

Applying Lean and Reducing Waste Movement

4

This article is the fourth in a series of seven, with the aim of helping to answer the question:

“How do we deliver the most effective service for the very best cost to the taxpayer?”

The full set of seven wastes are:

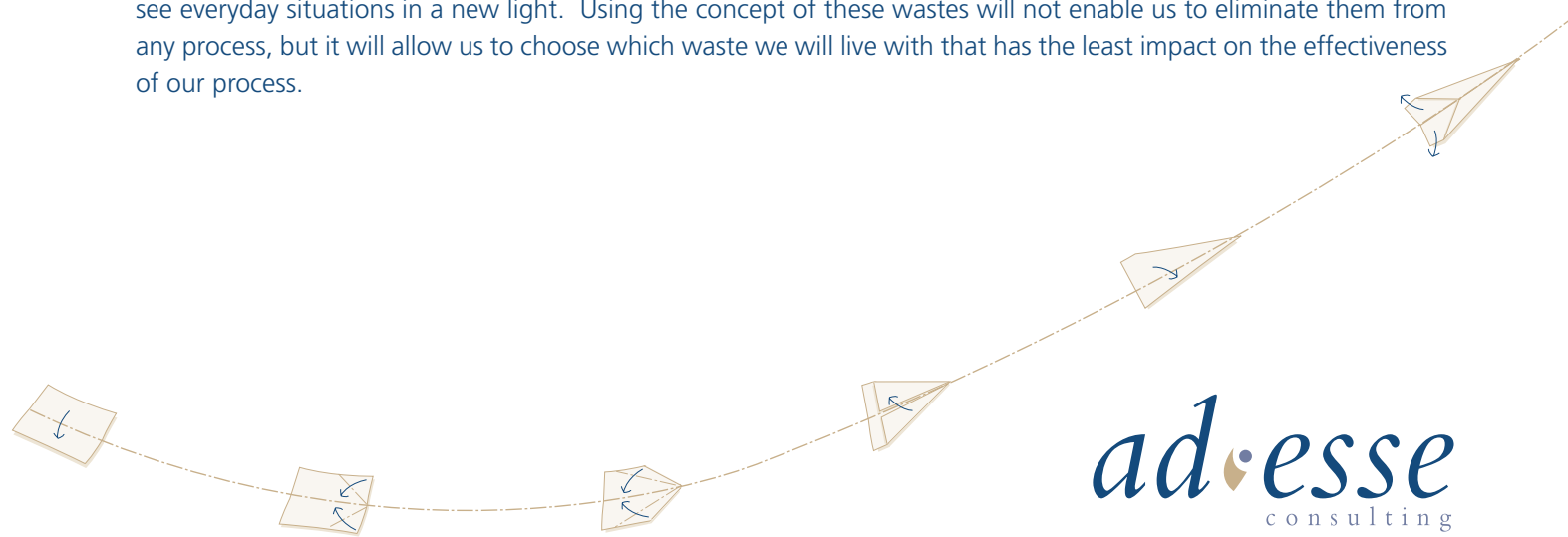
- Waiting
- Inventory
- Transport
- Movement – people, materials and paperwork moving
- Excess Processing
- Over-Production
- Rework.

BACKGROUND

Waste is all around us. In our work in continuous improvement we have never seen a perfect process. There may be individual steps in a process that appear virtually impossible to improve, but if we look at any end-to-end process that goes from the inking of a need in a customer’s head (internal or external) to the satisfaction of that need, there is always waste somewhere (and usually everywhere). These wastes are always present, but until we are aware of them, we do not recognise their existence, and so do nothing to reduce them.

When working on Lean programmes, or supporting other improvement initiatives, we often train people in the waste (what they are and how to spot them) and then send them out into their area of work to find them. It can be a chastening experience. Armed with a new way of looking at the world we suddenly see problems and issues that we just did not identify before. One manager said upon his return ‘Wow! I thought I had lots of problems before, now I have ten times more.’

There is a great book on Value Stream Mapping (identifying where value is added in a Lean diagnostic) by Mike Rother called “Learning to See”. It is such a great title. Much of the application of Lean thinking is about learning to see everyday situations in a new light. Using the concept of these wastes will not enable us to eliminate them from any process, but it will allow us to choose which waste we will live with that has the least impact on the effectiveness of our process.



THE WASTE OF MOVEMENT

The original Lean term for this waste is 'motion' but we have changed it to 'movement'. The change is not significant grammatically, but it feels more correct when talking about the movement of process responsibility.

People Moving

Movement is generally not a difficult waste to spot. Look around in your office. Is anyone moving around? If they are, then that is waste. They may have been doing something that added value before they started moving – say writing a report and printing it off – and they may well do something value adding when they get to the printer, but the movement of the person adds no value. It is all waste.

Look out of your window (if you are lucky enough to have a window!). Can you see anyone walking with a sense of purpose, driving a car, or travelling on a bus? If you can, then that is waste. Unless the movement is an end in itself (going for a stroll round the lake, or jogging to keep fit) then all that movement is waste. Because we are surrounded by movement in our organisations and outside, we can sometimes forget that all movement is waste. In fact, an office that looks 'busy' may well look busy because there is so much movement waste to see.

We witness many examples across the public sector of people moving around, sometimes almost constantly, in order to do their jobs as they are currently designed. Staff can be found moving case notes not only around buildings, but sometimes between sites; staff walk to copiers, other offices etc; or staff move from place to place for endless meetings.

By this stage you may well be exclaiming 'we cannot just chain our staff to their desks all day!' That is true, but did we design the process with movement waste to relieve our staff of tension, or did it just evolve that way? If the process has not been designed, then there could be a lot more movement waste than you realise, and that movement may be very unevenly distributed around the office. If staff need to get up every 30 minutes for health and safety reasons, then let them do so, but let's not rely upon the random waste in a badly-designed process to provide that relief.

Movement of staff costs us time and money, and adds no value. If we can use a video conferencing facility rather than driving 2 hours in each direction for a two hour meeting, then we should. If the purpose of the meeting is to get to know other staff and develop new contacts it may be legitimate (although still a waste), but if the meeting is a regular one where actually being there adds no value, then we should look at the alternatives.

Once we see people movement as waste, we will challenge the design of our process, the layout of our office, the location of our different teams and so design a process that not only meets the customer's requirements, but does so with less people resource and in less time.

Movement of materials and paper

We may live in an electronic age, but there still seems to be a lot of physical stuff moving around our offices and workplaces. The rule for a physical item or document is the same as for the person – all movement is waste. The physical movement of anything uses up resources, uses up time, introduces the possibility of error (losing it, or giving it to the wrong person) and generally indicates a process design that could be improved. Once we see all movement of items or paper as waste, it makes us ask two fundamental questions. Why does the thing have to move, and is there a faster way of getting it to where it has to be?

When looking at the waste of movement, people often focus on the second question, when in fact, the first one is the more powerful. Does that document have to be moved at all? What value adding step is going to take place when it arrives? Is it something that has to be done there, and if not, why not keep it where it is produced? If it has to be used somewhere else, can it be produced in that place to start with so that we don't have to move it? In the world of shared drives, networked printers and e-mail, does there still have to be so much physical movement of items around our offices?

This may sound like petty stuff, but the fact that the movement waste exists, points out to us that the process is not optimised. It shows us that there is waste in the process and this means that in eliminating the movement waste we may well remove other wastes at the same time. If we don't challenge the movement then we will not achieve those other benefits.

We will never completely eliminate the movement of physical items and paper around our offices, but even reducing it by 30% will create more time, more resource and, often, simpler processes than if we ignore it.

Movement of process responsibility

When creating value stream maps and teaching people how to create the 'as-is' view we always advise them to start simply and then build the reality of their often complex situation. We use symbols to show actual movement, and by identifying who does each step we can also identify how process responsibility switches from one role to another. In the case of moving from one step to another (especially where responsibility changes) nothing physical may have moved – all this could have happened by e-mail – there is still movement waste. Why is this waste? Because every transfer of responsibility for the process introduces a number of other potential wastes:

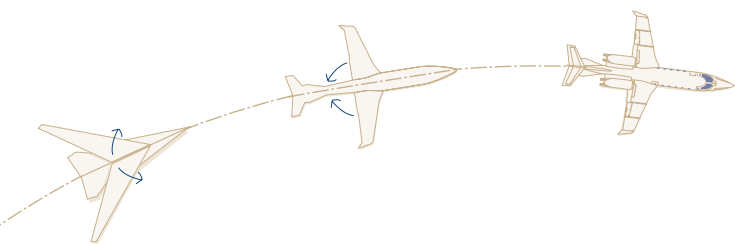
- The process is delayed, because even though the information may be sent instantly via e-mail, the response is rarely instant. Lean measures the quality of a process by the speed of the process. A faster process is a better process, and a process that has to wait between every step for a new person to see the need to for the process to continue, then decide to do it, and then finally do it, is not Lean.
- There is a need for what is known as 'context regain time' which is where an interruption prevents us focusing and it takes us time to our brains back into 'the zone' where we can understand the complexities of the problem they were looking at.

Similarly, when we pass an item being processed it takes time for the second person to get their heads round what has been passed, read all the information, and conduct some analysis before performing their step in the process. Processes can be speeded up dramatically and error rates reduced, by reducing the number of handovers in a process and equipping individuals to perform more of the individual steps.

- Movement waste also highlights the waste in seeking approvals, sign-offs and other checks where one person verifies the work, or decision, of another. In most business processes we are not looking at business critical processes, or ones that will bankrupt us if we get something wrong. Even if we do, getting authorisation from a senior manager is unlikely to prevent this anyway. Most approvals are semi-automatic anyway and it makes much more sense to give the first person in the process the understanding required to make a good decision about something, than to pass it to someone more skilled. If the second person is really so much more skilled, why are we asking the first person to make a decision anyway?
- Opportunity for error is increased by movement. Things or responsibility can be passed to the wrong person or passed to someone who is on holiday for three weeks. It can be corrupted in passing it, or what is being passed may not be understood. An e-mail may be received which we assume is for information, whereas the intention is that we actually do something about it.

The possibilities for how the movement of process responsibility can generate more waste and higher levels of customer dissatisfaction are virtually endless. As with the first two movement wastes, we will never eliminate it, but if we don't learn to see it as a waste in the first place, we will never analyse, re-design or improve our processes to reduce it.

If you would like to know more about the seven wastes and potential solutions to reduce waste and improve your customers experience then contact us directly or look on our website for our programme of free seminars. We're more than happy to find out about and discuss any issues you may have.



ad•esse
consulting

FURTHER INFORMATION

To receive regular case studies and articles like this one, you can subscribe to our newsletter 'Actualty'. Contact us at Ad Esse Consulting Ltd.

PHONE: +44 (0) 845 366 8528 EMAIL: seriousfun@ad-esse.com WEBSITE: www.ad-esse.com