



Liming's product lifecycle management should help them leave the competition behind.

BY PAMELA TANG

Some truths will always hold: cost is a major factor, efficiency and productivity need to be enhanced, and the CIO needs to be aligned to the business. The list just goes on.

None of these issues are new to all CIOs, but the problems are seemingly magnified for those in manufacturing. For these CIOs, Product Lifecycle Management (PLM) is emerging as a means to manage a product throughout its lifecycle—

from conception to disposal, returning cost savings, and promising innovation in the process.

There is often much promise—which cynics dismiss as hype—in

such cradle-to-grave solutions, but does PLM live up to expectations?

For one end-user, Shenyang Liming Aero-Engine Group Corporation (Liming), PLM has delivered in spades. Liming is China's first jet-propelled aircraft engine manufacturer, in the business of producing and maintaining aircraft engines, outsourced non-aero products, and fuel engines.

To break away from the antiquated, stick-in-the-mud stereotype

Reader ROI

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- ▶ Discover why PLM works for Liming
- ▶ About the tangible benefits Liming has gained

Case File: Product Lifecycle Management

that characterises other state-owned companies in China, Liming was driven to streamline its operations. In other words, it had to be lean.

However, Liming's then product development process was severely at odds with that goal: its serial workflow was paper-based; it was a distributed and disruptive personnel organisation as well as obsolete and non-collaborative IT infrastructure.

With new benchmarks, Liming established specific goals such as better flow of information through the enterprise, optimised use of manufacturing resources, lower product development costs, a shorter product development cycle, and improved product quality.

Xu Bailin, Vice President of Liming, is keenly aware that none of that can be achieved without good IT infrastructure, which is why he implemented the PLM solution from UGS.

"Liming understands the value and importance of PLM and digital manufacturing technology in streamlining product lifecycle processes," explains Xu. "Our organisation has the skills and experience necessary to capitalise on the existing market opportunity and PLM is critical to enable us to unlock that opportunity."

The Nitty-Gritty

In the process of designing a general framework for Liming, the organisation considered product development and other manufacturing features, so as to design a framework that could support digital manufacture and information integration technology.

"Liming has compiled a general PLM plan for precise manufacturing, which provides comprehensive measures for improving products and technology design, cooperation with suppliers, as well as our manufacturing and maintenance services," says Xu. "We need it to help realise

standard management and utilisation of processing techniques to facilitate collaboration between design and manufacture, and finally to shorten the process of implementing technology into manufacture and reduce the chances of manufacturing faults occurring in the same process."

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—Xu Bailin, Vice President, Shenyang Liming Aero-Engine Group Corporation

The UGS solution it chose was implemented over three phases, starting with a four-month initial assessment to define system requirements, then a pilot project involving multiple sites, ending off with the company-wide adoption of PLM.

Liming's new development process, anchored with PLM concepts and strategies, is based on a single digital product model created in the design phase and leveraged for downstream operations. This brings together Liming's product and design information in a managed development environment, which allows information from the Shenyang

Aero Engine Research Centre to be integrated closely to production work handled by Liming.

"Liming is a big group with many factories and departments engaged in research and manufacture and we cooperate with many domestic OEM enterprises and some world-

famous aircraft engines manufacturers from abroad. The problem is that technical upgrading and innovations implemented before are isolated and can't meet Liming's current and future development requirements," explains Xu.

Seeing is Believing

Liming has been able to enjoy faster information retrieval and more convenient sharing as a result of their move away from paper-based processes to a Teamcenter-based digital lifecycle management. This translates into measurable process improvements such as slashing the time required to execute a design change by 48 percent as well as cutting the process planning time, including the approval cycle, by half.

On the question of other tangible benefits, Xu says the numbers speak for themselves:

- Reducing data time down by 23 percent,
- Organising major technology time down by 60 percent,
- Organising auxiliary technology time reduced by 51 percent, and
- Technical assembling application time down by 60 percent.

Without a doubt, Xu and Liming are set for that lean enterprise. We wish them *bon voyage*. **CIO**



Xu Bailin, Vice President, Shenyang Liming Aero-Engine Group Corporation says PLM is key in streamlining the enterprise.