Interview with
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Does every company that manufactures need a PLM strategy?

I believe they do. A PLM system brings data together and provides a single source of truth. Every business needs that in today's competitive manufacturing environment. I think companies, even if they don't have a PLM system today, and they are paper managing their product information and product life cycle, eventually they are going to need to move to deploying a PLM strategy. Usually companies start to realise they need a formal PLM System when they notice they're actually doing the basics of a PLM system through various different systems and spreadsheets already, and not getting any benefit from the data. Basically, they're doing the work anyway, deploying a PLM system brings all that data together, to make the data more usable, in turn, it makes doing business that much easier.

Most modern manufacturers need four key enterprise systems. An ERP system, a supply chain management system, a customer relationship management system and the fourth one being PLM - Product Lifecycle Management.

What levels of implementation are there, and just how scalable is PLM?

PLM is built to be scalable, both in terms of the number of users, but also in terms of functionality.

I've worked with customers on PLM systems of various sizes and requirements.

User-wise I have implemented PLM into companies with anywhere from one or two users, through to multinational companies with thousands of users, all using the same PLM system.

The great thing about PLM is you can start with a limited functionality, and only a few users and then as you move along your personal PLM roadmap, you can bring in more capability, more functionality and more users.

With Teamcenter, which we support, you can start with Teamcenter Rapid Start, which is a pre-configured system for small and medium businesses. It has the most common functionality that businesses need, a defined workflow, et cetera. We also offer cloud-based Teamcenter X, which is new from Siemens Digital Industries. It is a software as a service solution, again, pre-configured, but jumps straight to functionality which could be preferred by manufacturers wanting more than just the basics.

In terms of difference or deployment options, you can deploy it on premises, you can deploy to cloud, you can have subscription licensing.

Who benefits from PLM implementation?

Any employee or partner who needs to access or use product information will benefit from a PLM system. The reason being is that, it's a single source of truth.

Having access to the right information at the right time of product design and or manufacture is essential for so many reasons.

PLM solutions can reduce operational costs and take the guess work out of how to work more efficiently and effectively. PLM allows you to standardise best practices across the business, identify issues early, leverage data that once you probably could not see or find before, help automate and centralize, support product growth, and so much more.

Basically, PLM implementation means product information can be linked together. It allows you to make much better decisions in a collaborative way within the team. The entire business is going to benefit from that.

Just one example would be, it is much easier for you to assess the impacts. If you're making a change to your particular area, you can easily see what else is going to be affected. If a requirement is changing and you're managing requirements, you can quickly look in the one system in PLM and see that that's going to affect the engineering, it's going to affect manufacturing and identify the particular parts. PLM will allow you to quickly see what the impact is of any change.

What are the challenges of deployment?

Challenges to deployment aren't usually the technology or the actual PLM system, it's usually the change in thinking that's required within the business. Businesses either think they need to do everything at once as they see the value of PLM and the end result is what they want immediately, or opposite to that, some businesses or stakeholders don't see how PLM will affect the business operations as a whole.

A lot of businesses see a lot of the functionality in the PLM and think great, we want to do all this, and they spend a lot of time defining requirements and processes, and just going around in circles. What we encourage is to just pick the most appropriate process that's going to give you a better return on investment and that you have the most need for. Start with that first, and then gradually have a phased approach and bring in more capability in stages.

The other challenge we have is when users get the PLM system, they may not see where what they're doing fits into the overall business process. PLM exposes that what they're doing in their silo actually has impacts on other stakeholders, and that could be quite a challenge because you've really got to explain that the reason you are doing this at this stage is to help someone at a later stage.

What are some benefits that you have personally witnessed a business gain from adopting a PLM strategy?

An example or two that might resonate in the industry are, one, recently we had a customer that develops mechanical and electrical products. Before they adopted the PLM strategy, their process really was that the mechanical engineers designed their hardware. When they were finished they then passed that information over to electrical engineers, and electronic engineers would then design their wiring and harness around it. It was very much a sequential process, and the design time was a lot longer than it needed to be.

By adopting the PLM approach, as the mechanical engineers were designing their work, they could collaborate at the same time with electrical engineers, so those design teams began working in parallel. If a change was needed, it was much easier to have the electrical engineers update their information at the same time. That cut about three months out of their development life cycle, and their typical development lifecycles were about one to one and a half years. They cut three months out of that cycle once they adopted the PLM approach.

A second example, in terms of other areas of improvements, another customer implemented PLM to improve their change process. So previously their change process was very much paper based. The change went from one user's desk to another; often changes got lost. And the other issue was during their manufacturing process issues were uncovered, and the production team would make a change, but that change was never fed back to the designs. So you would quite often have the same recurring issue again and again, because the issue was never fixed at the source. As you can imagine there were huge improvements in the quality of their production.