

**COMMISSION DELEGATED DECISION (EU) 2019/1597****of 3 May 2019****supplementing Directive 2008/98/EC of the European Parliament and of the Council as regards a common methodology and minimum quality requirements for the uniform measurement of levels of food waste****(Text with EEA relevance)**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives <sup>(1)</sup>, and in particular Article 9(8) thereof,

Whereas:

- (1) Directive 2008/98/EC lays down an obligation for Member States to include food waste prevention into their waste prevention programmes and to monitor and assess the implementation of their food waste prevention measures by measuring the levels of food waste on the basis of a common methodology. The Commission is to establish that common methodology and set out minimum quality requirements for the uniform measurement of levels of food waste on the basis of the outcome of the work of the EU Platform on Food Losses and Food Waste.
- (2) The definition of 'food' laid down in Regulation (EC) No 178/2002 of the European Parliament and of the Council <sup>(2)</sup> encompasses food as a whole, along the entire food supply chain from production until consumption. Food also includes inedible parts, where those were not separated from the edible parts when the food was produced, such as bones attached to meat destined for human consumption. Hence, food waste can comprise items which include parts of food intended to be ingested and parts of food not intended to be ingested.
- (3) Food waste does not include losses at stages of the food supply chain where certain products have not yet become food as defined in Article 2 of Regulation (EC) No 178/2002, such as edible plants which have not been harvested. In addition, it does not include by-products from the production of food that fulfil the criteria set out in Article 5(1) of Directive 2008/98/EC, since such by-products are not waste.
- (4) Food waste is to be prevented and reduced along the whole food supply chain. As the types of food waste and the factors contributing to the generation of food waste differ significantly between the different stages of the food supply chain, food waste should be measured separately for each stage.
- (5) The attribution of food waste to the different stages of the food supply chain should be carried out in accordance with the common statistical classification of economic activities in the Union established by Regulation (EC) No 1893/2006 of the European Parliament and of the Council <sup>(3)</sup> as 'NACE Revision 2'. In the absence of a pertinent NACE Rev. 2 classification, the attribution to 'households' should be carried out by reference to point 1.2 of Section 8 of Annex I to Regulation (EC) No 2150/2002 of the European Parliament and of the Council <sup>(4)</sup>.
- (6) While Commission Decision 2000/532/EC <sup>(5)</sup> establishing a European List of Waste does not always allow for a precise identification of food waste, it can provide guidance for national authorities in the context of measurement of food waste.
- (7) Agricultural material referred to in Article 2(1)(f) of Directive 2008/98/EC and animal by-products referred to in Article 2(2)(b) of Directive 2008/98/EC are excluded from the scope of that Directive and should therefore not be measured as food waste.

<sup>(1)</sup> OJ L 312, 22.11.2008, p. 3.

<sup>(2)</sup> Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety (OJ L 31, 1.2.2002, p. 1).

<sup>(3)</sup> Regulation (EC) No 1893/2006 of the European Parliament and of the Council of 20 December 2006 establishing the statistical classification of economic activities NACE Revision 2 and amending Council Regulation (EEC) No 3037/90 as well as certain EC Regulations on specific statistical domains (OJ L 393, 30.12.2006, p. 1).

<sup>(4)</sup> Regulation (EC) No 2150/2002 of the European Parliament and of the Council of 25 November 2002 on waste statistics (OJ L 332, 9.12.2002, p. 1).

<sup>(5)</sup> Commission Decision 2000/532/EC of 3 May 2000 replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste (OJ L 226, 6.9.2000, p. 3).

- (8) In order for the methodology to be practically applicable and in order for the burden resulting from monitoring to be proportional and reasonable, some waste streams, which are not expected to include food waste or include food waste in negligible amounts, should not be measured as food waste.
- (9) To improve the precision of the measurement of food waste, non-food materials mixed together with food waste (e.g. soil or packaging) should be excluded from the mass of the food waste to the extent possible.
- (10) There are several types of food, which are usually discarded as or with wastewater, such as bottled drinking and mineral water, beverages and other liquids. There are currently no methods for measuring such waste which would ensure sufficient levels of confidence and comparability of reported data. Therefore, such types of food should not be measured as food waste. However, MS should have the possibility to report information on these types of food on a voluntary basis.
- (11) While substances that are destined for use as feed materials referred to in Article 2(2)(e) of Directive 2008/98/EC are excluded from the scope of that Directive and should therefore not be measured as food waste, information on food originally intended for human consumption and then directed to animal feed (including former foodstuffs as defined in point 3 of Part A of the Annex to Commission Regulation (EU) No 68/2013<sup>(6)</sup>) is important for the understanding of material flows related to food and may be useful in planning a targeted food waste prevention policy. For this reason Member States should have the possibility to report this information in a uniform manner on a voluntary basis.
- (12) To enable a precise indication of the amounts of food waste generated at each stage of the food supply chain, Member States should carry out an in-depth measurement of the amounts of food waste. Such in-depth measurement should be conducted on a regular basis for each stage of the food supply chain and at least once every four years.
- (13) Pursuant to Article 37(3) of Directive 2008/98/EC, Member States are to report amounts of food waste on a yearly basis. In order to ensure proportionality and to reduce administrative burden, Member States should be provided with a range of methods for the measurement of food waste for the purposes of those yearly reports, including the existing analyses of food waste generation, new dedicated studies on food waste as well as data collected for waste statistics or reporting obligations on waste and other socioeconomic data, or a combination of those options. As far as possible, established sources of data such as the European statistical system, should be used.
- (14) In order to ensure uniform monitoring of material flows in the food supply chain in the context of a targeted food waste prevention policy, it should be ensured that Member States which decide to measure food waste in more detail or to extend the coverage of the measurement into related material flows, can do so in a uniform way.
- (15) In order to allow for verification of reported data and improvement of measurement methods and in order to ensure the comparability of those methods, Member States should provide additional information linked to the methods of measurement and the quality of the collected data,

HAS ADOPTED THIS DECISION:

#### *Article 1*

#### **Scope of measurement of food waste**

1. The amounts of food waste shall be measured separately for the following stages of the food supply chain:
  - (a) primary production;
  - (b) processing and manufacturing;
  - (c) retail and other distribution of food;
  - (d) restaurants and food services;
  - (e) households.

<sup>(6)</sup> Commission Regulation (EU) No 68/2013 of 16 January 2013 on the Catalogue of feed materials (OJ L 29, 30.1.2013, p. 1).

2. Food waste shall be attributed to each of the stages of the food supply chain referred to in paragraph 1 in accordance with Annex I.
3. The measurement shall cover food waste that is classified under the waste codes referred to in Annex II or under any other waste code for waste that includes food waste.
4. The measurement of food waste shall not cover the following items:
  - (a) agricultural material referred to in Article 2(1)(f) of Directive 2008/98/EC;
  - (b) animal by-products referred to in Article 2(2)(b) of Directive 2008/98/EC;
  - (c) food waste residues collected within packaging waste classified under waste code '15 01 — Packaging (including separately collected municipal packaging waste)' in the European list of waste as established in Decision 2000/532/EC;
  - (d) food waste residues collected within waste classified under waste code: '20 03 03 — Street cleaning residues' in the European list of waste as established in Decision 2000/532/EC;
  - (e) non-food materials that are mixed together with food waste when collected, to the extent possible.
5. The measurement of food waste shall not cover the following items, without prejudice to the voluntary measurement referred to in Article 3:
  - (a) food waste drained as or with wastewater;
  - (b) substances that are destined for use as feed materials referred to in Article 2(2)(e) of Directive 2008/98/EC.

#### *Article 2*

### **Methodology for the measurement of food waste**

1. Member States shall measure each year the amount of food waste generated in a full calendar year.
2. Member States shall measure the amount of food waste for a given stage of the food supply chain using the methodology set out in Annex III at least once every four years.
3. When the methodology set out in Annex III is not used, Member States shall measure the amount of food waste for a given stage of the food supply chain using the methodology set out in Annex IV.
4. For the first reporting period, as referred to in the third subparagraph of Article 37(3) of Directive 2008/98/EC, Member States shall measure the amount of food waste for all stages of the food supply chain using the methodology set out in Annex III. For that period, Member States may use data already collected under existing arrangements for the year 2017 or later.
5. The amounts of food waste shall be measured in metric tons of fresh mass.

#### *Article 3*

### **Voluntary measurement**

Member States may measure and provide the Commission with further data related to food waste levels as well as data related to food waste prevention. Such data may include the following:

- (a) amounts of food waste regarded as composed of parts of food intended to be ingested by humans;
- (b) amounts of food waste drained as or with wastewaters;
- (c) amounts of food which has been redistributed for human consumption as referred to in Article 9(1)(h) of Directive 2008/98/EC;
- (d) amounts of food no longer intended for human consumption placed on the market for transformation into feed by a feed business operator as defined in Article 3(6) of Regulation (EC) No 178/2002;
- (e) former foodstuffs as defined in point 3 of Part A of the Annex to Regulation (EU) No 68/2013.

*Article 4***Minimum quality requirements**

1. Member States shall take appropriate measures to ensure the reliability and accuracy of the measurements of food waste. In particular, Member States shall ensure that:
  - (a) the measurements conducted in accordance with the methodology set out in Annex III are based on a representative sample of the population to which its results are applied, and adequately reflect the variations in the data on food waste amounts to be measured;
  - (b) the measurements conducted in accordance with the methodology set out in Annex IV are based on the best information available.
2. Member States shall provide the Commission with information on the methods used for measurement of food waste for each of the stages of the food supply chain and on any significant modifications to the methods used in comparison with the methods used for a previous measurement.

*Article 5***Entry into force**

This Decision shall enter into force on the twentieth day following its publication in the *Official Journal of the European Union*.

Done at Brussels, 3 May 2019.

*For the Commission*  
*The President*  
Jean-Claude JUNCKER

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## Attribution of food waste to the different stages of the food supply chain

Stages of the food supply chain	Relevant item in Waste Statistics <sup>(1)</sup> which include given stage of food supply chain	Activity which generates waste	
		Relevant NACE Rev. 2 code	Description
Primary production	Part of Item 1	Section A	
			Division 01
			Division 03
Processing and manufacturing	Part of Item 3	Section C	
			Division 10
			Division 11
Retail and other distribution of food	Part of Item 17	Section G	
			Division 46
			Division 47
Restaurants and food services	Part of Item 17	Section I	
			Division 55
			Division 56
		Sections N, O, P, Q, R, S	
			Divisions covering activities in which food services are provided (such as staff catering, healthcare, education, travel catering).
Households	Item 19	'Households' as referred to in Annex I Section 8 point 1.2 to Regulation (EC) No 2150/2002 on waste statistics	

<sup>(1)</sup> Point 1 of Section 8 of Annex I to Regulation (EC) No 2150/2002.

## ANNEX II

**Waste codes included in the European list of waste for types of waste which typically include food waste**

## Primary production

02 01 02	Animal tissue waste
02 01 03	Plant tissue waste

## Processing and manufacturing

02 02	wastes from the preparation and processing of meat, fish and other foods of animal origin
02 03	wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation
02 04	wastes from sugar processing
02 05	wastes from the dairy products industry
02 06	wastes from the baking and confectionery industry
02 07	wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)

## Retail and other distribution of food

20 01 08	biodegradable kitchen and canteen waste
20 01 25	edible oil and fat
20 03 01	mixed municipal waste
20 03 02	waste from markets
16 03 06	organic wastes other than those mentioned in 16 03 05

## Restaurants and food services

20 01 08	biodegradable kitchen and canteen waste
20 01 25	edible oil and fat
20 03 01	mixed municipal waste

## Households

20 01 08	biodegradable kitchen and canteen waste
20 01 25	edible oil and fat
20 03 01	mixed municipal waste

**Methodology for the in-depth measurement of food waste**

The amount of food waste within a stage of the food supply chain shall be established by measuring food waste generated by a sample of food business operators or households in accordance with any of the following methods or a combination of those methods or any other method equivalent in terms of relevance, representativeness and reliability.

Stage of the food supply chain	Methods of measurement			
Primary production	— Direct measurement	— Mass balance		— Questionnaires and interviews
Processing and manufacturing				— Coefficients and production statistics.
Retail and other distribution of food			— Waste composition analysis	— Counting/scanning
Restaurants and food services				
Households				— Diaries

## Description of the methods

### Methods based on direct access to food waste/direct measurement

The following methods shall be used by an entity with direct (physical) access to food waste in order to measure the food waste or to carry out an approximation:

— **Direct measurement (weighing or volumetric assessment)**

Use of a measuring device to determine the mass of samples of food waste or fractions of total waste, directly or determined on the basis of volume. It includes measurement of separately collected food waste.

— **Scanning/Counting**

Assessment of the number of items that make up food waste, and use of the result to determine the mass.

— **Waste composition analysis**

Physical separation of food waste from other fractions in order to determine the mass of the fractions sorted out.

— **Diaries**

An individual or group of individuals keeps a record or log of food waste information on a regular basis.

### Other methods

The following methods shall be used when there is no direct (physical) access to food waste or when direct measurement is not feasible:

— **Mass balance**

Calculation of the amount of food waste on the basis of the mass of inputs and outputs of food into and out of the measured system, and processing and consumption of food within the system.

— **Coefficients**

Use of previously established food waste coefficients or percentages representative for a food industry sub-sector or for an individual business operator. Such coefficients or percentages shall be established through sampling, data provided by food business operators or by other methods.

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## ANNEX IV

**Methodology for the measurement of food waste where an in-depth measurement in accordance with the methodology set out in Annex III is not used**

When an in-depth measurement as referred to in Article 2 is not used, the amounts of food waste generated within a given stage of the food supply chain shall be measured by using any of the following methods or a combination of those methods:

- (a) Calculation of the amount of food waste on the basis of the latest available data on the share of food waste in a given stage of the food supply chain (established in accordance with Annex III) and total waste generation in that stage. The total waste generation in a given stage of the food supply chain shall be established on the basis of the data reported in accordance with the requirements of Regulation (EC) No 2150/2002 for each of the stages of the food supply chain referred to in Annex I. In cases where such data is not available for a given year, the data for the previous year shall be used.
- (b) Calculation of the amount of food waste on the basis of socioeconomic data relevant for the respective stages of the food supply chain. The calculation of food waste shall be based on the latest data on amounts of food waste generated within a stage of the food supply chain and the increase or decrease, in the period from the year of the latest measurement of that data to the current reporting period, of the level of one or more of the following socio-economic indicators:

Stage of the food supply chain	Indicator
Primary production	— Food production in agriculture, fishery and hunting
Processing and manufacturing	— Production of processed food — based on PRODCOM <sup>(1)</sup> data.
Retail and other distribution of food	— Turnover of food products — Population
Restaurants and food services	— Turnover — Employment (in Full Time Equivalents)
Households	— Population — Households disposable income <sup>(2)</sup>

<sup>(1)</sup> Commission Regulation (EC) No 912/2004 of 29 April 2004 implementing Council Regulation (EEC) No 3924/91 on the establishment of a Community survey of industrial production (OJ L 163, 30.4.2004, p. 71).

<sup>(2)</sup> As reported by Eurostat.

Member States may use other indicators, if they are better correlated with the generation of food waste within a given stage of the food supply chain.