8 Wastes

What is it?

In Continuous Improvement, waste is any process step or activity that does not add value to the customer of your product or service. So to understand whether any activity is a 'waste' it is crucial to understand what your customers want and need from your process.

The **8 Wastes** is a framework for identifying process wastes by using the following categories:

Figure 1: The 8 categories of waste

Benefits at a glance….

- Provides a fresh perspective on familiar processes, highlighting hidden inefficiencies
- Helps pinpoint exactly where inefficiencies are occurring, highlight their impact, and identify the most effective opportunities for improvement
- Easily applied across a range of contexts, from processes to physical and virtual workspaces

'The most dangerous kind of waste is the waste we don't recognise'.

Shigeo Shingo, Continuous Improvement pioneer

When using the 8 wastes it is important to be aware that some activities might not directly add value to customers but are still necessary, for example, regulatory approvals processes. The key wastes to identify and eliminate are those that are neither useful nor necessary.

***TIP**: You may find the mnemonic **TIM WOODS** helpful in helping you to remember the 8 Wastes.*

When to use it?

Waste identification is not a standalone tool, but usually follows activities like **process mapping** or a **6S**. These create a really clear picture of how things currently work, which can then be analysed using the 8 wastes.

***TIP:** Whilst **waste** is usually a symptom and not the root cause, it often indicates where problems are.*

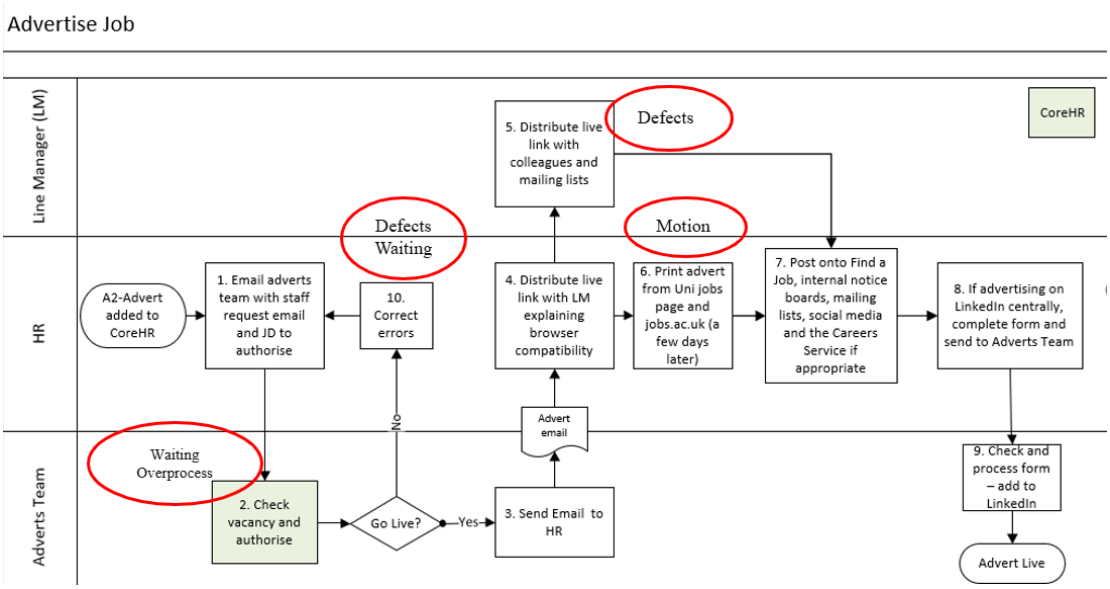
The following examples are illustrative of the type of wastes that you should be looking out for:

Waste Type and Example	Details
Transport: Unnecessary movement of information or material	Repeatedly sending documents, emails or attachments; unnecessary movement of equipment and materials
Inventory: Holding more than is needed	Unread emails, reports or documents; excess stock, space or supplies; unmanaged or excessive electronic or paper archives
Motion: Unnecessary movement of people	Searching for files/data; excessive screen navigation/clicks; unnecessary movement within/ between buildings (e.g. to the printer or for meetings)
Waiting: Delays, idle time	Waiting for decisions, signatures, data, or IT systems
Overprocessing: Doing more than is necessary	Multiple authorisation or checking of processes beyond requirements; collecting information that isn't required; duplicating steps of information
Overproduction: Producing more than is needed	Printing too many copies of documents, creating unnecessarily detailed or overlong reports, providing more information than needed
Defects: Errors requiring rework or correction	Missing data, unclear instructions; mistakes, errors or omissions
Skills: Not enabling people to carry out the process	Under-utilising people's skills; poor delegation; lack of training

How to use it?

***TIP**: Take incremental steps, focus on eliminating a single form or concentrated point of waste at a time.. Don't try to fix everything at once.*

- Waste identification is best done as a collaborative activity. A common way to use the tool is in a team meeting, or workshop, with a range of different perspectives on and roles in the process/service present. The team should review the current process together (ideally using a process map) and pinpoint where different types of wastes are occurring, like in the example below.



- Once the team has identified key wastes, further analysis and evidence gathering is usually needed. This provides evidence about the scope and impacts of the wastes and ultimately leads us to understand why issues are occurring. Waste should be thought of as a symptom, not a root cause.

- **5 Whys** is a useful tool to use once waste has been identified, preventing us from jumping to conclusions and just going for a quick fix. Or we may need to explore the wastes in more detail with those who have hands-on experience of the problem or issue, such as by carrying out a **Go See**.

Case study: "I Was Certain I Knew Exactly What the Problem Was…"

The Intellectual Property Research Management team in Research Services thought they had a clear understanding of the delays in their due diligence process. But when they applied the Eight Wastes framework, they uncovered inefficiencies in areas they hadn't previously considered.

By using the framework to highlight where waste was actually occurring—rather than where they assumed it was—the team were able to focus their efforts more effectively. They identified hidden bottlenecks and unexpected sources of delay, leading to targeted improvements that successfully reduced the average time to complete due diligence checks by nine days.