, ceiling or roof fans, with a self-contained electric motor of an output <= 125 W	0201
84231010	Household scales (excl. personal weighing machines and baby scales)	0201
84231090	Personal weighing machines, incl. baby scales	0201
84521011	Sewing machines "lock-stitch only" of the household type, with heads weighing <= 16 kg without motor or <= 17 kg with a motor, having a value "not incl. frames, tables or furniture" of > € 65 each	0201
84521019	Sewing machines "lock-stitch only" of the household type, with heads weighing <= 16 kg without motor or <= 17 kg with a motor, having a value "not incl. frames, tables or furniture" of <= € 65; heads for these machines, weighing <= 16 kg without motor or <= 17 kg with motor	0201

84521090	Sewing machines and heads, of the household type (excl. lock-stitch sewing machines with heads weighing <= 16 kg without motor or <= 17 kg with motor and heads weighing <= 16 kg without motor or <= 17 kg with motor)	0201
85098000	Electromechanical domestic appliances, with self-contained electric motor (excl. vacuum cleaners, dry and wet vacuum cleaners, food grinders and mixers, fruit or vegetable juice extractors, and hair-removing appliances)	0201
85164000	Electric smoothing irons	0201
91011100	Wrist-watches of precious metal or metal clad with precious metal, whether or not incorporating a stop-watch facility, electrically operated, with a mechanical display only (excl. with backs made of steel)	0201
91011900	Wrist-watches of precious metal or metal clad with precious metal, whether or not incorporating a stop-watch facility, electrically operated, with optoelectronic display and with combined mechanical and optoelectronic display (excl. with backs made of steel)	0201
91019100	Pocket-watches and the like, incl. stop-watches, of precious metal or metal clad with precious metal, electrically operated (excl. with backs made of steel and wrist-watches)	0201
91021100	Wrist-watches, whether or not incorporating a stop-watch facility, electrically operated, with a mechanical display only (excl. of precious metal or metal clad with precious metal)	0201
91021200	Wrist-watches, whether or not incorporating a stop-watch facility, electrically operated, with an optoelectronic display only (excl. of precious metal or metal clad with precious metal)	0201
91021900	Wrist-watches, whether or not incorporating a stop-watch facility, electrically operated, with combined mechanical and optoelectronic display (excl. of precious metal or metal clad with precious metal)	0201
91022100	Wrist-watches, whether or not incorporating a stop-watch facility, with automatic winding (excl. of precious metal or metal clad with precious metal)	0201
91029100	Pocket-watches and the like, incl. stop-watches, electrically operated (excl. of precious metal or metal clad with precious metal)	0201
91029900	Pocket-watches and the like, incl. stop-watches, with hand or automatic winding (excl. of precious metal or metal clad with precious metal)	0201
91031000	Clocks with watch movements, electrically operated (excl. wrist-watches, pocket-watches and other watches of heading 9101 or 9102, and instrument panel clocks and the like of heading 9104)	0201
91039000	Clocks with watch movements (excl. electrically operated, wrist-watches, pocket-watches and other watches of heading 9101 or 9102, and instrument panel clocks and the like of heading 9104)	0201
91051100	Alarm clocks, electrically operated	0201
91051900	Alarm clocks (excl. electrically operated)	0201
91052100	Wall clocks, electrically operated	0201
91052900	Wall clocks (excl. electrically operated)	0201
91059100	Clocks, electrically operated (excl. wrist-watches, pocket-watches and other watches of heading 9101 or 9102, clocks with watch movements of heading 9103, instrument panel clocks and the like of heading 9104, alarm clocks and wall clocks)	0201
91059900	Clocks (excl. electrically operated, wrist-watches, pocket-watches and other watches of heading 9101 or 9102, clocks with watch movements of	0201

	heading 9103, instrument panel clocks and the like of heading 9104, alarm clocks and wall clocks)	
91070000	Time switches with clock or watch movement or with synchronous motor	0201
91081100	Watch movements, complete and assembled, electrically operated, with a mechanical display only or with a device to which a mechanical display can be incorporated	0201
91081200	Watch movements, complete and assembled, electrically operated, with an optoelectronic display only	0201
91081900	Watch movements, complete and assembled, electrically operated, with the combined optoelectronic and mechanical display, whether or not with dial and hands	0201
91089000	Watch movements, complete and assembled, with hand winding only	0201
91091000	Clock movements, complete and assembled, electrically operated (excl. watch movements)	0201
91099000	Clock movements, complete and assembled (excl. electrically operated and watch movements)	0201
85094000	Domestic food grinders and mixers and fruit or vegetable juice extractors, with a self-contained electric motor	0202
85166050	Electric cooking plates, boiling rings and hobs, for domestic use	0202
85166070	Electric grillers and roasters, for domestic use	0202
85166090	Electric ovens, for domestic use (excl. space-heating stoves, electric cookers incorporating at least an oven and a hob, microwave ovens and electric ovens for building in)	0202
85167200	Electric toasters, for domestic use	0202
85167920	Electric deep fat fryers, for domestic use	0202
85167970	Electro-thermic appliances, for domestic use, (excl. hairdressing appliances and hand dryers, space-heating and soil-heating apparatus, water heaters, immersion heaters, smoothing irons, microwave ovens, ovens, cookers, cooking plates, boiling rings, grillers, roasters, coffee makers, tea makers, toasters and deep fat fryers)	0202
85161011	Electric instantaneous water heaters	0203
85161080	Electric water heaters and immersion heaters (excl. instantaneous water heaters)	0203
85167100	Electro-thermic coffee or tea makers, for domestic use	0203
85081100	Vacuum cleaners, incl. dry cleaners and wet vacuum cleaners, with a self-contained electric motor, power $\leq 1\,500\text{ W}$ and having a dust bag or other receptacle capacity $\leq 20\text{ l}$	0204
85081900	Vacuum cleaners, incl. dry cleaners and wet vacuum cleaners, with self-contained electric motor (excl. of a power $\leq 1\,500\text{ W}$ and having a dust bag or other receptacle capacity $\leq 20\text{ l}$)	0204
85086000	Vacuum cleaners, incl. dry cleaners and wet vacuum cleaners (excl. with self-contained electric motor)	0204
85101000	Shaver's, electric	0205
85102000	Hair clippers with a self-contained electric motor	0205
85103000	Hair-removing appliances with a self-contained electric motor	0205
85163100	Electric hairdryers	0205
85163200	Electro-thermic hairdressing apparatus (excl. hairdryers)	0205
85163300	Electric hand-drying apparatus	0205
90191010	Electrical vibratory-massage apparatus	0205
84690010	Not available	0301

84690099	Not available	0301
84701000	Electronic calculators capable of operation without an external source of electric power and pocket-size "dimensions <= 170 mm x 100 mm x 45 mm" data recording, reproducing and displaying machines with calculating functions	0301
84702100	Electronic calculating machines incorporating a printing device, with mains connection (excl. data-processing machines of heading 8471)	0301
84702900	Electronic calculating machines not incorporating a printing device, with mains connection (excl. data-processing machines of heading 8471)	0301
84716060	Keyboards for automatic data-processing machines, whether or not containing storage units in the same housing	0301
84716070	Input or output units for automatic data-processing machines, whether or not containing storage units in the same housing (excl. keyboards)	0301
84717020	Central storage units for automatic data-processing machines	0301
84717030	Disk storage units for automatic data-processing machines, optical, incl. magneto-optical "e.g. CD-ROM drives" (excl. central storage units)	0301
84717050	Hard disk storage drives for automatic data-processing machines, neither optical nor magneto-optical (excl. central storage units)	0301
84717070	Disk storage units for automatic data-processing machines, neither optical nor magneto-optical (excl. hard disk storage drives and central storage units)	0301
84717080	Magnetic tape storage units for automatic data-processing machines (excl. central storage units)	0301
84717098	Storage units for automatic data-processing machines (excl. disk, magnetic tape and central storage units)	0301
84718000	Units for automatic data-processing machines (excl. processing units, input or output units and storage units)	0301
84719000	Magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, n.e.s.	0301
85437010	Electrical machines with translation or dictionary functions	0301
84714100	Data-processing machines, automatic, comprising in the same housing at least a central processing unit, and one input unit and one output unit, whether or not combined (excl. portable weighing <= 10 kg and excl. those presented in the form of systems and peripheral units)	0302
84714900	Data-processing machines, automatic, presented in the form of systems "comprising at least a central processing unit, one input unit and one output unit" (excl. portable weighing <= 10 kg and excl. peripheral units)	0302
84715000	Processing units for automatic data-processing machines, whether or not containing in the same housing one or two of the following types of unit: storage units, input units, output units (excl. those of heading 8471.41 or 8471.49 and excl. peripheral units)	0302
84713000	Data-processing machines, automatic, portable, weighing <= 10 kg, consisting of at least a central processing unit, a keyboard and a display (excl. peripheral units)	0303
84431500	Letterpress printing machinery (excl. flexographic printing and reel fed machinery)	0304
84431940	Printing machinery for use in the production of semiconductors	0304
84431970	Printing machinery used for printing using plates, cylinders and other printing components of heading 8442 (excl. machinery for printing textile materials, those for use in the production of semiconductors, inkjet	0304

	printing machines, hectograph or stencil duplicating machines, addressing machines and other office printing machines of heading 8469 to 8472 and offset flexographic, letterpress and gravure printing machinery)	
84433120	Not available	0304
84433180	Not available	0304
84433210	Printers capable of connecting to an automatic data processing machine or a network	0304
84433230	Not available	0304
84433291	Not available	0304
84433293	Not available	0304
84433299	Not available	0304
84433990	Not available	0304
84690091	Not available	0304
85171100	Line telephone sets with cordless handsets	0305
85171800	Telephone sets (excl. line telephone sets with cordless handsets and telephones for cellular networks or other wireless networks)	0305
85176100	Base stations of apparatus for the transmission or reception of voice, images or other data	0305
85176200	Machines for the reception, conversion and transmission or regeneration of voice, images or other data, incl. switching and routing apparatus (excl. telephone sets, telephones for cellular networks or other wireless networks)	0305
85176910	Videophones	0305
85176920	Entry-phone systems	0305
85176931	Not available	0305
85176939	Not available	0305
85176990	Apparatus for the transmission or reception of voice, images or other data, incl. apparatus for communication in a wired or wireless network [such as a local or wide area network] (excl. telephone sets, telephones for cellular networks or for other wireless networks, base stations, apparatus for the reception, conversion and transmission or regeneration of voice, images or other data, videophones, entry-phone systems, reception apparatus for radiotelephony or radiotelegraphy and transmission or reception apparatus of heading 8443, 8525, 8527 or 8528)	0305
85195000	Telephone answering machines	0305
90304000	Instruments and apparatus for measuring or checking electrical quantities, specifically for telecommunications, e.g. cross-talk meters, gain measuring instruments, distortion factor meters, photometers	0305
85171200	Telephones for cellular networks "mobile telephones" or other wireless networks	0306
84431200	Offset printing machinery, sheetfed [office type], using sheets of a side <= 22 x 36 cm in the unfolded state	0307
84433910	Not available	0307
84433931	Not available	0307
84433939	Not available	0307
84705000	Cash registers incorporating a calculating device	0307

84709000	Accounting machines, postage-franking machines, ticket-issuing machines and similar machines, incorporating a calculating device (excl. calculating machines, cash registers and automatic vending machines)	0307
84721000	Duplicating machines "hctograph or stencil" (excl. printing machines and photocopying or thermo-copying machines)	0307
84723000	Machines for sorting or folding mail or for inserting mail-in envelopes or bands, machines for opening, closing or sealing mail and machines for affixing or cancelling postage stamps	0307
85284100	Not available	0308
85284910	Not available	0308
85284980	Not available	0308
85285920	Not available	0308
85285100	Not available	0309
85285931	Not available	0309
85312020	Indicator panels with light-emitting diodes "LED" (excl. those of a kind used for motor vehicles, cycles or traffic signalling)	0309
85312040	Indicator panels with matrix liquid crystal devices "LCD", active (excl. those of a kind used for motor vehicles, cycles or traffic signalling)	0309
85312095	Indicator panels with liquid crystal devices "LCD" (excl. active-matrix liquid crystal devices and those of a kind used for motor vehicles, cycles or traffic signalling)	0309
85181030	Not available	0401
85181095	Not available	0401
85183020	Not available	0401
85183095	Not available	0401
85437090	Electrical machines and apparatus, having individual functions, n.e.s. in chap. 85	0401
85198195	Not available	0402
85271210	Not available	0402
85271290	Not available	0402
85271310	Not available	0402
85271391	Not available	0402
85271399	Not available	0402
85271900	Radio-broadcast receivers capable of operating without an external source of power, not combined with sound-reproducing apparatus	0402
85279111	Not available	0402
85279119	Not available	0402
85279135	Not available	0402
85279191	Not available	0402
85279199	Not available	0402
85279210	Not available	0402
85279290	Not available	0402
85279900	Radio-broadcast receivers, for mains operation only, not combined with sound recording or reproducing apparatus and not combined with a clock (excl. those of a kind used in motor vehicles)	0402
84729010	Coin-sorting, coin-counting or coin-wrapping machines	0403
84729070	Not available	0403
85184080	Not available	0403
85185000	Electric sound amplifier sets	0403
85193000	Turntables "record-decks"	0403

85198111	Not available	0403
85198115	Not available	0403
85198121	Not available	0403
85198125	Not available	0403
85198131	Not available	0403
85198135	Not available	0403
85198145	Not available	0403
85198151	Not available	0403
85198155	Not available	0403
85198161	Not available	0403
85198165	Not available	0403
85198175	Not available	0403
85198181	Not available	0403
85198185	Not available	0403
85198911	Not available	0403
85198915	Not available	0403
85198919	Not available	0403
85198990	Not available	0403
85272120	Radio-broadcast receivers capable of receiving and decoding digital Radio Data System signals, of a kind used in motor vehicles, only capable of being operated with an external source of power, combined with sound recording or reproducing apparatus incorporating a laser reading system	0403
85272152	Cassette-radio-broadcast receivers capable of receiving and decoding digital Radio Data System signals, of a kind used in motor vehicles, only capable of being operated with an external source of power, combined with sound recording or reproducing apparatus incorporating an analogue and digital reading system	0403
85272159	Radio-broadcast receivers capable of receiving and decoding digital Radio Data System signals, of a kind used in motor vehicles, only capable of being operated with an external source of power, combined with sound recording or reproducing apparatus (excl. those with sound-reproducing apparatus or a laser reading system and cassette decks with an analogue and digital reading system)	0403
85272170	Radio-broadcast receivers of a type used in motor vehicles, only capable of being operated with an external source of power, combined with sound recording or reproducing apparatus incorporating a laser reading system (excl. those capable of receiving and decoding digital Radio Data System signals)	0403
85272192	Cassette-radio-broadcast receivers of a kind used in motor vehicles, only capable of being operated with an external source of power, combined with sound recording or reproducing apparatus incorporating an analogue and digital reading system (excl. those capable of receiving and decoding digital Radio Data System signals)	0403
85272198	Radio-broadcast receivers of a kind used in motor vehicles, only capable of being operated with an external source of power, combined with sound recording or reproducing apparatus (excl. sound-reproducing apparatus incorporating a laser reading system, those capable of receiving and decoding digital Radio Data System signals and cassette decks with an analogue and digital reading system)	0403

85272900	Radio-broadcast receivers not capable of operating without an external source of power, of a kind used in motor vehicles, not combined with sound recording or reproducing apparatus	0403
92071010	Keyboard organs, the sound of which is produced, or must be amplified, electrically	0403
92071030	Digital pianos, with keyboard	0403
92071050	Synthesisers with keyboard	0403
92071080	Musical instruments, the sound of which is produced, or must be amplified, electrically, with a keyboard (excl. organs, digital pianos, synthesisers and accordions)	0403
92079010	Guitars, the sound of which is produced, or must be amplified, electrically	0403
92079090	Accordions and musical instruments without keyboards, the sound of which is produced, or must be amplified, electrically (excl. guitars)	0403
85211020	Video recording or reproducing apparatus, whether or not incorporating a video tuner, for a magnetic tape of a width of $\leq 1,3$ cm and allowing recording or reproduction at a tape speed of ≤ 50 mm/s (excl. video camera recorders)	0404
85211095	Magnetic tape-type video recording or reproducing apparatus, whether or not incorporating a video tuner (excl. video camera recorders and those using magnetic tape of a width of $\leq 1,3$ cm and allowing recording or reproduction at a tape speed of ≤ 50 mm/s)	0404
85219000	Video recording or reproducing apparatus, whether or not incorporating a video tuner (excl. magnetic tape-type and video camera recorders)	0404
85256000	Transmission apparatus for radio-broadcasting or television, incorporating reception apparatus	0404
85258011	Television cameras, with 3 or more camera tubes	0404
85258019	Television cameras (excl. those with 3 or more camera tubes and video recorders)	0404
85258091	Video camera recorders only able to record sound and images taken by the television camera	0404
85258099	Video camera recorders able to record television programmes and sound and images taken by the television camera	0404
85286100	Not available	0404
85286910	Not available	0404
85286991	Not available	0404
85286999	Not available	0404
85287190	Not available	0404
85287220	Reception apparatus for television, colour, incorporating a video recorder or reproducer	0404
90072000	Cinematographic projectors	0404
90085000	Image projectors, and photographic enlargers and reducers (excl. cinematographic and parts)	0404
90101000	Apparatus and equipment for automatically developing photographic or cinematographic film or paper in rolls or for automatically exposing the developed film to rolls of photographic paper	0404
90105000	Apparatus and equipment for photographic or cinematographic laboratories, n.e.s.; negatoscopes	0404
90106000	Projection screens	0404
85182100	Single loudspeakers, mounted in their enclosures	0405
85182200	Multiple loudspeakers, mounted in the same enclosure	0405

85258030	Digital cameras	0406
90066100	Electronic discharge lamp flashlight apparatus for photographic purposes	0406
90066900	Photographic flashlights and flashlight apparatus (excl. with electronic discharge lamps)	0406
90071000	Cinematographic cameras	0406
85287231	Not available	0407
85287233	Not available	0407
85287235	Not available	0407
85287239	Not available	0407
85287251	Not available	0407
85287259	Not available	0407
85287275	Not available	0407
85287300	Reception apparatus for television, black and white or another monochrome, whether or not incorporating radio-broadcast receivers or sound or video recording or reproducing apparatus, designed to incorporate a video display or screen	0407
85287240	Reception apparatus for television, colour, with LCD screen (excl. incorporating video recording or reproducing apparatus, and monitors, and television projection equipment)	0408
85287260	Reception apparatus for television, colour, with a plasma display (excl. incorporating video recording or reproducing apparatus, and monitors, and television projection equipment)	0408
85287280	Reception apparatus for television, colour (excl. with integral tube or LCD or plasma display, or incorporating video recording or reproducing apparatus, and monitors and television projection equipment)	0408
85287291	Not available	0408
85287299	Not available	0408
85121000	Electric lighting or visual signalling equipment of a kind used for bicycles (other than lamps of heading 8539)	0501
85131000	Portable electric lamps designed to function by their source of energy	0501
85393190	Discharge lamps, fluorescent, hot cathode (excl. with double-ended cap)	0502
85393110	Discharge lamps, fluorescent, hot cathode, with double-ended cap	0503
85394100	Arc lamps	0503
85394900	Ultraviolet or infra-red lamps	0503
85393220	Mercury or sodium vapour lamps	0504
85393290	Metal halide lamps	0504
85393900	Not available	0504
85414010	Light-emitting diodes, incl. laser diodes	0505
94051021	Electric ceiling or wall lighting fittings, of plastics, used with filament lamps	0506
94051040	Electric ceiling or wall lighting fittings, of plastics or of ceramics (excl. of plastics if used with filament lamps)	0506
94051050	Chandeliers and other electric ceiling or wall lighting fittings, of glass	0506
94051091	Electric ceiling or wall lighting fittings, used with filament lamps (excl. lights of plastics, ceramics or glass)	0506
94051098	Electric ceiling or wall lighting fittings, used with discharge lamps (excl. lights of plastics, ceramics or glass)	0506
94052011	Electric table, desk, bedside or floor-standing lamps, of plastics, used for filament lamps	0506

94052040	Electric table, desk, bedside or floor-standing lamps, of plastics or ceramic materials, used for discharge lamps	0506
94052050	Electric table, desk, bedside or floor-standing lamps, of glass	0506
94052091	Electric table, desk, bedside or floor-standing lamps, used with filament lamps (excl. of plastics, ceramics and glass)	0506
94052099	Electric table, desk, bedside or floor-standing lamps, used with discharge lamps (excl. of plastics, ceramics and glass)	0506
94053000	Electric lighting sets of a kind used for Christmas trees	0506
94054031	Electric lamps and lighting fittings, of plastics, used with filament lamps, n.e.s.	0506
94054035	Electric lamps and lighting fittings, of plastics, used with tubular fluorescent lamps, n.e.s.	0506
94054039	Electric lamps and lighting fittings, of plastics, n.e.s.	0506
94054091	Electric lamps and lighting fittings, used with filament lamps, n.e.s. (excl. of plastics)	0506
94054095	Electric lamps and lighting fittings, used with tubular fluorescent lamps, n.e.s. (excl. of plastics)	0506
94054099	Electric lamps and lighting fittings, n.e.s. (excl. of plastics)	0506
94054010	Electric searchlights and spotlights (excl. for aircraft, motor vehicles or bicycles, and searchlight lamps)	0507
84672110	Drills of all kinds for working in the hand, with a self-contained electric motor capable of operation without an external source of power	0601
84672191	Electropneumatic drills of all kinds for working in the hand	0601
84672199	Drills of all kinds for working in the hand, with a self-contained electric motor operating with an external source of power (excl. electro-pneumatic drills)	0601
84672210	Chainsaws for working in the hand, with a self-contained electric motor	0601
84672230	Circular saws for working in the hand, with a self-contained electric motor	0601
84672290	Saws for working in the hand, with self-contained electric motor (excl. chainsaws and circular saws)	0601
84672920	Electromechanical tools for working in the hand, with a self-contained electric motor capable of operation without an external source of power (excl. saws and drills)	0601
84672951	Angle grinders for working in the hand, with a self-contained electric motor, operating with an external source of power	0601
84672953	Belt sanders for working in the hand, with a self-contained electric motor, operating with an external source of power	0601
84672959	Grinders and sanders, for working in the hand, with a self-contained electric motor, operating with an external source of power (excl. angle grinders and belt sanders)	0601
84672970	Planers for working in the hand, with a self-contained electric motor, operating with an external source of power	0601
84672980	Hedge trimmers and lawn edge cutters, for working in the hand, with a self-contained electric motor operating with an external source of power	0601
84672985	Electromechanical tools for working in the hand, with a self-contained electric motor operating with an external source of power (excl. saws, drills, grinders, sanders, planers, hedge trimmers and lawn edge cutters)	0601
85151100	Soldering irons and guns, electric	0601
85151900	Not available	0601
85152100	Fully or partly automatic machines for resistance welding of metals	0601

85152900	Machines for resistance welding of metals, neither fully nor partly automatic	0601
85153100	Fully or partly automatic machines for arc welding of metals, incl. plasma arc welding	0601
84331110	Electric motor mowers for lawns, parks or sports grounds, with the cutting device rotating in a horizontal plane	0602
84331910	Electric motor mowers for lawns, parks or sports grounds, with the cutting device rotating in a vertical plane or with cutter bars	0602
85184030	Not available	0602
95030030	Electric trains, incl. tracks, signals and other accessories therefor; reduced-size "scale" model assembly kits	0701
95030055	Toy musical instruments and apparatus	0701
95030079	Toys and models, incorporating a motor (excl. plastic, electric trains, scale model assembly kits, and toys representing animals, human or non-human creatures)	0701
95030081	Toy weapons	0701
95049010	Electric car racing sets, having the character of competitive games	0701
95045000	Video game consoles and machines (excl. operated by any means of payment)	0702
85192010	Coin-operated or disc-operated record-players	0703
85192091	Sound recording or sound reproducing apparatus, operated by coins, banknotes, bank cards, tokens or by other means of payment, with laser reading system (excl. coin-operated or disc-operated record-players)	0703
85192099	Sound recording or sound reproducing apparatus, operated by coins, banknotes, bank cards, tokens or by other means of payment, without laser reading system (excl. coin-operated or disc-operated record-players)	0703
87119010	Not available	0703
87119090	Not available	0703
90214000	Hearing aids (excl. parts and accessories)	0801
90181100	Electro-cardiographs	0802
90181200	Ultrasonic scanning apparatus	0802
90181300	Magnetic resonance imaging apparatus	0802
90181400	Scintigraphic apparatus	0802
90181910	Electro-diagnostic monitoring apparatus for simultaneous monitoring of two or more physiological parameters	0802
90181990	Electro-diagnostic apparatus, incl. apparatus for functional exploratory examination or for checking physiological parameters (excl. electro-cardiographs, ultrasonic scanning apparatus, magnetic resonance imaging apparatus, scintigraphic apparatus and monitoring apparatus for simultaneous monitoring of two or more physiological parameters)	0802
90184100	Dental drill engines, whether or not combined on a single base with other dental equipment	0802
85311030	Burglar or fire alarms and similar apparatus, for use in buildings	0901
85311095	Burglar or fire alarms and similar apparatus (excl. those for use in motor vehicles or buildings)	0901
85318020	Not available	0901
85318095	Not available	0901
85437060	Electric fence energisers	0901
90251920	Not available	0901

90258040	Hydrometers, areometers and similar floating instruments, hygrometers and psychrometers, whether or not combined or with thermometers or barometers, electronic	0901
90258080	Hydrometers, areometers and similar floating instruments, hygrometers and psychrometers, whether or not combined or with thermometers or barometers, non-electronic	0901
90261021	Electronic flow meters for measuring or checking the flow or level of liquids (excl. meters and regulators)	0901
90261029	Electronic instruments and apparatus for measuring or checking the flow or level of liquids (excl. flow meters, meters and regulators)	0901
90262020	Electronic instruments and apparatus for measuring or checking the pressure of liquids or gases (excl. regulators)	0901
90268020	Electronic instruments or apparatus for measuring or checking variables of liquids or gases, n.e.s.	0901
90271010	Electronic gas or smoke analysis apparatus	0901
90278011	Not available	0901
90278013	Not available	0901
90278017	Not available	0901
90303310	Not available	0901
90308930	Not available	0901
90318034	Not available	0901
90318038	Not available	0901
90321020	Electronic thermostats	0901
90151010	Not available	0902
90152010	Not available	0902
90154010	Not available	0902
90158011	Not available	0902
90158019	Not available	0902
90241011	Not available	0902
90241013	Not available	0902
90241019	Not available	0902
90248011	Not available	0902
90248019	Not available	0902
90283011	Electricity supply or production meters for alternating current, single-phase, incl. calibrating meters therefor	0902
90283019	Electricity supply or production meters for alternating current, multi-phase, incl. calibrating meters therefor	0902
90283090	Electricity supply or production meters for continuous current, incl. calibrating meters therefor	0902
90302091	Not available	0902
90318032	Not available	0902
84762900	Automatic beverage-vending machines, without heating or refrigerating devices	1001
84768900	Not available	1001
84762100	Automatic beverage-vending machines incorporating heating or refrigerating devices	1002
84768100	Automatic goods-vending machines incorporating heating or refrigerating devices (excl. automatic beverage-vending machines)	1002
84151090	Air conditioning machines designed to be fixed to a window, wall, ceiling or floor, "split-system"	0111

84231010	Household scales (excl. personal weighing machines and baby scales)	0201
84231090	Personal weighing machines, incl. baby scales	0201
84243001	Water cleaning appliances with built-in motor, with heating device	0601
84243008	Water cleaning appliances with built-in motor, without heating device	0601
84521011	Sewing machines "lock-stitch only" of the household type, with heads weighing ≤ 16 kg without motor or ≤ 17 kg with motor, having a value "not incl. frames, tables or furniture" of $> \text{€ } 65$ each	0201
84521019	Sewing machines "lock-stitch only" of the household type, with heads weighing ≤ 16 kg without motor or ≤ 17 kg with motor, having a value "not incl. frames, tables or furniture" of $\leq \text{€ } 65$; heads for these machines, weighing ≤ 16 kg without motor or ≤ 17 kg with motor	0201
84521090	Sewing machines and heads, of the household type (excl. lock-stitch sewing machines with heads weighing ≤ 16 kg without motor or ≤ 17 kg with motor and heads weighing ≤ 16 kg without motor or ≤ 17 kg with motor)	0201
84693000	Other typewriters other than printers of heading 8471; Word-processing machines	0304
85086000	Vacuum cleaners, incl. dry cleaners and wet vacuum cleaners (excl. with self-contained electric motor)	0204
85235110	Solid-state, non-volatile data storage devices for recording data from an external source [flash memory cards or flash electronic storage cards], unrecorded	0301
85235190	Solid-state, non-volatile data storage devices [flash memory cards or flash electronic storage cards], recorded	0301
85269120	Radio navigational receivers (excl. radar apparatus)	0402
85269200	Radio remote control apparatus	0401
85287115	Video tuners with a microprocessor-based device incorporating a modem for gaining access to the Internet, and having a function of interactive information exchange, capable of receiving television signals (set-top boxes with a communication function)	0404
85287119	Video tuners (excl. electronic assemblies for incorporation into automatic data-processing machines and apparatus with a microprocessor-based device incorporating a modem for gaining access to the Internet and having a function of interactive information exchange capable of receiving television signals "set-top boxes with communication function")	0404
85437030	Aerial amplifiers	0404
90148000	Navigational instruments and apparatus (excl. for aeronautical or space navigation, compasses and radio navigational equipment)	0402
90303100	Multimeters for voltage, current, resistance or electrical power, without recording device	0601
84145920	Blowers portable	0601
84306100	Tamping or compacting machinery, not self-propelled (excl. hand-operated tools)	0602
84581900	Horizontal lathes, incl. turning centres, for removing metal, not numerically controlled	0602
84592900	Drilling machines for working metal, not numerically controlled (excl. way-type unit head machines and hand-operated machines)	0601
84609000	Machines for deburring, polishing or otherwise finishing metal or cermets (excl. grinding, sharpening, honing and lapping machines and machines for working in the hand)	0602

84659120	Circular saws for working wood, cork, bone, hard rubber, hard plastics or similar hard materials (excl. machines for working in the hand)	0601
84659190	Sawing machines for working wood, cork, bone, hard rubber, hard plastics or similar hard materials (excl. bandsaws, circular saws and machines for working in the hand)	0601
84659600	Splitting, slicing or paring machines, for working wood (excl. machining centres)	0602
84743100	Concrete or mortar mixers (excl. those mounted on railway wagons or lorry chassis)	0602
84135080	Reciprocating positive displacement pumps, power-driven (excl. pumps of subheading 841311 and 841319, fuel, lubricating or cooling medium pumps for internal combustion piston engine, concrete pumps, hydraulic units, dosing pumps and general piston pumps)	0601
84137021	Submersible pumps, single-stage	0601
84137030	Glandless impeller pumps for heating systems and warm water supply	0601
84137051	Radial flow centrifugal pumps with a discharge outlet diameter > 15 mm, single-stage, with single entry impeller, monobloc (excl. pumps of subheading 841311 and 841319, fuel, lubricating or cooling medium pumps for internal combustion piston engine, concrete pumps, submersible pumps and impeller pumps for heating systems and warm water supply)	0601
84137081	Single-stage centrifugal pumps, power-driven, with a discharge outlet diameter > 15 mm (excl. pumps of subheading 841311 and 841319; fuel, lubricating or cooling medium pumps for internal combustion piston engine; concrete pumps; submersible pumps; impeller pumps for heating systems and warm water supply; channel impeller, side channel and general radial flow pumps)	0602
84138100	Pumps for liquids, power-driven (excl. those of subheading 841311 and 841319, fuel, lubricating or cooling medium pumps for internal combustion piston engine, concrete pumps, general reciprocating or rotary positive displacement pumps and centrifugal pumps of all kinds)	0601
87116010	E-bikes and electric scooter	0703