

CLEAN, GREEN AND LEAN

This video presents five ways you can apply Lean principles to increase your resource efficiency.

Hi, I'm Gen and I've been working with small to medium-sized businesses in Tasmania to help reduce their consumption of resources and minimize waste streams.

This video is part of a series from the Business Resource Efficiency Program, delivered by Business Action Learning Tasmania in partnership with the Tasmanian government.

It is a key action from Climate Action 21, the Tasmanian Government's climate change action plan.

Each video shares successful strategies and other lessons we've learnt from BREP.

We define Lean as the continuous quest to maximise value creation and minimise waste in workplaces, supply chains and business processes.

This definition puts equal emphasis on value creation as on waste reduction. We want to eliminate waste but we also want to retain and enhance the things that our customers value.

There are common elements in the principles of resource efficiency and the principles of Lean.

Both focus on value, as defined by the customer and both focus on eliminating waste from systems.

What this means is that we have a collection of tools and a way of thinking that we can effectively 'hack' to achieve resource efficiency and add value for our customer.

So, here are five ways you can use Lean to improve resource efficiency:

A fundamental principle of Lean is getting everyone involved in the improvement process, this is the foundation of the Lean House.

Everyone should be looking at products, services and processes through the customer's eyes and asking, "what is adding real value, and what isn't."

For Lean tools to be effective, processes need to be relatively stable.

A stable process is one where there is minimal unscheduled work, no unplanned downtime and limited rush jobs and overtime.

Stabilising the process improves resource efficiency and provides cost benefits because an unstable process costs money in rework, labour, and waste in process.

When people are rushing or feel disorganized, mistakes happen!

Once the foundation has been laid, we can start to build our Lean House.

Just-in-Time means we produce only what is needed, when it is needed and in the quantity that is needed.

In terms of resource efficiency, this means we are not using resources unnecessarily to make things or deliver services that are not yet needed.

Just-in-Time is based on creating flow, a customer order triggers a chain reaction that pulls materials and components through the process to arrive at each stage, exactly when it is needed, in the quantities required.

Flow is achieved by removing bottlenecks in the process, and creating greater predictability, flexibility and stability.

There are specific tools that can be used to create Just-in-Time inventory systems including Heijunka (a scheduling tool), Kanban (a visual management system) and quick changeover techniques.

You can find more information about these tools on our website.

The other pillar to our Lean House is Jidoka.

Jidoka is about optimising quality by preventing errors in-process and is a great way to improve resource efficiency.

There are four elements to Jidoka:

1. Detect nonconformance.
2. Stop the process.
3. Fix or correct the immediate problem.
4. Investigate the root cause and make improvements to prevent recurrence.

Jidoka incorporates a range of Lean tools including poke yoke, andon and 5 whys.

The purpose of poke yoke and andon is to detect errors early and stop the process immediately. This prevents materials, labour and energy being wasted on products or services that will need to be reworked or scrapped.

5 Whys is used to investigate the root cause for an error occurring. Once the cause is found, controls can be put in place to prevent recurrence.

You can find more information about these tools on our website.

Finally, the ultimate goal of Lean is to achieve the highest quality at the lowest cost and in the shortest time. This is driven by the customer's perceptions of value.

Designing and making a better quality product will make it last longer, effectively extending its useful life.

The customer will be willing to pay more for a product they perceive as valuable, they will take care of it and even repair it as components wear out, extending the product lifecycle even further.

The bottom line is that extending the product lifecycle means that we replace the product less often and therefore use less resources.

This video has presented five ways you can use Lean principles to increase resource efficiency.

For more ideas and practical information about improving resource efficiency, watch one of our other videos or visit the Tasmanian Climate Change Office website at climatechange.tas.gov.au

or the BALT website at businessactionlearningtas.com.au.

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