

Why do European consumers waste food?

Looking at the latest figures and research

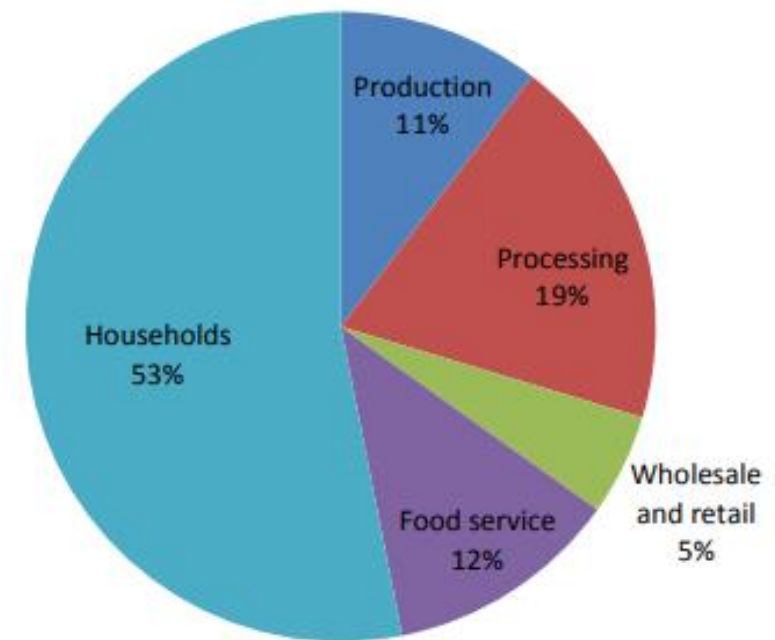
Food Waste at Home & Ways to Address It
International Conference, Consumer Institute
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At 53%, households are accountable for the most food waste

Where is food wasted?

- The volume of food waste
 - globally, 1.3 billion tonnes of food are wasted annually
 - in Europe, an estimated 88 million tonnes of food are wasted annually
- Food waste “hotspots” in the chain
- Environmental impact



Up to 115kg of food are wasted per capita annually

Of the 865 kg of food produced, an estimated 12% will go to waste

- Equivalent to 95–115 kg food waste *per capita*

The most wasted food categories are:

Cereals:

22.6 million tonnes
(25% of overall
production)



Fruit & vegetables:

21.2 million tonnes
(34% [19% fresh,
15% processed])



Dairy:

11.9 million tonnes
(7%)



Lack of harmonised food waste statistics makes it difficult to compare figures across Europe



- **Terminology & definitions**

- Food loss (early stages of the chain like production, handling and storage, processing and packaging) vs. food waste (final two stages of the chain: distribution and consumption)
- Edible (produced for human consumption, but does not reach the consumption stage) vs. inedible (not edible under normal circumstances) food
- Avoidable vs. non-avoidable food waste



- **Data collection method**

- Measures vs. estimations

So why do we waste food?

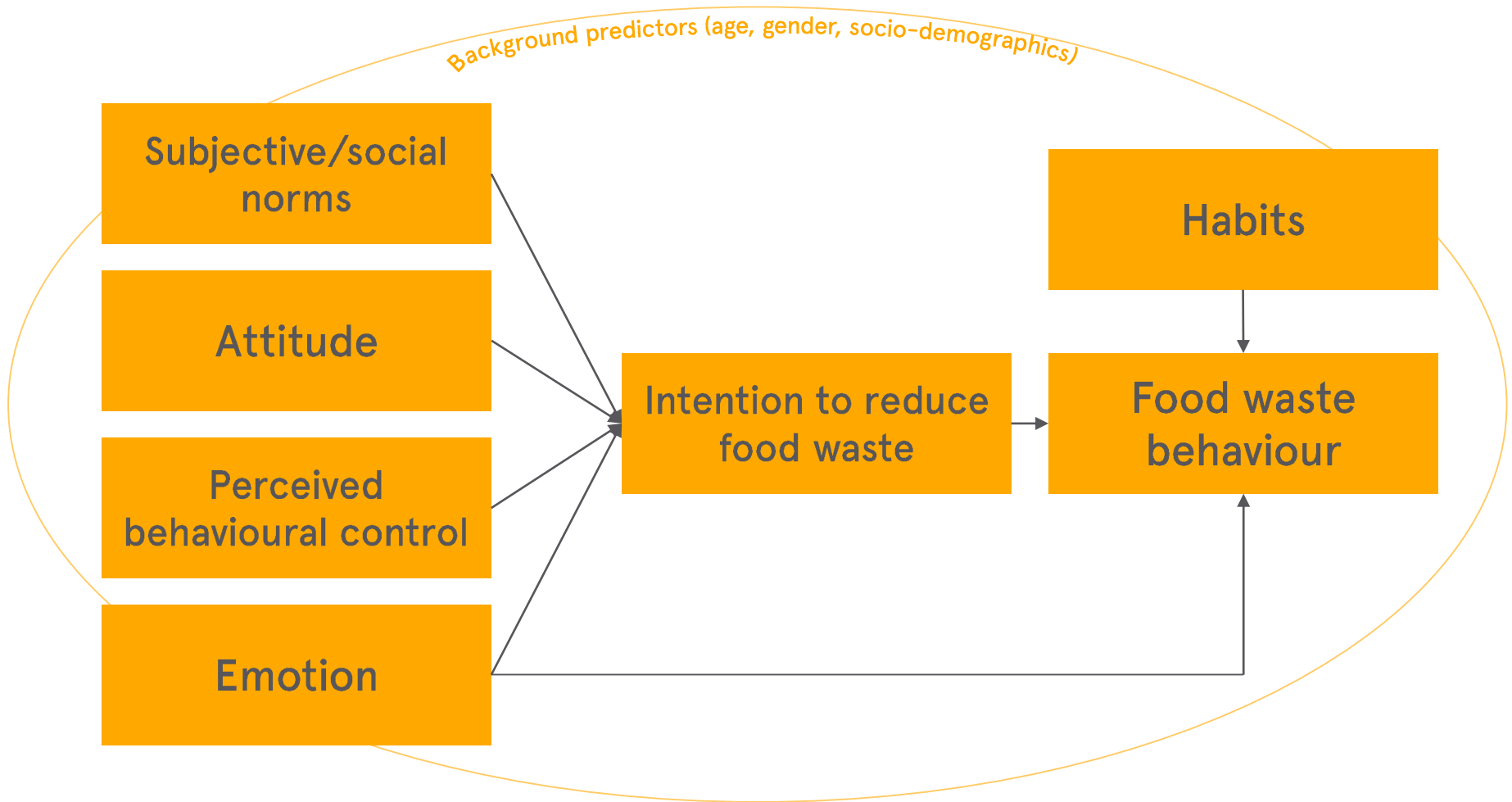
Putting a price on food waste – how much does it cost to throw away food?

Country	Total volume (tonnes)	Volume per capita	Cost per capita
Belgium ^{22,33,36}	3.6 million	18.5 kg	€79.50
Germany ³⁰	10.9 million	53 kg	€200-260
United Kingdom ¹⁹	10 million	70 kg	€195

- 565 EUR per household per year in the UK
- 468 EUR per household per year in Germany
- 191 EUR per household per year in Belgium



Explaining food waste behaviour through the theory of planned behaviour



Background predictors (age, gender and household size) impact food waste behaviour



Age

- Older people discard less amounts of food (social constructs, awareness of the cost of food, feeling of guilt and lack of knowledge, prior experiences of economic recession)
- 18–24 year olds waste the most

Gender

- Females waste more
- Especially single ones or those responsible for the household shopping
- Feel guiltier → not doing a good job managing the household and providing for the family

Household size*

- Families with more members and families with more children waste more
- Higher income households waste more but lower income households also waste considerable amounts (Porpino et al., 2015)
- Income is not related to attitudes towards food waste (Melbye et al., 2016)

Attitude, social norms and perceived behavioural control play different roles in food waste behaviour



- 'not caring' attitude
 - Lack of awareness on amount of food wasted
 - Lack of awareness on the environmental/social impact
- Social norms do not appear to influence food waste behaviour because they can often not be measured – food is wasted at home
- Perceived behavioural control plays a role in routines
- Feeling of guilt and emotional connection to food can serve as motivators for reducing waste
- Perceived value of food can influence the amount food wasted
 - Food prices vs. socio-economic status

Food waste behaviour along the five stages of consumption



Planning	<ul style="list-style-type: none">• Shopping routines and purchase lists can help diminish food waste but are often not adhered to in the actual shopping situation
Purchase	<ul style="list-style-type: none">• Buying larger packages is linked to more food waste but economic drivers of food purchases are difficult to change
Storage	<ul style="list-style-type: none">• Avoiding risk and ensuring food safety is a priority in storing food• Confusion on correct storage and interpretation of food labels
Preparation & serving	<ul style="list-style-type: none">• People tend to cook more than they consume right away• Cooking larger amounts and then freezing them often leads to food waste due to wrong storage or not using leftovers in time• Lack of awareness of how much food is wasted in the preparation process
Consumption	<ul style="list-style-type: none">• People waste less when portions are smaller• 'Fussy' eater given as a reason for kids leaving food on the plate• More waste in out-of-home settings (country differences!)
Leftovers	<ul style="list-style-type: none">• Small portions of leftovers are not considered worthy to save• Undesirable to eat leftovers because of safety reasons• People feel ashamed when consuming foods classified as waste• Even when stored correctly, leftovers often get thrown away

Results from intervention studies

Portion sizes at cafeterias and restaurants

University NL: Posters with information on FW and meal planning → students accepted to pay same price for smaller portions

Hotel NO: Smaller plate sizes led to the reduction of food waste by 20%

Restaurant CH: With two different plate sizes, bigger plates were filled with 52% more and produced 135% more waste

Social media-based interventions

University UK: Sharing leftovers using Twitter revealed concerns about food safety

Awareness campaigns

'Love Food Hate Waste' UK: Providing information, tools and advice from 2007–2012 helped to reduce the total household food waste by 21%

Where do we go from here?

- **Data collection:** harmonise standards, definitions and data collection methods across countries
- **Consumer science:** improve understanding of real-life behaviour, e.g. through standardised intervention tools that ensure comparability of the results across countries
- **Effective communication:** design campaigns that are tailored to specific segments and create actionable intervention, e.g. through nudging

Thank you!

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Back-up