

Innovative products, processes help manufacturers succeed

Wikipedia, the online encyclopedia, defines innovation as “the implementation of a new or significantly improved idea, product, service, process or practice that is intended to be useful.”

Consumers tend to focus on product innovation, or the introduction of a new good or service that is substantially improved in technical or functional characteristics or ease of use – for example, a new, improved laundry detergent or a soft drink with fewer calories.

New products play a very important part in supporting American manufacturing, but there is another type of innovation, process innovation, that also offers a critical advantage for our county's manufacturing companies.

Process innovation means improving the way a company produces or delivers the product or service and it often enables a company to make products that meet or exceed customer expectations for quality, cost and speed of delivery.

One proven means of process innovation is for a company to embrace the principles of “Lean Enterprise” and create a corporate culture committed to continuous improvement of its operations.

“Lean Enterprise” is a systematic, fact-driven system of identifying the waste or



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non-value added activities in a company's processes and finding ways to eliminate those non-value added activities.

“Lean Enterprise” emphasizes always meeting or exceeding customer expectations and defines waste as any part of the company's process that requires time and resources for which the company's customers would not want to pay.

Moving parts back and forth to a storage warehouse is an example of activity that does not add any value to the finished product.

It is a serious misconception to think that “Lean Enterprise” simply means finding ways to reduce the workforce. As a matter of fact, many companies actually increase their workforce though the “Lean Enterprise” process, because the dedication to continuous improvement makes the company more productive, more profitable, more competitive and more attractive to existing and new customers.

Becoming a “Lean Enterprise” is a systematic process and often the first step in that process is called Value Stream Mapping. A value stream map is a graphical representation of all the activities, both value added and non-value added, that are required to bring the product from raw material to the customer. Value stream maps chart the flow of both materials and information. A current state map details the present and a future state map represents ways to improve processes.

Based on the future state map, a company conducts a series of Kaizen Events, very

intense, focused approaches to solving a specific problem or eliminating a specific non-value added activity.

Other continuous improvement, “Lean Enterprise” activities include Workplace Organization/5S, Pull/Kanban, Point of Use Storage and Cellular Flow Manufacturing.

Workplace Organization/5S is a method of creating an organized, clean and efficient workplace that reduces non-value added activity while improving safety, quality and efficiency. The five S's are sort, set in order, shine, standardize and sustain. Often companies add safety as the sixth S.

A Pull/Kanban system controls inventory amount and movement, authorizes production and provides visual control of operations, based on customer demands.

Point of Use Storage means keeping an inventory of supplies and equipment in specified locations in a facility near the operation where it is to be used.

Cellular Flow Manufacturing is part of efficient plant layout and dictates the use of cells, which are logical, efficient and usually physically self-contained arrangements of machinery, tooling and personnel, to complete the production process.

“Lean Enterprise” has its roots in the early American automotive industry. It was further

developed and fine tuned by the Toyota Motor Company between 1949 and 1975. American companies have been embracing “Lean Enterprise” principles since the early 1990's and it continues to be an effective means of creating true excellence in manufacturing and of keeping existing customers and attracting new ones.

Many companies succeed by developing new and improved products or by finding

better ways to make those products. But, the companies that truly achieve “World Class Manufacturing Status” are ones that combine both product and process innovation to create a culture dedicated to continuous improvement and eliminating activities that are not

of value to its customers. The kind of culture that almost always guarantees success despite outside marketplace forces.

Process innovation offers substantial advantages for manufacturing companies.

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