

Preventing Food Waste in the Healthcare Sector

Screencast 1:
Introduction



Andy Jones, National Chair, HCA



- The HCA is signed up to the Hospitality and Foodservice Agreement to tackle the issue of waste.
- Waste is a serious issue in our industry and we have to work together to make a difference.
- Planning menus is a critical part of reducing waste from spoilage, preparation and plate waste.
- Healthcare is one of nine key subsectors that the HaFSA is helping.

Jessica Twemlow, Technical Advisor, WRAP

- WRAP is funded by all four governments across the UK.
- Our vision is a world where resources are used sustainably.



This screencast series will:

- give an overview of waste in the healthcare sector;
- identify food waste prevention opportunities;
- provide advice to help healthcare facilities prevent food waste and realise the associated cost savings; and
- **introduce WRAP's business support including tools and guidance available under WRAP's Hospitality and Food Service Agreement.**

The Hospitality and Food Service Agreement (HaFSA)

The Hospitality and Food Service Agreement is a voluntary agreement to support the sector in reducing waste and recycling more.



WRAP - working in partnership

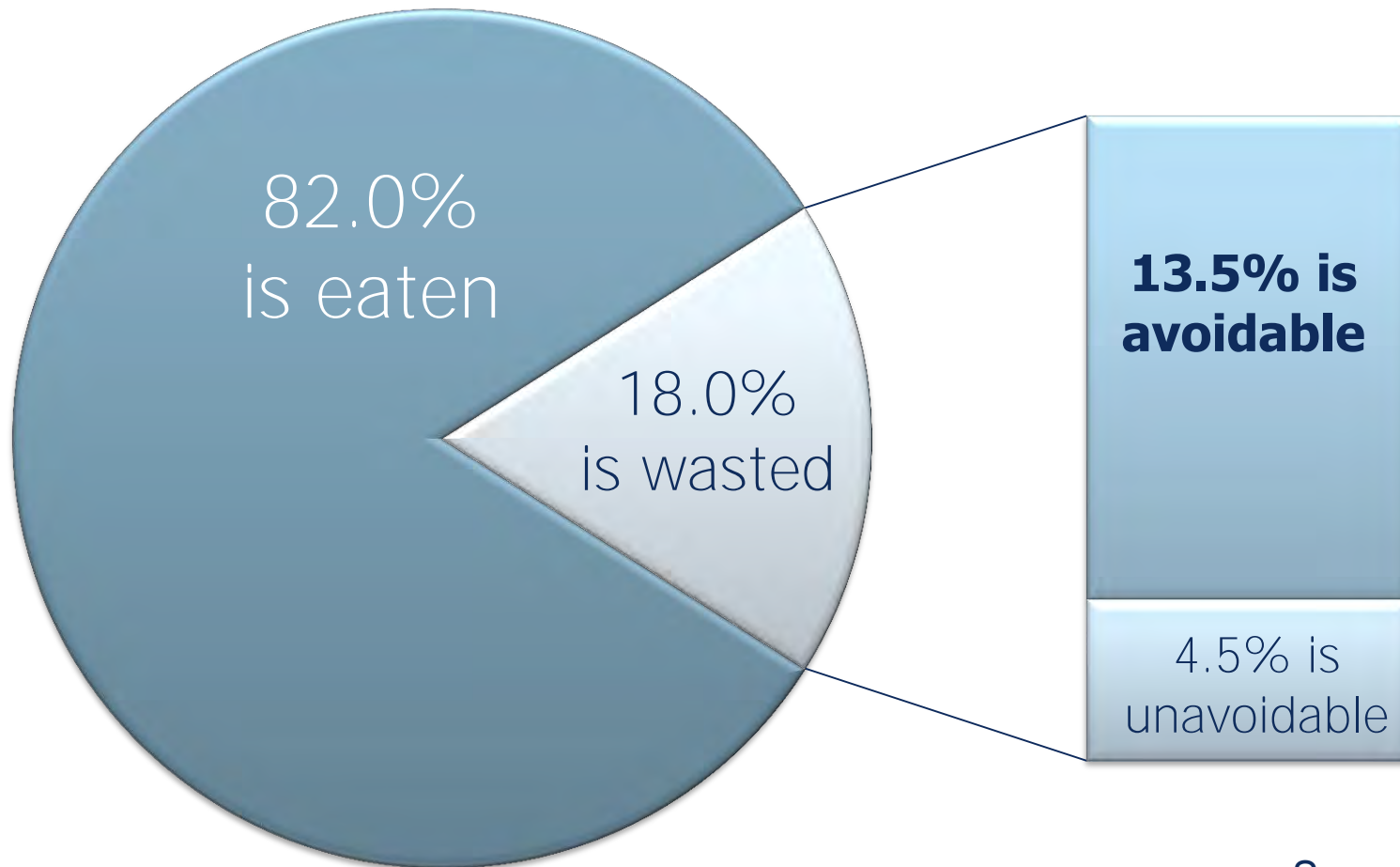
We are working in partnership with the Hospital Caterers Association to:

- share best practice and promote food waste prevention; and
- engage NHS Trusts to help them identify food waste prevention opportunities, improve the management of their kitchens and save money.

The healthcare sector

- Serves over 1,047 million meals in 19,500 outlets every year.
- Serves 13% of all meals eaten out of home in the UK each year.
- Produces 121,000 tonnes of food waste and 49,300 tonnes of associated packaging waste.
- Sends 93% of this to landfill or disposed of down the drain using macerators.

Food purchased by the healthcare sector



The real cost of food waste

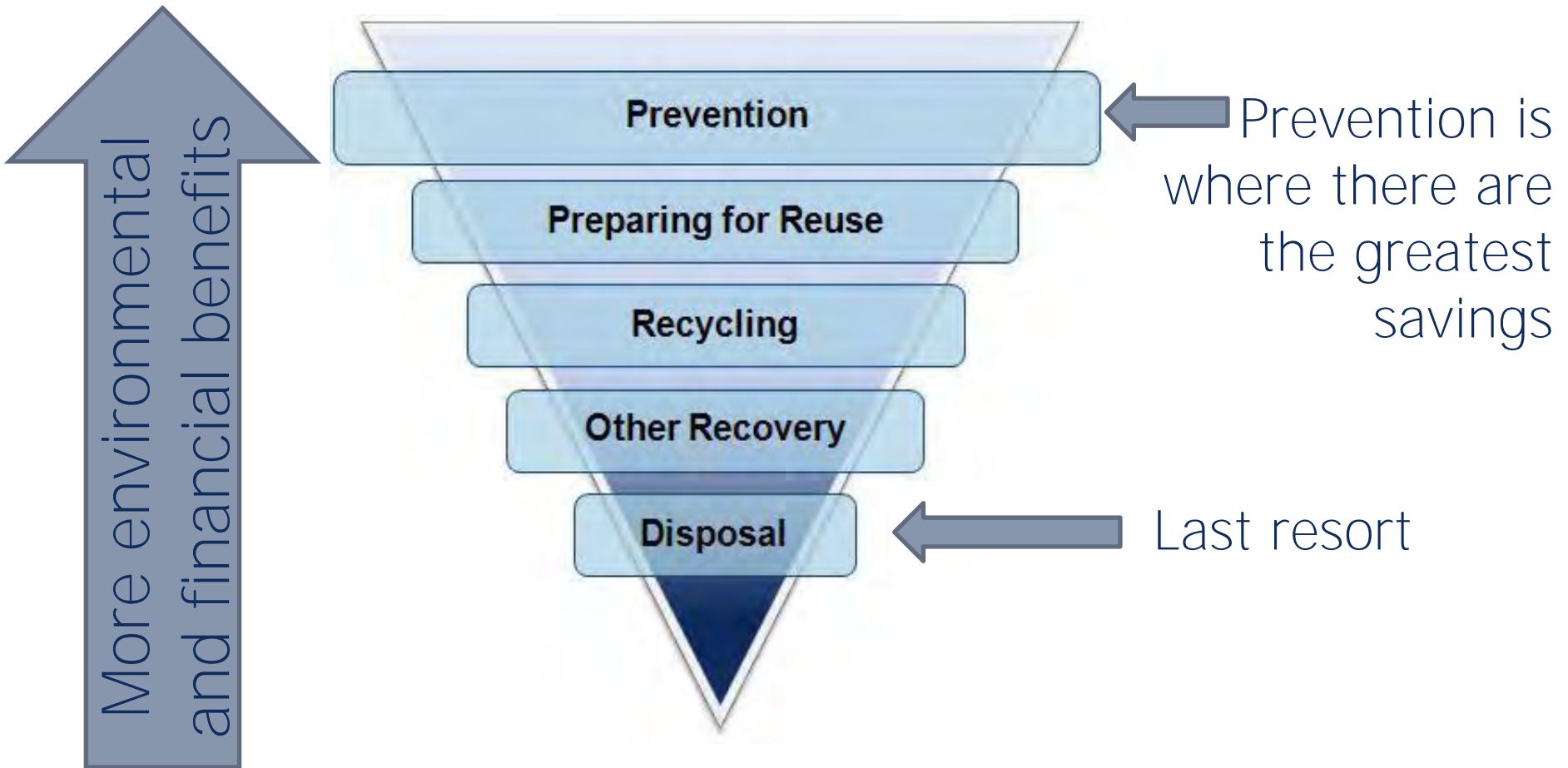
- The total cost of food waste to the healthcare sector is £230 million.
- Each tonne of food waste costs an average £1,900 per tonne.
- **That's 22p** per meal for every meal served.

The environmental cost of food waste

- Food waste can have a detrimental impact on the environment.
- Decomposing food gives off methane, a greenhouse gas at least twenty times more potent than carbon dioxide.



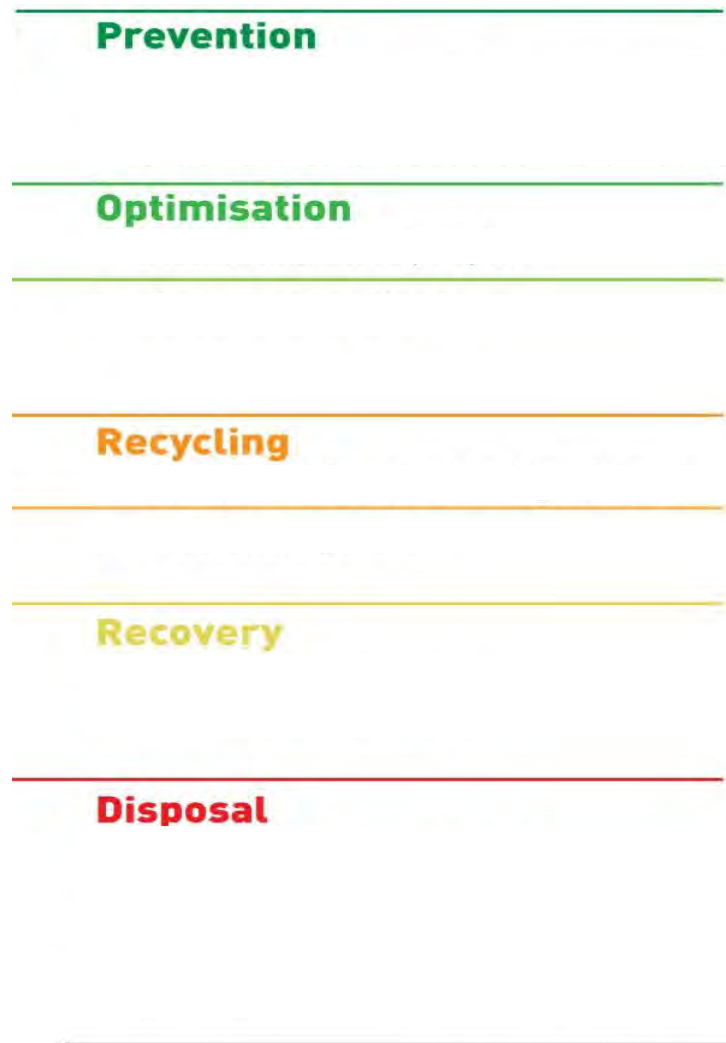
The Waste Hierarchy





Food and drink material hierarchy

most preferable option

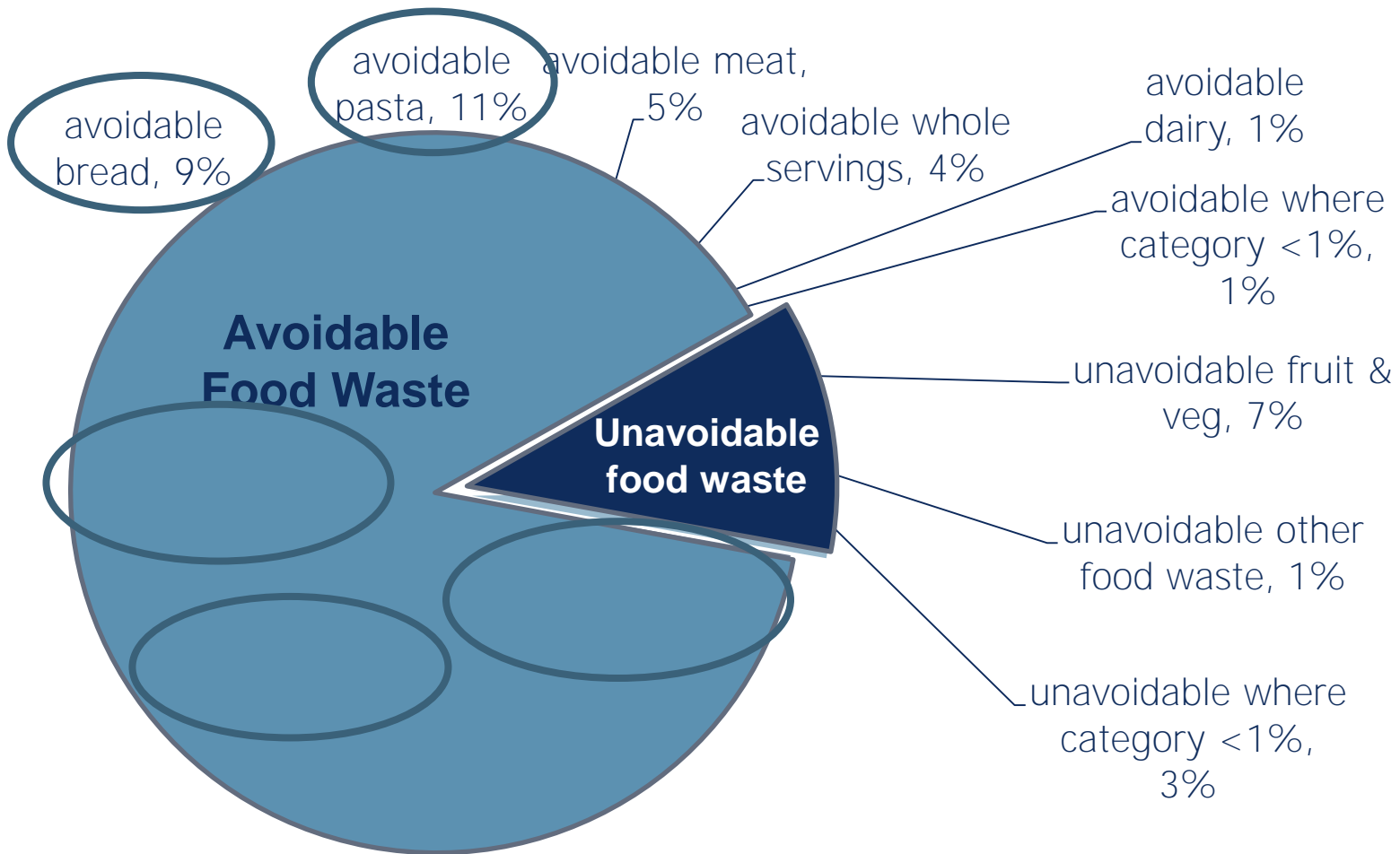


Least preferable option

Where is food wasted?

- Spoiled and out of date food.
- Food preparation residues.
- Over preparation of items in the kitchen.
- Unserved meals.
- Uneaten food left on plates.
- Leftover snacks outside of mealtimes.
- Food left at end of service in restaurant.
- Retail outlets and Royal Voluntary Service (RVS).

Food waste (122,000 tonnes/year)



Preparation and plate waste



The Hospitality and Food Service Agreement (HaFSA)

- Launched in June 2012 with >70 signatories.
- Working groups are supporting the sector in topics such as procurement and packaging.
- There are now >190 signatories and supporters across the supply chain.
- Signatories are implementing plans to reduce food waste and recycle more.
- Online tools are available to help businesses take action and make savings.

HaFSA targets

Prevention target: Reduce food and associated packaging waste arisings by 5% by the end of 2015. This will be against a 2012 baseline and be measured by CO₂e emissions.

Waste management target: Increase the overall rate of food and packaging waste being recycled, sent to anaerobic digestion or composted to at least 70% by the end of 2015.



Selection of Signatories of the HaFSA



Selection of Supporters of the HaFSA

Support for signatories

Large organisations (> 250 employees)

- are required to report annually through **WRAP's online reporting portal**;
- are allocated a Key Account Manager who will develop a tailored support programme.

Smaller organisations (< 250 employees)

- are not required to report annually;
- can access support through **WRAP's online resource centre**.

Resource centre for small organisations



wrap.org.uk/resource-centre

Information sheets

WRAP has produced a series of information sheets to support businesses in the Hospitality and Food Service sector in taking action on waste.



Restaurants: Taking Action on Waste

Staff Catering: Taking Action on Waste

Healthcare: Taking Action on Waste

The Healthcare Sector

Waste is a key issue in the Healthcare Sector. Food waste represents a cost to the Healthcare Sector alone of £230 million each year including food procurement, labour, utilities and waste management costs, or £1,000 per tonne.

This information sheet outlines where waste arises as well as showing how to reduce this waste and save money.

UK Healthcare: The Composition of Food Waste

Category	Percentage
Produce	25%
Bakery	15%
Preparation	10%
Freezing	5%
Meat/Fish	5%
Dairy/Eggs	5%
Waste serving	5%
Other	20%
Unaccounted food waste	20%

Estimated annual statistics show that UK Healthcare:

- serves 13% of all meals eaten out of home in the UK each year, equivalent to 1,047 million meals;
- produces 170,300 tonnes of waste each year in the UK, including 121,000 tonnes of food waste;
- produces 13% of the total food waste across the hospitality and food service sector in the UK; and
- the average cost of avoidable food waste is £91.22 per meal.

Estimated Recycling Rates for UK Healthcare

- Overall, 7% of all waste is recycled. This is made up of:
 - 4% of food waste is composted or goes to anaerobic digestion (AD).
 - 14% of packaging & other wastes are recycled.

Why Take Action?

Applying a cost to food waste demonstrates the true value of what is wasted and the potential savings that can be made. By taking a few simple steps to waste less and recycle more, businesses can reap financial as well as environmental benefits. Read on and find out more.

The Healthcare Sector

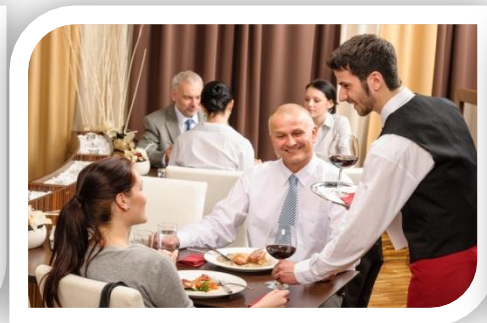
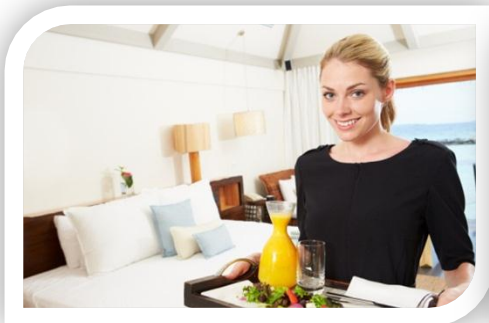
Step	Description
Step 1	Measure and monitor
Step 2	Develop an action plan: Ways to waste less
Step 2 (cont.)	Develop an action plan: Ways to recycle more
Steps 3 and 4	Review progress and share your good work

Healthcare: Taking Action on Waste

The sheets are available at wrap.org.uk/takingactiononwaste

Information on the
Hospitality and Food Service Agreement
wrap.org.uk/hospitality

wrap.org.uk
hafs@wrap.org.uk



Preventing Food Waste in the Healthcare Sector

Screencast 2:
Measuring food waste



Each tonne of food waste produced in healthcare costs an average of £1,900.

The best way to find out how much food is being wasted, is to conduct a food waste review to:

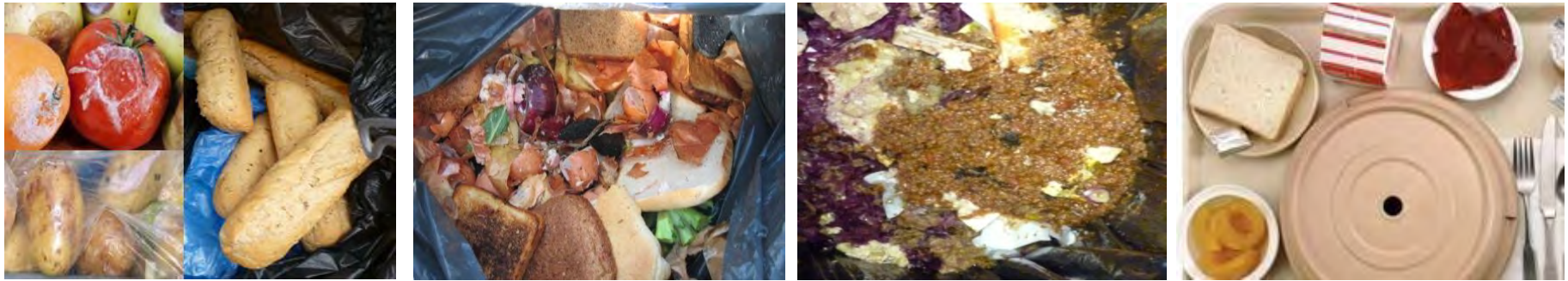
- identify how much food waste is produced;
- map out where it occurs;
- measure and monitor food waste; and
- use the results to identify savings.



Measuring food waste

- **Review waste data regularly** - carry out a food waste review on a regular basis and use data to identify actions and savings potential.
- **Staff engagement** - help them to recognise where food waste arises, and what they can do to reduce it.

Food waste



Spoilage Preparation

25,410
tonnes
per year

44,770
tonnes
per year

Plate waste

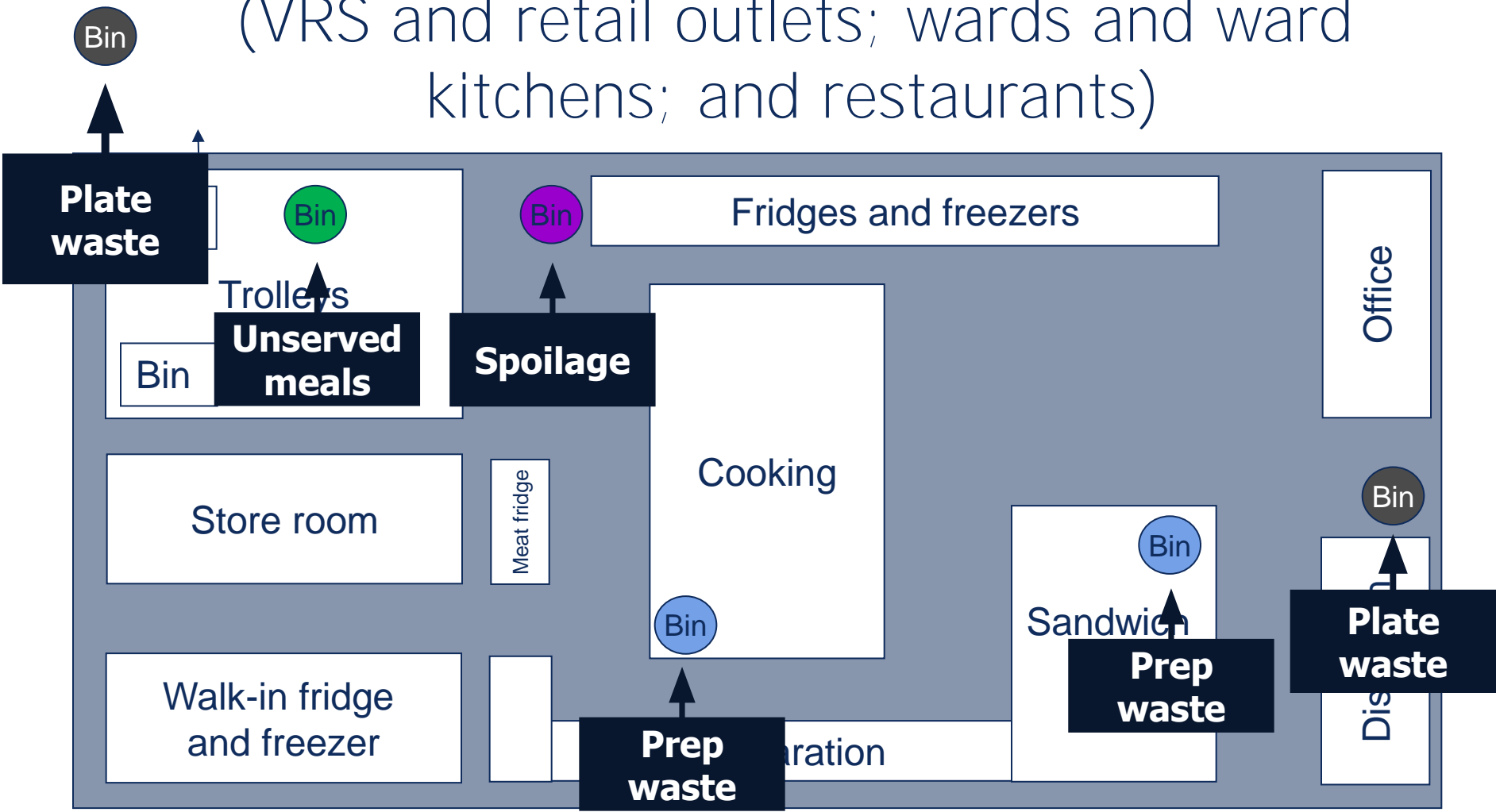
41,140
tonnes
per year

Unserved meals

9,680
tonnes
per year

Catering operation layout

(VRS and retail outlets; wards and ward kitchens; and restaurants)



Measuring the quantity of food waste

Over a set period of time, segregate food waste into separate bins for:



Spoilage



Preparation



**Plate
waste**



**Unserved
meals**

Weigh or count the food waste bins at the end of each monitoring period.

Measuring meals provided in bulk

- Weigh each bulk container of food provided to the ward.
- After all of the meals are plated, re-weigh each bulk container of food.
- For meals supplied from the ward kitchen, measure the weight of the container before the start of service and at the end of service.

Measuring meals centrally plated

- Record if any meals have not been provided to patients.
- Ensure that all plates are collected from the patients and returned to the kitchen without being cleared.
- Collect and weigh the food on the remaining patient plates.

Monitoring and recording food waste

Food Waste Tracking Sheet

Use this tracking sheet to record the amount of food waste generated in the kitchen over 3 typical days or over a longer period for a complete picture. Remember every time you fill a 240 litre bin with waste food it is costing your business around £240! This is based on a material bulk density for food waste from <http://www.wrap.org.uk/content/kerbside-analysis-toolkit-recycling-and-waste-collections>.

- To get the best information on where your waste is being generated, separate and monitor all food waste for the following three waste streams – a) spoilage, b) preparation waste and, c) Customer plate waste (leftovers).
- Weigh the amount of food waste that is generated (use kilograms) OR record the number of times you fill the bins in each day (make a mark every time you fill the waste container as overleaf). **Note:** You will need to work out the volume of the bins you collect the waste in (use litres). You can estimate the volume of a bin by filling it with water using a litre container.
- If you record the volume of waste, you can also estimate its equivalent weight (see below). Multiply the total volume of waste by 0.55 (a standard factor used to convert volume to weight).
For example, Waste stream 1: If you use a 5 litre bin and you fill it 5 times, then the weight is estimated as (5 litres x 5 bin fills) x 0.55 = 13.75 kg
- Ensure all other non-food waste (e.g. plastic, cardboard, etc.) is put into a separate bin ready for recycling.

Day	Date	Spoilage		Preparation Waste		Customer Plate Waste	
		Number of bins filled	Weight (kg)	Number of bins filled	Weight (kg)	Number of bins filled	Weight (kg)
1							
2							
3							
Bin Volume (litres)							
*Total Volume (litres)							
Total Weight (kg) (see 3 above)							

*Total volume (litres) = bin volume x number of bin fills





Results of food waste review

Meal time:			
No. meals ordered:		No. meals supplied	

Spoilage (kg)		Prep waste (kg)		Plate waste (kg)		Unserved meals (kg)	
Total Spoilage		Total Preparation waste		Total plate waste		Total unserved meals	

Total waste		Total waste per patient	
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Monitoring plate waste

Meal time:				
Ward:				
Bed	Portion size	% of plate waste	Reason for waste	Action / comment
Average % of plate waste				
Reasons for not eating			Code	
			C	
			A	
			E	
			M	
			F	

What opportunities can be considered?

- Is the stock over-ordered?
- Are deliveries frequent enough?
- Can the stock control system be improved?
- Is food over-produced and/or spoilt (burnt)?
- Are the portion sizes right?
- Do ward based staff feedback any issues with certain types of meals?

WRAP resources for business

- The Online Resource Centre
(guidance, information and templates)
wrap.org.uk/resource-centre
- The HaFS Info-Finder – a **'search and find'**
tool to help find information quickly
wrap.org.uk/info-finder
- Food Waste Recycling website at
wrap.org.uk/content/sme-food-waste/recycling-guidance

WRAP resources for the healthcare sector

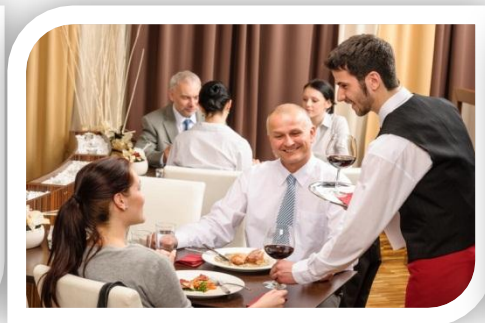
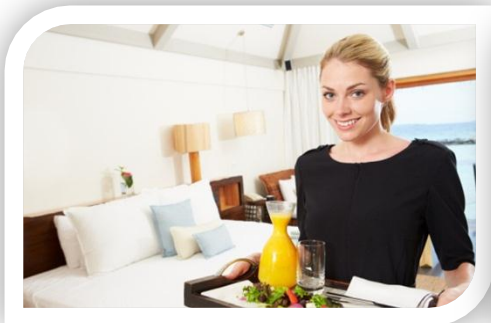
Managing NHSScotland Food
Waste Report and Food
Waste Disposal Calculator

[resourceefficientscotland.com/
resource/managing-nhss-food-
waste-2013](http://resourceefficientscotland.com/resource/managing-nhss-food-waste-2013)



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Preventing Food Waste in the Healthcare Sector

Screencast 3:
Opportunities in
the ward



This screencast will cover

- Preventing spoilage in the ward
- Monitoring the meal ordering system
- Improving staff communication
- Reducing plate waste
- Protected Mealtimes

Preventing spoilage in the ward

- Provide general stock on a daily basis.
- Monitor and track the stock provision to different wards.
- Ensure foodstuffs are stored at the right temperatures.
- Consider supplying wards with split loaves of bread.

The meal ordering system

- Are meals ordered by patients translated into quantity of food sent to each ward?
- Are the menu choice forms actually used to generate the number of meals required?
- Is there enough assistance for patients to correctly fill in their menu choice forms?
- Do staff check that menu choice forms are completed properly?

Improving staff communication

Confirm number of meals ordered with wards immediately prior to meal service and ensure that there are clear procedures in place to:

- Transfer patient meal orders from one ward to another;
- Order meals, at short notice, for new patients; and
- Cancel patient meal orders at short notice.

Improving staff communication

- Outline key responsibilities for clinical staff, ward based staff, support workers and catering staff.
- Actively **discourage** 'just in case' meal ordering by wards.
- Carry out regular ward visits to understand the levels of and reason for plate waste.

Improving staff communication

- All staff involved in the food service should be trained in meal ordering and customer care.
- All staff should be able to offer advice on menu choices, suitability of products for vegetarians and special diets.
- All staff should provide clear guidance on portion sizes.

Reducing plate waste

- Provide a choice of large, standard and small portions.
- Ensure patients can select the required portion size on the meal ordering system.
- Use standard serving utensils to ensure portion sizes can be accurately served.

Reducing plate waste

- Ensure an appropriate number of staff are available to serve meals promptly and efficiently.
- Ensure sufficient help is available for patients who require assistance.
- Ensure assistance is given with opening packets or removing lids.
- Consider operating a red-tray system.

Protected mealtimes

- Protected Mealtimes are an important part of creating a ward environment that encourages patients to eat and enjoy their meals.
- Compliance of the policy should be monitored by regular audits.

Reducing condiment wastage

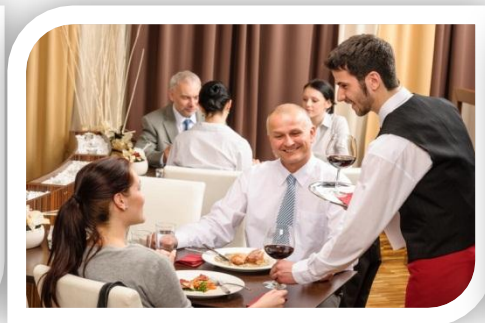
- Issue condiments on request during the meal service.
- Consider using reusable containers for commonly used non-perishable condiments.
- Consider reducing the number of condiments issued on each tray.

WRAP resources

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- The HaFS Info-Finder – a **'search and find'** tool to help find information quickly
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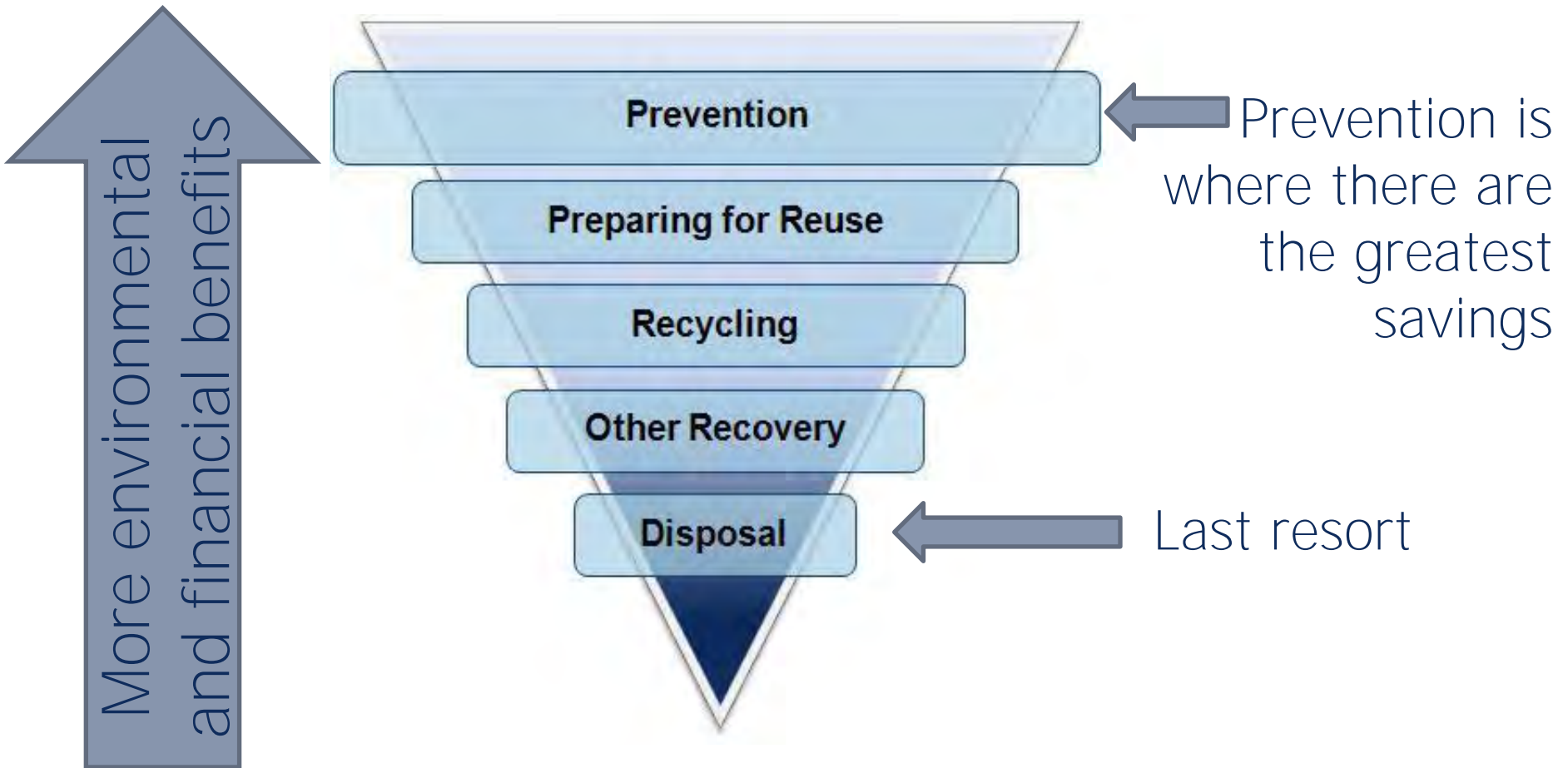
Screencast 4:
Opportunities in the
kitchen



This screencast will cover

- The waste hierarchy
- Preventing food waste
- Preventing and managing packaging waste
- Sustainable Procurement

The Waste Hierarchy





PREVENTING FOOD WASTE



Preventing spoilage

Purchasing: use good stock control and forecasting.

Regular orders: adjust depending on historical data and menu.

Stock management: check all food deliveries and return any products that do not meet standards.




STOCK CONTROL & PURCHASING LIST TEMPLATE

Use this list to stock check and calculate your order. Amend the list of products so that they are appropriate to your organization. Always try and use the same measurement as your supplier. For example if they sell potatoes in 5kg bags, you should measure stock by 5kg bags to avoid confusion.

Product	Use By Date	Unit	In Stock	Standard Stock	Purchase Date	Order
Vegetables						
Potatoes		Bag (5kg)	1/4 Bag	1		1
Carrots		Bag (2.5kg)	0	1		1
Cos Lettuce						
Tomatoes						
Fruit						
Lemons						
White grapes						
Strawberries						
Blueberries						
Meat						
Beef fillet						
Beef burgers						
Braising beef						
Lamb cutlets						
Poultry						
Chicken breasts						
Chicken thighs						

Preventing spoilage

- **Fridges and freezers:**
Check temperature regularly.
- **Stock rotation:**
First in, First out.
- **Prepared items:**
Keep a list and use date stickers.



Menu planning

- Plan carefully based on patient forecasts and historical data.
- Plan menus with patients and patient groups i.e. elderly.
- Use perishable items in more than one dish.
- Base patient and restaurant menus on a similar weekly menu to minimise waste.
- Use unserved patient meals from a bulk meal system in the hospital restaurant.

Menu planning

- Operate a minimum three week menu cycle.
- Patients should order meals as close to the meal time as possible.
- Patient meal requests should be used to assist in the development of future menus.
- Carry out regular patient satisfaction surveys.

Food service - wards

- For bulk food systems, it is important to pre-portion meal components to ensure that the correct portion size is given.
- Where possible the contents of the tray should be pre-portioned in the main kitchen.
- Consider providing bread on request rather than automatically.

Food service – hospital restaurant and retail outlets

- Hospital restaurants can be a significant source of food waste.
- Consider putting out less food at the start and replenishing more often.
- Avoid preparing food too close to the end of service.
- Apply good portion control.



PREVENTING AND MANAGING PACKAGING WASTE

Preventing packaging waste

- Arrange reusable crates for deliveries where appropriate.
- Redesign staff takeaway packaging to minimise waste.



Improving waste segregation

- Set up easy to use internal collection systems.
- Clearly define responsibilities.
- Define collection points / bins.
- Colour code / label bins.
- Train staff.
- Monitor progress.



Increasing recycling

- Most sites will benefit from a mixed dry recycling system.
- Make sure you have the right type and number of recycling bins.
- A waste review will identify if there are sufficient quantities for separate collections of some materials.

Food waste treatment and disposal

- Consider a segregated food waste collection system for unavoidable food waste.
- Small scale on site composting or Anaerobic Digestion might also be appropriate.
- For further information visit wrap.org.uk/on_site_treatment





SUSTAINABLE PROCUREMENT

Sustainable Procurement

- Facilities Management Procurement Toolkit
wrap.org.uk/content/facilities-management-overview
- Government Buying Standards for food and catering services
<http://sd.defra.gov.uk/advice/public/buying/products/food>

WRAP resources for business

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(guidance, information and templates)
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