Market study on date marking and other information provided on food labels and food waste prevention

Presented at EU Platform on Food Losses and Food Waste

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James Gardiner,
Managing Consultant,
ICF

Julian Parfitt,
Technical Director,
Anthesis

Overview

1. Study Objectives and Activities

2. Evidence review

3. Mystery shopping – scope and results

4. Issues identified and discussed with stakeholders

5. Conclusions and Recommendations

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Study Objectives and Activities

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Study Objectives

- Investigate **food labelling practices**, especially date marking

- Assess the **possible impacts** of these practices **on food waste**

- Support **DG SANTE's work on date marking** in relation to food waste prevention and **dialogue with supply chain actors**

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Study Activities

- **Task 1: Evidence review** through desk research to:
  - Assess **most wasted food products** in EU 28
  - Assess **links** between food waste and food labelling practices
  - Define **target products** for mystery shopping on basis of these assessments

- **Task 2: Market research** to survey current labelling practices through **mystery shopping**…
  - …for a standard basket of **10 target food products**
  - …at a representative sample of **supermarkets**, **hypermarkets** and **discounters**' stores
  - …in **8 EU MS**: Germany, Greece, Hungary, Netherlands, Poland, Slovakia, Spain, Sweden

- **Task 3: Interviewing supply chain actors** to:
  - Explore **date-marking and labelling practices** with
  - 37 Food business operators (FBOs)
  - 15 European organisations, mainly trade associations
  - 19 National competent authorities (NCAs)

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Task 1: Evidence review – food products' contribution to food waste

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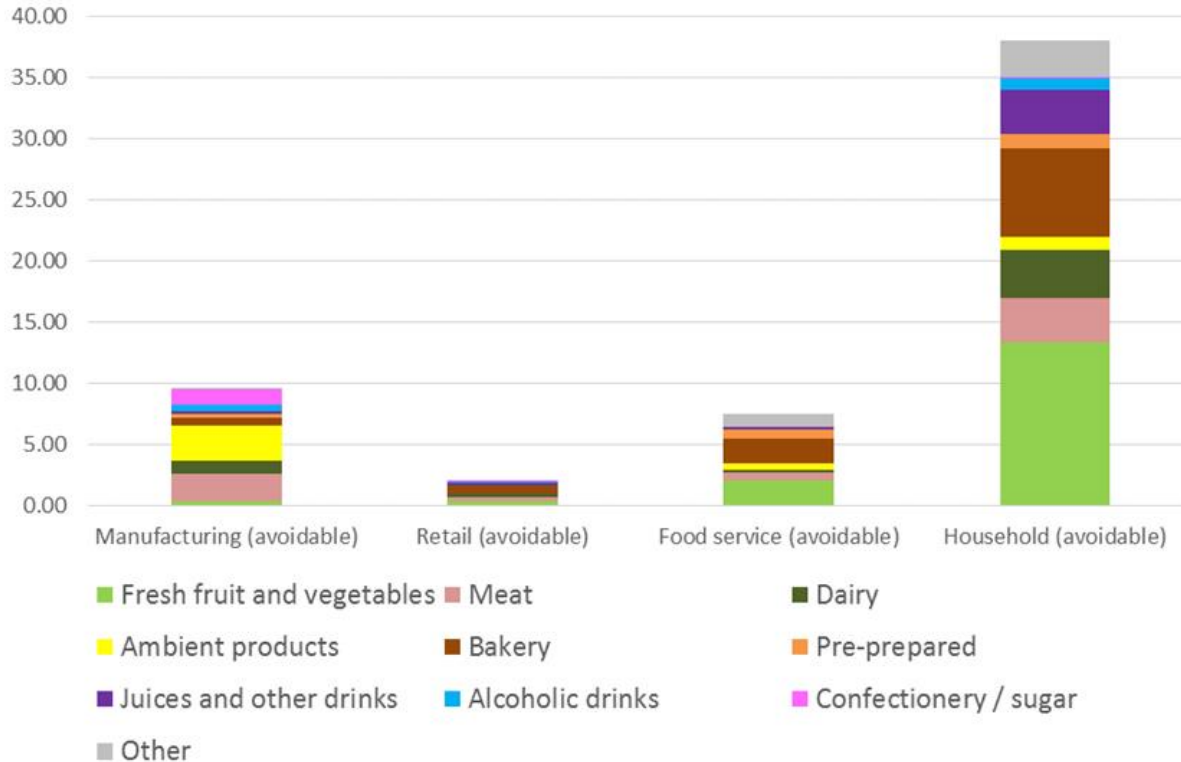
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EU 28 avoidable total food waste was profiled by food product category across four supply chain stages

- The four stages are: manufacturing/ processing, retail, service and household
- Profiling was undertaken through the use of a combination of:
  - FUSIONS 2016 data
  - Compositional analyses
  - Food production and consumption data

- In general, the most wasted food categories are:
  1. Fruit and vegetables
  2. Bakery products
  3. Meat (incl. poultry and fish)
  4. Dairy

- However, the food waste profile varies…
  - …by supply chain stage
  - …between Member States

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EU 28 avoidable total food waste was profiled by food product category across four supply chain stages

EU28 avoidable food waste (Mt/ year)

Legend:
- Fresh fruit and vegetables
- Meat
- Dairy
- Ambient products
- Bakery
- Pre-prepared
- Juices and other drinks
- Alcoholic drinks
- Confectionery / sugar
- Other

X-axis: Manufacturing (avoidable), Retail (avoidable), Food service (avoidable), Household (avoidable)

EU28 avoidable food waste (%)

- Meat - avoidable 12%
- Dairy -avoidable 10%
- Juices and other drinks -avoidable 8%
- Other - avoidable 7%
- Pre-prepared - avoidable 4%
- Ambient products - avoidable 7%
- Alcoholic drinks - avoidable 3%
- Confectionery / sugar - avoidable 2%
- Fresh fruit and vegetables - avoidable 28%
- Bakery - avoidable 19%

Source: FUSIONS 2016, Prodcom 2016, FAO 2011, WRAP 2016

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The maximum amount of food waste <u>attributable to date-marking issues</u> was estimated for the EU-28 at 88 million tonnes per year

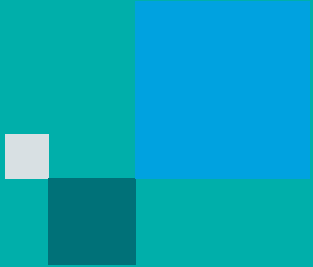| Food waste attributable to sector	As % sectoral food waste	Total (Mt/yr)
Manufacture (Minimum Life on Receipt linked to depot returns)	5%	<1
Retail (linked to 'date expiry' in stores)	55%	2.5
Household (consumers citing date labels in their discard decisions)	9.5% to 12%	4.4 to 5.5

Source: ICF, based on WRAP

Product types for which consumer decision to discard most influenced by date marks are:

- Fresh/ processed meat
- Fish
- Poultry
- Liquid dairy
- Fresh fruit juice

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Task 2: Mystery shopping – scope and results

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Mystery shopping – 10 target product types, all pre-packed

- **Salad**
  - cut lettuce/ salad leaves
- **Bread**
  - white, medium-sliced
- **Fish** (chilled)
  - smoked salmon
- **Ham** (chilled)
  - prosciutto/ serrano
- **Milk** (fresh)
  - Cows', semi-skimmed (low-fat)
- **Yoghurts**
  - Multipack, strawberry
- **Cheese** (hard, sliced)
  - Cheddar/ Gouda/ Emmental
- **Juice** (fresh)
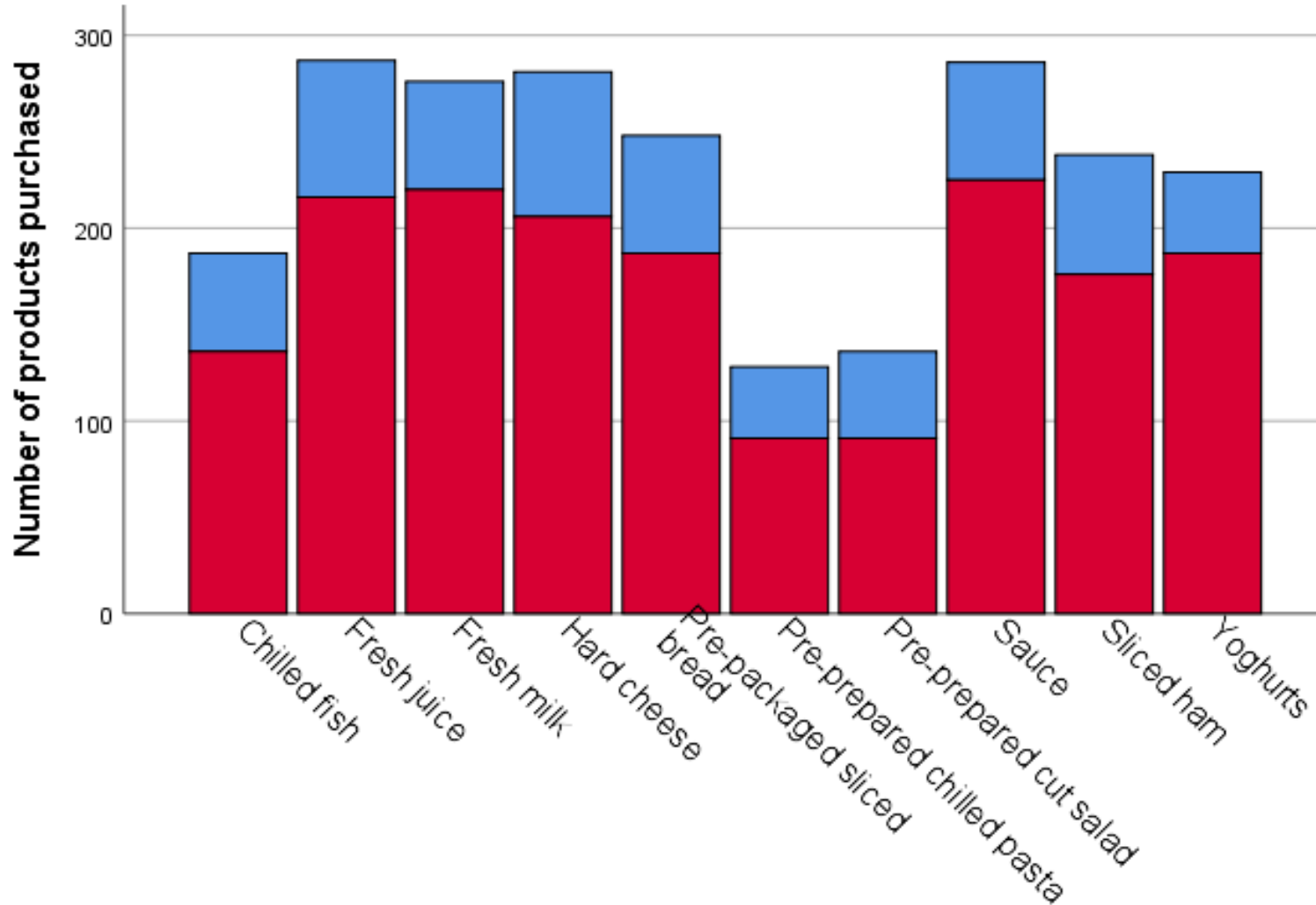 - Orange, no pulp
- **Pasta** (chilled)
  - Vegetable filling
- **Ketchup** (tomato)

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Split between "retailers' own brand" products and "branded products" purchased varied according to product type
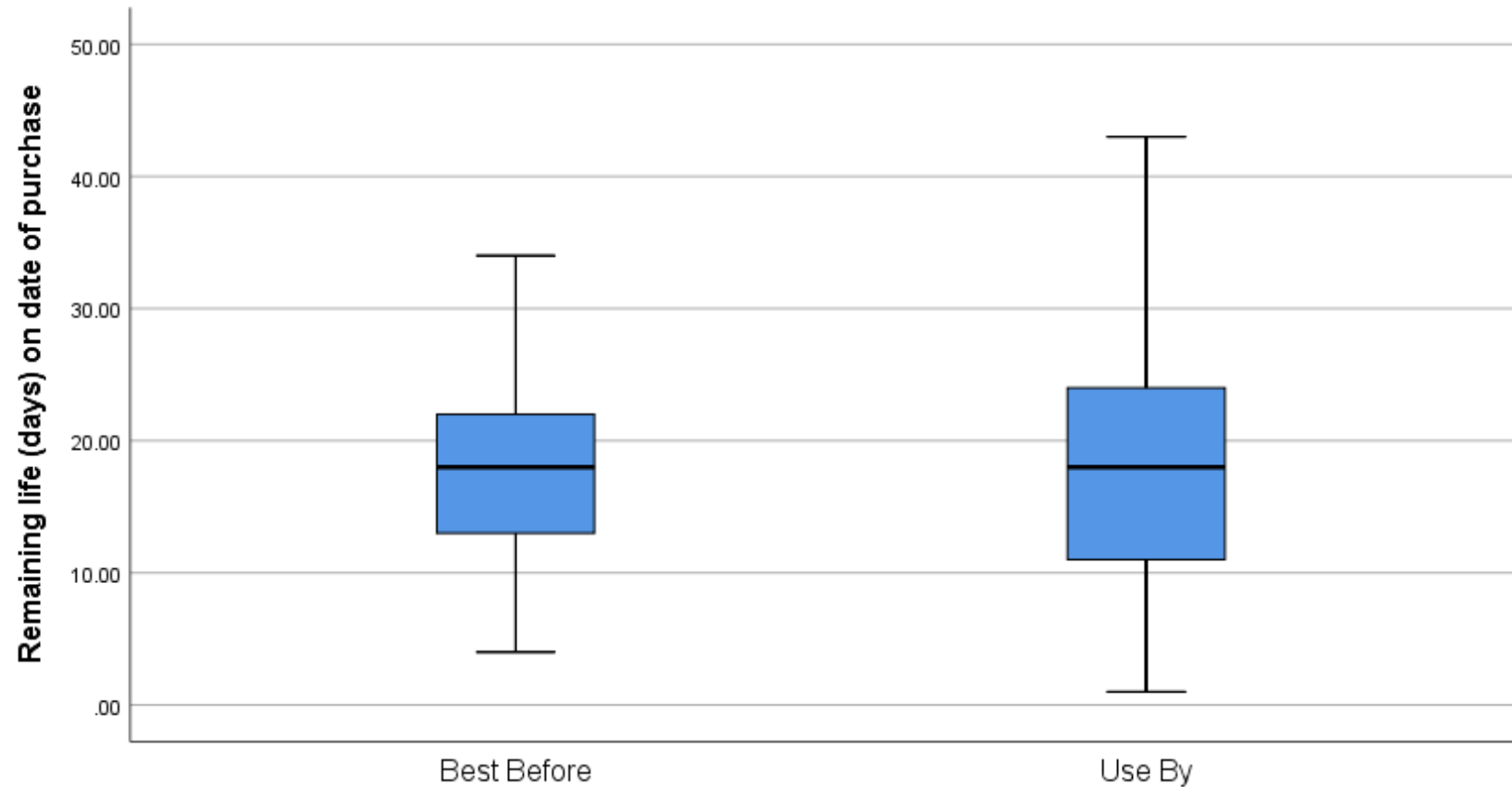

- 2,296 products purchased overall;

- 24% of these products were retailer's own brand, 76% were branded products

- 38% of products purchased from discounters were retailer's own brand, 62% were branded products

- 21% of products purchased from conventional retailers were retailer's own brand, 62% were branded products

Mystery shopping – extent and results

- *Stores visited: 109 ; Products purchased: 2,296 ; Brands sampled: 1,058*

- **Date marking** – almost always in line with FIC Regulation
  - 95.6% products showed date mark and either "Use By" (UB) or "Best Before" (BB) wording

- Biggest problem encountered – **Illegibility**
  - 10.8% of products display date mark and/or wording insufficiently legibly

- Other problems – unusual or rare
  - Confusing or absent date wording – 3.7% of products
  - Wrong type of date (e.g., "display until") – 0.7% of products
  - Both UB <u>and</u> BB wording displayed – <0.1% of products

- **Remaining life** of products
  - Varied widely within each product type, but…
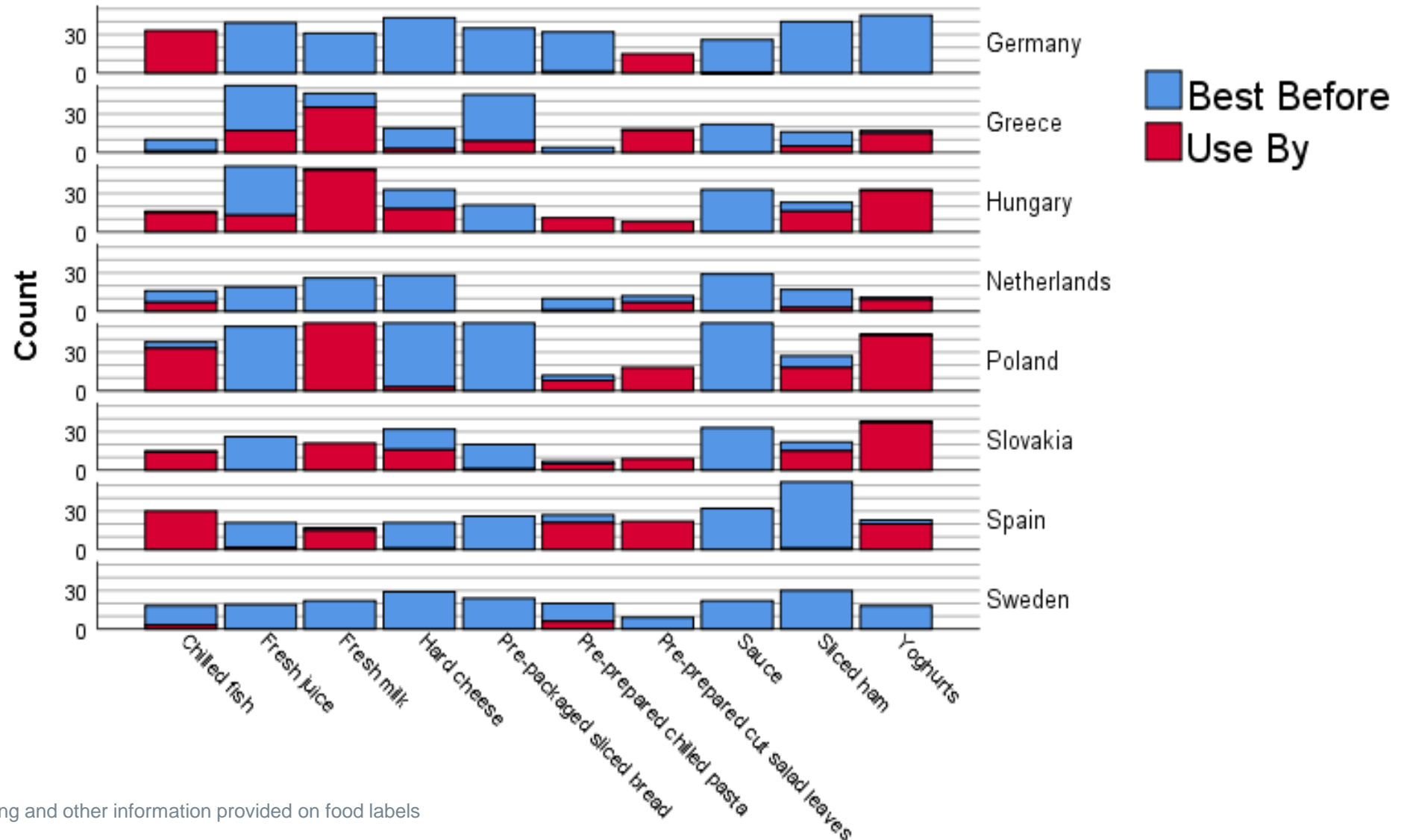 - Average remaining life of **BB** products and **UB** products – **very similar**

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Average remaining life on date of purchase for yoghurts with a BB date mark is very similar to that for yoghurts with a UB date mark

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The use of "Best Before" and "Use By" date marks varied between product types and Member States

- Except for sauce, type of date mark (UB/BB) applied to food products varies by product type

- "Use By" date marks were used <u>most frequently</u> in Greece, Hungary, Poland, Slovakia, Spain

- "Use By" date marks were used <u>least frequently</u> in Germany, Netherlands, and Sweden

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"Use By" date marks are best understood in the Member States in which our market research found that they are most frequently used
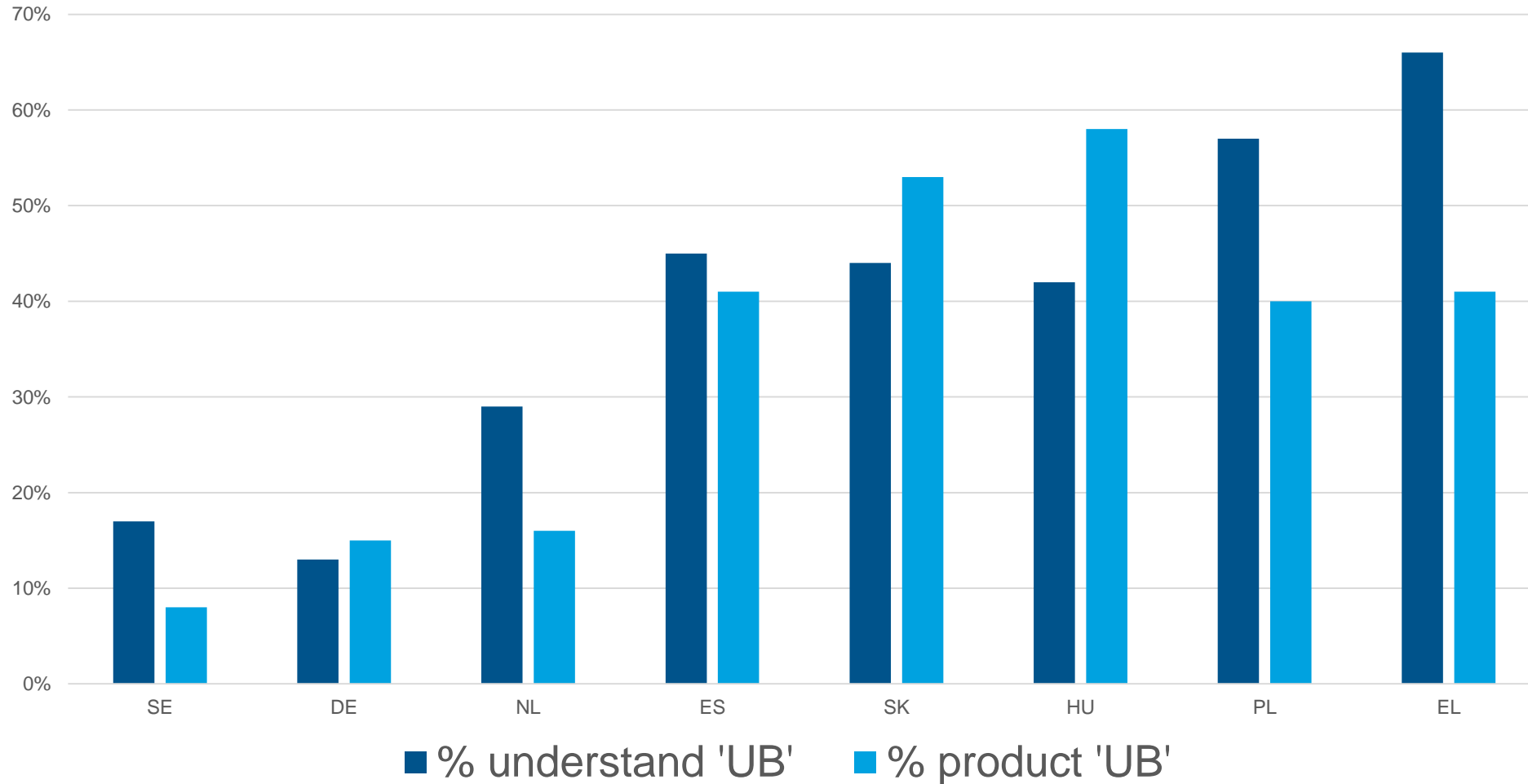
Source re % understanding "UB": Eurobarometer 425, 2015; Source re % product "UB": ICF, 2017

Similarly, "Best Before" date marks are best understood in the MS in which our market research found that they are most frequently used
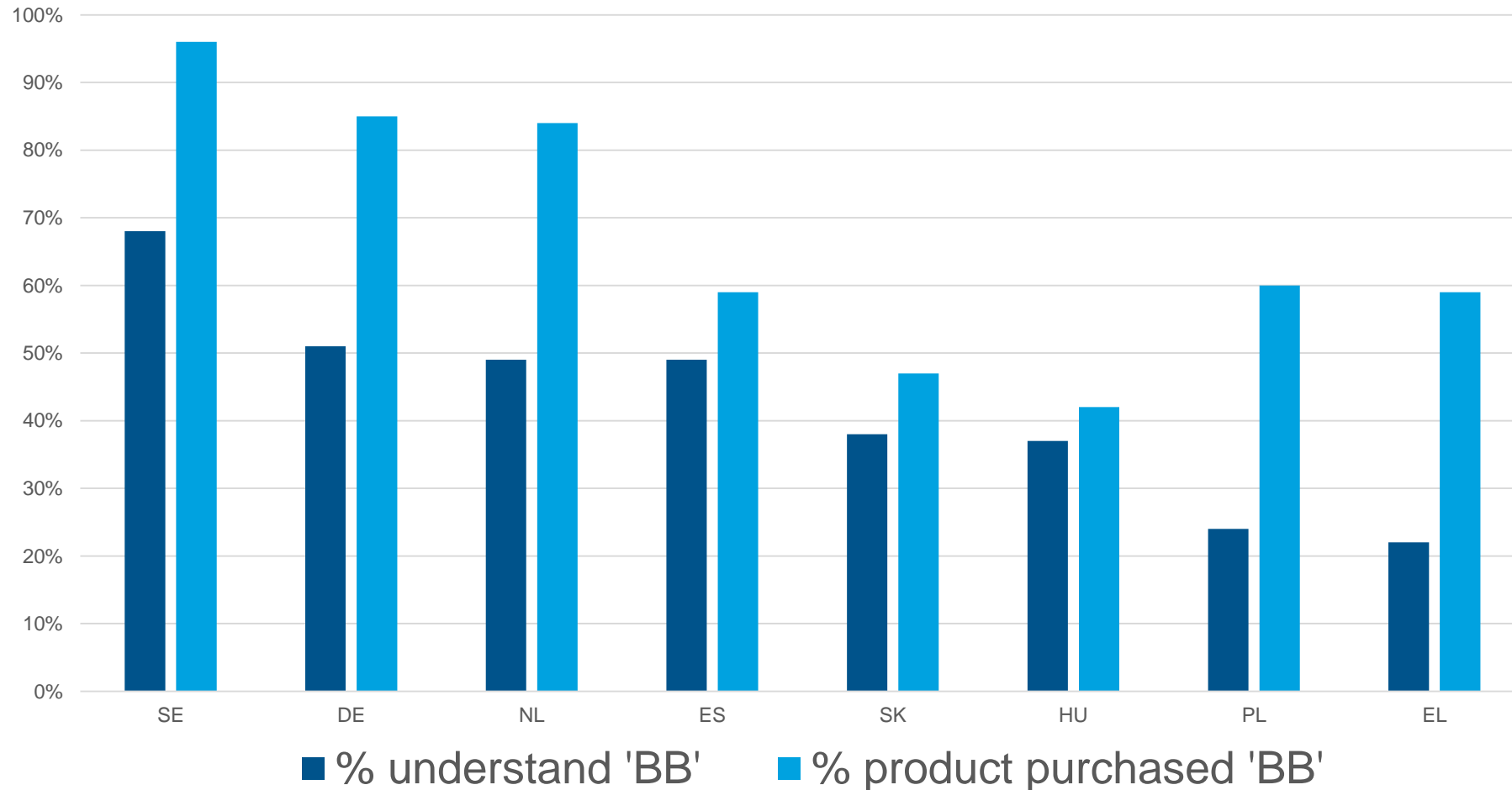

Source re % understanding "BB": Eurobarometer 425, 2015; Source re % product "BB": ICF, 2017

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Storage advice and open life instructions

- Chilled products displayed:
  - Either a **maximum temperature** that the product should be stored at
    - this was linked to an expiry date in Germany, Netherlands and Sweden
  - Or a **temperature range** within which the product should be stored

- Ambient products were less likely to display precise storage advice, such as storage temperatures

- Open life instructions
  - Fresh juice, fish, milk, pre-prepared chilled pasta are most likely to state no. of days
  - Instructions vary significantly between Member States and are not linked to date mark type (i.e., "Use By" or "Best Before")
  - The open life advice "eat immediately" was displayed on 4% of products sampled

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Task 3: Issues identified and discussed with stakeholders

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A number of issues were identified prior to or during interviews with food supply chain stakeholders

1. **"Use By"** date marks may be being **applied unnecessarily** because:

   - FBOs view **consumer understanding** of labelling and **consumer ability** to manage food safely as poor

   - For producers, this translates into a **cautious approach to setting date marks** (i.e., more UB);

   - **Retailers' preference for consistency** within product groups influences producers;

   - FBOs receive **no "counterweight" guidance** (e.g., from NCAs) to these factors, nor do they request it (with the exception of a few retailers)

   - NCAs consider that the setting of "Use By" versus "Best Before" date marks is a decision for FBOs to make on the basis of their technical knowledge of product and food safety.

2. **Shelf lives** are being set **shorter than necessary** because of:

   - Producers' cautious assumptions about retailers' storage conditions;

   - Retailers' and producers' cautious assumptions re household storage conditions.

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A number of issues were identified prior to or during interviews with food supply chain stakeholders

3. **Open-life advice is cautious**

   - Open life is typically short, no longer than 3 days

   - This is due to FBO assumptions on consumer behaviour

   - Several producers mentioned that they include open-life advice only at the request of retailers

4. **Annex X exemptions list**

   - Many stakeholders approved of the existence of the list in principle…

   - …but expressed caution with respect to adding to it

   - Few stakeholders made any suggestions for additions to this list

5. **Redistribution opportunities vary between Member States in relation to date marking, especially with respect to redistribution after BB date expiry**

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Conclusions and Recommendations

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Conclusions

- Literature suggests that **date marks** are more influential in **consumer decision to discard** for **certain product types**: e.g. yoghurt, fresh juice, fresh meat.

- Estimates suggest that overall quantities of food waste linked to date marking amount to approximately 10% of the 88 million tonnes of EU-28 total food waste (FUSIONS, 2016)

- **Awareness of FIC regulation is high** across FBOs, NCAs and other stakeholders

- **Standard of implementation varies** between Member State and product types; legibility of wording particularly a problem for certain product formats

- Nearly all products sampled displayed just one date mark ("Best Before" or "Use By").

- **Fresh milk and yoghurts were least consistent** in type of date mark applied, with Member State level practices informing choice.

- FBOs put forward technical arguments to inform date life and choice of date type…

- …but the study found that these choices were not reflected in remaining life of products purchased or variation in open life instructions.

- Understanding of a date mark type (UB/BB) appears to correlate with its market prevalence

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Recommendations

1. Develop **guidance** on the FIC Regulation for FBOs and NCAs on **choosing between** "Use By" and "Best Before" **date mark types**

2. Develop **scientific/ technical guidance** on setting shelf life, open life and related advice (incl. storage temperature)

3. Support research into **innovations in storage or labelling**, e.g.,:
   - Intelligent packing; Refrigerator design; Smart labels

4. Support new research into **consumer behaviour trials**, e.g.,:
   - Greater use of non-verbal information, such as symbols and logos.

5. **Collate existing research** prior to any consumer education campaign

6. Consult **packaging industry** (and share best practices) on:
   - Optimal layout of information on different packaging formats
   - Adhesiveness of inks
   - Consumer testing of logos

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Our study will published towards the end of 2017

Thank you for listening!

James.Gardiner@icf.com

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