No spreadsheets.

No email.

Now what?

(The untapped potential of PLM.)

What is PLM?

Moving the goalposts.

It seems like everyone has a different take. Ask a cross-section of brands and retailers or look at the way different platforms are positioned and advertised, and you'll struggle to get a clear answer.

It's about bringing all your product information into one place, says one person. It's about smarter collection and merchandise planning, says another. It's about building more complete Bills of Materials. It's about creating clearer tech specs. It's about more accurate product costing. The list of different perspectives drags on.

About the only definition you'll get people to agree on is that PLM replaces spreadsheets, disconnected databases, and email threads – the tools brands and retailers traditionally used to manage their collections, organize their BOMs, and communicate with their suppliers – with something better.

From there, the footprint of PLM gets stretched one way or another depending on the value priorities of the business buying it, and the implementation approach of the vendor selling it. It might be pulled further in the direction of creative design and material management, or towards the transactional end of the spectrum, closer to ERP. Or both. But for most PLM projects, moving past that reliance on spreadsheets and emails, and digitizing core design and development activities, is the most urgent goal. A lot of the time, too, fixing those obvious challenges becomes the entire scope of the shortlisting, selection and implementation process.

This doesn't mean that replacing spreadsheets and email is a bad idea – far from it. By moving from manual methods to digital processes and best practices, brands and retailers of all shapes and sizes have been able to realize some serious competitive advantages. They've cut administrative overhead, cleansed and consolidated their core product data, built comprehensive libraries, shaved weeks off cycle times, and improved productivity and profitability along the way.

Looked at through this lens, PLM has already transformed the way more than a thousand different businesses run their essential activities.

The trouble is, in many cases the use of PLM is never extended beyond internal stakeholders - and its benefits never make it beyond the walls of brand HQ. And in that sense the market is missing out on a lot of untapped PLM potential.

> **"A lot of PLM projects are ending prematurely, falling short of their potential, but customers seem satisfied anyway..."**

Instead of extending their footprint over time, delivering compounded benefits in other areas of the business, and unlocking the added value of new and emerging technologies, a lot of PLM implementations seem to stop progressing once their immediate goals – replacing spreadsheets and emails - are complete.

This isn't just a guess. Evidence collected over multiple WhichPLM customer surveys (which collect feedback from real PLM users across the globe) suggests that more than half of all implementations which have been live for eighteen months or more have yet to be extended beyond headquarters and into the supply chain.

To put that into context, this means that lots of live PLM platforms are still being used to export tech specs in PDF format, after which product teams send them via email to suppliers. That doesn't quite sound like these PLM users have been able to replace email after all, does it?

The majority of PLM implementations have also not been integrated to newer added-value solutions, like 3D. Instead, plenty of PLM customers are settling for just the usual links to Adobe Illustrator, and maybe one of the major ERP platforms.

But in the same timeframe, almost all customers told WhichPLM that they were happy with the solution they chose and the value they had been able to realize from it. So, taking both metrics into account, we come to a strange conclusion: that a

lot of PLM projects are ending prematurely, falling short of their potential, but customers are saying they're satisfied anyway.

The WhichPLM team has tried to shine a light on this trend many times – because it's running the opposite way to where we believe the industry should be heading. For reasons this eBook will explain, many vendors (and their customers) have fallen into a pattern of calling their PLM projects successful based only on a subset of what they're actually capable of achieving. And as a result, PLM solutions and implementation services are now being celebrated as complete, when they only cover what we consider to be the bare minimum of functionality. We want to see this change because – whether it's their first solution or a replacement for an outdated one – project teams evaluating the PLM market today may not realize just how much further things can, and should, go with the support of the right PLM partner.

In this short eBook, we're going to paint a picture of how PLM, properly chosen and implemented, should become the center of a complete digital ecosystem – a single, secure channel of communication and collaboration that extends through the enterprise and the international supply chain, and opens new avenues and opportunities way beyond the confines of core design and development.

And we're also going to look at why that doesn't happen nearly as often as it should.

What's in a letter?

To understand why PLM projects don't always progress far enough forwards, we need to start by looking backwards. PLM might be the acronym on everyone's lips in 2019, with record numbers of new name sales, but it also has a long legacy that new customers might not know about – one that helps to explain the limits that end up being placed on so many projects.

Before PLM, the retail, footwear and apparel industry had PDM. And although their acronyms are only a letter apart, the two technologies have some pretty fundamental differences. PDM stood for Product Data Management. And as the name suggests, its functionality was focused on bringing foundational product data out of disconnected systems (and spreadsheets) and into a single location where it could be catalogued and shared.

That process of sharing, though, was very different to the collaborative environments we're used to working in today. The first PDM systems were actually released before the internet was widely available to business and domestic users, and the biggest-selling PDM solutions were only retrofitted to be "web-enabled" once they had been on the market for quite a long time. PLM, on the other hand, has been completely web-native from the start, and its approach to in-house and supply chain collaboration was built around the principle of constant, always-on communication.

Without the Internet to rely on, PDM had to find other ways of letting its users export and share their information. So, designers and development teams would work within the solution to create technical specifications for their styles, before exporting these as flat PDFs, and sending them via email to suppliers.

At the time, this was revolutionary; fax or telex machines had been the best options up until then. It had an obvious downside, though: by the time a vendor actually viewed the tech pack, it had probably fallen out of sync with the current vision for that particular style. Changes had been made to colors or components or pattern pieces, and a replacement had to be sent. This cycle would repeat, with the inevitable result that the initial sample differed in some way from the "live" technical specifications that resided in PDM. And round we went again, with more samples and more avoidable mistakes.

The key difference with PLM (besides swapping a D for Data to an L for Lifecycle) was that these solutions were designed for brands and retailers to share their technical specifications over the internet, in-solution, from the get-go. With everyone being given the same set of information - which was guaranteed to reflect any and all recent changes whenever it was viewed - sample iterations were expected to decrease, product quality was set to improve, and costs were going to be kept under control. No more avoidable mistakes.

Except that vision wasn't always realized. Originally, PLM was designed to be an environment that brand teams at HQ could access themselves, but also invite their chosen suppliers to log into as well, with bulletproof security governing what information those suppliers could and couldn't see. In practice, limitations in internet infrastructure slowed the uptake of PLM licenses among suppliers for a while. And even where speed and bandwidth supported the connected supply chain vision, some brands and retailers either lacked the purchasing power to dictate to their suppliers that they needed to learn to use PLM, or they simply didn't trust the security of external user licenses.

And while every part of that situation improved over time (most reputable suppliers will use multiple PLM solutions as native users today,) early PLM brand users stumbled when it came to making their information accessible upstream.

As a workaround, PLM providers introduced "vendor gateways," which were essentially data repositories that were totally separate from PLM, where product teams would upload technical specifications exported from PLM, and suppliers would use separate credentials to get into a ringfenced area - with no access to live product information. Sound familiar? It should – it's essentially email with more steps. And we were back to avoidable mistakes and a lack of synergy between brand and supplier again.

> "How did we jump forward a technology generation, but end up using the same manual methods we did years ago?"

Despite the clear disadvantages, though, data repositories like these are still common. And even though security policies for internal and external users have been verified as being enterprise-grade and tested by the biggest brands in the world, some PLM providers are still asking their customers to keep working in an outdated way and ignore external user licensing – more than a decade after that PDM mindset hit the end of its shelf life.

In the same way, PDM solutions offered limited potential for integration, so automating the sharing of data between them and other enterprise systems, like ERP, involved a serious amount of bespoke work. Every modern PLM solution, though, will offer ready-made integration to Adobe Illustrator for design work, and the best platforms will also provide easy, low-cost ways of building a digital workflow between PLM and almost any other solution.

So how did we jump forward a generation in terms of technology and potential, but end up using a lot of the same manual methods and limited integrations as we did years ago? And how do we reconcile that with the industry-wide ambition for full scale digital transformation?

Digital transformation: don't go it alone.

PLM projects and digital transformation initiatives should go hand-in-hand. Both are concerned with solving business challenges by replacing manual processes with digital alternatives, and sharing centralized information. And both should, ideally, open the door to new and emerging technologies and opportunities.

But while digital transformation might begin with the same core design and development processes that are common to every PLM project, it certainly doesn't end there. For a consistent, accurate flow of digital information, transparency, and accountability to exist across a whole enterprise, every process – right the way from design to packaging and distribution – has to be handled digitally. And true digital transformation should extend even further, with the goal of connecting every system, every solution, every data source, and the inputs and outputs of every process to a common backbone.

In a digital world, this is, when you think about it, the only way to create a genuine end-to-end environment: where the same data is available to anyone, working in almost any role – from initial idea to commercial reality. And that's something every brand and retailer wants.

But if your PLM project is checked off as a success before access is extended into the supply chain, or before you've added a more complete range of solutions to that flow of data, you could be working against the goal of digital transformation without realizing it.

So, avoiding this pitfall should be a priority in any PLM selection and implementation process, because – more than just making design and development run better - finding the right partner can also mean the difference between succeeding or struggling with your broader digital transformation strategy.

"You could be working against the goal of digital transformation without realizing it."

Unlike PDM, which was designed to centralize just core product data, the best modern PLM platforms are built to consolidate data from almost any source – a principle that you should try to extend throughout the entire enterprise. In fact, the untapped potential of PLM we talked about earlier can only really come to life when PLM is used throughout the supply chain, and when any other solution that touches the product lifecycle is considered as a candidate for integration to it.

So, if your PLM project is going to evolve beyond the essentials, it will be important to identify as many of these integrations as possible – whether they're between PLM and solutions you already own and use, or with platforms you might just have started to consider using in the future.

Luckily, the right PLM partner will be able to help with this process. As customers have started to demand more and more from their solutions, the best vendors have recognized the benefits of digital partnerships. These vendors have focused on improving their core modules, and have built ecosystems of technology partners whose solutions help tackle other business challenges and support other strategic objectives. These kind of partnerships might include:

- Seamless integrations between PLM and design packages, helping your creative teams to get the benefits of PLM without having to learn a whole new way of working. And by giving your designers back more creative time, you increase your chances of getting more innovative products to market.

- The ability to easily import key market metrics and intelligence created by specialist "voice of the consumer" partners into PLM. Armed with these insights, the odds of satisfying your chosen demographic (or expanding to a new one) are likely to increase.

- A way to feed the results of product and prototype field testing back into PLM, so that real-world performance can influence the next generation of design and development.

- Support for multiple 3D design and visualization solutions, with open standards ensuring cross-compatibility between them all, supported by seamless links to the libraries you have stored in PLM. Because any multi-category company needs a way to create and view 3D garments, footwear, and accessories – and layer these on the real world with augmented reality for fitting and range building - it's important you make sure the door is left open to working with the best 3D provider for each type of product.

- Other tools for replacing manual processes with digital ones – whether it's material sourcing and development, quality control, or even more practical areas like packaging, warehousing, or intelligent inventory management. Look for vendors whose partners offer pre-integrated solutions that could add value in areas of the product lifecycle you might not have even considered so far.

- The best in computing infrastructure. The cloud is here, in a big way. And if you plan to move PLM beyond the immediate goalposts, it's a good idea to identify vendors who work with one of the few leading distributing computing and web services partners, making sure that your supply chain partners and your new opportunities can work anywhere in the world, at any scale.

- An intuitive avenue for adding more integrations in the future. Even the best partner ecosystem won't contain everything you need for your unique journey into the full potential of PLM, so look for a vendor who offers an intelligent, low-cost way of connecting other solutions over time.

The full footprint.

PLM for now; PLM for what's next.

Getting the balance right between the basics of PLM – cutting the cord on spreadsheets, and moving away from email – and the huge array of possibilities it opens up can be tricky. To start the right way, though, try to shortlist vendors who recognize that your PLM project is a way to solve the challenges you're facing right here, right now, but that it also represents a much bigger investment in the future of your business. The right vendors will be able to chart a course between your immediate and longer-term objectives with a clear, considered roadmap for future development.

It's no coincidence, after all, that the most successful PLM projects are the ones that have lasted long enough to reach their potential. Even the biggest brands, who have stretched the limits of what's possible with PLM, started somewhere: with replacing spreadsheets and email, most likely. But from there, they, along with their PLM partners, refused to stop, and together they turned a solution to some immediate challenges into the beating hearts of total business transformation projects. Not satisfied with the essentials, they pushed further and used PLM to establish the foundations for new opportunities, innovations, and experiences at every stage of the product lifecycle.

Because if you choose PLM sensibly, and allow it to grow into the enterprise-wide platform it deserves to be, you increase your chances of not just getting the right products to market at the right time and the right price, but transforming and improving everything that happens around that goal - and laying the groundwork for real innovation.

And now you know PLM can do all that, would you still be happy to settle for just replacing spreadsheets and email?

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