

FOOD WASTE TOOL KIT

Walk the Line

Operational food waste hotspot assessment tool



Kai Commitment
LEADING ACTION ON FOOD WASTE



Preventing Operational Food Waste

Making food waste prevention part of standard operating procedures is one of the key **Best Practice Actions for Businesses** to reduce their food waste. The **Walk the Line tool** supports this by helping businesses uncover operational hotspots and take targeted steps to reduce waste at its source, ensuring your food waste reduction efforts are both strategic and effective. By closely examining your business's 'food flows'—from input to output—you'll gain a deeper understanding of where waste occurs and how to target your prevention and reduction efforts.

Originally developed for the manufacturing sector as 'material flow analysis' (MFA), this approach is adaptable to any stage of the food supply chain — helping businesses all the way from farm to fork to minimise waste and maximise efficiency.



Before you begin...

Form a diverse food waste action team to plan your walk the line assessment. It's important you have an overview of all aspects of your operations on your team.

Relevant personnel could include:

- ➔ **Operational staff and supervisors** – Those directly handling food and overseeing daily processes.
- ➔ **Technical and maintenance staff** – Experts who understand the equipment involved in the flow of materials.
- ➔ **Sustainability and procurement teams** – Professionals focused on waste reduction strategies and supplier relationships.
- ➔ **Management** – Decision-makers who have a higher-level view of the business operations.

Tip: if you are struggling with staff buy in, don't let perfect get in the way of good – be a Food Waste Champion and do whatever you can yourself to conduct a pilot version to demonstrate the value of understanding your food waste to your team.



Step 1: Mapping your Food Flows

Using the expertise of your business within your food waste action team, create a map showing how food flows through your business from input (supplier) to output (customer). Note areas where you know food waste is occurring and where that material goes once it leaves the production line (e.g. into a landfill bin, compost, down the drain, etc.). Make sure to include unavoidable by-products or inedible parts – while these may not be preventable, you might find opportunities to improve how they are managed or repurposed. We have created an example map and a basic template in the next two slides to get you started.

If you are a large or diverse business, you may need to prioritise food flow lines. Do this by focusing on:

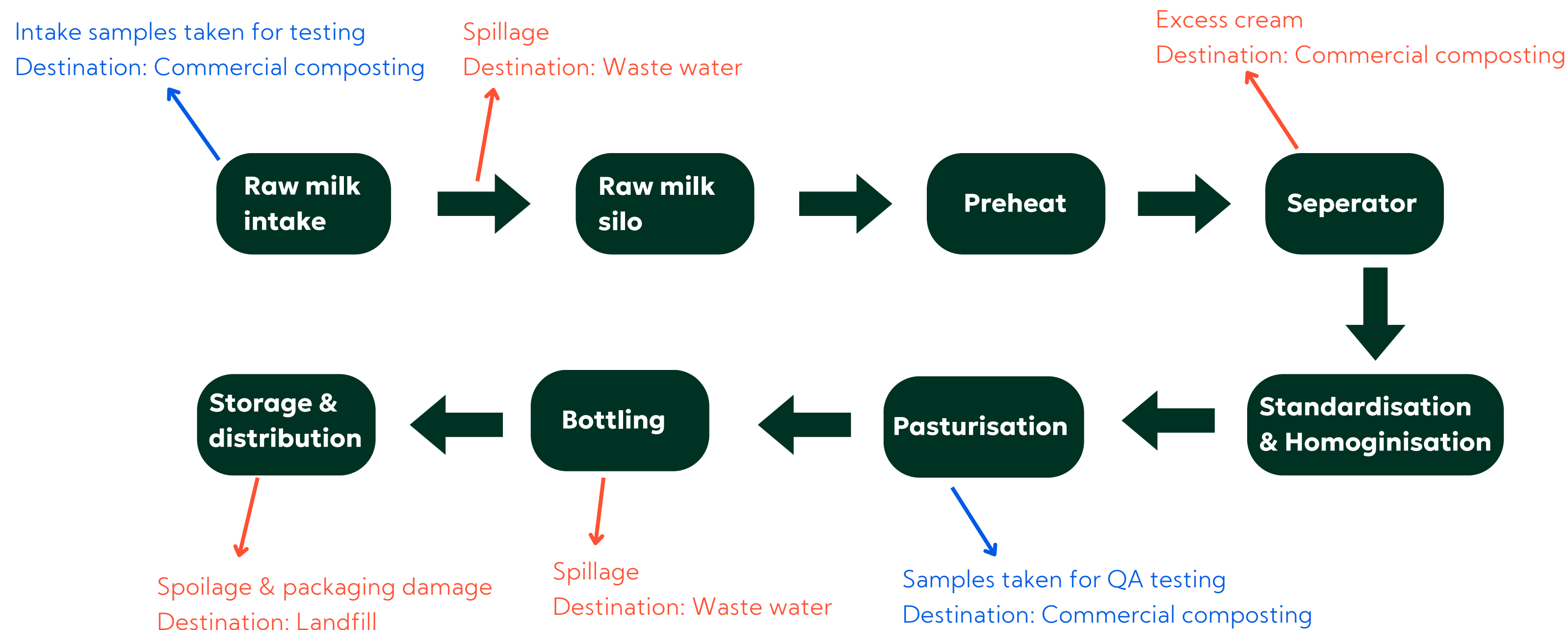
- Known food waste hotspots,
- High volume or high value processes,
- Difficult to dispose of waste or waste going to landfill.

Tip: If you are wanting a more technical map, flow chart software could be useful in mapping your processes in more detail than our basic material flow map template. You could also create your own template using digital whiteboard software if ours doesn't make sense for your business. The Technical University of Vienna also offer a free software for material flow analysis (MFA) called STAN2WEB that can be downloaded on devices with windows operating systems.



Food Flow Map: Example

An example of food flowing through a milk processing plant.



Tip: If it makes sense for your food flows, you could overlay this flow chart onto a map of your site for real-life visual accuracy.





Step 2: Walk the Food Flow Line(s)

Pick a time and day for your food waste action team to physically walk the line(s) you have mapped out. Record observations, ask questions, and have conversations with your action team and personnel along the 'line' to get an in-depth picture of how your food flows into, along, and out of your process line. There may have been details you missed or misrepresented in your initial mapping, make sure to amend/take note of these as you go.

There will be areas of your operations where food waste is more likely to occur than others, make sure to note these and pay extra attention to these potential hotspots.

Some operational stages where food waste typically occurs include:

- When/where there is a staff change over,
- During sorting,
- When/where equipment is cleaned,
- In storage,
- During transport/transfer,
- In highly automated processes.

Tip: To make sure your data represents 'business as usual', choose days that are 'typical' for your business and ask your staff not to change anything else about their normal practices. You may need to complete this process several times for different production lines, or parts of your business to capture all food waste hotspots. If that's not possible, prioritise the processes with the characteristics noted in the tip in Step 1.



Step 3: Identify & characterise potential hotspots

Now that you have identified the places along your food flow line where food waste occurs, answer these key hotspot characterisation questions to record the details of potential food waste hotspots you discover. Make sure to collaborate with personnel specifically involved in the processes where the hotspot occurs to get the most detailed and accurate information. Answer each question for each potential hotspot you discover.

Hotspot characterisation questions:

- ➔ Where on the site does this waste occur and who does it involve?
- ➔ How is this waste managed? What is its waste destination? What processes happen before it is discarded, e.g. is it mixed with other materials?
- ➔ Can you estimate or calculate quantities of food waste at this hotspot? Is a process for this already in place, or can it be created easily?
- ➔ Can you describe/determine the composition and quality of this food waste?

Tip: There are two ways to approach completing this analysis – you can answer the questions in real-time as you walk the line, or do it afterward with your action team. The best approach will depend on the logistics of your Walk the Line process. For example, if spending too much time at each location would disrupt operations, it may be more practical to gather observations quickly and document them more thoroughly later.



Next Steps

- ➔ Conduct a targeted Rapid Review for each hotspot. This will help to determine to what extent the hotspots you have identified are contributing to your overall food waste and will also provide a baseline measurement that can be used to evaluate any improvements made by future interventions. You can use our **Rapid Review Toolkit** to measure waste at each hotspot.
- ➔ Conduct root cause analysis of hotspots. Once you know where your waste is occurring, it's important to find out why so you can address the cause – not just the symptoms. Use our **Root Cause Analysis Toolkit** to understand the drivers for your hotspots so you can more effectively and efficiently target interventions.
- ➔ Prioritise reduction strategies. You will now be able to design and implement more effective interventions to maximise food waste reductions in your business' operations. Prioritising interventions should be done using best practice criteria to ensure maximum positive impact.
- ➔ Think beyond operational adjustments. To drive meaningful change, look beyond operational inefficiencies and consider the broader factors at play. See our **Best Practice Actions for Business** for more opportunities and guidance on preventing, reducing, and designing waste out of your business and the supply chain.

Learn more about Best Practice Actions for Businesses to
reduce food waste at our website kaicommitment.org

Did you use this toolkit? Let us know what it looked like for
your business, we would love to hear from you!
hello@kaicommitment.org

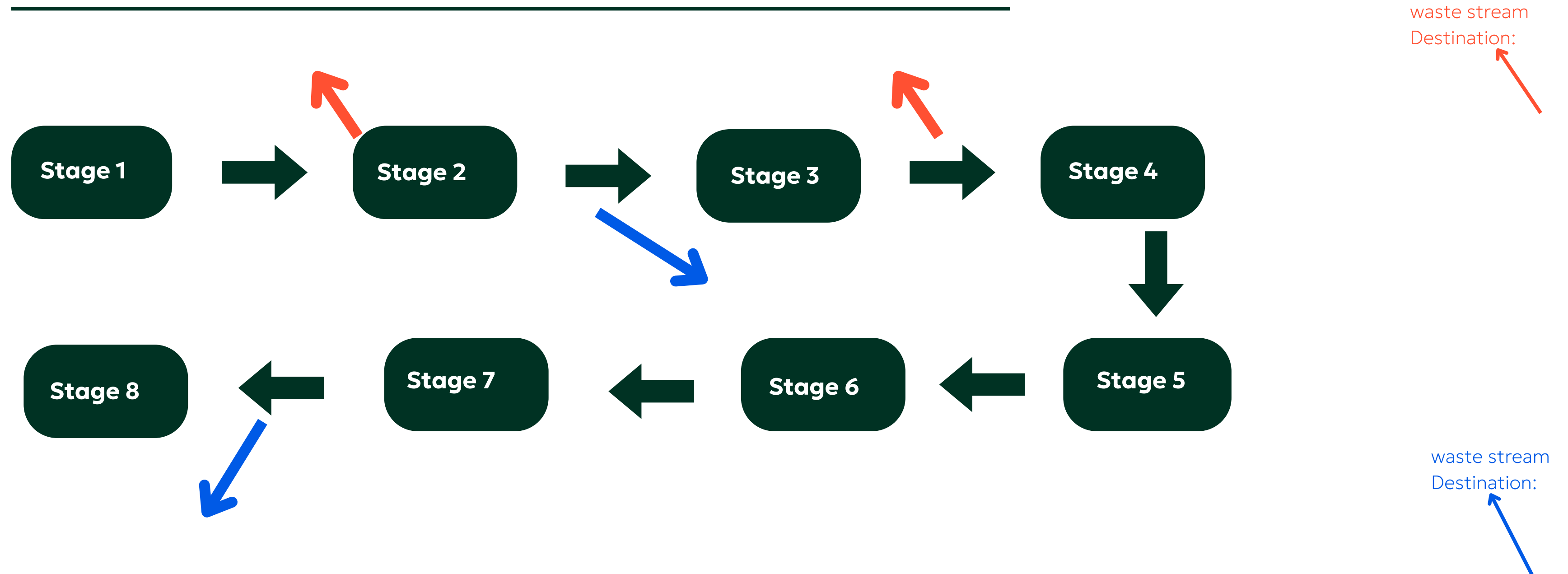


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Food Flow Map: Template

Rename stages and waste streams to fit the material flows of your business and move the waste stream arrows to the appropriate spot in the material flow. Add or delete stages and waste streams as needed.



Tip: If it makes sense for your food flows, you could overlay this flow chart onto a map of your site for real-life visual accuracy.