LEAN THINKING 101

8 WASTES

nzla.

New Zealand Lean Academy

This resource was developed by the New Zealand Lean Academy where we're on a mission to make Lean Thinking sexy!

This eBook about the 8 Wastes of Lean is just a tiny piece of the puzzle. We're building New Zealand's one-stop shop for Lean Thinking tools, templates, and ideas over at www.nzla.nz

Come and join us as we bring Lean Thinking to the people, and help make New Zealand the best place in the world to live and work.

Rob Bull
Co-Founder & CEO of
New Zealand Lean Academy

Good on ya for getting curious about the 8 Wastes of Lean!

I'm an absolute geek when it comes to Lean Thinking, but holy crap there's some wordy-jargon that comes with it! So I've worked hard to make this resource accessible and as practical as possible, giving you everything you need to get started with identifying and minimising the 8 Wastes without having to spend hours watching videos or poring through books.

When you have questions or need guidance on implementing great Lean methodologies, don't hesitate to reach out. Together, we can make New Zealand the best place in the world to live and do business.

Let's go!

Rob Bull

www.nzla.nz

Why we're learning about
THE 8 WASTES

Some days, doesn't it just feel like you are busy getting all the jobs done, the team are frantic but you never seem to make headway with all the work going on? Sure, on paper it looks like you've got enough people, resources, equipment and supplies, yet the deadlines are continuously being missed and firefighting becomes the norm. We feel your frustration and see this scenario playing out all the time.

Every business 'loses' time in many different ways, for lots of different reasons without even realising it. In most situations, inefficient behaviours and actions are explained away as "this is the way it's always been done". In reality, the team are loosing 5 minutes here, 10 minutes there ... this can add up quickly!!

The 8 Wastes of Lean is a framework to enable teams and individuals to 'see' or identify where the opportunities are to improve. This tool will shine a light on where waste might be hiding within your systems, processes, your physical workspace or maybe your entire work flow.

Once the opportunities are spotted, it is all about eliminating the non-value (from a customers perspective) actions or tasks and think about what is essential to get the job done, vs what isn't.

THE 8 WASTES
Getting Started

"The *most dangerous kind of waste is the waste we do not recognise.*"
Shigeo Shingo

An easy way to remember the 8 Wastes is to think about the acronym "DOWNTIME". They stand for:

- Defects (or rework / errors)
- Over production
- Waiting
- Non-utilised talent
- Transportation
- Inventory
- Motion
- Extra-processing

DEFECTS
- Extra effort caused by errors, re-work or incorrect information

OVERPRODUCTION
- Producing more of something than is needed or before it is required

WAITING
- Wasted time waiting for the next step in the process, decision making or people

NON UTILISED TALENT
- Not maximising the talents, experience, knowledge or skill of people

TRANSPORTATION
- Unnecessary movement of the product being made or other materials or supplies

INVENTORY
- Excess products or materials being ordered and stored that are not being used in the process

MOTION
- Unnecessary movement of people

EXTRA PROCESSING
- More work or at a higher quality than is required or requested by the customer

THE 8 WASTES
Examples

Defects
- Incorrect customer information, data or information collected
- Order entry errors
- Design errors
- Engineering change orders
- Invoice errors
- Lost files or records
- Bad or Missing information

Overproduction
- Producing reports that no one reads or needs
- Making extra copies just-in-case
- Producing more to avoid set-ups
- Entering repetitive information on multiple documents
- Memos or emails to everyone (and reply-all's)
- Making people provide more information than what is used

Waiting
- Waiting for approvals or signatures
- Attendees not all on time for meeting
- Slow system response time
- Delays in receiving information (customer, supplier, team)
- Printer or computer break-down

Non-Utilised Talent
- Bypassing procedures to hire a favourite candidate
- Starting the use of software without prior training
- Not providing opportunity for professional development
- Limited authority and responsibility for basic tasks
- Inadequate business tools / training available
- In-sufficient cross-training

THE 8 WASTES
Examples

Transportation
- Moving product in and out of storage
- No signs identifying areas or departments
- Multiple hand-offs or approvals
- Bad area layout
- Excessive filing of documents
- Multiple emails back and forth

Inventory
- Excessive office supplies
- Files piled up between desks
- No storage space because it's filled with stuff that's not needed
- Batch processing transactions & reports
- Obsolete files or office equipment
- Old resources and manuals

Motion
- Looking for items without a defined place
- Searching for files on computer
- Employees not working to a standard method
- Poor work area layout
- Sorting through materials

Extra Processing
- Multiple signatures
- Unused or unnecessary information collected
- Re-entering data
- Different software working on same document
- Expediting
- Unnecessary or excessive reports
- High cost brochures

"Continuous Improvement is not about the things you do well - that's work. Continuous Improvement is about removing the things that get in the way of your work. The headaches, the things that slow you down, that's what Continuous Improvement is about."

Bruce Hamilton

THE 8 WASTES
Getting Started

Most organisations will have 3-4 key wastes that are hurting them big time. Once team members are trained about the 8 Wastes and how they can 'see' them occurring in different situations, tasks etc., then it is about problem solving to work out how to eliminate or minimise the waste out of a process.

It might take a few minutes to solve one issue, or a few months to sort out bigger challenges. It might even take an A3 project plan to fully manage the improvement process.

Once you get going, you might find yourself thriving on the relentless pursuit of identifying wastes one bit at a time. This is where the term 'continuous' really starts to make sense! There will always be waste in a business process or system, that is just a fact of life. But every time a team minimises an area of waste, they'll see the compounding impact of regaining lost time and resources. Stick with it, and over time work becomes easier and more enjoyable.

Process mapping can also help in identifying issues as a result of one of the 8 Wastes. Facilitating these conversations and collecting all the ideas through mapping out processes can be a powerful and effective way to kick start the journey.

THE 8 WASTES
Getting Momentum

Starting to use the 8 Wastes is the easy part; keeping momentum going is a bit more challenging. That's why we recommend, with any new initiative, you commit to sticking with it for a set number of weeks, then review and tweak what you're doing regularly.

There are a number of ways a Lean Leader can keep track of how the team is embracing the continuous hunt for the 8 Wastes in their workspace.

These are:

- The number of improvement activities per waste completed
- Process performance (indirect to waste elimination)
- Number of errors or rework (reduction of these)
- Staff satisfaction (indirect measure)
- Completion of a Lean 'hunt' on the next page

LEAN WORKPLACE WASTE HUNT

In your chosen area, identify as many wastes as possible. You should be able to find at least one type of waste.

Type of Waste	Definition	Examples
Defects	Rework, rejects, incorrect information, material - quantity / quality	
Overproduction	Producing more products or information that the next step needs, creating products no-one uses, making extra items	
Waiting	On equipment, people, materials, tools, maintenance approvals	
Non Utilised Talent	Staff not align with company goals, not enough work, Not using talents	
Transportation	Movement of 'stuff'. Retrieving or storing materials, carrying material or information etc	
Inventory	Material waiting to be worked on, information waiting to be read / used, Unused records in the database	
Motion	Movement of people: Searching for information, tools, consumables. Clearing clutter, excessive lifting, carrying etc	
Extra-processing	Additional processes, repeated manual entry, doing more than the customer expectations	

FINAL THOUGHTS

The 8 Wastes is one of the most widely used Lean tools throughout the world because it's easy to get started, and can lead to huge improvements across all areas of a business.

But just because it seems simple, certainly doesn't mean it's easy.

Like everything, implementing the 8 Wastes is all about discipline, and communication. You've got the information, now it's time to turn it into action.

But don't worry, we've got you.
Any time you need support with your Lean journey, we're right here to help so don't be a stranger.

You're awesome & you're doing a great job.

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We recommend checking out this NZLA resource next:

Gemba Walks