

The Importance of Flow in Lean

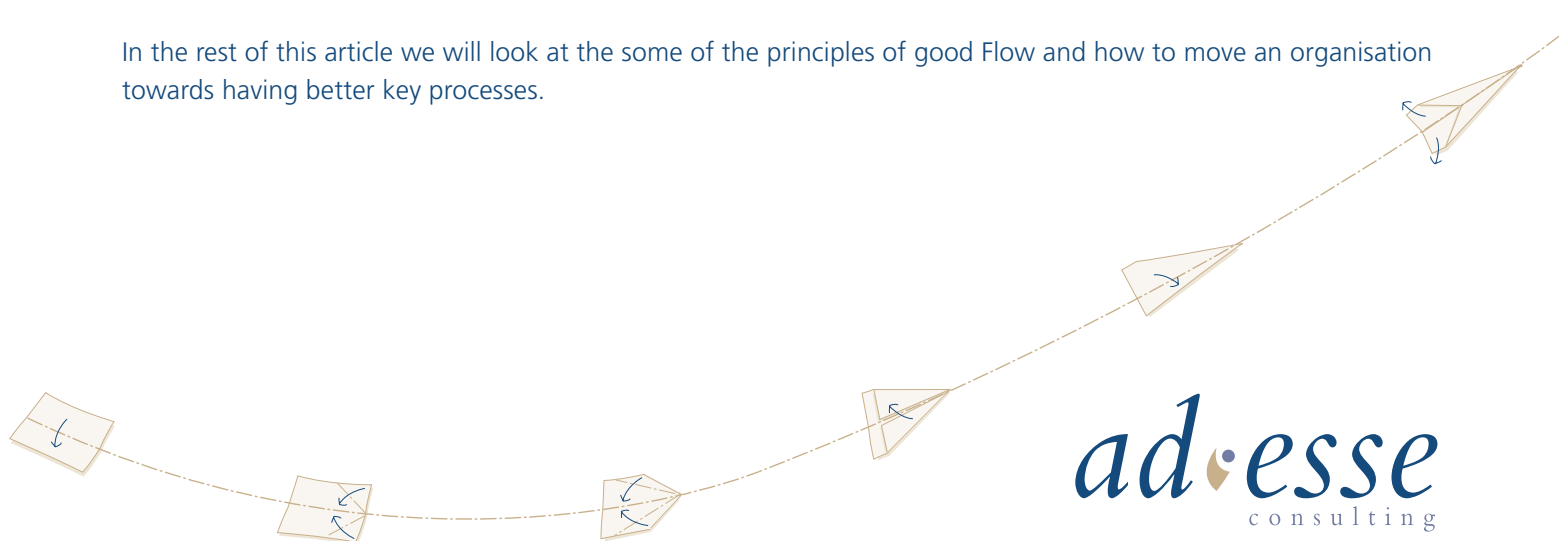
There are many excellent books on Lean and particularly the need to understand and improve your process flows. I will not attempt to either summarise them or review them here, but will provide some personal perspectives on how an improved understanding of Flow is essential to implement Lean.

Flow is about how the items or people that we are processing move from the start to the end of our interaction with them. It is about what happens to them and how the process overall compares to what could be seen as a perfect process. Many of principles of Flow are linked with Just-in-Time (JIT). These state that the best way to run a process is to use the minimum resource and minimum elapsed time to move an item from the start to end of the process. Although the desire to run a process in this way sounds so blindingly obvious that we may wonder why we have to say this, most key operational and administrative processes that I see are designed with other parameters in mind rather than just customer service and cost and cycle-time reduction.

As I have said in other articles, although Lean is simple to understand conceptually, it is often difficult to implement in practice, mainly because it challenges our perceptions of what 'good' looks like in process design and often forces managers to challenge how they organise, motivate, reward and manage their staff.

Talking with managers from one organisation, I mentioned the fact that to manage process flow effectively we need staff flexibility and movement, both up and down one process and across different processes. They looked at me in horror. After spending hundreds of hours on a job evaluation process which carefully categorised the tasks (and hence rewards) for each job, the last thing they could do was now blur all the boundaries between roles and functions to streamline their process flows. Any flexibility would have implications for people's job descriptions and grades.

In the rest of this article we will look at the some of the principles of good Flow and how to move an organisation towards having better key processes.



WHY DO WE GET POOR PROCESSES?

An obvious question is why the processes we operate at the moment are not Lean. There will be many reasons. The first is that in the real world we will never get a perfect process. There will always be some room for improvement, cost reduction and cycle-time reduction. However, the reason why most business processes are so far away from perfection is not that achieving perfection is impossible, but rather that we have never attempted to reach, or even define, perfection.

The reasons for not achieving what would be regarded as a Lean process are:

We don't understand what 'good' looks like. – Understanding of what a good process should look like, or how to design, implement and manage one, is not inherent. Humans might learn to walk instinctively, but we have to be taught to swim. Managing business processes is like swimming. We can all be taught to do it and do it pretty well, but the first few times it feels uncomfortable and awkward. People need training and coaching in designing and managing Lean processes.

Our processes are not designed – Most business processes were never truly designed, and if they were, they have generally evolved a long way from the original design. People add steps in to cope with problems they have experienced. Processes tend not to keep up with changes in internal or external customer requirements. Duplication tends to occur as new technologies are brought in – people tend to adopt the belt and braces approach. Giving people information on the principles of good process design and getting to act on the information can remove vast amounts of waste from processes.

We don't understand our current processes well enough – Few organisations have detailed process maps mapping the effectiveness of a process. If they have process maps, they tend to be 'procedures-in-a-map' rather than descriptions of the throughputs, capacities, process issues and levels of resources and flexibility in the process. We need maps that explain how the process operates rather than just who does what. We also need process measures that tell us how well the process is performing; internally, in terms of outputs and in the customer's eyes. Most business processes that I see are not mapped or measured well enough to give managers and staff the quality of information they need to drive real improvement.

We don't compare ourselves against perfection – When assessing process performance or team performance, most organisations will compare to 'plan', 'last year' or some external benchmark. One principle of Lean is to compare to perfection. We will always fail – which can make it tricky to use as part of a remuneration package – but at least it creates the sense of dissatisfaction and motivation to improve that is essential in Lean. All too often I see managers and teams that are happy with their performance on the basis that they cannot do any better. When we review processes with a Lean hat on and see the massive amounts of waste that can be tackled, it removes the shackles of limited thinking and drives a real desire for improvement.

We optimise individual steps, not the whole process – Many of the principles of Lean Flow – reduced batching, continuous flow, minimised waiting between steps – are about optimising the whole process, not just individual steps. All too often one can see that because there is no overall process ownership or vision, that each person in the process optimises their own activities without understanding the impact on the whole process flow. Lean forces us to think about processes from the customer initiating the process to the customer receiving the output of the process. Improving the service to customers and reducing whole-process costs and cycle times will often mean reducing the efficiency of individual process steps. Whilst these are often obvious when we look at the whole process end-to-end, they will never happen until we do.

THE PRINCIPLES OF LEAN FLOW

Good processes are designed with a few, very simple principles in mind. On our one-day Lean seminars we use a variety of practical exercises to demonstrate the principles of a Lean process. They are easier to grasp if you see them and participate in the process yourself. However, if you cannot make it to a seminar, the theory behind Lean Flow is:

- Focus on value-add. For each step we need to be sure that it is adding value from the customer's perspective. Many steps in a process add no value, and most time in a process is spent with nothing happening at all. Getting everyone to understand and focus on value is key to good process design.
- The time for any individual item or person being processed to move from the start to the end of the process should be as short as possible. Elimination of waiting time in a process should be one of your key concerns. The quicker the process the better managed and more reliable it has to be. Reducing cycle times forces you to make all sorts of other process improvements. It also generates many subsidiary improvements.
- Work should be pulled through the process rather than pushed. Demand from downstream should define activity upstream. Most processes are designed as push processes. This is generally because they are easier to manage and do not rely on any real communications between the stages. Changing processes to work in 'pull' mode is a key part of moving to Lean. We can use visual management systems, IT systems or the breaking down of functional boundaries to achieve this, but in general this is the hardest principle to apply.
- Batching should be avoided wherever possible. Making one item wait for another may appear to increase the efficiency of an individual process step, but it slows down the process overall and leads to the consumption of much extra resource.
- Doing anything before it is required by the next step in the process is over-production and should be avoided. Having one step go too quickly or start too early just leads to work in progress, waiting, the need for storage and the need for waste activities to manage the queue. Having people doing nothing on that process step is better than having produce lots of output that will not be used immediately.
- No duplication of activity. In many processes we see the same steps being done again and again, either due to poor reliability, lack of knowledge of what is going on elsewhere, or lack of confidence in the other parties involved in the process. Duplication should be eliminated, usually by improving the quality of the initial process step.

IMPROVING FLOW

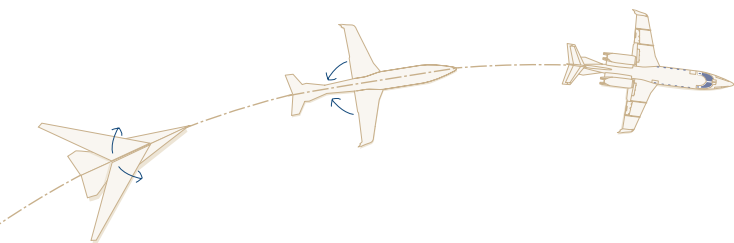
Although the following is not meant to be a definitive guide to running a Lean process, if you are planning to tackle process flow you can do so by taking some very simple steps:

- Map and measure the process. What are we doing? Why do we do it? How well do we do it? What is the impact of each process step on costs and customer satisfaction?
- Identify all the problems experienced by staff, managers, suppliers and customers with the current process. What causes them frustration? What issues do they have with the process?
- Identify all waste in the current process using the seven wastes as a guide to what should be looked for. For each waste we should ask why it occurs and what could be done to prevent it.
- Apply the principles of good process design in coming up with the perfect process. How would we do things if we were not constrained by the process that we have in place now? What would we do if we tried to eliminate every element of waste from our process? At the end of this stage we will have a perfect process, but one that is completely impossible to implement.

- Re-introduce reality into our perfect process. Forcing people to move from perfection back to the best we can do in the real world makes people think differently than starting with what they already do and asking them what can be changed. They challenge preconceptions more and end up with a better solution. Keep introducing realism into your perfect process until you arrive at a process that you can implement now and then note the changes you need to make to implement it.
- Develop a change plan to move from where we are now to our best possible process. Involve staff in planning the change process and ensure that the resources are in place to ensure that the planned changes can be made. Do what you say you are going to do and don't allow critics to derail your process.
- Put in place effective process measures and make it the responsibility of the team and line management to monitor the new process and continue to make changes to the process based on the performance they observe.

Much in Lean is about knowing how to look at processes and improve them. Understanding the theory is essential. Having experience is a great help. But I have no doubt that every organisation can redesign their processes in line with Lean thinking and get every employee to the point where they can apply Lean Flow principles. If you do not succeed it is not because the principles are faulty, it is because you have not implemented them correctly.

For more information on how Lean can improve the flow of processes in your organisation contact Philippe Lacey at philippe.lacey@ad-esse.com.



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PHONE: +44 (0) 870 458 6162 EMAIL: seriousfun@ad-esse.com WEBSITE: www.ad-esse.com