

EPSRC CENTRE FOR INNOVATIVE  
MANUFACTURING IN

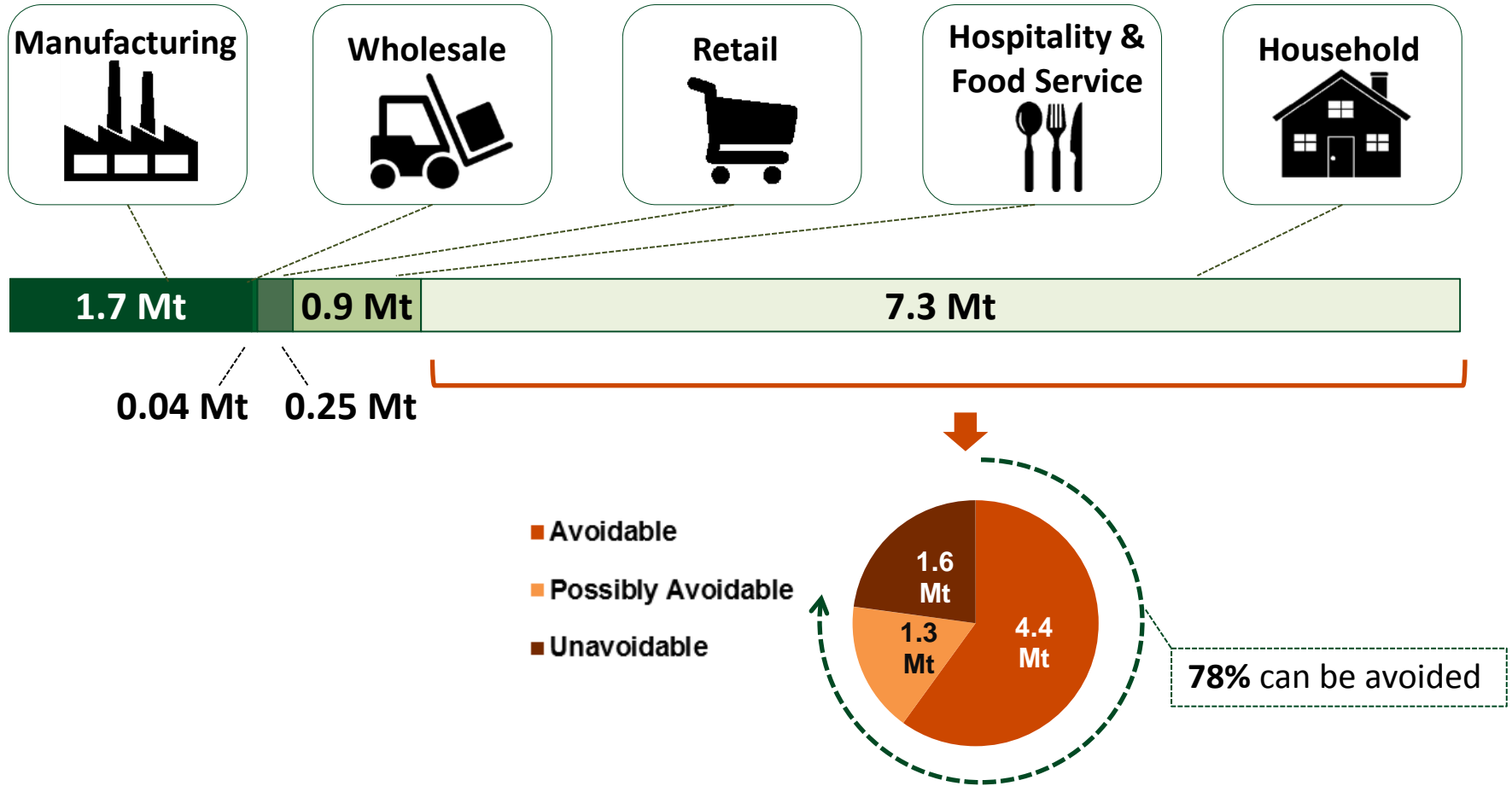


# Minimising Consumer Food Waste

Aicha Jellil

- ✓ **Overview of consumer food waste – Grime scene investigation**
- ✓ **Reasons for consumer food waste generation**
- ✓ **Proposed solution to reduce consumer food waste – Methodology and future work**

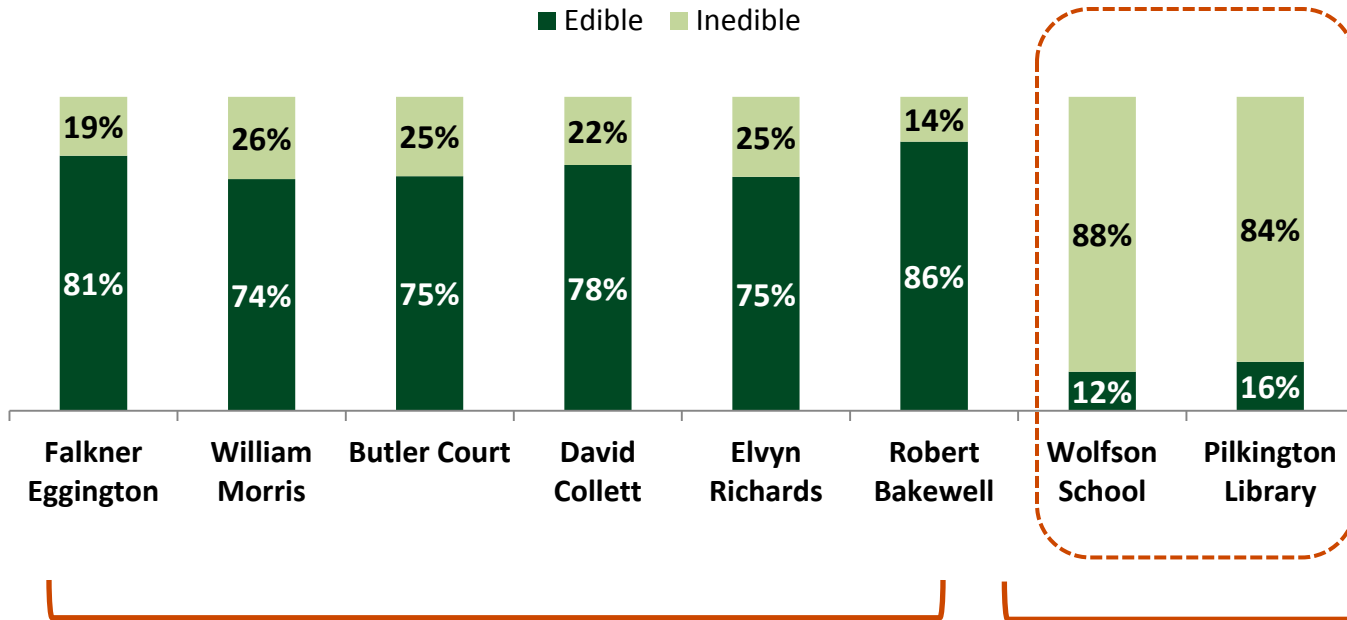
# Why focus on consumer food waste



Data Source: Waste and Resources Action Programme (WRAP), 2017

# Grime scene investigation

## Case study results



- food preparation
- food inventory management
- food consumption

food consumption



# Reasons for consumer food waste generation



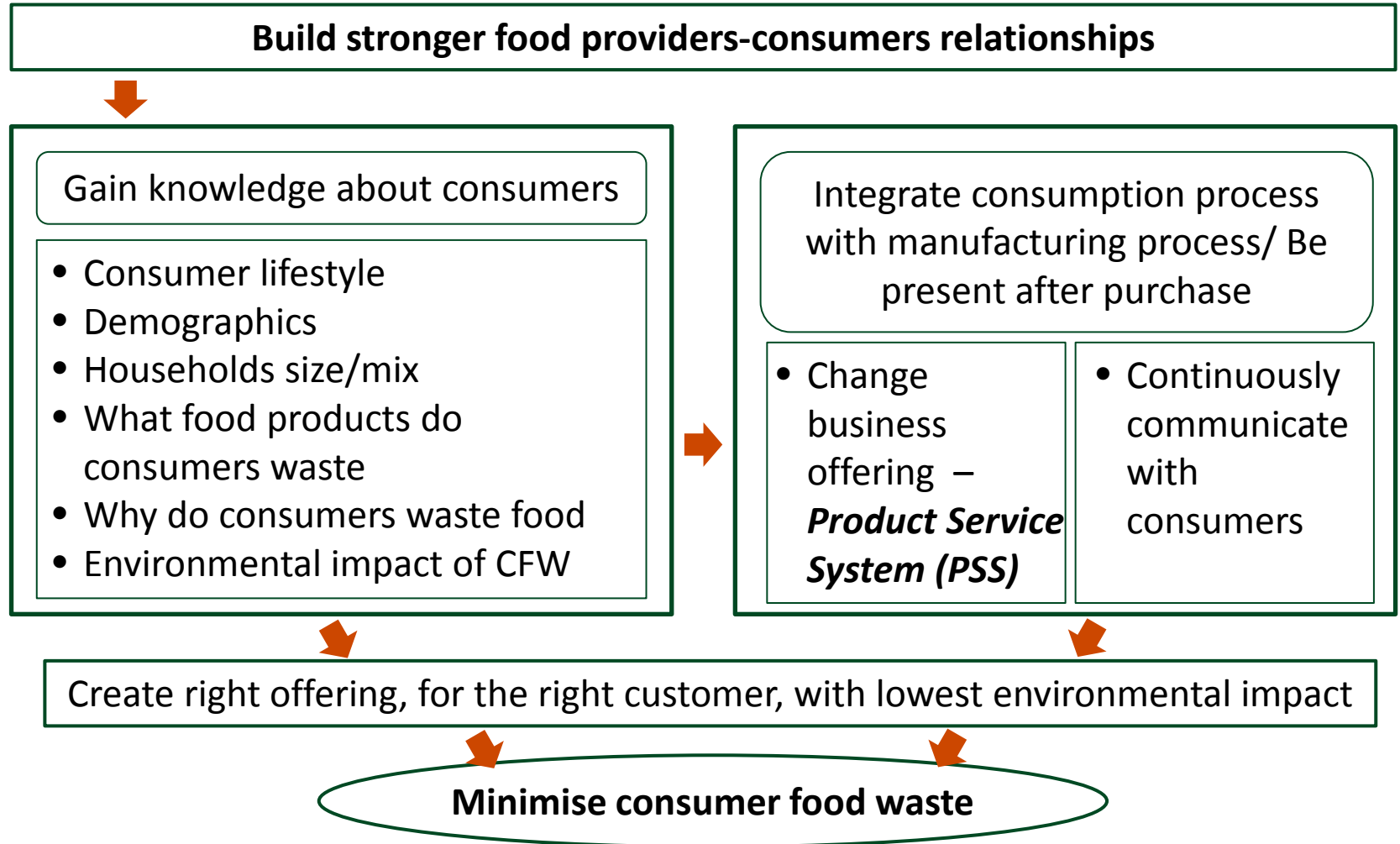
# Reasons for consumer food waste – Analysis

- Consumer food waste is a symptom not the problem

***symptom of a bigger societal problem shaped by a food system that overproduces, encourages consumerism and competition on low prices***

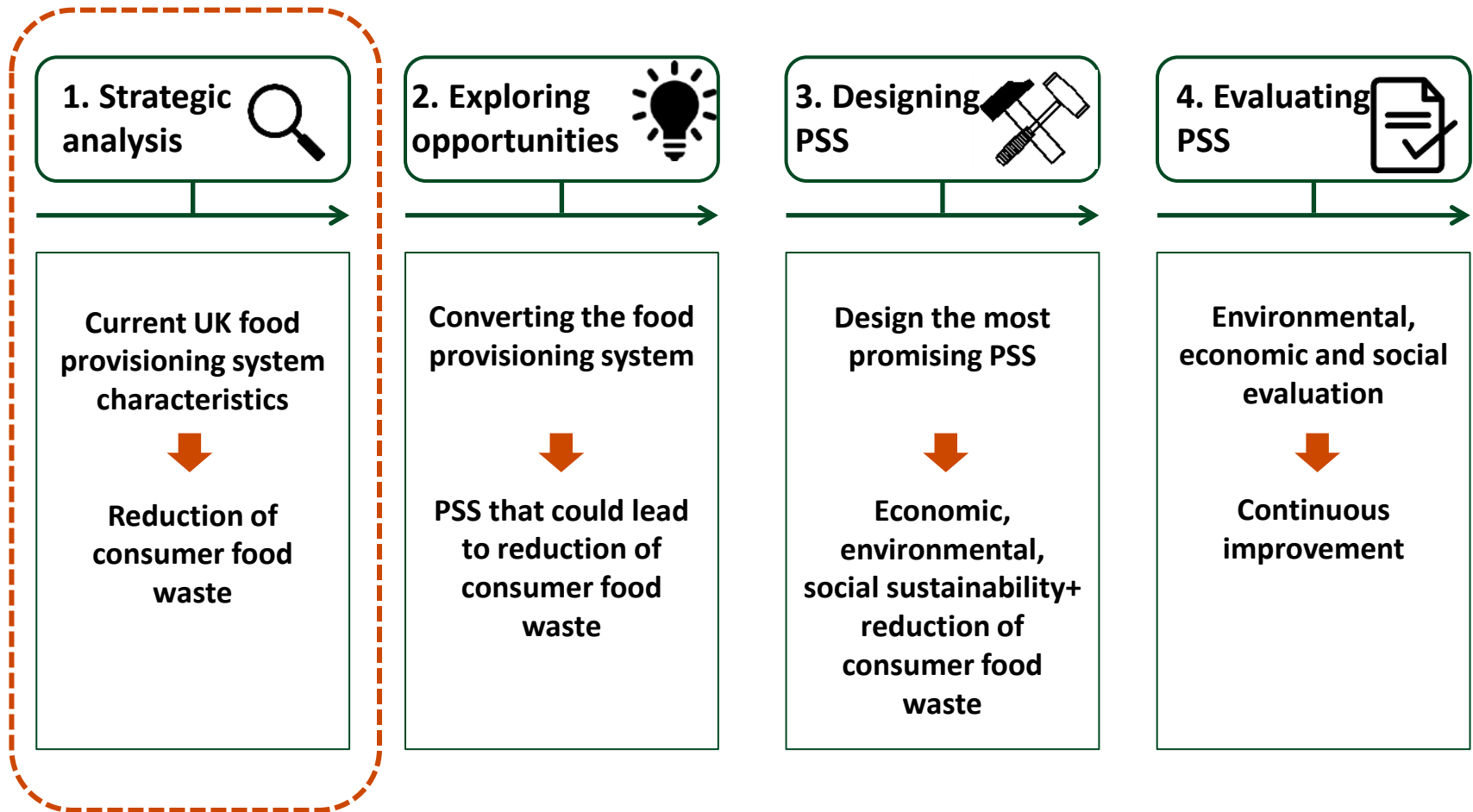


# Proposed approach



Based on Day, G., 2000. *Managing Market Relationships*. *Journal of the Academy of Marketing Science*, 28(1), pp. 24-30.

# Improving the existing food provisioning system



Methodology: Methodology for System Design for Sustainability (MSDS), Vezzoli et al., 2014



# Strategic analysis – SWOT analysis

## Strengths

Flexible manufacturing, Versatility of products, ICT, Big data analysis, Connectivity, Efficient delivery, Omni channel retail, etc.

## Weaknesses

No personalisation, Standardised portioning, Packaging preserving food until first use, Inaccurate forecasting capability, etc.

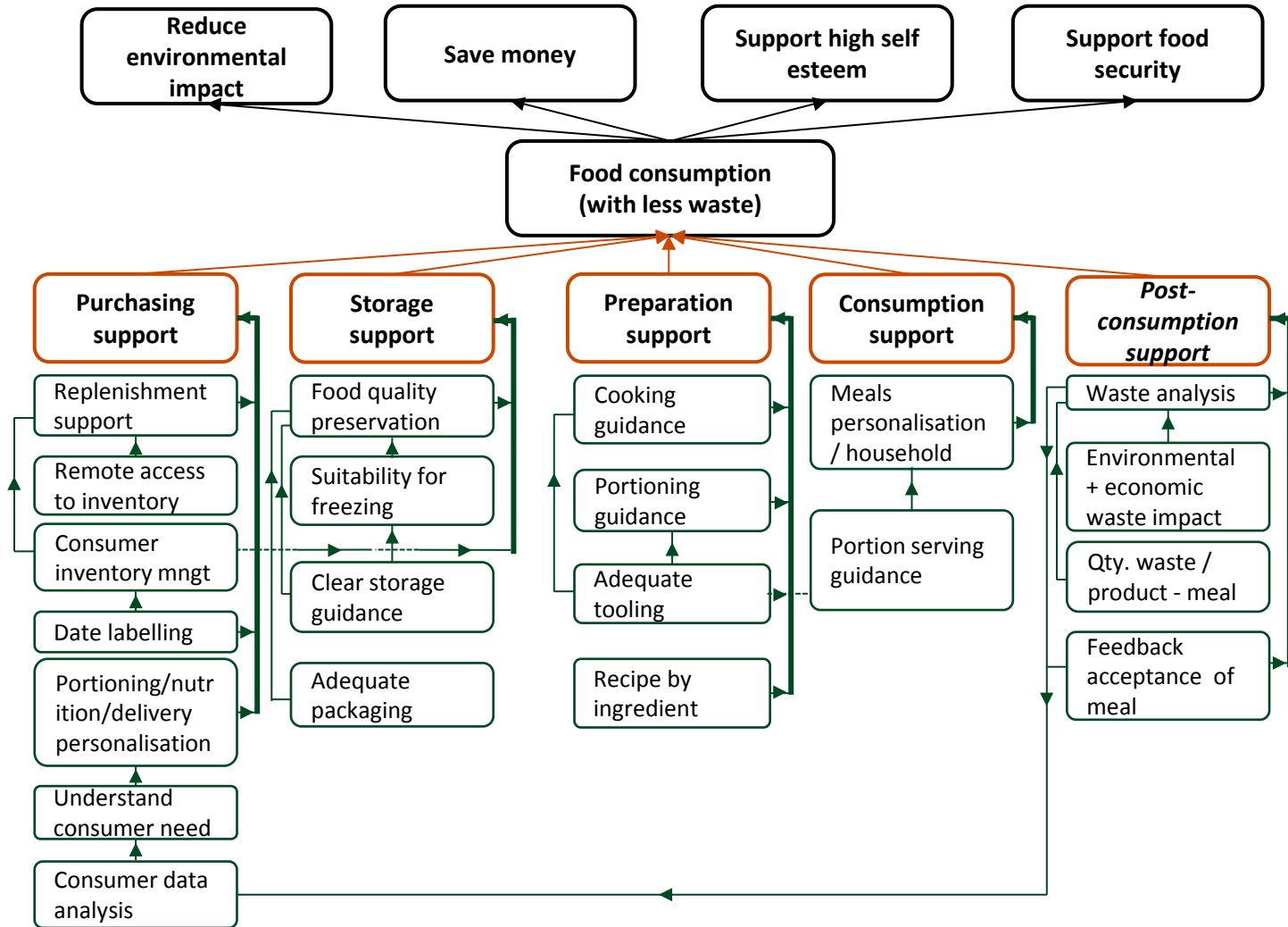
## Opportunities

Smart factories, Just-in-time processing, Better service level, Increased variety of retail channels, Rise in food to go, etc.

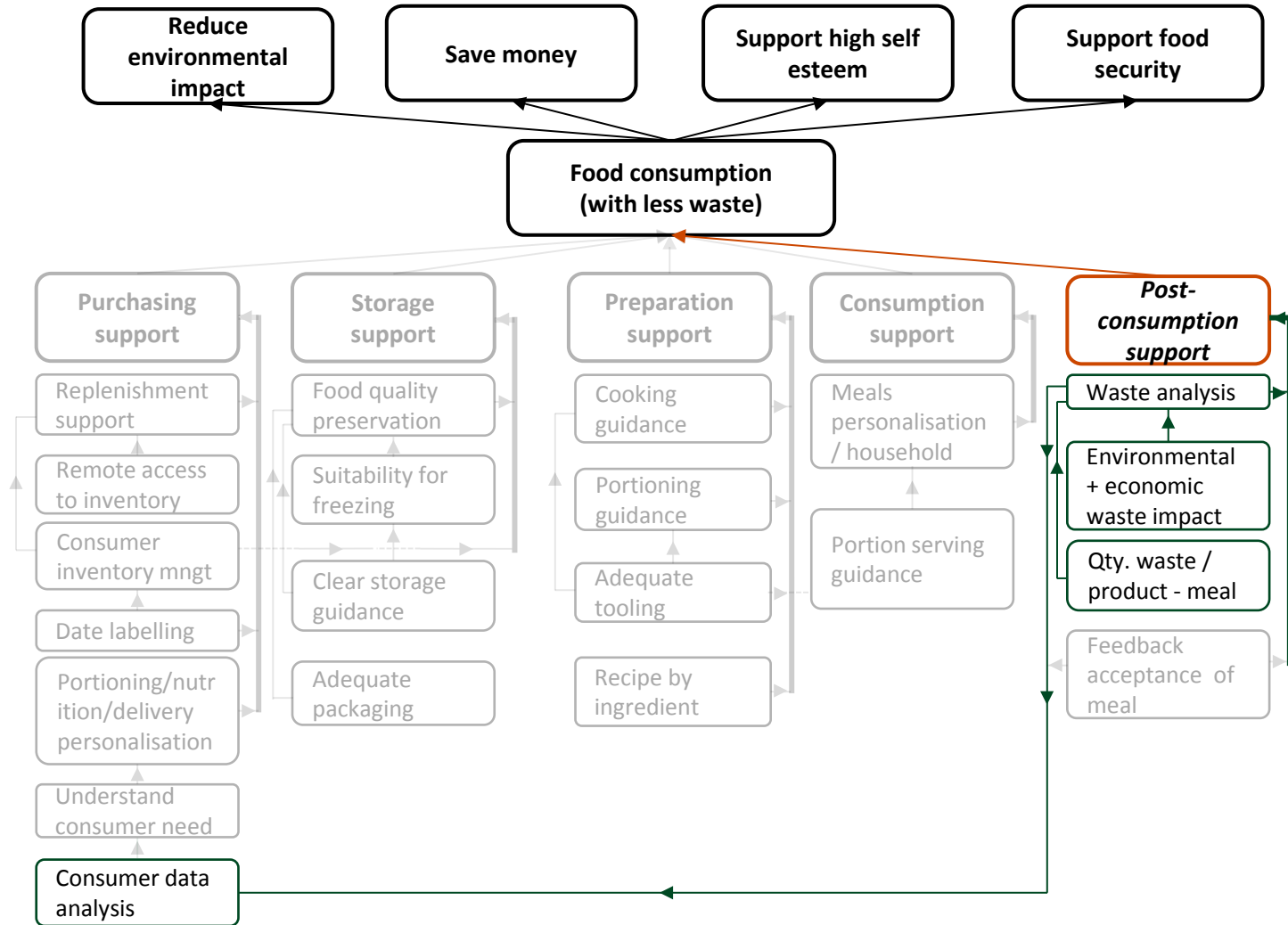
## Threats/ *challenges*

Increase in urbanisation/ prosperity, Price war, Consumers chaotic/busy lifestyle, Cost of online sales, Data privacy, etc.

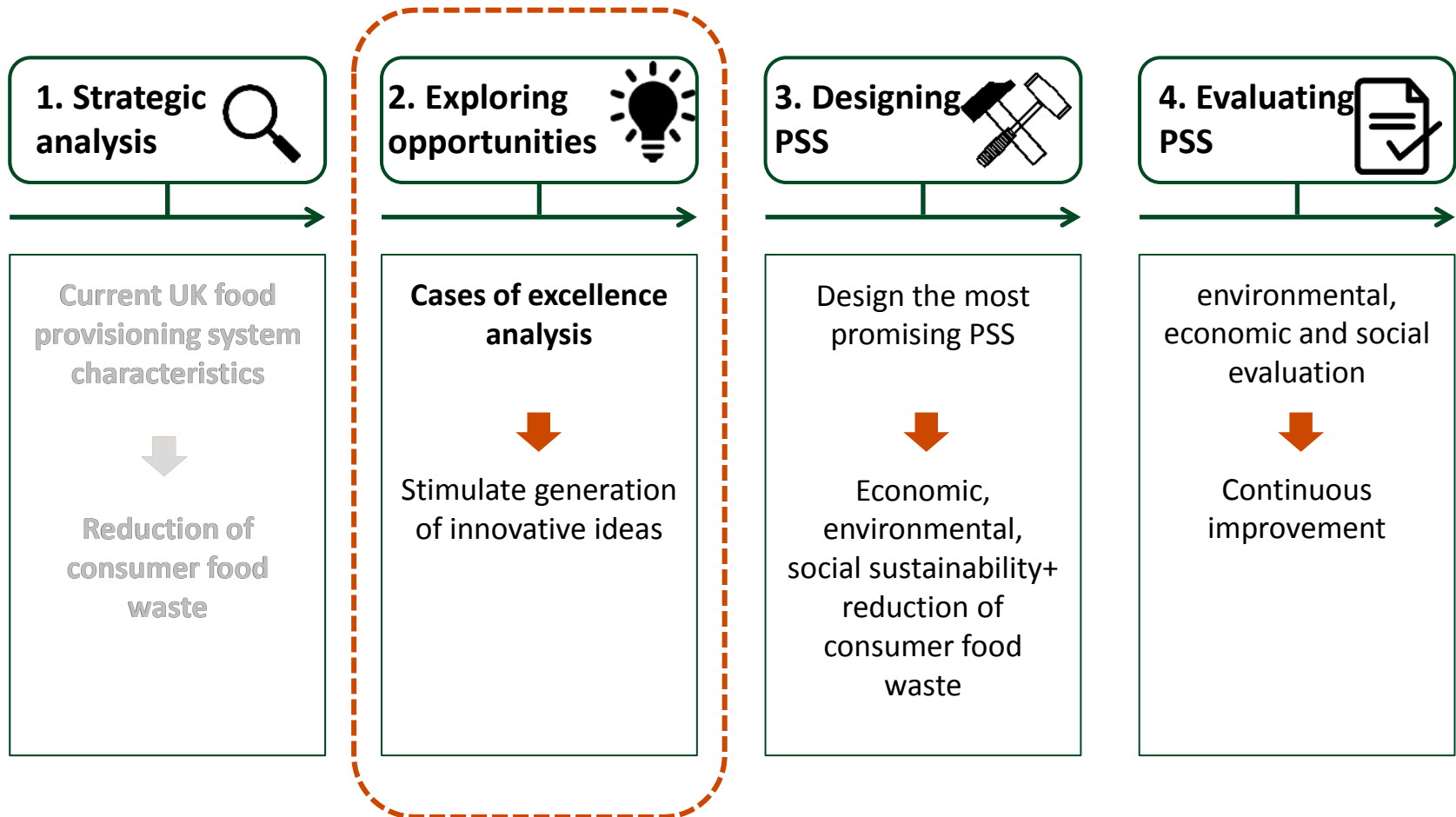
# Strategic analysis – Customer needs analysis



# Strategic analysis – Customer needs analysis



# Future work



- 1. Consumer food waste is a symptom not the problem**
- 2. A proposed approach to minimise consumer food waste is to improve the existing provisioning system through designing a new PSS that creates collaborative providers-consumers relationships**
- 3. This approach is a result of findings from an ongoing research project**

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