The Eight Wastes of Lean

In our last article we summarized with the saying “Lean is focused on the pursuit of perfection through the systematic, continual identification and elimination of waste”. But just what is waste? How do we spot it? How will we know it when we see it?

Recall that we said that non-value added activities are those for which the customer is not willing to pay us. Waste within our processes is anything that adds non-value added time and cost to the completion of our work.

Lean categorizes all process waste into eight types:

- **Defects**
- **Overproduction**
- **Waiting**
- **Non-utilized people**
- **Transportation**
- **Inventory**
- **Motion**
- **Extra Processing**

Remembering that DOWNTIME is non-value added helps us remember the Eight Wastes.

**Defects** are easy to recognize as waste. When someone or something within the process causes an error, we have to spend non-value added time correcting the defect. When you take your car into the shop for service, you expect it to be fixed correctly the first time. Defects not only cause extra expense for the shop when they have to fix it properly (for free) the second time, they cause you (the customer) inconvenience, extra expense, and annoyance taking the car back.

**Overproduction** is producing more items than our customers have ordered, or producing them sooner than ordered. Some companies try to get ahead of the curve and produce finished product in advance, counting on the orders coming in. If they don’t, that product often spoils, gets damaged, or becomes obsolete and has to be discarded. Overproduction is harder in direct customer-facing service processes (you can’t answer the phone before it rings. Well, you could, but people will look at you funny,) but often happens in supporting or prep functions in service environments.

**Waiting** relates to you, the employee trying to do the work. If the system is down or just running slow, you have non-value added time waiting for it to respond. If you have to send everything to your supervisor or some committee for approval, you’re waiting.

**Non-utilized people** refers to the organization’s failure to fully utilize the knowledge, creativity, intelligence, and dedication of all employees. Most all of us have some ideas about how to make things run smoother, or improve service, or be more efficient. Unfortunately, traditionally-managed (command and control) organizations typically fail to tap into this powerful base. Instead they rely on managers to have all the answers (much more about this in a future post!) or so-called experts, be they Six Sigma belts, Project Managers, or other CI folk.

**Transportation** is the movement of product through the organization. When a salesperson sends an order to Order Entry who later passes it along to Production Control and possibly
Purchasing, that's transportation. In many administrative environments, we “transport” our products through the process electronically and instantaneously, it’s easy to ignore the waste of transportation. But in most cases when we transfer a piece of work it ends up going into an inventory, which leads us to the next of the Eight Wastes.

**Inventory** is an obvious form of waste. In manufacturing, inventory represents capital (money) that is tied up in materials and therefore not available for investment or other use. Physical inventory sitting around a plant is also subject to damage, decay, theft, loss and other issues. In office and service businesses, inventory is a bit different but we still have the potential for a lot of waste when inventory builds. Imagine a backlog of monthly credit card statements in a financial organization. Delays here lead to customer satisfaction issues as well as impacting cash flow.

**Motion** is similar to transportation but refers to us – the employees – rather than the product. The waste of motion occurs when you have to leave your workstation to retrieve work or supplies or to confer with a peer or leader to gain knowledge needed to complete your task. Many of us have a great deal of motion waste moving back and forth from cubicle to cubicle or conference room to conference room to attend meetings.

**Extra Processing.** Extra processing is “gilding the lily” – doing additional, unnecessary work that our customers don’t care about and don’t want to pay for. Requiring approvals that aren’t really needed is an example of extra processing.

The Eight Wastes, easily remembered through DOWNTIME, all represent significant opportunities to improve our processes, increase customer satisfaction, and reduce costs. Can you think of examples of these in your work processes? What are you going to do about eliminating them?