

DEPOSIT-REFUND SYSTEMS FOR ONE-WAY BEVERAGE PACKAGING IN EUROPE



THE CASE OF DENMARK

JANUARY 2019



DESCRIPTION OF THE SYSTEM

BACKGROUND FOR INTRODUCING THE SYSTEM

DRS for refillable bottles for beer and carbonated drinks in Denmark date back to 1910 when breweries put in place schemes to reduce the cost of reusing bottles. In the 1950s, the Government started regulating the schemes¹. Since 1989, it was required² that containers produced in Denmark are refillable, participate in a DRS, and are approved by the Danish Environmental Protection Agency (EPA). The purpose of these mandatory systems was to limit waste from packaging by encouraging the reuse of beverage containers. The return rates were reaching over 99% and the average number of times a glass bottle was reused was 35-40³.

The incentives to introduce the current DRS (which applies both to refillable and one-way containers) came from EU infringement proceedings. Up until 2002, beer and carbonated soft drinks were required by Danish law to be marketed in refillable packaging only and canned beverages were not allowed in the country (often referred to as the “can ban”). As a consequence of EU infringement proceedings against Denmark, the Danish government decided to drop this requirement and, thus, one-way packaging for beer and soft drinks were introduced on the Danish market⁴.

The basis for the current DRS was set in 1995 when the beer and soft drinks producers and the retail sector entered into a formal collaboration in order to establish a common DRS for beverage containers (which at the time were primarily refillable glass bottles). As a result of this collaboration, a privately-owned company, Dansk Retursystem, was founded in 2000. Since 2002, Dansk Retursystem has been granted the exclusive right to operate a national DRS until 2022 (subject for renewal every 6 years). With the establishment of Dansk Retursystem, the pre-existent DRS for refillables was extended to beer and soft drinks in non-refillable bottles, as well as cans that contained certain types of beverages.

During the establishment of the DRS, the influence of big Danish beer producers on the scheme was heavily criticised. The argument was that the owners, through their majority share in Dansk Retursystem, would be able to access confidential sales data about their (foreign) competitors and thereby seek to exclude them from the market. However, confidential data is handled under strict third party procedures

1 Norden – The Use of Economic Instruments In Nordic Environmental Policy 2010–2013. Nordic Council of Ministers 2014 [[report](#)]

2 Statutory Order no. 124 of 27 February 1989

3 Environmental Protection Agency – Environmental Factors and Health. 11 Waste [[website](#)]

4 DAKOFA – Reuse and recycling in Denmark [[website](#)]

on behalf of Dansk Retursystem and to this date no cases of brand-specific or other interested parties having gained access to such information have been confirmed.

Criticism was also raised on the monopoly granted to Dansk Retursystem which was considered by some as possibly distorting competition⁵. However, regular audits conducted every three years have concluded that Dansk Retursystem is cost-effective and, thus, the format of the DRS in Denmark should not be changed. The latest one carried out in 2016 by the auditing and consultancy firm PricewaterhouseCoopers (PwC) conducted an analysis of the company based on environment, efficiency and stakeholder satisfaction. On the basis of this analysis, the Danish EPA decided to extend Dansk Retursystem’s exclusive rights until the end of 2022⁶.

In 2017, the Danish EPA and the Competition and Consumer Authority conducted a market consultation to determine whether there are other companies potentially interested in operating the Danish DRS, as well as to get broader feedback on possible improvements of the system. The consultation revealed that there are no companies interested in running the DRS in its current setup but several would be in a changed setup (notably if the requirement on non-for-profit nature of the operator is dropped)⁷.

THE LEGAL BASIS, SCOPE, AND TARGETS. LINKS TO OTHER POLICIES OR INSTRUMENTS

The most recent regulation establishing the framework of the DRS is the Statutory Order on Deposits⁸ implemented in 2002. It was adopted pursuant to a number of provisions in the Consolidation Act on Environmental Protection⁹. It establishes the organisation, roles and financing of Dansk Retursystem as well as defines the scope of the DRS, sets the minimum deposit values for different types of packaging and establishes collection targets for refillable packaging, but no targets are mentioned for one-way packaging. The deposit values depend on the type of material, the volume of each container and – in the case of a glass bottle – whether it will be recycled or reused.

Table 1: Deposit values for different packaging types¹⁰

Type of container	Metal cans		Plastic bottles		Glass bottles			
Container volume	One-way		One-way and Refillable		One-way		Refillable	
	< 1 l	≥ 1 l	< 1 l	≥ 1 l	< 1 l	≥ 1 l	< 0.5 l	≥ 0.5 l
Deposit value	1 DKK [0.13 EUR]	3 DKK [0.4 EUR]	1.5 DKK [0.2 EUR]	3 DKK [0.4 EUR]	1 DKK [0.13 EUR]	3 DKK [0.4 EUR]	1 DKK [0.13 EUR]	3 DKK [0.4 EUR]

The deposit is applicable to metal cans, plastic and glass bottles if they contain: beer; carbonated drinks (mineral water, lemonade and others); mixer products of non-alcoholic beverages with spirits (alcoholic soft drinks) and other fermented beverages (these products have been included in the scheme in 2005);

5 Environmental Resources Management – Review of Packaging Deposits System for the UK, Annex A: Review of Member State Experience: Denmark. 2008. pp. A2 – 8 [\[report\]](#)

6 Dansk Retursystem – Annual Report 2016 [\[report\]](#)

7 Kammeradvokaten – Report on the market consultation for the operation of a deposit and return system in Denmark. 2017 [\[report\]](#)

8 Statutory Order 2017 – Statutory Order on Deposits on and the Collection etc. of Packaging for Certain Beverages. 2017 [\[order\]](#)

9 Environmental Protection Agency – Market consultations regarding the operation of a deposit return system in Denmark held by the Danish Environmental Protection. Ministry of Environment and Food of Denmark. 2017 [\[report\]](#)

10 Statutory Order 2017 – Statutory Order on Deposits on and the Collection etc. of Packaging for Certain Beverages. 2017 [\[order\]](#)

Consolidated Act 2017 – Consolidation Act on Environmental Protection. 2017 [\[act\]](#)

and non-carbonated soft drinks including mineral water, lemonade, ice tea (these products have been included in the scheme in 2008).

The following drinks are excluded from the system: fruit squash/cordial, juice, milk, cocoa, wine and spirits. Juice and milk drinks are excluded mainly for hygiene reasons. Wine and spirits bottles are generally not considered as an environmental problem, and the wine producers and importers have not expressed any interest in being part of the deposit scheme¹¹. Beverage cartons, packaging containing more than 20l as well as plastic containers larger than 10l containing non-carbonated water are excluded from the system.

In 2018, the Danish government announced that the deposit system will be expanded to include bottles used for fruit juices and fruit concentrates. The expansion will enter into force on 1 January 2020¹².

The Statutory Order establishes that providers who use reusable containers must ensure their collection.

There is no producer responsibility scheme for packaging in Denmark¹³ and the collection of the remaining packaging falls under the responsibility of municipalities. Municipalities should provide collection schemes for recyclable glass, metal and plastic packaging waste but there are no requirements regarding the collection method. Separate collection is not mandatory as long as the majority of the fractions are recycled, which makes separate collection the preferred option for municipalities. Glass, plastic, metals, paper and cardboard have traditionally been collected via bring banks or civic amenity sites, but because of stricter recycling requirements¹⁴, these fractions are increasingly collected door-to-door¹⁵. There are no links between these collections and the DRS. However, Dansk Retursystem yearly reports the collected volumes of deposit-labelled packaging in the national waste register (set by the Danish EPA) since the packaging is defined as household waste. The report of the volumes is divided into each municipality.

SYSTEM FUNCTIONING, ROLES AND RESPONSIBILITIES OF MAIN STAKEHOLDERS

Deposit operator



The DRS operator is Dansk Retursystem. It was established in June 2000 to operate the DRS for refillable glass bottles. As of 2002, it has been granted the exclusive rights to operate the DRS in Denmark on the conditions laid down in the Statutory Order. Regulated by the Ministry of Environment, the company is run on a non-for-profit basis. It was established by a number of breweries together with the Danish retail trade and it is owned by the producers¹⁶:

- Dansk Retursystem Holding (85.62%), owned by Carlsberg, Royal Unibrew, Thisted Bryghus and Bryggeriet Fuglsang

11 Environmental Resources Management – Review of Packaging Deposits System for the UK, Annex A: Review of Member State Experience: Denmark. 2008. pp. A2 – 8 [[report](#)]

12 Ministry of Environment and Food of Denmark – Deposit on juice and fruit drink concentrate packaging [[website](#)]

13 PRO Europe – Packaging waste legislation in Denmark [[website](#)]

14 The Danish Government has set a goal to recycle 50% of household waste by 2022. Ministry of Environment and Food of Denmark – Waste [[website](#)]

15 DAKOFA – Reuse and recycling in Denmark [[website](#)]

16 Environmental Protection Agency – Market consultations regarding the operation of a deposit return system in Denmark held by the Danish Environmental Protection. Ministry of Environment and Food of Denmark. 2017 [[report](#)]

- Harboes Bryggeri (14.27%)
- Bryggeriet Vestfyen (0.1%)
- Mineralvandsfabrikken Frem (0.01%)

The Board of Directors of Dansk Retursystem's represents the key partners in the Danish DRS: the breweries, the importers of beverages on which deposits are payable and the retail trade, which is required to receive the empty bottles and cans returned by consumers.

The main tasks of Dansk Retursystem are to register one-way packages subject to deposit, collect¹⁷ those once they are empty, count, sort, compress and ensure their recycling, to pay deposits and handling remuneration for this packaging to stores, as well as to streamline the overall management of the system (including by introducing new solutions to collect empty beverage packaging). These tasks cover the provision of necessary capacity to collect and count empty one-way packaging, including land areas and buildings, as well as the necessary technical equipment and installations. Dansk Retursystem owns the background equipment¹⁸ of the RVM installed in stores and loans/ leases it to retailers (while the RVM are owned by retailers themselves). Dansk Retursystem also internally performs the collection¹⁹ of the empty packaging from retailers and operates two factories with equipments mainly for mechanical counting and separation of packaging²⁰.

Dansk Retursystem has also been granted with a number of authority rights: it is obliged to carry out regular controls to ensure compliance with the regulation on marking one-way packaging, collection and payment of deposits, as well as registration of providers and intermediaries. Controls shall be carried out by means of observation at sites that are accessible by the general public and certain penalties are foreseen in case of non-compliance. Fines and/or penalties are handled by the Danish EPA or the Danish Tax authority depending on the situation. In general, the level of non-compliance noted by Dansk Retursystem is low.

In addition to the abovementioned tasks, Dansk Retursystem carries out information campaigns about the DRS in Denmark. The campaigns focus on the environmental benefits of recycling as well as the fact that the consumer gets his/her deposit back. The legislation allows for surplus deposits to be used, amongst others, on information campaigns to help improve environmental awareness and increase the return rate.

Dansk retursystem has about 460 employees, including a large number of drivers since it carries out the transport itself.

Dansk Retursystem has three main sources of income:

- Unredeemed deposits;
- Operating fees paid by producers and importers to Dansk Retursystem for each item of packaging marketed in Denmark or exported with marking pursuant to the Statutory Order on Deposits;
- Scrap income from material sales of packaging collected by Dansk Retursystem.

Other income comprise a packaging registration fee (paid by producers), annual admission fee (paid by

17 The collection of refillable bottles falls under the responsibility of producers. Dansk Retursystem – Om genpåfyldelige emballager (About refillable packaging) [[website](#)]

18 The background equipment consists of compactors, sealed container systems and central control units; a technical unit which can communicate between stations for acceptance of returns and Dansk Retursystem and can pass on data.

19 Previously, collection was subcontracted but is now performed internally; except for the areas where it is not practicable for Dansk Retursystem to do so (in which case external suppliers are charged with the collection).

20 Separation refers to separating plastic bottles and cans which are collected in the same bag (mixed) from other places than stores (cafes, restaurants,

retailers), a fee for wasted journeys (to be paid by a retailer in case Dansk Retursystem is not able to carry out a planned collection of packaging due to circumstances attributed to retailers (failure or inadequate preparation of packaging, inadequate clearing of snow or rejection of collection, etc.), payment for collection equipment, lease of compactors, refunded costs for confiscated goods, and payment for costs of printing deposit labels.

Table 2: Financing distribution²¹

	Financial statements 2017 in million	Financial statements 2017 %
Unredeemed deposits	173.6 DKK [23.31 EUR]	31.7%
Operating fees	245.5 DKK [32.96 EUR]	44.8%
Scrap income	116.8 DKK [15.68 EUR]	21.3%
Other income	11.5 DKK [1.54 EUR]	2.1%
Total	547.4 DKK [73.5 EUR]	100%

Operating fees paid by producers for the beverages they sell on the Danish market are set and adjusted on an annual basis. They are required to reflect the exact costs of operating and administering an efficient DRS (covering collection and logistics) and are, therefore, calculated based on the expenditure of Dansk Retursystem versus the income. The calculation is based on each packaging type, depending on its material and size. The general principle is that every packaging is covering its own cost. As of July 2018 Dansk Retursystem introduced a “circular economic fee structure” meaning that less recyclable packaging is paying higher fees²².

The Statutory Order specifies how Dansk Retursystem can spend its revenues resulting from non-collected deposits. For the period between 2015 and 2019²³, it must annually pay to the state parts of these unredeemed deposits which the company can post as revenue. In addition, Dansk Retursystem must pay an annual amount to the Danish EPA to cover documented expenses incurred by the Danish EPA and the customs and tax authorities for supervision, control, and administration of the deposit and return system. The remaining revenue might be used to cover the collection of packaging which is not registered with Dansk Retursystem or which is not covered by the Statutory Order, upon decision of the Danish EPA. Additionally, the company may use the revenues from unredeemed deposits to finance grants for public interest purposes, including establishing environmental measures, teaching, information, research, and other relevant environmental projects²⁴.

Producers

Breweries and suppliers who produce or import filled packaging for the Danish market are obligated to register themselves and the products they want to sell on the Danish market, as well as to report their

etc.). Website of the Dansk Retursystem [[website](#)]

21 Environmental Protection Agency – Market consultations regarding the operation of a deposit return system in Denmark held by the Danish Environmental Protection. Ministry of Environment and Food of Denmark. 2017 [[report](#)]

22 Dansk Retursystem – Implementering af ny gebyrmodel (Implementation of a new fee model) [[website](#)] and Gebyrer (Fees) [[website](#)]

23 The amendment related to this provision was introduced to the Environmental Protection Act of 2006 in 2016 edition. According to the Dansk Retursystem report (2016), the payments to the state will cease after 2019.

Executive Order 2016 – Executive Order of the Environmental Protection Act. 2006. Amended in 2016 [[order](#)] and

Dansk Retursystem – Annual Report 2016 [[report](#)]

24 If the amount from the unredeemed deposits cannot cover or can only cover partly the expenses related to payment to the Danish EPA to cover administrative costs and coverage for collection of packaging which is not registered with the DRS and is not covered by the relevant legislation, the packaging fees can be used for this purpose.

sales to Dansk Retursystem. The registration takes place by completing a registration form which is available electronically on Dansk Retursystem website. The registration fee is 2,000 DKK [268.57 EUR] per packaging, payable upon first packaging registration in a calendar year, further registration of other packaging during the same year and by the same producer are free. Upon registering the new one-way packaging, producers submit two or more samples to Dansk Retursystem, which are used to ensure that the deposit is correctly scanned and refunded. The packaging has to bear a deposit mark for non-refillable containers, consisting of several elements: a logo with two arrows illustrating that the one-way packaging is part of a deposit and return system; a letter indicating the deposit payable for the one-way packaging in question; the word “Pant” (deposit); a deposit code consisting of five black dots. In addition to the deposit mark, an EAN barcode and a GTIN shall be added to ensure that the packaging can be scanned electronically in the RVM.

Producers must consider one of two options for labelling their packaging as deposit refundable: (1) direct printing onto the packaging or onto the original product label; (2) or self-adhesive deposit labels. Depending on the labels chosen producers pay operation fees or average fees²⁵.

Importers and producers of refillable bottles must have in place and operate a return system themselves. This involves arranging the collection in appropriate crates and trays at the party to whom the provider has marketed the packaging, washing, and refilling of bottles, therefore meeting a return rate of 98%. Return figures must be sent directly to Dansk Retursystem. Providers who accept refillable packaging shall ensure that the packaging is recycled when the packaging can no longer be re-used. No markings are needed for the refillable packages.

In 2017, 990 producers and importers were registered by Dansk Retursystem²⁶.

Retailers

Retailers selling packaging subject to deposit are required to accept returns and pay a refund to consumers, if the following conditions have been met:

- a) One-way packaging: Stores with RVMs must accept all types of one-way packaging with the Danish deposit label. Stores without RVMs that sell beverages must accept the same types of packaging materials as the ones that they sell (e.g. cans for cans, plastic for plastic etc.) regardless of the product brand²⁷.
- b) Refillable packaging: Stores must accept refillable packaging if it corresponds to the shape of the packaging that they sell or if it can be sorted into crates and trays together with the marketed types of packaging.

Repayments of deposits on non-refillable packaging to retailers are handled exclusively by Dansk Retursystem. To ensure this, retailers selling beverages in deposit-subject packaging must register with Dansk Retursystem against an annual administration fee of 500 DKK [67 EUR]. This is used to cover the costs related to retailers’ registration, calculation of handling remuneration and alike and also ensures packaging is collected from retailers free of charge by Dansk Retursystem. A total of 15,500 sales locations (stores, restaurants, and offices) are registered in the system. Temporary outlets such as music festivals and sports tournaments can also seek registration.

Incurred retailer’s costs due to handling of the returned packaging are compensated by Dansk Retursystem if the store is registered. As a general rule, it is beneficial for a retailer to register for the

²⁵ Dansk Retursystem – Kom godt i gang med at sælge pantbelagte drikkevarer (Get started selling ready-made drinks). 2017 [[report](#)]

²⁶ Dansk Retursystem – Årsrapporter og nøgletal (Annual reports and key figures) [[website](#)]

²⁷ Statutory Order 2017 – Statutory Order on Deposits on and the Collection etc. of Packaging for Certain Beverages. 2017 [[order](#)]

scheme if it takes back 60–65 empty bottles per day. The remuneration allocated to the retailer for each bottle or can depend on the collection type, material and size of the container²⁸. The more manual work required to handle the returns, the greater the handling remuneration. A shop can only be paid handling remuneration if it meets the sorting requirements and/or the requirements for getting equipment ready for collection. These requirements include sorting refillable packaging and preparing for collection of one-way packaging using the collection equipment of Dansk Retursystem.

The payments may be temporarily suspended if too many mistakes in sorting and preparation are recorded. Consultants working for Dansk Retursystem carry out unannounced spot checks to ensure that the requirements are being fulfilled. Handling remuneration rates shall be revised every four years and submitted for approval to the Danish EPA. Deposit refunds are paid to retailers after the empty packaging has been counted at one of Dansk Retursystem’s two factories. Packaging that has been returned via RVMs does not require counting as it is registered in the machine and information is sent to Dansk Retursystem electronically.

Packaging subject to deposit is collected via RVMs and, in small outlets, manually. RVMs are the main option for returning packaging. These are generally placed by the entrance of the store, but can also be placed elsewhere on the premises, and are built into the wall. The cans and bottles are laid one by one on a conveyor belt in a slot in the machine that takes the packaging through to the sorting area on the other side while at the same time scanning the packaging: the RVM recognises the packaging based on the shape and the barcode. Full crates of refillables can be placed through a different slot.

Retailers are responsible for purchasing the RVMs themselves. The background equipment of it such as compactors can be loaned or leased to the retailers by Dansk Retursystem. The cost for compactors is in the range of 500-1,000 DKK [67-134 EUR]²⁹. In 2017, 3,170 stores throughout Denmark had RVM, where consumers return all deposit-marked bottles and cans.

Retailers may voluntarily take back one-way bottles and cans that consumers have purchased outside Denmark³⁰. Dansk Retursystem will collect them together with the one-way packaging with the Danish deposit mark, but does not refund the deposits for these items.

Consumers

Most commonly consumers can return their empty containers in stores where they are collected manually or via RVMs (95% of collection is done through RVMs).



Figure 1: Pantstation

In addition, consumers can use a deposit return bank called “Pantstation” – a building designed for the sole purpose of taking back empty bottles and cans in order to recycle them. Consumers can deliver a bag of up to 90 bottles or cans subject to deposit (max 15 kg) at a time. Both refillable and one-way containers, as well as bottles and cans purchased abroad may be included in the bag. For the deposit to be returned, counting machines should be able to determine the deposit mark, barcode or the package form. If it is not possible to do so, the package would be recycled but no deposit would be refunded. The special deposit bag can be purchased at the Pantstation for 6 DKK [0.8 EUR]. This amount is refunded to the consumer together with the amount of deposit directly in the

²⁸ Dansk Retursystem – Hvad får man i håndterings-godtgørelse (What do you get in handling allowance) [\[image\]](#)

²⁹ Environmental Protection Agency – Market consultations regarding the operation of a deposit return system in Denmark held by the Danish Environmental Protection. Ministry of Environment and Food of Denmark. 2017 [\[report\]](#) and

Supermarked – Brug teknisk udstyr (Use technical equipment) [\[website\]](#)

³⁰ This is expected to change in 2018 with regards to beverage containers purchased in Germany

consumer's bank account within 10 days. Dansk Retursystem has started developing this concept in 2012, as of today 12 cities in Denmark have a Pantstation. 97% of users are satisfied with this solution, however, Dansk Retursystem does not foresee to expand the Pantstation network in the near future³¹.

Dansk Retursystem is working on developing new return solutions and in the summer of 2018 a 'Drop and Go' bulk solution with instant deposit redemption was tested.

Seeing that in 2014 alone, an estimated 166 million DKK [22.29 million EUR] in bottle deposits went unclaimed, the City of Copenhagen initiated a project of installing "deposit shelves" on public rubbish cans in 2015. The idea behind the project was to encourage consumers instead of throwing their empty bottles and cans into a general waste container, to place them in a separate shelf. Thereby making sure that the value of the empty container is not lost and that socially vulnerable groups of consumers living in the city can collect them and claim the deposit. The project thus has both environmental and social aspects³². The example of Copenhagen has since been followed by other cities in the country. Notably, Aarhus has installed 70 public waste bins with "deposit shelves" in 2016³³. Additionally, the initiative was also replicated in Silkeborg, Bornholm, Esbjerg, and possibly other locations in Denmark³⁴.



Figure 2: Deposit shelves

Supervision

The Ministry of the Environment is the responsible authority regulating the DRS in Denmark³⁵. The Danish EPA supervises that Dansk Retursystem complies with the regulations of the Statutory Order. Dansk Retursystem shall pay an annual amount to the Danish EPA to cover documented expenses for supervision, control and administration in connection with the deposit-refund system as well as for external assistance. Additionally, the Environmental Protection Act stipulates that, from 2015-2019, Dansk Retursystem must annually pay to the state treasury parts of the deposits that have not been collected, and which the company can post as revenue³⁶. The amounts are conditional on an implemented border deposit scheme (Denmark/Germany).

The company is evaluated every 3 years by an auditing firm. Exclusive rights to operate the DRS are granted to a company for a 6-year period. The state can always acquire the shares in Dansk Retursystem for 10 million DKK [1.34 million EUR]³⁷.

The Statutory Order also foresees certain fines for individual or organisations that fail to comply with the obligations established by it. The penalty may reach to an imprisonment of up to two years.

31 Dansk Retursystem – Annual Report 2016 [[report](#)]

32 The Local dk – Copenhagen gives bottle collectors 'dignity'. 2015 [[website](#)]

33 Aarhus Kommune – Giv din pant videre og hold byen ren. (Give your mortgage and keep the city clean). 2016 [[website](#)]

34 Silkeborg Kommune – Giv din pant videre og vær med til at holde byen ren (Give your mortgage on and help keep the city clean). 2018 [[website](#)]

Bornholms Tidende – Hjælp til flaskesamlere: Gi' din pant videre (Bottle collector help: Give your mortgage). 2015 [[website](#)]

JydskeVestkysten – Esbjerg kopierer storbyens pantholdere (Esbjerg copies the city's mortgage holders). 2017 [[website](#)]

35 European Parliament, Directorate General for External Policies of the Union, Directorate B Policy Department – Briefing paper: A European Refunding Scheme for Drinks Containers. 2011 [[report](#)]

36 Consolidated Act 2017 – Consolidation Act on Environmental Protection. 2017 [[act](#)]. The payment shall amount to: DKK 26 million [3.48 million EUR] in 2015, DKK 37.1 million [4.97 million EUR] in 2016, DKK 56 million [7.51 million EUR] in 2017, DKK 60.9 million [8.17 million EUR] in 2018 and DKK 62.9 million [8.44 million EUR] in 2019.

37 Consolidated Act 2017 – Consolidation Act on Environmental Protection. 2017 [[act](#)]

RESULTS

In 2017, there were 25,100 registered types of deposit packaging on the market, and 1.2 billion bottles and cans with a deposit were returned, corresponding to a collection rate of 90%³⁸. Collected material is sent for end-recycling at plants situated in the EU that are specialized in producing new food-grade packaging materials such as new bottles and cans. In 2017, this amounted to roughly 50,000 tons³⁹.

In terms of refillables, 102% of refillable bottles were returned in 2017. The return rate for refillable bottles was more than 100% because the sales of beverages in this type of packaging constitute a falling market share. This means that the number of bottles returned is higher than the number of bottles sold⁴⁰.

Since 2002, the market share for one-way packaging has increased from 0% to 84% in 2016⁴¹. Concomitantly, the market share for refillable packaging has decreased from 100% to 16%⁴².

Table 3: Market share of one-way and refillable packaging and return rates⁴³

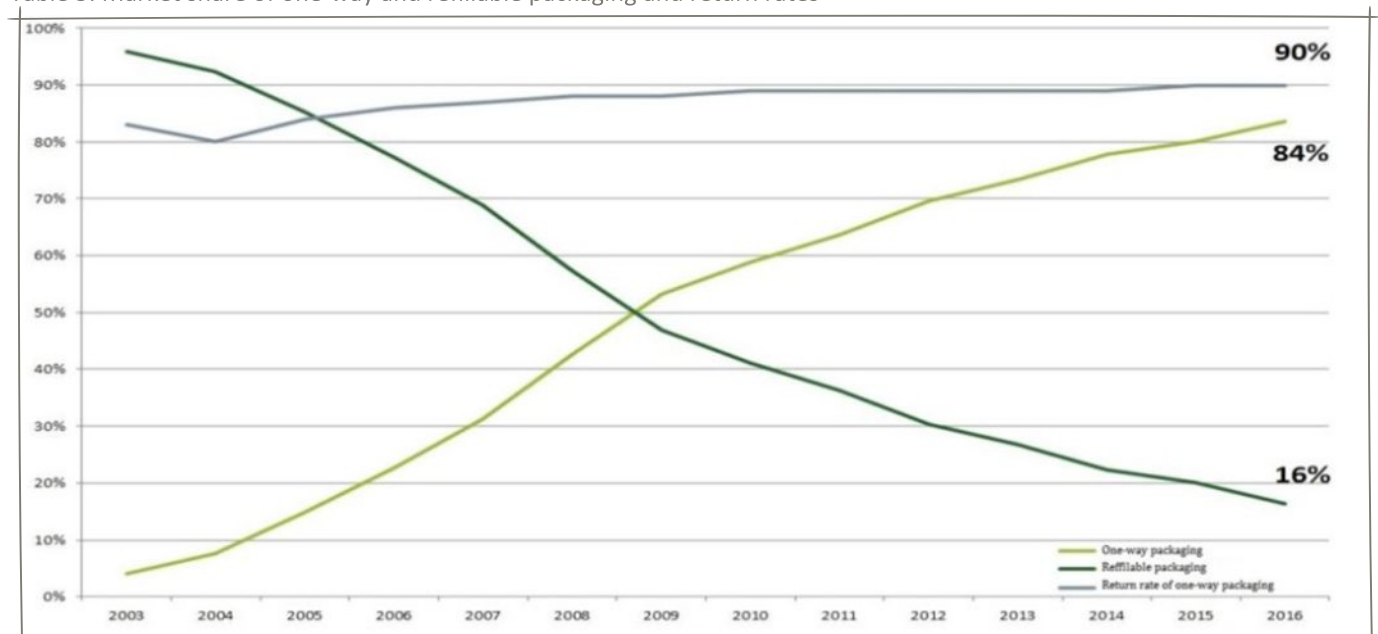


Table 4: Return rates 2011-2016 of one-way and refillable beverage packaging⁴⁴

	2011 ⁴⁵	2012 ⁴⁶	2013 ⁴⁷	2014 ⁴⁸	2015 ⁴⁹	2016 ⁵⁰
One-way	89%	89%	89%	89%	90%	90%
Refillable	103%	103%	102%	103%	103%	102%

38 Consolidated Act 2017 – Consolidation Act on Environmental Protection. 2017 [\[act\]](#)

39 Dansk Retursystem – Årsrapporter og nøgletal (Annual reports and key figures) [\[website\]](#)

40 Dansk Retursystem – Annual Report 2016 [\[report\]](#)

41 Dansk Retursystem – Annual Report 2016 [\[report\]](#)

42 Dansk Retursystem – Annual Report 2016 [\[report\]](#)

43 Dansk Retursystem – Årsrapport 2016 (Annual Report 2016) [\[report\]](#)

44 Dansk Retursystem – Årsrapport 2016 (Annual Report 2016) [\[report\]](#)

45 Dansk Retursystem – Årsrapport 2011 (Annual Report 2011) [\[report\]](#)

46 Dansk Retursystem – Årsrapport 2012 (Annual Report 2012) [\[report\]](#)

47 Dansk Retursystem – Årsrapport 2013 (Annual Report 2013) [\[report\]](#)

48 Dansk Retursystem – Årsrapport 2014 (Annual Report 2014) [\[report\]](#)

49 Dansk Retursystem – Årsrapport 2015 (Annual Report 2015) [\[report\]](#)

50 Dansk Retursystem – Årsrapport 2016 (Annual Report 2016) [\[report\]](#)

There is no detailed survey about where the approximate 10% of bottles and cans which are not returned end up. Some end in the garbage and are combusted. This results in melted aluminium in the waste-to-energy plants. Another part ends up in nature. During the 2014 nationwide litter collection campaign, approximately 20% of the collected cans were deposit refundable cans⁵¹. The rest were foreign cans not part of the Danish scheme. It is estimated that 600 to 700 million cans are bought annually in Germany and brought to Denmark for personal consumption⁵².

Trade in alcoholic beverages from Germany to Denmark has been causing some issues as the Danish consumers do not have an incentive to return the empty containers purchased in Germany via Dansk Retursystem⁵³. To address this issue, on 22 May 2015, the Danish government secured parliamentary support for an agreement with Germany on deposits on drink cans and bottles bought in German border shops. Danish customers who buy drinks in German border shops are to pay either Danish or German deposit on bottles and cans and can get the deposit back in Denmark as well as in Germany. The deposit is imposed on the same products as in Denmark and on cans as well as glass and plastic bottles. The agreement will ensure that Danes can drop off cans and bottles in Denmark, even if they have been bought in German border shops. It is estimated that 600 to 700 million cans without deposit are purchased in the border trade with Germany each year. It is expected that Norway and Sweden will join the Danish-German agreement in the future. Before the agreement can enter into force, it requires the expansion of Dansk Retursystem to be able to handle several million additional packaging each year⁵⁴. The Danish and the German authorities have not reached an agreement concerning the timing of establishing a cross-border deposit system⁵⁵.

No “before-and-after” one-way packaging collection rates are available since the requirement for Danish producers to market beer and carbonated soft drinks only in refillable bottles was lifted in 2002, at the same time as the DRS was established for one-way packaging.

On the basis of the Dansk Retursystem strategy for 2020, the company has worked consistently to create more dialogue with the stakeholders. According to surveys, as many as 92% of consumers are in favour of the system⁵⁶.

51 Inge Frisker – Welcome Dansk Retursystem A/S . n.d. [[presentation](#)]

52 Søren Stenderup Jensen – Agreement on deposits on drink cans and bottles bought in German border shops. International Law Office. 2015 [[website](#)]

53 European Parliament, Directorate General for External Policies of the Union, Directorate B Policy Department – Briefing paper: A European Refunding Scheme for Drinks Containers. 2011 [[report](#)]

54 Søren Stenderup Jensen – Agreement on deposits on drink cans and bottles bought in German border shops. International Law Office. 2015 [[website](#)]

55 Dansk Retursystem – Annual Report 2016 [[report](#)]

56 Dansk Retursystem – Annual Report 2016 [[report](#)]

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Disclaimer

This country report is based on publicly available information gathered by ACR+ team and validated by Dansk Retursystem.

Deposit-refund systems for one-way beverage packaging in Europe

This country report is part of a wider study of ten deposit-refund systems in Europe covering the following countries: Croatia; Denmark; Estonia; Finland; Germany; Iceland; Lithuania; the Netherlands; Norway and Sweden.

The full report is available for ACR+ members on www.acrplus.org.
