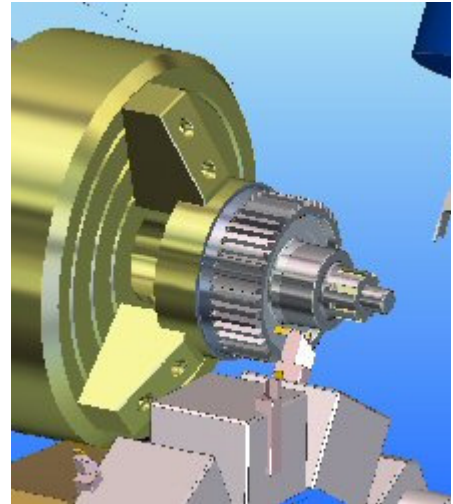


Lean Manufacturing – Buzzword or Substance?

We hear much discussion of 'lean manufacturing' concepts in today's manufacturing industry. Is there real substance to the idea or is this just another buzzword for the 21st Century world we live in?

A brief web-search for Lean Manufacturing comes up with several definitions:-

- A business performance improvement tool that focuses on enhancing quality, cost, delivery and people. Exposes waste and makes continuous improvement possible. www.industryforum.co.uk/glossary.htm
- Amalgamation of Just in Time, Kaizen, Kanban and Total Quality ideas leading towards zero paper, zero inventory, zero downtime, zero defects, and zero delays in design, manufacture and distribution. www.bpic.co.uk/jargon.htm
- Lean Manufacturing is a business initiative to reduce waste in manufactured products. The basic idea is to reduce the cost systematically, throughout the product and production process, by means of a series of process reviews. en.wikipedia.org/wiki/Lean_manufacturing



If you want more information on these, visit the web sites shown or, alternatively, use search expression 'define:Lean Manufacturing' at www.google.com. However, I think you probably get the picture – continuous improvement, improved quality, less waste etc. . things our customers will be striving to achieve in their everyday work in order to sustain and grow their businesses for the future.

In some circles other definitions circulate. These tend to be based around the cynical or negative; examples being a) a series of complex procedures b) a world of unfathomable jargon and finally c) a staff cull with everyone else told to work harder!

So how does Germany at \$34 even start to compete with China at \$1 per hour? Surely everything will move to China, India or Ukraine, and the other economies will be left with just service industries?

Thankfully, things are never as simple as that and you'll be pleased to hear there is still a place for manufacturing in the major world economies. It is true that there has been a migration to the emerging economies of Asia, Europe and Latin America. However the established western economies are now fighting back by investing in high technology manufacturing and customer service to increase their competitiveness in the global market place.

The table below shows the huge differences in hourly labour costs

around the world:

| | US \$/hour 2005 |
|----------------|-----------------------|
| Australia | 24.6 |
| Brazil | 3.2 |
| Canada | 23.7 |
| China | 1.1 |
| Czech Republic | 6.1 |
| France | 25.3 |
| Germany | 34.1 |
| India | 0.9 |
| Italy | 21.7 |
| Japan | 21.4 |
| Korea | 14.1 |
| Mexico | 2.5 |
| Spain | 17.6 |
| Sweden | 29.7 |
| Taiwan | 6.4 |
| Ukraine | 0.8 |
| United Kingdom | 26.0 |
| United States | 23.8 |

So what advantages do the established economies have over their emerging competitors given that they cannot compete on cost alone? A few of these points are listed below:

- Excellent local and flexible service catering for quick turnaround and short runs that may be necessary.
- Manufacturers in the developed economies are also able to specialise in high technology manufacturing producing expensive, high quality components using state-of-the-art manufacturing techniques such as 5-Axis simultaneous machining and Mill/Turn machining centres.
- Local suppliers can offer a proven track record of skills, experience and trust that cannot be guaranteed when dealing with a new company with a different culture half world away. These companies can, and do compete on the global stage by providing an efficient, high quality, cost effective service to their customers; this is really the goal of lean manufacturing.

The substance to Lean Manufacturing is a series of practical, logical steps that are taken throughout the entire manufacturing process, to maximise productivity and efficiency thereby improving competitiveness on the global stage.

EdgeCAM can be a key part of your lean manufacturing initiative

- It has been developed to facilitate single setup machining with support for 5-Axis machining and mill/turn centres helping to drive down lead time and improve component quality.
- It also offers a range of productivity tools such as EdgeCAM Strategy Manager and PCI to speed up the programming of repetitive tasks, again helping to reduce lead time and improve quality.
- EdgeCAM Solid Machinist has been developed specifically to work seamlessly with CAD models from all of the major CAD products. With Automatic feature recognition and associativity with the CAD model, the machining of Solid is quick and easy.
- Finally, we work with a range of CAD, Machine Tool and Tooling partners around the world to ensure that our software solutions perform at their optimum with our partners' products whether it is the tooling, CAD software or the machine tool.

To summarise Lean Manufacturing ; Get Closer to your Customer, Minimise Waste, Value Add, Innovate and Work Smarter! All easy statements, but delivered correctly can make a real improvement to business competitiveness in today's global marketplace.

Finally, it's also worth remembering that there are two sides to every story, it's not just your competitors that are going global, it's the customers as well. Globalisation gives opportunities for companies to tender for work on a much bigger stage.

David Boucher
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www.edgcam.com

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