Lean for Government: Eliminating the Seven Wastes

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With shrinking budgets and a slow economy, it is becoming increasingly important for all government agencies to become more efficient. Citizens expect and deserve efficient and effective services from federal, state and local government agencies. One of the best methods to improve efficiency and eliminate waste is to institute the business process improvement methodologies known collectively as *Lean;* however, with reduced budgets, it may not be possible to train everyone in *Lean* or to engage the services of a trained consultant. It is possible, however, to raise awareness of the "Seven Wastes" of *Lean* in each employee, and encourage them to identify areas for improvement. Management commitment is vital to the success of these initiatives, and it is also important to develop the right metrics that will track the success of these changes.

Government agencies provide a wide range of services: security and law enforcement, scientific research, defense, processing benefit claims and tax returns, space exploration, food inspection, disaster relief, medical services, safety, diplomacy, parks and recreation, public works, and the list goes on. Yet, each type of service is provided through various types of processes, and those processes can be improved. The best suggestions for improvement generally come from the personnel who have to implement these processes on a daily basis. They will know what works, what does not work, and what the internal or external customer wants or needs.

To be specific, an understanding of the "Seven Wastes" is needed before they can be identified and eliminated. *Lean* defines them for us, and the manufacturing terminology can be extrapolated into concepts recognizable to service providers, including government agencies, and they can be further tailored for individual agencies.[1] Mapping processes is often a good way to start, since the amount of downtime, processing steps, signature loops, lack of clarity, and number of decision points will become readily apparent.

Transport: Whether transporting people or equipment, ships or spacecraft, transportation can be expensive and subject to delays, damage, unnecessary movement, lost and damaged items, or miscommunicated orders. Each agency must look into its own processes for areas that can be streamlined and improved.

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[1] Leavitt, Paige; *Lean Enterprises; Searching for the Seven Deadly Wastes in an Office Environment*; 2010; APQC; retrieved July 2012 from: http://rube.asq.org/2007/10/apqc/lean-enterprises-searching-for-the-seven-deadly-wastes-in-the-office-environment.pdf

Motion: Similar to transportation, there is often needless movement of people, equipment, or paperwork. Workspace can be arranged more efficiently, technology can eliminate problems and improve processes. Is time wasted by the employee (or the public) going from one place to another to get information, process paperwork, and tell the same story to several people in order to get a decision? Each agency should determine whether teleconferencing can take the place of travel, and whether training can be done in-house, as examples.

Inventory: There is an effort in the US to sell or rent excess facilities and other assets. Each agency can look within to identify real estate, warehouses, supplies, equipment and other types of assets that may be obsolete equipment or no longer needed.

Overproduction: Some extrapolation is needed here, since governments do not produce large quantities of products. However, there may be unused services, a surplus of documents and forms that are expensive to print, but go unused or become obsolete quickly. Another approach might be to determine whether procurement estimates are accurate, since overproduction may be happening in the supply chain. Excessive email can be seen as overproduction if it has no purpose or if it is used when meetings or teleconferences would be more appropriate.

Waiting: When there are bottlenecks in the process, the public waits. When there is a backlog of services that need to be provided, the public waits. When decisions cannot be made at the lowest level possible, the public waits. If disaster planning and risk management are not done carefully, the public will have to wait. If communication does not flow quickly through the agency, between agencies or to the public, everyone waits. The result of all this waiting can be a nuisance, it can be a major inconvenience, or, it can be life threatening. It is certainly costly. Planning ahead, streamlining processes and removing bottlenecks can mean improved service at lower cost.

Overprocessing: Are administrative processes clean and efficient, and can forms and records be filled out and filed electronically? (Conversely, is paperwork or assistance available for those who do not have access to computers?) Flowcharts and templates can help simplify many processes. Again, technology can often be used to improve, simplify and expedite a process. Each agency should determine whether all reports have customers and whether all meetings have a purpose.

Defects: Defects can be the result of waste in the other six categories. Examples for government are: mistakes in tax or benefit calculations, mistakes in shipping the correct supplies and equipment, incomplete maintenance, untrained personnel, problems in the supply chain, poor response to emergencies, poor support to military personnel and their families, missed defects, damage to facilities and equipment, and injury to employees or the public.

This list can be tailored to any agency at any level. Once the areas of waste are identified, other simple tools, such as process mapping, Pareto charts, meaningful metrics, flow charts, 5S (sort, straighten, shine, standardize and sustain), and mistake proofing, can help pave the way to

improved processes. As with all organizational changes, management commitment is vital to success. The return on investment from pilot programs serves to encourage additional improvement initiatives.

Eliminating these Seven Wastes will result in a number of benefits: (1) reducing schedule time, or serving to meet schedules, thereby either reducing cost or getting more work done for the same level of funding; (2) they provide a basis for meaningful, strategy-based metrics, rather than an arbitrary set of metrics that do not serve the agency's strategy and mission; (3) improved safety and health of the employees and the public-- reducing waste in operations and processes can reduce stress, and also reduce the distractions that can lead to accidents and injuries, again reducing costs; (4) reducing the amount of unneeded equipment and property for which the agency must account; and (5) for some agencies it could mean saving lives. The savings may be modest on an individual scale; however a culture of process improvement and eliminating waste can lead to improved service and significant savings over time.

For more information, the Environmental Protection Agency's Lean Government website at www.epa.gov/lean/government provides a number of free, downloadable publications such as the *Lean in Government Starter Kit*, and *Lean Government Metrics Guide.* Notable state websites describing *Lean* initiatives for government include http://www.lean.state.mn.us/ and http://www.ctdol.state.ct.us/LEAN/. Canada also provides valuable information on the Institute for Citizen Centered Service website at www.iccs-isac.org.