

National factsheet on separate collection

Germany

Note: This ‘National factsheet’ has been prepared within the EC study “**Assessment of separate collection schemes in the 28 capitals of the EU**”. The document represents the status-quo of the EU Member State (MS) in September 2015. The information included in this document has been elaborated for all 28 EU-MS based on publically available documents, i.e. national legislation, Waste Management Plans, Waste Prevention Programmes, strategies, implementation reports, and statistics. All information is cited in the factsheet, a complete list of information sources can be found at the end of this document.

For quality assurance purposes the ‘National factsheet’ has been sent to the EU Technical Advisory Committee (TAC) Members on waste for verification and commenting, the comments received are included in this final version.

1 General requirements on separate collection based on national legislation

The German „Kreislaufwirtschaftsgesetz“ (*Circular Economy Act*, KrWG) that was adopted in 2012 transposes the requirements of the WFD into domestic law.

Most of the single requirements from the WFD have been transposed “**one:one**” into national legal requirements and are hence included in the KrWG. However, some requirements are “**not included**”, i.e. the KrWG does not ban the mixing of waste with other waste *with other properties* (article 10(2)) when collecting. Furthermore, the KrWG does not include the restriction of separate collection if this *is environmentally practicable* (article 11(1)) and therefore goes beyond the WFD, by not including this possibility for derogation. Further, the requirement that separate collection has to be appropriate to *meet the necessary quality standards* for the relevant recycling sectors is not included (article 11(1)). “**Additional**” the KrWG includes an obligatory requirement for the separate collection of bio-waste (Art. 22 WFD), including an exact deadline for implementation (1.1.2015).

Table 1: Overview of national law(s) that implement separate collection

Year and Abbreviation	Title of the law (translation)
[DE KrWG 2012]	Gesetz zur Förderung der Kreislaufwirtschaft und Sicherung der umweltverträglichen Bewirtschaftung von Abfällen – Kreislaufwirtschaftsgesetz (KrWG)(Act to Promote Circular Economy and Safeguard the Environmentally Compatible Management of Waste – Circular Economy Act)

Table 2: Overview on evaluation categories

Evaluation	Explanation
additional	The requirements of the WFD have been transposed and additional information or requirements are set out in the national legal requirement, i.e. additional definition, precision of requirement that goes beyond the text of the WFD
one:one	The requirement of the WFD has been transposed exactly/ literally or transposed analogously. No additional requirements or explanations are set out.
deviating	The requirements of the WFD have been implemented into national legal requirements but have been adjusted, left out or deviated
not included	The requirement of the WFD is not transposed into national law

Table 3: Assessment on national transpositions

Law & Article	Evaluation	English text	Original text
1. Article 3 (11) WFD: Definition separate collection: "‘separate collection’ means the collection where a waste stream is kept separately by type and nature so as to facilitate a specific treatment"			
[DE KrWG 2012] §3 Abs. 16	one:one	§3 Abs. 16 "separate collection in the sense of this act is a collection in which the waste stream is kept separately by type and nature of the waste so as to facilitate a specific treatment."	§3 Abs. 16 Getrennte Sammlung im Sinne dieses Gesetzes ist eine Sammlung, bei der ein Abfallstrom nach Art und Beschaffenheit des Abfalls getrennt gehalten wird, um eine bestimmte Behandlung zu erleichtern oder zu ermöglichen.
2. Article 10 (2) WFD: "waste shall not be mixed with other waste/material with other properties"			
[DE KrWG 2012] §9(1)	one:one	§9 (1) (1)Waste shall be kept and processed separately where this is necessary to meet the requirements in accordance with section 7 subsections (2) to (4) and section 8 subsection (1).	§9 Abs. 1 Soweit dies zur Erfüllung der Anforderungen nach § 7 Absatz 2 bis 4 und § 8 Absatz 1 erforderlich ist, sind Abfälle getrennt zu halten und zu behandeln.
3. Article 11 (1) WFD: "measures to promote high quality recycling"			
[DE KrWG 2012] § 14(1)	one:one	§ 14 Promotion of recycling and other material recovery (1) For the purpose of proper, safe and high quality recycling paper, metal, plastics and glass wastes are to be collected separately from 1 January 2015 at the latest, as far as technically and economically practicable.	§ 14 Zum Zweck des ordnungsgemäßen, schadlosen und hochwertigen Recyclings sind Papier-, Metall-, Kunststoff- und Glasabfälle spätestens ab dem 1. Januar 2015 getrennt zu sammeln, soweit dies technisch möglich und wirtschaftlich zumutbar ist.
4. Requirement WFD: 11 (1) "separate collection if technically practicable"			
[DE KrWG 2012] § 14(1)	one:one	§ 14 Promotion of recycling and other material recovery (1) For the purpose of proper, safe and high quality recycling paper, metal, plastics and glass wastes are to be collected separately from 1 January 2015 at the latest, as far as technically and economically practicable.	§ 14 Zum Zweck des ordnungsgemäßen, schadlosen und hochwertigen Recyclings sind Papier-, Metall-, Kunststoff- und Glasabfälle spätestens ab dem 1. Januar 2015 getrennt zu sammeln, soweit dies technisch möglich und wirtschaftlich zumutbar ist.

5. Requirement WFD: 11 (1) separate collection if economically practicable			
[DE KrWG 2012] § 14(1)	one:one	<p>§ 14 Promotion of recycling and other material recovery</p> <p>(1) For the purpose of proper, safe and high quality recycling paper, metal, plastics and glass wastes are to be collected separately from 1 January 2015 at the latest, as far as technically and economically practicable.</p>	<p>§ 14 Zum Zweck des ordnungsgemäßen, schadlosen und hochwertigen Recyclings sind Papier-, Metall-, Kunststoff- und Glasabfälle spätestens ab dem 1. Januar 2015 getrennt zu sammeln, soweit dies technisch möglich und wirtschaftlich zumutbar ist.</p>
6. Requirement WFD: 11 (1) “separate collection if environmentally practicable”			
[DE KrWG 2012] §9(1)	deviating	<p>§9 (1) (1)Waste shall be kept and processed separately where this is necessary to meet the requirements in accordance with section 7 subsections (2) to (4) and section 8 subsection (1).</p>	<p>§9 Abs. 1 Soweit dies zur Erfüllung der Anforderungen nach § 7 Absatz 2 bis 4 und § 8 Absatz 1 erforderlich ist, sind Abfälle getrennt zu halten und zu behandeln.</p>
7. Article 11 (1) WFD: “separate collections (...) appropriate to meet the necessary quality standards for the relevant recycling sectors”			
	deviating	<p>§9 (1) (1)Waste shall be kept and processed separately where this is necessary to meet the requirements in accordance with section 7 subsections (2) to (4) and section 8 subsection (1).</p> <p>REMARK:</p> <p>Section 8 subsection 1 refers to high-quality recovery whereas Article 11(1) specifically refers to recycling.</p>	<p>§9 Abs. 1 Soweit dies zur Erfüllung der Anforderungen nach § 7 Absatz 2 bis 4 und § 8 Absatz 1 erforderlich ist, sind Abfälle getrennt zu halten und zu behandeln.</p>
8. Article 11 (1) WFD “by 2015 separate collection shall be set up for at least the following: paper, metal, plastic and glass”			
[DE KrWG 2012] § 14(1)	one:one	<p>§ 14 Promotion of recycling and other material recovery</p> <p>(1) For the purpose of proper, safe and high quality recycling paper, metal, plastics and glass wastes are to be collected separately from 1 January 2015 at the latest, as far as technically and economically practicable.</p>	<p>§ 14 Zum Zweck des ordnungsgemäßen, schadlosen und hochwertigen Recyclings sind Papier-, Metall-, Kunststoff- und Glasabfälle spätestens ab dem 1. Januar 2015 getrennt zu sammeln, soweit dies technisch möglich und wirtschaftlich zumutbar ist.</p>

9. Article 22 WFD: Bio-waste - Member states shall take measures, as appropriate (...) to encourage: “a) the separate collection of bio-waste with a view to the composting a digestion of bio-waste”			
[DE KrWG 2012] §11 (1)	deviating	11(1) as far as necessary for the fulfilment of the requirements pointed out in §7 (2 to 4) and §8 (1) bio-wastes that underlie a handover obligation according to § 17 (1) have to be collected separately from 1 January 2015 at the latest.	11(1) Soweit dies zur Erfüllung der Anforderungen nach § 7 Absatz 2 bis 4 und § 8 Absatz 1 erforderlich ist, sind Bioabfälle, die einer Überlassungspflicht nach § 17 Absatz 1 unterliegen, spätestens ab dem 1. Januar 2015 getrennt zu sammeln.
[DE KrWG 2012] §11 (2)	deviating	11(2) The German federal government is authorised [...] to lay down in particular, 2. which requirements have to be applied to the separate collection of bio-waste	11(2) Die Bundesregierung wird ermächtigt, [...] insbesondere festzulegen, 2. welche Anforderungen an die getrennte Sammlung von Bioabfällen zu stellen sind,

2 General requirements on separate collection based on main strategies

Germany	611 kg MSW/capita 64.48% recycling
According to [DE TAC 2015] more recent data as the data which is taken from EUROSTAT (2012) is available: 65 % recycling.	
<p>Definition of Municipal Solid Waste (MSW):</p> <p>The “Circular Economy Act” [DE KrWG 2012] does not include a specific definition of Municipal Solid Waste. According to the German Federal Statistical Office [DE DESTATIS 2014a] municipal waste can be classified as follows:</p> <p>Municipal waste comprises all wastes of chapter 20 (of the European List of Waste*) (household waste and similar commercial and industrial waste and waste from public institutions, including separately collected fractions) and all wastes of subchapter 15 01 (packaging - including separately collected municipal packaging waste). A further distinction can be drawn between typical household municipal waste and other municipal waste.</p> <p>*In Germany, the Waste Catalogue Ordinance (Abfallverzeichnis-Verordnung - AVV) of 10 December 2001 (Federal Law Gazette I p. 3379), last amended by Article 2 of the Ordinance of 24 July 2002 (Federal Law Gazette 2833) contains the entire list of waste types.</p>	
Main strategies implementing separate collection	
<p>Germany is a Federal Republic consisting of sixteen Federal States (Bundesländer). Responsibility for waste management and environmental protection is shared between the national Government, the Federal States and local authorities. The National Ministry of Environment sets priorities, participates in the enactment of laws, oversees strategic planning, information and public relations and defines requirements for waste facilities. Each Federal State adopts its own waste management act containing supplementary regulations to the national law, e.g. concerning regional waste management concepts and rules on requirements for disposal. There is no national waste management planning in Germany. Instead, each Federal State develops a waste management plan for its area. There is a long tradition of national waste strategies and waste management plans in the federal states. A ban on landfilling un-pretreated MSW, producer responsibility and a focus on separate collection have proven to be important policy initiatives [DE EEA 2013].</p> <p>The German Circular Economy Act („Kreislaufwirtschaftsgesetz“ KrWG) that was adopted in 2012 is the only law transposes the requirements of the WFD into domestic law and is complemented by regulations based on this act, i.e. regarding specific waste streams as used oil, used wood etc.. As regards the WFD target “by 2020, the preparing for re-use and the recycling of waste materials [...] shall be increased to a minimum of overall 50 % by weight”, the KrWG defines a recycling rate of 65 % by 2020 for municipal waste ((Article 14 (2)), going beyond the requirements of the WFD.</p> <p>As indicated above, paper, metal, plastic and glass waste as well as bio-waste shall be collected separately at the latest from 1 January 2015. However, specific separate collection targets (i.e. % of population or tonnes) are not defined by the KrWG. Federal States and local authorities are responsible to implement legal requirements set by EU and national law.</p>	

However, to **enforce separate collection** at national level the Packaging Ordinance ((Verordnung über die Vermeidung und Verwertung von Verpackungsabfällen (Verpackungsverordnung - VerpackV)) [DE VVO 1998] – transposing the requirements of the EU Directive on packaging and packaging waste into national law – provides requirements for separate collection and **specific targets for recycling and recovery of packaging waste**: not later than by 31 December 2008 a minimum of 65 % by weight of packaging waste must be recovered, and a minimum of 55 % by weight of packaging waste must be recycled. For **packaging waste stemming from private households the following minimum recycling rates apply (by weight)**: plastics 36 %, composite materials 60 %, glass 75 %, tinplate 70 %, paper & cardboard 70 %, aluminium 60 %. Further, the Packaging Ordinance assigns the task of waste management **product stewardship** to product manufacturers, who are required to take back the packaging that they have placed on the market and either reuse or recycle it, or have this done by a third party (Extended Producer Responsibility, EPR-Scheme). In addition, a **compulsory deposit scheme** is implemented for **one-way drinks packaging (incl. beverage cans)**.

The latest initiative is the (mandatory) introduction of the so-called **recycling bin** that aims to increase recycling of plastics and metals from households. In certain cases (if the municipal authorities and dual systems agree) the existing yellow bins/ bags can already be used as recycling bins for the collection of metal or plastic waste including non-packaging material. In this context, however, there is still an **ongoing political discussion** as regards the **design** of the so-called “Wertstoffgesetz”, which is to be implemented, assigning responsibilities between “dual systems” (responsible for packaging waste) and mandated waste management authorities resp. addressing the **design of the waste management system** itself.

3 Implementation of separate collection

Overview on separate collection systems in place

Development of recycling performance in Germany [DE EEA 2013]:

Recycling has increased from 48 % of MSW generated in 2001 to 62 % in 2010. The EU target of 50 % recycling by 2020 has already been met; there was no increase in the recycling level of MSW between 2006 and 2010, whereas incineration has increased.

Most recent data on recycling performance (reference year: 2012, input based data) [DE DESTATIS 2014b]:

- Total municipal waste (49.76 million t): recycling 65 %
- Bio-waste
 - brown bin (3.94 million t): recycling 100 %
 - green waste: yard and park waste (5.3 million t): recycling 95 %
 - other municipal waste: kitchen and catering waste (0.69 million t): recycling 90 %
 - other municipal waste: market waste (0.07 million t): recycling 82 %
- separate collection: glass (2.39 million t): recycling 100 %
- separate collection: paper and cardboard (8.10 million t): recycling 99 %
- separate collection: light weight packaging/recyclables (metal, plastics, composites) (5.46 million t): recycling 81 %
- separate collection: others (composite materials, metals, textiles,...) (1.98 million t): recycling 70 %

Description of main systems in place by type and materials collected

(please note: information sources providing a detailed overview (i.e. precise data on share of different collection systems in %) of separate collection systems at national level could not be identified; since the main responsibility lies with Federal States and local authorities, separate collection systems in place differ, for detailed information it would be necessary to screen all 16 regional WMPs in detail)

Paper

- estimated share of packaging paper on total waste-paper collected from private households: ~ 20 % [DE HWWI 2013]
- **door-to-door** collection: blue bin, sack system, bundled collection [DE UBA 2014], co-mingled (very rare, i.e. collection together with metals, plastic packaging, and wood; or collection together with plastic foil and styrofoam -> various designs of "recycling bins")
- **bring system**: bring collection points, civic amenity sites (very rare) [DE UBA 2014]
- **2009 data** on waste collection from households: 66 % blue bin, 16.5 % bring collection points, 4 % bundled collection, other systems 13.5 % [DE HWWI 2013]

Glass

- **door-to-door** collection: bin, co-mingled (very rare)
- **bring system**: bring collection points, civic amenity sites

Plastic and metal

- [DE WFD 2013] **Plastic** waste is not collected separately but together with other materials such as tinfoil and aluminium (co-mingled collection, i.e. via yellow bin/bag). **Metals** collected together with plastic can be easily separated in the course of the pre-treatment.
- In yellow bins/sacks only packaging is collected. Some yellow bins (so called recycling bins) are opened towards products made of the same or other materials. For more than 12 million inhabitants such use of

yellow bin for the collection of metal or plastic waste – beyond packaging has already been introduced under current law. The Federal Government plans to provide for a nationwide (mandatory) opening of the packaging-collection for products made of the same materials in a so-called “Wertstofftonne” (Recycling bin).

- **door-to-door** collection: yellow bin/sack (packaging waste), co-mingled (recycling bin, collection of packaging waste and non-packaging material of the same type, diverse systems are in place for the collection of different fractions)
- **bring system**: bring collection points, civic amenity sites

Bio-waste [DE UBA 2014a] [DE WFD 2013]

- bio-waste comprises yard, park, and landscape management waste as well as food and kitchen waste (Article 3 (7) KrWG);
- **door-to-door collection**: (brown) bio-waste bin, bags, street collection (green waste)
- **bring system**: collection points (green waste), civic amenity sites (green waste)
- **bio-waste bin**: 402 German districts: private households in 286 districts had access to a comprehensive separate collection system, in 39 districts separate collection was offered in some parts of the waste management area, 76 districts offered no bio-waste bin service at all -> however, a **2012 survey revealed**: actual rate of access of private households to separate biowaste collection using bio-waste bins amounts to **roughly 52% Germany-wide**, increasing to **65% in areas of comprehensive separate collection systems**; overall **close to 40 million people in Germany do not use the bio-waste bin**
- separate collection systems for **private yard waste** are in place in most districts; only seven districts in Germany do not have the possibility to dispose of green waste separately through öRE.
- **development**: increasing collection coverage over the last years (can already be accorded to the KrWG regulation regarding separate collection of biowaste); it can be assumed that due to the compulsory implementation of separate collection of bio-waste from 1 January 2015 onwards collection infrastructure (esp. bin) will be extended

Table 4: Overview of main separate collection systems in Germany

Collection type	Paper	Glass	Plastic	Metal	Bio-waste
Door-to-door collection 	Primary	Rare	Very rare	Very rare	Primary (bins or bags)
Co-mingled (door-to-door) 	Very rare (i.e. together with metals, plastic packaging, and wood; or collection together with plastic foil and styrofoam -> various designs of "recycling bins")	Very rare (i.e. together with metal, plastic and composite materials -> various designs of "recycling bins")	Primary collection for plastic and metal packaging, partial recycling bins for further products (metal and plastics, co-mingled)		
Bring points 	Secondary	Primary	Secondary	Secondary	
Civic amenities 	Separate collection of all waste streams				
Producer/retail take-back 		Standard deposit for one-way drinks packaging incl. beverage cans: € 0.25 (incl. VAT) Deposit for reusable drinks packaging: € 0.08 - 0.15 (incl. VAT)			

4 Information sources

- [DE DESTATIS 2014a]** Umwelt, Erläuterungen zur Abfallbilanz, Statistisches Bundesamt, Juni 2014 / Environment, Explanatory notes on Waste Balance, German Federal Statistical Office, June 2014, https://www.destatis.de/DE/ZahlenFakten/GesamtwirtschaftUmwelt/Umwelt/UmweltstatistischeErhebungen/Abfallwirtschaft/Tabellen/ErlaeuterungenAbfallbilanz.pdf?__blob=publicationFile, accessed 4 March 2015.
- [DE DESTATIS 2014b]** Umwelt, Abfallbilanz 2012, Statistisches Bundesamt, Juli 2014 / Environment, Waste Balance 2012, German Federal Statistical Office, July 2014, accessed 19 March 2015.
- [DE EEA 2013]** Municipal waste management in Germany, European Environment Agency (EEA), February 2013, <http://www.eea.europa.eu/publications/managing-municipal-solid-waste/germany-municipal-waste-management> ; accessed 4 March 2015.
- [DE HWWI 2013]** Altpapier: Preisentwicklungen und Preisindizes, HWWI Policy Paper 76. Hamburgisches WeltWirtschaftsinstitut (HWWI), April 2013 / Waste-paper: trends of prices and price index. Hamburg Institute of International Economics, April 2013, http://www.hwwi.org/uploads/tx_wilpubdb/HWWI_Policy_Paper_02.pdf, accessed 4 March 2015.
- [DE KrWG 2012]** Gesetz zur Förderung der Kreislaufwirtschaft und Sicherung der umweltverträglichen Bewirtschaftung von Abfällen – Kreislaufwirtschaftsgesetz (KrWG) / Act to Promote Circular Economy and Safeguard the Environmentally Compatible Management of Waste – Circular Economy Act
- [DE TAC 2015]** Information provided by the TAC member from Germany, September 2015
- [DE UBA 2014]** Ratgeber: Abfälle im Haushalt. Vermeiden, Trennen, Verwerten. Umweltbundesamt, Mai 2014 / Guidebook: Household waste. Prevent, Separate, Recover. Federal Environment Agency, May 2014, <http://www.umweltbundesamt.de/publikationen/ratgeber-abfaelle-im-haushalt> , accessed 19 March 2015.
- [DE VVO 1998]** Verordnung über die Vermeidung und Verwertung von Verpackungsabfällen (Verpackungsverordnung - VerpackV) ("Verpackungsverordnung vom 21. August 1998 (BGBl. I S. 2379), die zuletzt durch Artikel 1 der Verordnung vom 17. Juli 2014 (BGBl. I S. 1061) geändert worden ist") / German Packaging Ordinance as amended, http://www.gesetze-im-internet.de/bundesrecht/verpackv_1998/gesamt.pdf, accessed 19 March 2015.
- [DE WFD 2013]** Original Member State Implementation Report 2010-12. Waste Framework Directive (Delivery date: September 2013).