Preventing waste – thoughts from the UK

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**Defining food waste**

<table>
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<tr>
<th>Definition</th>
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| ‘any substance or object which the holder discards or intends or is required to discard’ | EU Waste Framework Directive | • Legal, determined on a case by case basis  
• Physical, narrow focus                                                   |
| ‘wholesome edible material intended for human consumption, arising at any point in the food supply chain that is instead discarded, lost, degraded or consumed by pests’ | UN FAO                  | • More broad ranging than EU                                            |
| ‘any non-value adding activity in the food supply chain’                  | ‘Muda’                  | • The basis of lean manufacturing  
• Now widely applied as ‘lean and green’                                   |
What is waste......

UK – supply chain waste tree

Note: total Manufacturing Waste includes 0.5Mt of “Other” waste that is not food or packaging
Waste hierarchy - managing food waste

**Figure 3: Waste hierarchy**

- **Prevention**
  - Total grocery waste not prevented is 6.5Mt.
- **Redistribution**
  - Food redistributed to charities is 5,000t.
  - Food sent to animal feed is 400,000t.
- **Recycling**
  - Composting, recycling and waste sent to anaerobic digestion is 3.0Mt.
- **Recovery**
  - Thermal with energy recovery is 0.1Mt.
  - Land-spreading is 0.3Mt.
- **Disposal**
  - Thermal without energy recovery is 0.1Mt.
  - Landfill is 0.3Mt.

*The management route for 0.3Mt of waste is unknown.

Addressing potential causes of food waste

**ECR UK ‘5 to drive’:**

**Measure** - use a metric like tonnes

**Engage** – collaboration internally and with suppliers

**Forecast** – improve forecasting accuracy

**Design** - more than just light-weighting packaging

**Range** – new products and range tail
The Financial Case

Waste costs the supply chain **£6.9 billion** annually*

Company benefits:
- Labour efficiency and costs
- Financial Savings
- Competitive advantage
- Reputation

*Source: Estimates of waste in the food and drink supply chain, WRAP (2013)

Food Chain Centre

- Origins in Government inquiry
- Ran from 2002 – 2007/8 part of Government strategy for sustainable farming and food
- Value stream mapping for 33 whole chains from farm to shelf – meat, dairy, cereals, produce sectors and over 100 companies
- Work led to reported savings of £13.7M
Value stream map

Food Chain Centre: opportunities

<table>
<thead>
<tr>
<th>Dairy</th>
<th>Produce</th>
</tr>
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<tbody>
<tr>
<td>1. Understanding customer value</td>
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<tr>
<td>2. Horizontal cooperation</td>
<td>2. Reducing product loss</td>
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<tr>
<td>3. Demand management</td>
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<tr>
<td>4. Operational effectiveness</td>
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</tr>
<tr>
<td>5. Process management</td>
<td>5. Supply chain KPIs</td>
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Product loss

Tracking Product loss from Planting to Customer

Evolution

Sustainability oriented supply chain
True systems approach (three pillars).

Effectiveness oriented supply chain
Beyond efficiency focus on value enhancement.

Efficiency oriented supply chain
Key unit of analysis (OUA) is single value stream.

The end-to-end value stream is not necessarily the right unit of analysis. Attention to the bigger picture.
THE COURTAULD COMMITMENT

WHAT IS IT?

The Courtauld Commitment is a voluntary agreement aimed at improving resource efficiency and reducing waste within the UK grocery sector.

The agreement is funded by Westminster, Scottish, Welsh and Northern Ireland governments and delivered by WRAP.

It supports the UK governments’ policy goal of a ‘zero waste economy’ and climate change objectives to reduce greenhouse gas emissions.

WRAP is responsible for the agreement and works in partnership with leading retailers, brand owners, manufacturers and suppliers who sign up and support the delivery of the targets.

It was launched in 2005 and is now in its third phase.
CC3 - Signatories

Third phase - ambition
Tesco – Using scale for good

Total food waste along the value chain: 32%

- Agriculture & supply: 16%
- Retailer: <1%
- Consumer: 16%

Food Waste Hotspots

- Grapes: Total Production Wasted 24%
  - Outer skin
  - Size
  - Type

- Bananas: Total Production Wasted 20%
- Bagged Salad: Total Production Wasted 68%
- Apples: Total Production Wasted 40%
- Bakery: Total Production Wasted 47%

Tesco – food waste
M&S-Uniq line review process redesigned to address wasteful low volume lines

- Run diagnostic tool to identify bottom 20% of category volume
- Rank SKUs/RNG based on performance
to address top and identify "problem children"
- For all sales, agree one of the following actions and set targets:
  - Increase/decrease distribution
  - Re-explore product
  - Change LTP
  - Reduce/raise price
  - Forecast or offer
  - Seasonal cost period
  - Leave alone for strategic reasons
  - Other as applicable
- Review performance against targets and agree any further remedial action

Process to be repeated at an agreed frequency via regular joint commercial/supply chain reviews to add rigor to category review process

Source: WRAP case study

Product sustainability forum
Thank you