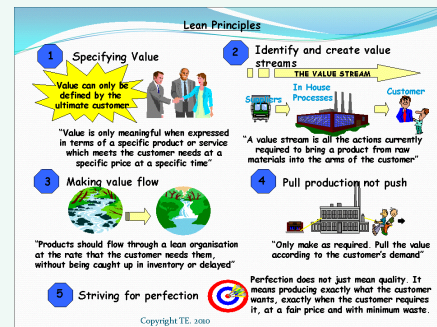


Introduction

In their book "The Machine That Changed the World" Womack and Jones define 5 principles of Lean Manufacturing. These Lean Principles define the philosophy of lean. These lean principles can be used to define the aim of any lean system which is to "Clearly specify value in order to line up all the activities for a specific product (family) along a value stream and make the value flow smoothly at the pull of the customer in pursuit of perfection."

Source: <http://leanmanufacturingtools.org/39/lean-thinking-lean-principles/>

Lean Principles



1. The Principle of Value

Value is something that the customer specifically wants and is prepared to pay for. Yet we spend the majority of our time doing something other than adding value. Studies show that we tend to only add value to a product or service for just 5% of our time. The rest of the time we spend in wasteful pursuits; we are waiting, reworking, transporting, moving and a host of other wasteful things that the customer does not consider to be something that they should pay for.

2. The Lean Principle of Value Stream

The value stream is the series of interrelated processes that produce the value; from raw material through to use. Just the steps that add the value, not those steps that add no value. Value adding and non-value adding steps make up every process. Within lean we are looking to remove or minimize those non-value adding steps. We are looking at the value stream from the point of view of the product (or value), not looking at individual departments or even companies. This can be mapped using tools such as value stream mapping to create current and future state maps of the overall flow.

3. The Principle of Making Value Flow

The ideal flow would be "one piece flow", however this is often not feasible due to machine setups and the need to flow multiple product streams through individual machines or cells. But what we are trying to achieve is the "flow" of products or value from one step to the next, each step being a value adding step. Never delay a value adding step by a non-value adding step, where possible have these done in parallel to the value adding one.

This flow is achieved through a whole host of ideas and tools from Kanban, to small machines, through cell design and so on.

4. Pull Systems a Lean Principle

One of the biggest wastes in any system is that of inventory; inventory hides all of the other problems in your system and causes so many other wastes. Inventory takes up space, it requires stacking, storing and transporting, it eats your capital!

The ideal system is one where the customer makes the order and you manufacture that product only when ordered. This is an ideal situation and many industries do not believe that they can achieve it. But lean is a never ending journey and with evolving technology and customer requirements it is possible to achieve it.

5. Perfection

If you achieve the first four steps you will have already prevented a huge amount of waste (seven wastes) from appearing within your processes. However; with the help and support of all of your employees you need to strive towards perfection; delivering exactly what the customer wants, when they want it at an acceptable (Minimum) price with zero waste.

Don't go out and benchmark your competitors and try to match them or beat them by a little; the aim is zero waste and the ability to deliver your customers value.

Involve every employee within your company in implementing lean tools such as Kaizen to drive continuous improvement of each and every aspect of your company. Lean is not just about improving a production cell; it also about improving every other process from order processing to invoicing and customer service.