Food Waste.

This methodology document covers the following commitment areas and KPIs (Key Performance Indicators):

Commitment	KPIs
Halve food waste in our own operations by 2025.	Percentage change in tonnes of food wasted as percentage of tonnes of food handled compared to baseline year (2016/17).

Definitions

The methodology outlined below is used to calculate food waste as a percentage of tonnes handled compared to the baseline year.

The definition of food waste is based on that of EU FUSIONS[1]: "Food waste is any food, and inedible parts of food, removed from the food supply chain to be recovered or disposed (including composed, crops ploughed in/not harvested, anaerobic digestion, bio-energy production, co-generation, incineration, disposal to sewer, landfill or discarded to sea)." Drinks waste is also included.

Food surplus includes all waste but also includes the following definitions. This is not included in the total waste figure and is reported separately:

- Food sent to animal feed.
- Food offered to colleagues through the Colleague Shop.
- Food donated to FareShare, OLIO or directly to charities via Community Food Connection.

The definition of food handled is the sum of the weight of food sold, wasted, donated, distributed to colleagues and sent to animal feed.

The number of units wasted per item is converted into a weight measured in tonnes by multiplying the number of units wasted by the per unit weight. The per unit weight excludes packaging for the majority of products.

The remaining food surplus safe for human consumption that is not redistributed in these ways is considered as waste. The majority of food that is not donated is sent to Anaerobic Digestion with the remainder sent to incineration with energy recovery.

Timeframe

Annual. The published figure represents the food wasted in our full financial year. e.g. for 2022/23 this includes 52 weeks, from 28th February 2022 to 25th February 2023 inclusive.

Scope

The scope of this data covers food waste arising from our distribution centres and stores in the following areas:

Markets	Country
UK	UK (excluding One Stop)

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[1] For more information see: https://www.eu-fusions.org/

Republic of Ireland	Republic of Ireland
Central Europe	Czech Republic, Hungary, Slovakia
Booker	UK (excluding India, which is a Joint Venture)

Store location and type:

Markets	Store location and type
All	Food waste arising only from our distribution centres and stores. Store waste includes Customer Fulfilment Centres (dotcom).

Food categories:

The scope of the calculation includes food waste and associated inedible parts. All food and drink categories sold at Tesco are included in the scope.

During the calculations, all non-food items are removed from our waste data. Details on the types of products excluded are shown under the scope exclusions of each country specific sections.

Scope Exclusions

Other food waste arising in customer restaurants and staff canteens in our stores and distribution centres are out of scope, as is any food waste arising in operations owned by Tesco upstream in the supply chain, such as haulage wastage and committed crop wastage.

The calculation only covers our operations. Therefore, waste arising at our suppliers' sites and from third party counters in Tesco stores is not included.

One Stop and Booker (India) is not captured in scope of this KPI.

Methodology

The bullet points below explain how we calculate our total food waste tonnage for the full financial year for each country:

- Data from different sources (please refer to the Source Data section below) is joined to create a summary by Tesco Product Number Base (TPNB).

- Non food items are excluded at this stage.

- The number of units wasted per item is converted into a weight measured in tonnes by multiplying the number of units wasted by the per unit weight*.

- We perform a 'bottom up' calculation from the waste tonnages for individual products (e.g. Gala Apples), to the commercial food category (e.g. Produce), to our entire UK operations.

- We used this calculation method for the majority of the waste products (by weight) from our own operations – in our distribution centres and within our stores.

- The remaining percentage of waste by weight occurs in products for which a weight is not available (this could include items such as baguettes in our bakery), or where the weight provided is not correct.

- The following steps are taken to select the best estimate for product contents weights:

- - Product content weights are checked category by category and are marked as requiring adjustment where the content weight is missing or if it is high or low compared to the category average.
    - For all items requiring adjustment, items are checked on a sub-category basis and either the category or sub-category average is used based on expert judgement.
- To minimise the risk associated with such estimates, categories with the largest number of waste items are prioritised and checked in more detail as these have the greatest impact on the total waste.
- In addition, within each category, the products with the highest number of wasted units are checked manually one-by-one as these can also have a significant impact on the total waste tonnage.
- The sales weight is measured using the same method for food waste: the number of units sold is multiplied by the same per unit weight used in the calculation described above.
- Where necessary (see country sections) adjustments are made to account for donations or animal feed.

The weight coverage of product contents weights, other sources (e.g., self-scan weights, bakery weights, description weights, weighted products, etc.) and estimated weight (i.e., category or subcategory average weight) per country is detailed in the table below.

Data Source	Tesco UK	Tesco ROI	Tesco CE	Booker
Contents Weight	84%	89%	91%	96%
Other Sources	10%	4%	9%	3%
Estimated (Cat/Sub Average)	6%	7%	0.2%	1%

The data is compiled for each market by Anthesis to track the % change in tonnes of food wasted as % of tonnes of food handled compared to baseline year (2016/17), and to track the % of unsold food safe for human consumption redistributed to humans or animals.* It is assumed that 1 L is equivalent to 1 Kg where product content weights are listed as volumes.

The data for each market is then summed to achieve a Tesco Group figure.

To derive the KPI calculations:

Percentage change in tonnes of food wasted as a percentage of tonnes handled compared to the baseline year.

The KPI figure represents the change, from the baseline year, in our food waste per food handled intensity:

- The intensity is measured by weight: tonnes of food wasted divided by the tonnes of food handled.
- The percentage change from the baseline year is calculated as the baseline year intensity minus the current year intensity, divided by the baseline year intensity.

Category breakdown of total food waste

To calculate food waste breakdown by category, total tonnes of food wasted in each category, and % contribution to total waste are reported for the following categories:

- Bakery.
- Beers, Wines and Spirits.
- Dairy.
- Grocery.

- Impulse.
- Meat, Fish and Poultry.
- Prepared Foods.
- Produce.

The hierarchy has been changed by Tesco over the years, so these categories do not all match in historic reporting.

Historical data is available for this KPI for the UK from 2013/2014 and 2016/17 for remaining markets. For ESG reporting purposes we will report data using the following:

- Baseline Year: Base year for the target (halve intensity by 2030) is 2016/17.
- ESG KPI Presentation:
  - Percentage change in tonnes of food wasted as a percentage of tonnes handled compared to the baseline year.

Details specific to each country are outlined below.

UK

SCOPE EXCLUSIONS

The following products are out of scope and therefore excluded from the calculations:

- Products in non-food categories, for example Health, Beauty & Wellness, Household & Pet care or electrical products, except certain products food items such as baby food and nutritional fitness food.
- Plants and flowers in the Produce Category.
- Some individual products were excluded in other Categories where they were clearly not food, for example: books, glassware, and candles.
- Store transfers.

DATA SOURCES

Retail waste: This dataset contains the number of retail units wasted and the total value (£) of such waste per item, split by waste type:

- DAM waste: Products that are damaged in store, whether on the shop floor or in storage. This also includes waste arising from customer returns and from clearance events.
- OOC waste: Products that exceed the 'Best before' or 'Use by' date and can no longer be sold.
- Product Write Off waste: Products that are not suitable for sale. For example, the supplier has sent a request to withdraw the product as it is not safe for consumption.
- Exceptional Events Waste: Products that are damaged during an exceptional event. For example, this waste could be caused by a fridge breakdown or flood.

Depot waste: This dataset contains the number of depot units wasted and the total value (£) of such waste per item. Depot units differ from retail units as these contain several retail units (for example a pallet or a carton of individual packs). The number of retail units per depot unit is also provided in the dataset and is used to calculate the total retail units per item.

Depot waste figures are reported as a mixture of positive and negative totals. Negative figures are 'losses', i.e. waste. Positive figures are single items that have been retrieved from wasted packs (e.g. individual cartons retrieved from a broken case). The total waste per item is the sum of losses and gains multiplied by minus one, to align these data with other datasets.

Product weights data: This dataset contains the contents weight and the packaged weight per item. Note that where duplicates are found, a conservative estimate is taken and the highest weight is used.

Self-scan weights data: This dataset contains the packaged weight of items as measured in store self-scan tills. These data are used where product data from the source above are not available. Note that where duplicates are found, a conservative estimate is taken and the highest weight is used. Given these data include packaging, these are only used for items where a more suitable weight is not available and where the weight of packaging is not considered to be significant.

Bakery weights data: This dataset contains the weight per item for bakery products that do not have a weight assigned in the product weight data. The product specification weight is provided by our bakery team.

Community Food Connection (CFC) donations data: This dataset contains the number of units and value of food donated to charities through our Community Food Connection programme. These donations are also recorded as part of the OOC waste detailed above and are subtracted from these to avoid double counting.

Other charity data: FareShare and Company Shop provide data for donations that are not included under our CFC programme. This includes donations from our ambient and fresh depots. Donations from depot include oversupply and reject food owned by suppliers, where the donation is facilitated by Tesco. These are included in the donations figure and in the total surplus figures. Some donations are also recorded as waste in our depots, this may result in an overstatement of our waste figures.

OLIO donations data: This dataset contains the number of units and value of food donated through the OLIO application. Our relationship with OLIO began in FY1920 and was previously recorded as part of CFC donations data, however, will be recorded separately for FY2021 onwards. OLIO donations are also recorded as part of the OOC waste detailed above and are subtracted from these to avoid double counting.

Colleague Shop: This dataset contains the number of units and value of food given to colleagues through our colleague Shop programme. In 2020/21, food given to colleagues was recorded in two ways: using employee discount cards and logged as a sale or recorded as part of OOC waste detailed above. These are subtracted from the sales and OOC waste figures respectively to avoid double counting.

Animal feed tonnage: The tonnage of bakery, produce and dairy surplus that is diverted to animal feed. This data is provided by RSR, our animal feed partner. The tonnage recorded in this dataset excludes product packaging and rejects. As of November 2020 some products in the Grocery category have been included in the animal feed stream and are recorded by RSR as bakery.

Pet Food: This dataset contains the tonnage of Meat, Fish and Poultry (MFP) surplus that is diverted to pet food via a new partnership with Resource Foods that commenced in January 2021. The tonnage recorded in this dataset excludes product packaging and rejects.

Assumptions and estimations.

As described previously, the following assumptions and estimates are used in the "Percentage change in tonnes of food wasted as percentage of tonnes of food handled compared to baseline year (2016/17)" KPI calculation:

- Assumption: In order to homogenise the data of all the product items included in the KPI calculation, all product weights are converted into tons. We assume for this purpose that 1 L is equivalent to 1 Kg where product content weights are listed as volumes.

- Estimation: Self-scan weights data (packaged weight of items as measured in store self-scan tills) are used where product data from the source above are not available. These data - only used for items where a more suitable weight is not available- include packaging; packaging weight has not considered to be significant.

- Estimation: For products where weight is not available (e.g.: baguettes in our bakery), this is estimated using their category or sub-category average.

ROI

SCOPE EXCLUSIONS

During the calculations, all non-food items are removed from our waste data. The following product products are out of scope and therefore excluded from the calculations:

- All products within Baby, Beauty & Toiletries, and Healthcare, Optician & Pharmacy categories except baby food and nutritional fitness food.

- All products in the Household & Petcare category except food items.

- All petcare and incense products in the Grocery category.

- Plants and flowers in the Produce category.

- Store transfers were also excluded.

- Some individual products were excluded in other categories where they were clearly not food, for example: books, glassware.

DATA SOURCES

Retail waste: This dataset contains the number of retail units wasted and the total value (£) of such waste per item, split by waste type:

- DAM waste: products that are damaged in store, whether on the shop floor or in storage. This also includes waste arising from customer returns and from clearance events.

- OOC waste: Products that exceed the 'Best before' or 'Use by' date and can no longer be sold.

- Product Write Off waste: Products that are not suitable for sale. For example, the supplier has sent a request to withdraw the product as it is not safe for consumption.

- Exceptional Events waste: Products that are damaged during an exceptional event. For example, this waste could be caused by a fridge breakdown or flood.

Depot waste: This dataset contains the number of depot units wasted and the total value of such waste per item. Depot waste figures are reported as a mixture of positive and negative totals. Negative figures are 'losses', i.e. waste. Positive figures are single items that have been retrieved from wasted packs (e.g. individual cartons retrieved from a broken case). The total waste per item is the sum of losses and gains multiplied by minus one, to align these data with other datasets.

Product data: This dataset contains the contents weight and the packaged weight per item. Note that where duplicates are found, a conservative estimate is taken and the highest weight is used.

Bakery Weights data: This dataset contains the weight per item for bakery products that do not have a weight assigned in the product weight data. The product specification weight is provided by our bakery team.

Self-scan data: This dataset contains the packaged weight of items as measured in store self-scan tills. This data is used where product data from the source above is not available. Note that where duplicates are found, a conservative estimate is taken and the highest weight is used. Given these data include packaging, these are only used for items where a more suitable weight is not available and where the weight of packaging is not considered to be significant.

Surplus food donations programme: This dataset contains the number of units and value of food donated to charitable food organisations through our partnership with Irish social enterprise FoodCloud. These donations are also recorded as part of the OOC waste detailed above and are subtracted from these to avoid double counting.

Colleague Shop: This dataset contains the number of units and value of food, mostly from our bakery selection, given to colleagues through our Colleague Shop programme. This food is also recorded as part of the OOC waste detailed above and are subtracted from these to avoid double counting. This is now also linked to colleague clubcard.

TESCO

Other charity data: FoodCloud provides data for donations from our ambient and fresh depots. Donations from depot include oversupply and rejected food owned by suppliers, where the donation is facilitated by Tesco. These are included in the donations figure and in the total surplus figures.

OLIO donations data: This dataset contains the number of units and value of food donated through the OLIO application. Our relationship with OLIO began in FY21/22.

Central Europe

SCOPE EXCLUSIONS

During the calculations, all non-food items are removed from our waste data. The following products are out of scope and therefore excluded from the calculations:

- All products in non-food categories, for example health & beauty, pet care or electrical products.
- Plants and flowers in the Produce Category.
- Some individual products were excluded in other Categories where they were clearly not food, for example: books, glassware.

DATA SOURCES

In order to calculate the amount of food wasted each year we record the following data in our stores and depots.

Retail waste: This dataset contains the number of retail units wasted and the total value (£) of such waste per item, split by waste type:

- DAM waste: products that are damaged in store, whether on the shop floor or in storage.
- OOC waste: Products that exceed the 'Best before' or 'Use by' date and can no longer be sold.
- Product Write Off waste: Products that are not suitable for sale. For example, the supplier has sent a request to withdraw the product as it is not safe for consumption.
- Exceptional Events waste: Products that are damaged during an exceptional event. For example, this waste could be caused by a fridge breakdown or flood.
- Clear-as-you-go: waste arising from clearance events.
- Returns: customer returns that can no longer be sold.

All waste data is provided as negative units. These are multiplied by minus one for this to be reported as a positive figure.

Store Donations and Animal Feed data: The retail waste dataset also contains the number of retail units sent to charity and animal feed and the total value (£) of such surplus per item, split by waste type:

- Donations to food banks, local and national charities: donation of food for human consumption.
- Food surplus diverted to animal feed.

Depot waste: This dataset contains the number of depot units wasted and the total value (£) of such waste per item. Depot waste figures are reported as a mixture of positive and negative totals. Negative figures are 'losses', i.e. waste. Positive figures are single items that have been retrieved from wasted packs (e.g. individual cartons retrieved from a broken case). The total waste per item is the sum of losses and gains multiplied by minus one, to align these data with other datasets. From 2020/2021 the depot dataset also includes the number of units and the total value (£) of units donated or sent to animal feed from depot.

Product data: This dataset contains the contents weight and the packaged weight per item. Note that where duplicates are found, a conservative estimate is taken, and the highest weight is used.

Booker

During the calculations, all non-food items are removed from our waste data. The following products are out of scope and therefore excluded from the calculations:

- Non-Food, Pet Food, Tobacco, Health & Beauty, Laundry/Wash Up/Cleaning, Baby, Medicines, Catering Household and Catering Cleaning.

Waste from weighted items (products sold by weight) has been included in this financial year. The weight of these items is estimated by dividing the value of the waste by the per kg cost of the item. This was excluded in data for financial year 2017/18.

In order to calculate the amount of food wasted each year we record the following data in our sites. The data is divided by individual business including waste arising from Booker Wholesale, Makro Wholesale, Booker Direct, Booker Retail Partners, Best Foods logistics and Ritter Courivaud. These datasets contain the number of cases wasted or donated and the total value (£) of such items, split by type.

Branch waste: This dataset contains the number of cases wasted or donated and the total value (£) of such items, split by type:

- Damages: Products that are damaged in branch.

- Out of Code: Products that exceed the 'Best before' or 'Use by' date and can no longer be sold.

- Notified Loss: Products that are damaged during an exceptional event. For example, this waste could be caused by a fridge breakdown or flood. For the Beers, Wines & Spirits category this code is classed as theft so has been excluded.

- Poor Quality: Products that do not meet sales quality standards.

- Product Recall: Products affected by a supplier product recall.

- Charity Donation: Products that have been donated to a local charity including Olio

- Colleague Shop: Products that have been given free to colleagues

Booker Distribution waste: This dataset contains the number of saleable units wasted or donated and the total value (£) of such items, split by type. Saleable units are converted into cases by dividing these by the number of saleable units per case.

- Date Issue: Products that exceed the 'Best before' or 'Use by' date.

- Temperature Rejections: Products that are not fit for sale due to temperature failures.

- Other Damages: Products that are damaged at the distribution depot.

Booker Retail Partners: This data contains the number of cases wasted and the value split by waste type:

- Short Dated: Products with insufficient shelf-life for sale.

- Out of temperature: Products that are not fit for sale due to temperature failures.

- Poor quality: Products that do not meet sales quality standards.

- Damages: Products that are damaged at the distribution depot.

- Charity donations: Products that are donated to charities or Company Shop.

Note that from this year, charity donations and products sold in clearance cages are reported separately and therefore no longer included in the waste figures.

Product Attributes: This dataset includes the net weight of a saleable unit per item as well as the number of saleable units. This also includes information on whether a product is sold by weight or case.

Weighted products information: This dataset includes the per kg sales value and cost of weighted items. The data was provided for three dates during the financial year, an average of these values was used.

Assurance

Deloitte LLP was engaged to provide independent limited assurance over selected food waste data highlighted with ◊ in our yearend publications using the assurance standard ISAE (UK) 3000 and 3410. Deloitte's full assurance statement is available at: https://www.tescoplc.com/reporting-hub?activeTab=reports