

Project *brief*

Thünen Institute of Market Analysis

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Dialogue Forum on Wholesale and Retail Trade towards Food Waste Reduction

Lia Orr¹, Thomas Schmidt¹, Friederike Lehn¹, Marco Heinrich¹, Manuela Kuntscher¹, Nora Brüggemann², Patrik Eisenhauer²

- **Food Losses (= food waste and donations) in food retail in Germany were reduced from 1.76% (in 2019) to 1.54% (in 2020), which corresponds to about 246,000 tons in 2020 with regard to the turnover of the companies.**
- **23 companies - 17 from the retail sector and 6 from the wholesale sector - actively participated in the Dialogue Forum on Wholesale and Retail during the course of the project.**
- **Together with research partners and the BMEL, these companies have drawn up a target agreement that includes measuring food waste and cooperating with charities and similar organisations.**

Background and aims

The German government aims to halve food waste at retail and consumer level by 2030. We are supporting the retail and wholesale sector in the joint project handelsforumRLV (Dialogue Forum on Wholesale and Retail).

To achieve this goal, all actors in the food supply chain as well as consumers are called upon.

In this project, we analyse and quantify food waste in the retail sector in order to be able to map trends from 2015. For this we asked the following questions: Why does food waste occur? With which reduction measures can we reduce food waste efficiently? Which costs are associated with these reduction measures?



Quelle: CSCP für handelsforumRLV / © handelsforumRLV

Approach

In order to promote the transfer of knowledge between science and the companies, project results are communicated within the framework of regular meetings of the Dialogue Forum on Wholesale and Retail. Towards the end of the project, a volun-

tary agreement is to be developed with the participating companies. In this accord, concrete reduction measures as well as interim targets will be defined, with which the wholesale and retail sector will work towards halving food waste by 2030.

We used literature research to determine which methods are suitable for recording food waste (Orr and Schmidt, 2020). We then developed a method for collecting data in wholesale and retail.

For 2019 (Orr and Schmidt, 2021) and 2020 (Heinrich et al., 2022), 16 food retail and cash-and-carry companies representing about 16,000 outlets voluntarily provided us with data on sales losses (write-offs). The participating companies cover 88% of the organized food retail market share in Germany. For food wholesalers, data is available from six companies for 2020 and five companies for 2019. Write-offs include all food that is removed from sale, e.g. because it is spoiled or damaged. Depending on their condition, these written-off foods can either be passed on, e.g. to charities or similar organisations or used as animal feed, or disposed as food waste.

In addition, these companies are implementing numerous reduction measures, three of which we provided scientific and communicative support for.

Key findings

The retail sector accounts for only about 4% of total food waste (Thünen study "Food waste in Germany - Baseline 2015"). Because there are still data gaps, we can so far only estimate how much of the food written off actually ends up as waste and how much is passed on (e.g. to food banks). Experts estimate that around 30% of written-off food is donated.

All 23 members of the dialogue forum have signed a declaration of participation for the period during the project in which they commit themselves to certain measures:

Binding measures include data collection on food waste and cooperation with charities or similar organisations. At least 88 mandatory measures were implemented internally, 62 measures were implemented at the interfaces with suppliers, and 52 measures were implemented to improve food distribution. Of this total of over 200 measures, 73 were implemented in the course of cooperation in the dialog forum. This is particularly noteworthy in light of the challenges posed by the COVID 19 pandemic.

Two case studies were conducted by the Thünen-Institute in which reduction measures were evaluated.

The first case study dealt with the addition of a time-temperature indicator (Keep-it®) to the best-before date. This addition, used by HelloFresh, led to a reduction in food waste at the consumer level, and food waste was also reduced within the company's scope - through increased process efficiency. The second case study involved the evaluation of a "upcycled products shelf." This shelf, located at Penny, offers products made from upcycled food, such as crackers. In total, about 19 kg of food was saved from the bin by the upcycled products sold during the project period. In addition, the products were economically profitable for the manufacturing companies. In terms of environmental impact, there were large differences due to the very different product types. Six of the eleven articles had a positive impact on the greenhouse gas balance, i.e. greenhouse gas emissions were saved (0.1 - 0.54 kg CO₂eq/article), two articles had a greenhouse gas balance close to zero and three articles had a negative impact, i.e. led to additional greenhouse gas emissions (0.13 - 0.24 kg CO₂eq/article). We recorded the social effects by surveying consumers.

In addition, the target agreement developed can consolidate the successes achieved in the project and contribute to the achievement of the target by 2030.

Outlook

In order to further reduce food waste, the companies from the wholesale and retail sectors involved in the Dialogue Forum have drawn up a draft **voluntary agreement 2022-2030 and submitted it to the Federal Ministry of Food and Agriculture** for final review.

The trusting and constructive cooperation in the Dialogue Forum on Wholesale and Retail made it possible to draw up this ambitious voluntary agreement.

Within this framework, data is also to be further recorded, collected and published in aggregated form. The company's internal data collection and discussion of the figures in the various departments can help those involved to identify and

implement individually sensible measures for specific reasons for depreciation. The improved data situation also enables a benchmark - which will be continuously improved in the coming years - to be compared with the signatory companies as a whole. In addition, the pilot projects carried out by the Thünen-Institute with four member companies allow an insight into the potential of food donations to further reduce food waste.

The observed reduction of the food waste rates (write-offs) of the companies in the dialogue forum between the years 2019 and 2020 suggest that the members are already successfully reducing food waste in their own sphere of influence.

Further Information

Contact

¹ Thünen-Institut for Market Analysis
Thomas.Schmidt@thuenen.de
www.thuenen.de/ma

Partner

² Collaborating Centre on Sustainable Consumption and Production (CSCP)

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Publications

Brüggemann N., Orr L. (2023): Stand der Umsetzung der Beteiligungserklärung. Abschlussbericht 2022 des Dialogforums Groß- und Einzelhandel zur Reduzierung von Lebensmittelverschwendung. Wuppertal: Collaborating Centre on Sustainable Consumption and Production, 26 p. DOI: 10.5281/zenodo.7560241

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