

The Muda Diet

Seven Wastes – Waste 1 of 7

“Transportation Waste and why driving an ambulance in a bus lane can constitute a criminal offence.”

In this article we are going to briefly explore the first waste of lean – below we will treat Transport waste as category, and we will discuss some ways to identify and deal with it.

Remember the first principle of lean is to, “eliminate any activity in your process that does not add value to your end user,”

Transportation, is all about moving things from place to place - it forms the backbone of western economies, it also generates a huge amount of multidisciplinary waste. Transport waste is a complex category (or container), and inside it lurks a hideous Gorgon of waste, paralyzing progress. It contributes to a multiplicity of needless (and compounding) costs, frustration, lost opportunities, delays and risk. Transport waste repeats and replicates itself each and every time goods or materials are moved or activities are handed off or over.

So how does the category of transportation waste affect us? It's not really about the trains, planes and lorries contributing to systemic waste, these are merely tools - ironically these tools are employed in the business of controlling waste. Logistics is often coarsely viewed as an 'outsourced' waste management tool.

The real problem lies in handoffs. Handoffs introduce distortions, they delay production, introduce wait and add potential for defects. Each of which could leave a scar on the process or the goods! Many will recall the game of 'telephone whispers' many of us played as young children? How many handoffs did it take before "Johnny pushed a pram into the sea", became "Johnny swam in the sea?"

Getting goods from raw component through to manufacture and finally to the consumer incurs costs, transport waste costs. This cost compounds itself, if the process is not tightly controlled - control here entails redressing the disorder caused by handovers or handoffs. Think of it this way – as a consumer you typically 'pick up' each and every item of 'internal' shipping costs for every step in the process of getting goods from inception to manufactured completion - all this before you even calculate post purchase delivery costs! It's cost of goods, firstly you pay forward for it and at then again point of sale. As important as it is to get a product to the customer, transportation does not add any value to the product. Let's look at some examples.

Fresh Eggs - Imagine you are a sous chef at a three Michelin star restaurant attending the market at 4 am in the morning looking to buy 100 very fresh 'day-old' eggs for your signature dessert. Your supplier offers you eggs from two producers at the same price - one was transported from a local farm 5 miles away, and the other was produced 5000 miles away on another continent. Technically the 'long distance egg' is cheaper (and potentially far less fresh), so here long transportation distance (times) can actually reduce the quality and value of the product.

Central Control - Having single pieces of equipment for a project delivered to a central warehouse when the supplier is able to drop-ship to the precise location where equipment is needed.

Here's a really crazy one. How many people know that subject to which UK borough one is in, registered ambulances, whether NHS or independent, are currently not permitted to use the bus lanes unless they are on a blue light emergency. This means that a person who is unwell enough to require medical transport but falls short of a life-threatening emergency must wait in traffic like the rest of the driving public, except buses and taxis who may sail past. Many members of the public assume that healthcare vehicles already have full rights to use the bus lanes.

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Apparently some 'generously' minded local councils already take a 'common sense' approach by either deciding against prosecuting 'offending' ambulances or cancelling fines on appeal. This is clearly a senseless waste of admin revenue applied to a misguided approach to transportation law enforcement. So buses and taxis are OK to go, I have no problem with that - but when ambulances need to justify use of bus and taxi lanes, I'm not so sure it makes sense – but clearly this is taken seriously by some faceless committee of transport bureaucrats.

A Snakes and Ladders 'methodology' that is routinely applied by countless business departments provides us with another humorous but nevertheless devastatingly costly waste incubator example. Consider this scenario - a company needs a new corporate web page to promote, feature and sell a new book that has just been released by the founders.

- A Business Analyst gathers requirements and documents them on behalf of a stakeholder, these requirements are then returned to stakeholder for sign-off, requirements are then returned to the Business Analyst who then hands over the requirements to a Designer or Solutions Architect who creates a design for modules that will satisfy the requirements.
- The design is then passed on to a security committee who will sit and recommend additions or changes and reject or approve the design, the design is then returned back to the Designer or Solutions Architect.
- Next this design is then passed on to an architecture review committee who will sit in judgement and reject or approve the design, the design is then returned back to the Designer or Solutions Architect, who then hands over the design to Developers or Programmers (often offshore).
- Then Developers or Programmers take the design and build the code.
- When the code is 'done', it is handed over to Testers. The Testers then check for functionality and identify and record defects (bugs), etc.
- Then a 'fix it loop' that returns 'control' all the way back to the Developers or Programmers (again often offshore) is started - the friendly name for these wasted hand over and hand back wastes are justified or mitigated as Alpha, Beta phases.
- In many cases this is the point in the 'journey' where the main stakeholder gets a first glimpse of what they expected, and if there has been a mistake in interpretation since the Business Analyst did the requirements, the loop starts again.
- This time service tickets move from team to team before they reach the correct resolution destination. Here the movement of attention causes problems because searching for and assigning someone to fix the problem is simply another form of transportation waste.

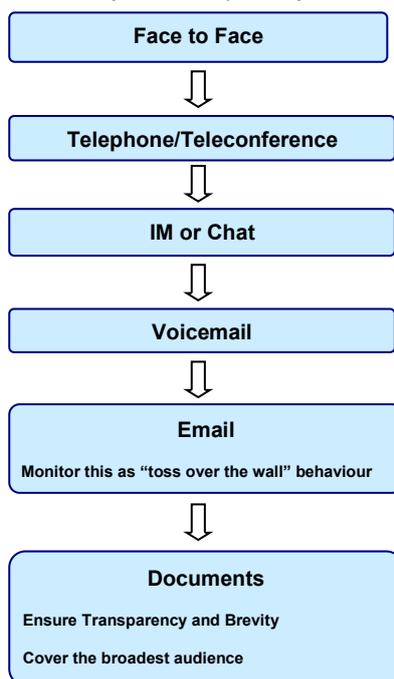
This 'process' comprises mostly deliberate or institutionalised waste, and the unseen costs are often, to put it simply, huge. This 'Snakes and Ladders methodology' starts as transport waste and then subsidises further wastes, costing some businesses Billions, in squandered revenue.

Shameless Plug :- much of the author's career has been applied to successfully eliminating waste - by applying sensible post-agilist techniques, it is possible to eliminate 60 to 90% of waste.

As we have discussed above, transportation and handoff or handing over activity is a costly waste, one that brings no value to the table; there is nothing that would make any customer happy to pay for it, however it is a waste that leaves in its wake misery and hugely unnecessary cost.

So, what does a Project Manager do to eliminate Transport Waste?

- Try to reduce the number of handoffs. Try to combine disparate teams that need to work together.
- Upgrade to 21st Century Planning. Consider the use the Critical Chain Project Management (CCPM) approach. The classical and unquestionably inefficient Critical Path Method (CPM), Program Evaluation and Review Technique (PERT), Gantt, and Prince II, should really be retired. They have no workable mechanism to support 21st century flexibility demands because they do not support pre-emptive and reactive optimisation. Savings of up to 30% in resource and handover costs alone can be found simply by advancing to a Critical Chain Project Management approach.
- Minimise (or eliminate) the use of separate teams to fulfil project roles. Set up cross-functional teams. Create a core project team composed of analysts, architects, developers, and testers – or if you're really brave optimise this by utilizing people with old fashioned (but thoroughly up to date) analyst-programmer skills.
- Create a flat authority chain
- Try wherever possible to keep things visual - important flowcharts and wireframes must be visible and clear. This will help to reduce hand-off time. Kanban task boards, plus methodical updates,
- Publish a clear 'Definition of Done.'
- Use high-bandwidth communication methods Go-toMeeting, Skype, Facetime Google Voice. Connect distributed offices with a 24x7 AV link so people can step up and chat across distances at the drop of a hat.
- Enforce a responsible communications protocol. (example below)



- Appropriately document knowledge where necessary. Use wikis to give 'life' (and meaning) to documents. Allow the evolution of your documentation configuration to best fit the knowledge you're trying to record and document.
- Become systemically transparent and inclusive. Show stakeholders how things work (see empathy tip below)
- Quicken your feedback loops. Shorten your iterations. Close the gaps.

See more tips in It's a Post-Agilism world! Simply [click here](#) to read the article.

A THOUGHT FOR THOSE UNDER PRESSURE

Practise Empathy. Bear with me while I explain - empathy is the core principle that makes us human. Please understand that in getting rid of waste and becoming more efficient we are solving people problems – problems that people experience in the context of leading their lives in a fulfilling way – it's important that we exercise empathy in the act of problem solving. Eliminating waste is about problem solving - in applying the contexts of lean and process excellence, Empathy can be represented in Japanese by “Genchi Genbutsu”, which translates to “Go and See”.

Try this exercise. Go to where your business activity is taking place. It really doesn't matter what. If you're not in a factory, simply go and observe someone doing data entry or computer work.

Visualize in your mind an ideal workflow. As you watch, become totally mindful of what is really happening. Is the process different to how you visualized it? What disturbs the flow of work? Where could errors arise? What stops errors from occurring? Is it just your attention and presence, or is there some technique to either eliminate the mistake, or signal the person to adopt a better approach, or alert them to the problem?

Note: Wherever you choose to go and see, please talk to people and tell them what you are doing, you could be perceived as creepy, especially if they aren't used to it. Get an idea for what is happening. Even more important, is to try and appreciate what should ideally be happening. Imagine if a process were to be perfect, how would it seem?

When we apply empathy in the act of problem solving, we observe without judgment, we consider each member of a team in the context of their lives.

Experiencing things first hand is the hallmark of empathy, because failing that, our solution may not be solving the problem.

Once we experience what our people, customers and users experience only then can we gain a deeper sense of what the problems really are and how they affect everyone, how it makes us feel (and our customers feel). It also allows us to brainstorm effective and innovative solutions that actually solve the problem.

FURTHER INFORMATION AND RESOURCES

- In our next article in this series we will probe deeper, into Waste No. 2: In Process Inventory (Partially done work) and we will explore some ways to identify and deal with it.
- For a great lesson in empathy watch this very entertaining TED presentation by Ernesto Sirolli on Enterprise Facilitation.

[Click here](#) to watch the video.