

# Why do European consumers waste food?

## Looking at the latest figures and research

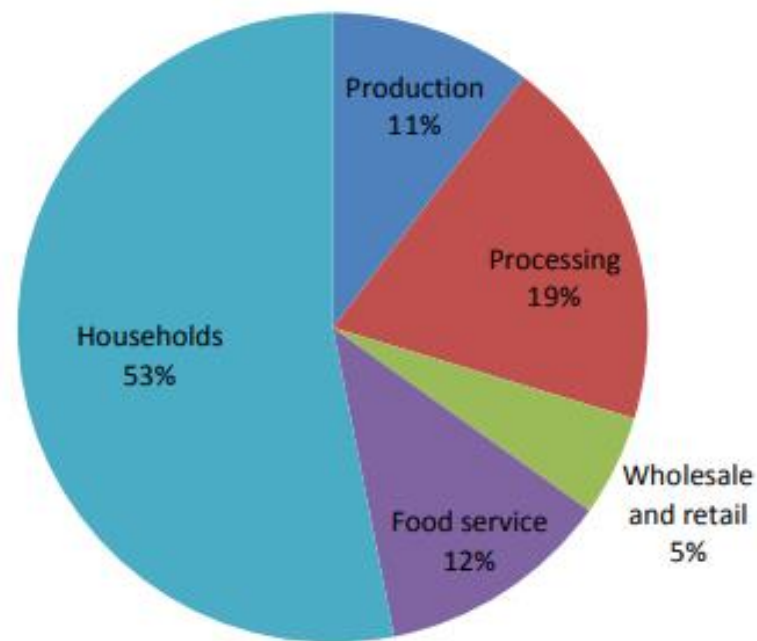
Food Waste at Home & Ways to Address It  
International Conference, Consumer Institute  
Vilnius, Lithuania  
April 10 2018



# 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 consumptions 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?

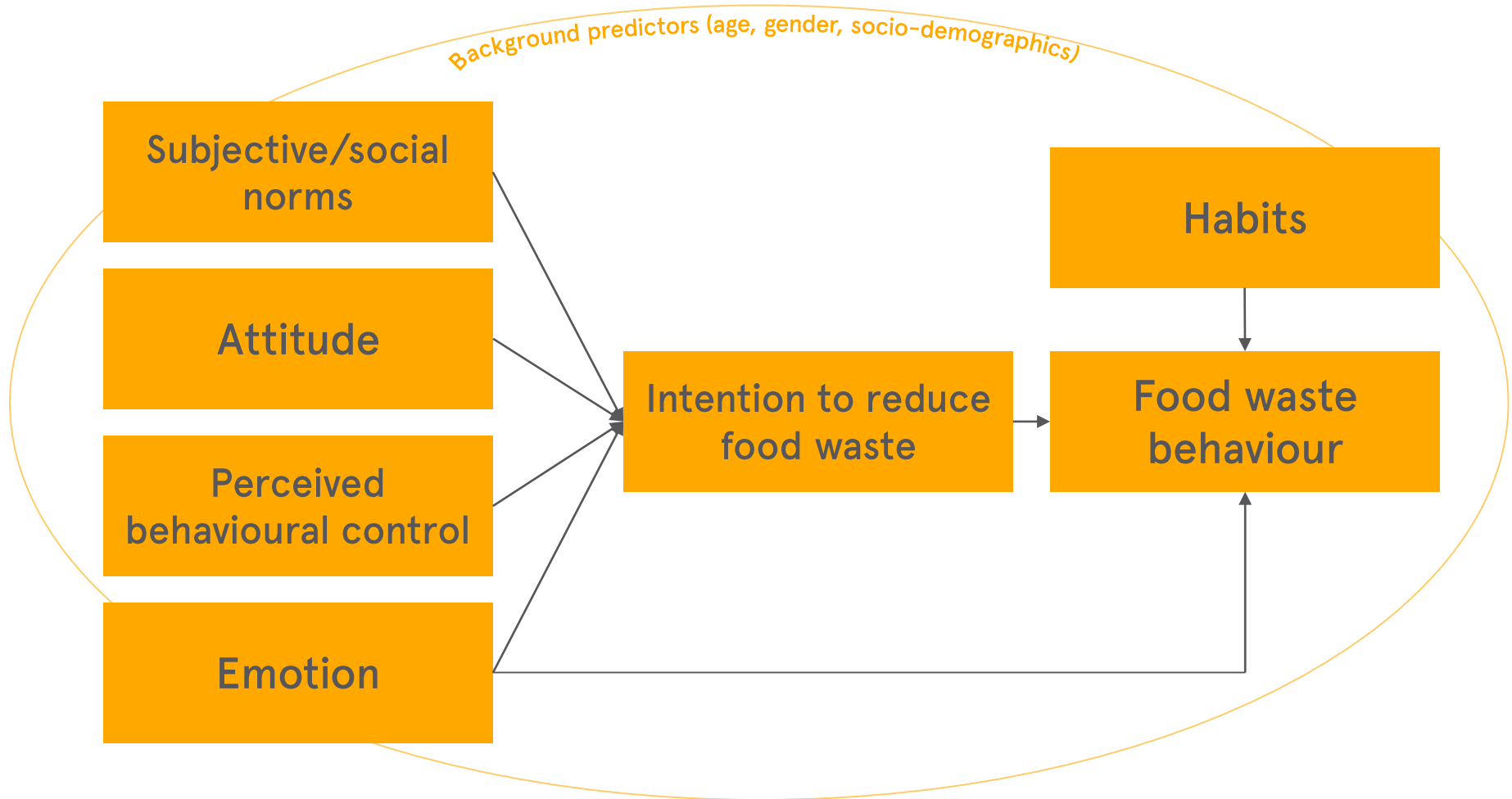
# Putting a price on food waste – how much does it cost to throw away food?

Country	Total volume (tonnes)	Volume per capita	Cost per capita
Belgium <sup>22,33,36</sup>	3.6 million	18.5 kg	€79.50
Germany <sup>30</sup>	10.9 million	53 kg	€200-260
United Kingdom <sup>19</sup>	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"><li>• Shopping routines and purchase lists can help diminish food waste but are often not adhered to in the actual shopping situation</li></ul>
Purchase	<ul style="list-style-type: none"><li>• Buying larger packages is linked to more food waste but economic drivers of food purchases are difficult to change</li></ul>
Storage	<ul style="list-style-type: none"><li>• Avoiding risk and ensuring food safety is a priority in storing food</li><li>• Confusion on correct storage and interpretation of food labels</li></ul>
Preparation & serving	<ul style="list-style-type: none"><li>• People tend to cook more than they consume right away</li><li>• Cooking larger amounts and then freezing them often leads to food waste due to wrong storage or not using leftovers in time</li><li>• Lack of awareness of how much food is wasted in the preparation process</li></ul>
Consumption	<ul style="list-style-type: none"><li>• People waste less when portions are smaller</li><li>• 'Fussy' eater given as a reason for kids leaving food on the plate</li><li>• More waste in out-of-home settings (country differences!)</li></ul>
Leftovers	<ul style="list-style-type: none"><li>• Small portions of leftovers are not considered worthy to save</li><li>• Undesirable to eat leftovers because of safety reasons</li><li>• People feel ashamed when consuming foods classified as waste</li><li>• Even when stored correctly, leftovers often get thrown away</li></ul>

# 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?

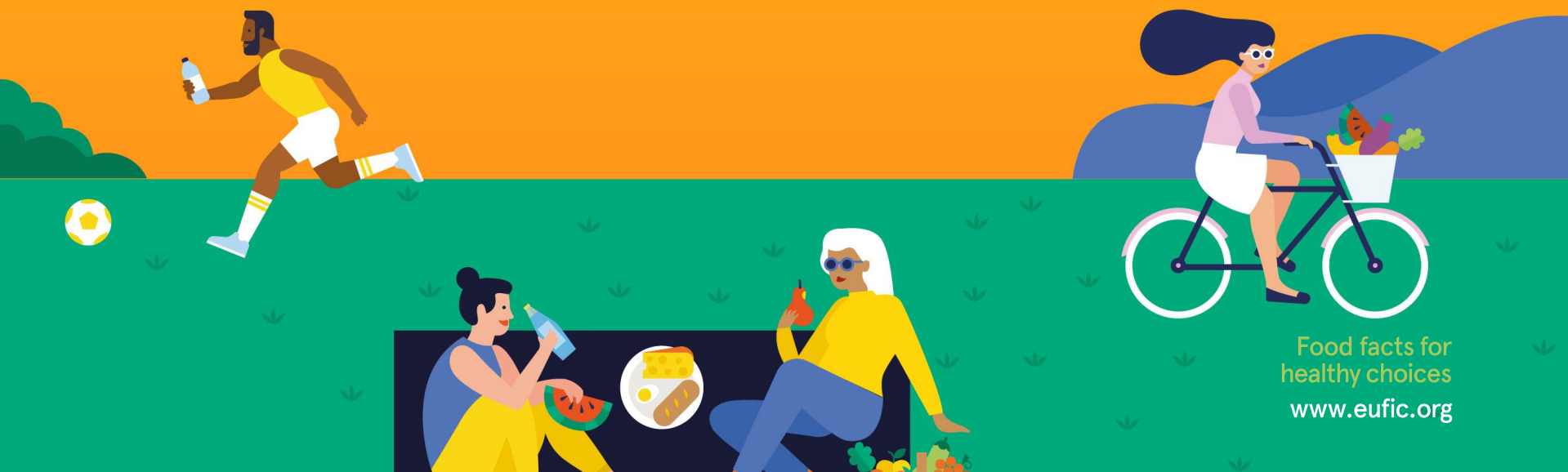
- **Data collection:** harmonise standards, definitions and data collection methods across countries
- **Consumer science:** improve understanding of real-life behaviour, e.g. through standardised intervention tools that ensure comparability of the results across countries
- **Effective communication:**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

# Thank you!

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# Back-up