

whichPLM 

PLM Buyer's Guide 2018



Welcome

TO THE PLM BUYER'S GUIDE 2018.

I'm writing this introduction at an important time – personally and professionally. While change has been a constant factor during my decades in the fashion technology industry, the last few months have made a major difference in many ways.

On a personal level, I've received a stark reminder – the second in my life – to dedicate my time to what really matters. And professionally, I've seen digital transformation become truly tangible for the first time. For years the promise of designing, developing, sampling, manufacturing, and marketing in a single, seamless, digital workflow has been held out as a long-term possibility, but today it feels as though it's really within our reach. And that's a truly momentous occasion for someone with as much history in the industry as I have.

That change is probably one you, as a brand, retailer, agent, manufacturer, consultant, or technology vendor have also felt. Technologies that were, just a couple of years ago, touted as long-term bets now present clear and present challenges and opportunities. Integrations to one or more 3D solutions are now essential, not optional, across apparel, footwear, and accessories. The Internet of Things (or IoT) has rapidly turned from a vague promise into concrete products and processes. Blockchain-driven total transparency is achievable right here, right now. And even Artificial Intelligence, long reserved for science-fiction, has become fact, with immediate, albeit narrow, applications in everything from trend analysis to eCommerce A/B testing.

If you're interested in deep-diving into any of those cornerstone technologies, back issues of the WhichPLM Report for previous years are available to download from our website, free of charge. Today, though, I and the WhichPLM team want to return to the most important part of the digital transformation picture. The technology at the centre of all this technology-led change. To PLM.

In all the excitement around new disruptions, it can be easy to forget that everything I've mentioned so far, from 3D renders for catalogues, to transparent sourcing at every supplier tier, relies on a central repository for product and process data. This is a role that PLM has long been able to fill (along with ERP, it's been considered the backbone of the modern integrated enterprise for many years) but it's one that's



assumed a new level of importance now that 3D, 2D, IoT, Industry 4.0, blockchain and other emerging technologies and trends are being seen as imminent projects, not far-off future possibilities.

What does this mean in practice? That adopting the right PLM solution is now one of the most important decisions, technologically speaking, that any fashion business can make. While it is obviously critical to make informed investments in 2D, 3D or supply chain management solutions, for instance, none of those has the same potential to add huge amounts of value to other digital solutions. PLM, on the other hand, can and should touch everything from initial inspiration to retail performance analysis, and should serve as the fabled “single version of the truth” for not just the technologies I’ve identified here, but everything else that’s to come in the near and longer-term future.

But while the value of PLM in the abstract has been proven time and again – when properly implemented and used throughout the extended supply chain – prospective customers still face a difficult choice when it comes to actually shortlisting and selecting the solution that will, in effect, drive every other element of their digital transformation. From mobile applications to entirely new modules; open APIs to complete Adobe Creative Suite integration, PLM vendors are differentiating their products from one another in ways that go far beyond basic functionality.

And the challenge of finding the right centre for your digital future doesn’t end with functionality. Around a quarter of PLM solutions are now sold on an affordable subscription basis and deployed on the cloud – and this share will likely increase very quickly. This is a significant change in a very short space of time; just a few years ago, on-site or hybrid hosting was the only deployment method available, and the perpetual licensing model (a large upfront investment and ongoing maintenance) meant that many PLM platforms were out of the reach of small to medium businesses.

This means that the keys to digital transformation are now in the hands of almost

every fashion or apparel business. And while SMEs may not yet be able to (or prepared to) invest in RFID or IoT beacons for their factory partners and retail points of sale, they can, for a low monthly fee, lay the foundations for making that and other visions a reality.

WhichPLM, then, has an important responsibility. As perhaps the foremost authority of PLM for the retail, footwear, and apparel industry, it falls to us to provide a reliable source of accurate, unbiased information – the tools that will allow a more diverse range of businesses than ever before to choose the right direction for their digital future.

“ **Selecting the right PLM solution will allow a more diverse range of businesses than ever before to choose the right direction for their digital future.** ”

Luckily that’s a responsibility we’re prepared for. My own history in fashion technology is well-documented (from helping to usher in the age of personal computers in the late 1970s shortly followed by CAD, to being involved in the invention of PDM, CPM, and PLM over the years) but the WhichPLM team as a whole has amassed a huge amount of international experience, and has access to a complete unique library of data from which we’re able to create analysis that no other publication can match. This year, that analysis includes:

- Complete profiles of all leading PLM vendors, including accurate customer counts, user figures, resources, and other essential information.
- Profiles of several PLM consultancies who cater to the fashion and retail industry – either as their sole vertical, or with a dedicated team.
- Comprehensive analysis of the PLM market

as it stands in the financial year 2017/18. This includes a geographical and financial breakdown of customers, our interpretation of regional and technological trends, key challenges and opportunities, and other related digital transformations.

- Informed predictions for the future, including likely trends in the way PLM will be sold, deployed, implemented and used, as well as insights into how it will interface with other digital solutions.
- Executive summaries tailored for different readers. All our profile and analysis information is encapsulated in these single-page overviews, which are designed to educate and inform brands, retailers and manufacturers as well as the consultants and vendors who cater to them.

I believe that this information is unique and uniquely valuable. To the best of my knowledge, no other analyst or publication holds PLM customer and vendor data anywhere near as extensive or as accurate as the information that sits in WhichPLM’s libraries.

But there is also one final reason that this publication is particularly important – to the industry and to me, personally. I do not believe in hiding things. Historically, the PLM market was built partially on spin and misinformation, and in fact that was the very reason that WhichPLM was founded. Almost a decade ago, I grew tired of seeing a technology I was so invested in being either dismissed or sold disingenuously, and I started WhichPLM to serve as a clear channel of communication between vendors and customers. Over time, that same transparent approach has also been extended to advisory and analyst work – with no hint of spin or bias – but to date that analysis has reached only a small segment of its potential audience.

We are now in a position to create a truly transparent market - from technology vendor to end consumer. And, to fulfil that original mission for WhichPLM, we are also, for the first time, able to make high-quality, fact-checked and analysed information available to everyone. At a time when technology is promising to change everything – to create

an infinite loop of product innovation and process improvement – the tools to seize the moment need to be easily accessible, which is why this Buyer’s Guide is being released free of charge to all WhichPLM readers.

It has taken a long time for me to see this statement evolve from promise to reality, but today PLM is affordable, feature-complete, and ready to serve as the bedrock on which far-reaching digital transformations will be built – from both existing technologies and even those we’re yet to envision.

Getting there has been a long personal and professional journey, but I am thrilled to see the goal realised, and I’m incredibly proud to be able to provide what I believe is essential information to everyone and anyone it might benefit. Whether you’re a prospective PLM customer, a seasoned project team manager, or a sales lead with a technology vendor, I hope you’ll take a moment with me to reflect on just how far we’ve come, and how bright the future now looks.

I also hope you will learn a little (or perhaps a lot) from the analysis that the WhichPLM team has put together, with the benefit of eight years’ experience evaluating the global market.

And, for the first time, if you know anyone else (customer, prospect, partner, educator, or colleague) who will benefit from this information, please invite them to download their own copy of this publication – no strings attached.

Mark Hansop



WHY PLM? WHY NOW?

There has never been a better time to buy PLM.

No matter the size, shape, turnover, or geographical spread of your business, almost any modern PLM solution is eminently capable of being the engine that will power the future of your business.

A prospective brand or retail customer approaching the PLM market in 2018 is presented with more choice than ever, and judged from a purely functional point of view, almost every choice is a viable one. From core design and development to supplier management and collaboration, almost every process or activity involved in planning, conceiving, creating, and sourcing a product is considered to be baseline functionality for any PLM solution on the market today.

In the face of this relative feature parity, the vendors who develop, sell, and implement PLM have begun to distinguish themselves in other ways. Some have diversified their product portfolio with planning tools; others have deepened links to manufacturing hardware. Some have pursued a strategy of building added-value mobile applications; others have focused on creating bulletproof integrations to 3D computer aided design (CAD) solutions.

At the same time as vendors have been mining additional sources of value, core PLM has become not just more capable, but more affordable - and

accessible to a wider range of businesses with each passing year. Once so expensive to customise, implement, and maintain that only the largest companies in the apparel industry could afford it, PLM is now often sold the same way as other productivity tools: through a cloud-based subscription model, with low monthly fees per user.

To put this into context, WhichPLM has now tracked the performance of the RFA PLM market for seven years, although changes in our measurement and reporting standards mean that only the past four years' figures are useful for comparison.

- In the year 2013/14, PLM was sold to 154 businesses in the RFA sector, for a combined value of \$137 million across software sales and services.
- In 2014/15, PLM was sold to 171 RFA businesses, for a combined value of \$89 million across software sales and services.
- In 2015/16, 214 sales of PLM were made to RFA businesses, with a total annual industry value of \$112 million.
- In 2016/17, 266 sales of PLM were made to RFA businesses, amounting to a total value of \$114 million across all vendors.

While the monetary size of the market has fluctuated year on year (as might be expected from an industry that caters to big and small businesses equally), there is one consistent trend: new sales have increased every year since 2013.

Combined, these forces and figures mean that PLM for retail, footwear, and apparel is the essence of a buyer's market. A group of well-established vendors are selling proven, mature products to a buoyant market, each with their own additional unique selling points, and each priced in such a way as to be almost trivial to try - even for the smallest businesses. And even more importantly, reference customers of all shapes and sizes have gone on record articulating the value that they have obtained from replacing manual processes and consolidating previously-disconnected product data with the help of modern PLM.

In short: PLM works, it works better than any alternative (certainly better than informal processes using Excel and email), and it costs less than ever before to try out the widest, most mature range of solutions that has ever been offered to the RFA market.

This is where an independent, expertly-informed Buyer's Guide comes in. Armed with close to a decade's worth of intelligence, we have produced a handbook designed to improve the process of understanding PLM and selecting the right solution for your needs. And it begins with comprehensive vendor listings overleaf.

“RFA PLM in 2018 is the essence of a buyer's market. Well-established vendors are selling proven, mature products, at an affordable price, to a buoyant market where new sales have grown every year since 2013.”



PLM VENDOR PROFILES

FINANCIAL YEAR 2017/18

“ **Each profile contained in this section collects statistics, insights, and opinions that are exclusive to WhichPLM. These are designed to serve as a first-stage tool to help PLM project teams with the difficult task of shortlisting and selecting the right solution for their needs.** ”

Beginning with the very first Customer Survey in 2010, our publications have been considered essential reading for any brand, retailer or manufacturer preparing for a PLM project – at least in part because they contained the most comprehensive listings of key PLM vendors to be found anywhere.

We are thrilled to now be able to publish these listings – often referred to as the “PLM bible” by project teams undergoing the difficult task of shortlisting and selecting a solution – to the widest possible audience, allowing everyone to make the most informed choice possible. Each profile contained in this section collects statistics, insights, and opinions exclusive to WhichPLM, and are designed to collectively serve as an introductory tool for any fashion organisation looking to better understand the regional and multinational players that make up the PLM market in the financial year 2017/18.

To make this shortlisting exercise simpler, we started in 2015 to apply more stringent inclusion criteria to ensure that the vendors who appear in these listings played a demonstrable regional or global role in the RFA PLM market. The same criteria were carried through to our 6th and 7th Editions, and remain in force for this publication. So while smaller vendors may appear in the market itself (and may, indeed, be the right choice for a certain type of customer) these listings are purposefully confined only to those vendors who are making sufficient impact to actually steer the industry in a meaningful sense.

On the surface it may appear as though this kind of first-stage filtering of the global pool of vendors serves to artificially reduce choice, but it’s important to remember that of the forty or more software vendors that claim to sell PLM for fashion, only a fraction actually offer what WhichPLM and other analysts consider to be a modern PLM product, and only these merit inclusion in a WhichPLM publication. (Our definition of what constitutes modern RFA PLM is set out in full in the glossary at the back of this publication.)

Some vendors, for example, continue to sell outdated PDM software with a PLM sales pitch, while others who advertise PLM functionality actually better qualify as providers of extended PLM – particularly those in the area of supply chain management and planning.

Other vendors whose software does meet the criteria we set out instead fell short of our minimum RFA sector turnover requirements, voluntarily excused themselves from listing, or were revealed during WhichPLM advisory engagements to lack the apparel industry expertise or experience to merit inclusion on prospective customers’ selection lists.

Although any PLM vendor is welcome to submit its product and services to a WhichPLM Supplier

Evaluation – with more information, and a growing number of published Evaluations available on our website – this section is restricted only to those vendors who we know to be making continued research, development and investment efforts, and who are invested in the apparel industry either entirely, or as a strong element of a broader industry portfolio.

By contrast, the Market Analysis contained later in this publication attempts to cover the industry in a holistic sense, and the sales made by smaller or more niche vendors have been factored into our analysis efforts this year. For a more complete look at the international PLM market as a whole, please turn to the Market Analysis portion of this publication, or visit the WhichPLM website to view more comprehensive vendor listings.

For vendors that cater to two or more different industries (i.e. another vertical alongside their presence in fashion and retail), the figures that appear in the following pages are confined to the sale, development and support of core PLM for the retail, footwear and apparel industry only. Similarly, where a vendor markets a range of products to the apparel industry - as is the case with vendors of CAD/CAM, pattern making software, three-dimensional design, and other components of the extended product development environment - we have disregarded income, resourcing and investment that falls outside the scope of this section’s PLM focus.

Readers of previous Annual Reviews will notice that this year’s publication continues the detailed format used in those print reports. In the following pages, we present overall customer figures, resource allocation by region, and the ratio of internal to external users as supplemental to the core customer data that has always been the backbone of our vendor listings.

Where “N/A” appears, it denotes that the vendor in question was unable or unwilling to provide the relevant information. In the majority of cases, the division between public and private companies’ disclosure policies was the cause, but in some instances information was withheld for other reasons. For this reason, “N/A” should be read as “not publically disclosed”, since this information – whether financial or otherwise - may be divulged to private parties, and may have been shared with WhichPLM under the proviso that it not be published.

Elsewhere, our vendor profiles continue the tradition of asking each listed supplier to provide their own insight into what they feel has differentiated them from their core PLM competitors this year, and to explain what they see as the prominent emerging trends for the near future. These insights have always been exclusive to WhichPLM readers, and provide a unique perspective on the roadmaps, ethos and future direction of the market’s biggest players.

Where actual sales to new customers are concerned – our primary metric for the Market Analysis section of this publication - we remind readers that despite our best efforts towards verification and completeness, these lists cannot be exhaustive. Many of the suppliers listed here have made sales that have not been disclosed to the public,

either through reasons of brand secrecy, or because those implementations have not yet reached agreed milestones at which they can be discussed in public forums. We have afforded suppliers the opportunity to number but not name these customers, provided their identities have been disclosed to the WhichPLM team under the terms of a non-disclosure agreement. This allows us to adhere to our goal of providing the most complete market intelligence without compromising customers’ rights to secrecy.

The final accuracy of these customer lists, too, remains the responsibility of each individual vendor. Just as we have in previous years, the WhichPLM team rebuffed attempts by suppliers to pass off non-PLM customers, non-apparel or CPG crossover customers, and customers whose contracts were signed far outside the 2015/16 period as valid inclusions for these pages. We are happy to report, though, that this practice occurs less and less frequently with each passing year, and the vast majority of vendors now accept our justifications for excluding particular customer names.

Where vendors chose instead to stand by their initial submissions, WhichPLM holds written confirmation from each of these suppliers that the customer lists displayed in their vendor profile are accurate, despite our own misgivings.

Although we do thank the overwhelming majority of vendors for their honesty, nothing in the vendor profiles or advertisements that follow should be considered as an endorsement of any particular PLM vendor. As always, we would caution all prospective customers to pay particular attention to the suitability of any vendor who, for example, refused to divulge the size of their R&D team or the composition of their global apparel resource pool.

All prospective customers of PLM should be seeking a viable and sustainable long-term partner, conducting their shortlisting and selection on the basis of financial stability, expertise, experience, and demonstrable investment in their PLM product. A vendor who is able to share these details and be candid about their performance and roadmap – rather than focusing on today’s deals and remaining guarded about the future

NB: Adjacent to the vendor profiles that make up the remaining pages of this section are full-page advertisements provided by the vendors. WhichPLM does not control and is not responsible for the content of these advertisements.

– is clear about their willingness to engage in the kind of frank, open partnership that a truly successful PLM project demands.

Readers are invited, after finishing this section, to turn to our consultancy listings to continue building their picture of the apparel technology landscape, or to visit the WhichPLM website to see whether their newly shortlisted supplier(s) has submitted their solution for an impartial WhichPLM Supplier Evaluation – something several vendors have now chosen to do more than once.





NEW CUSTOMERS OF RFA PLM, INCLUDING:
Éminence, Henderson, HSE24, Melon Fashion Group,
MCM, Mulberry, Wortmann Schuh Holding



OVERALL NUMBER OF ACTIVE CUSTOMERS
of PLM within the RFA industry, excluding customers cited
as new in 2017/18



**NUMBER OF RESOURCES SPECIFICALLY
ENGAGED IN R&D**

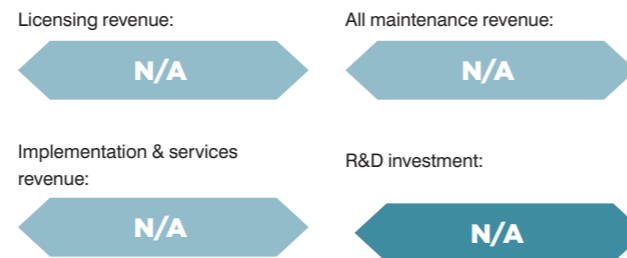


**TOTAL NUMBER OF INTERNAL
USERS WORLDWIDE**



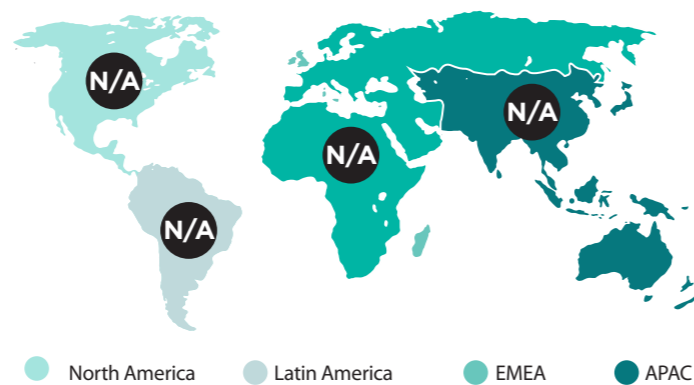
**TOTAL NUMBER OF EXTERNAL
USERS WORLDWIDE**

REVENUE & INVESTMENT INFORMATION



TOTAL NUMBER OF RESOURCES FOCUSED ON THE RFA INDUSTRY BY REGION:

(Excluding those cited as R&D-specific resources above.)



Tell us what you feel has changed and / or advanced in your product offering this year to differentiate your company from others in the RFA PLM market.

TXT Retail 9 is uniquely positioned in the marketplace as a truly End-to-End Merchandise Lifecycle Management solution.

It combines core PLM capabilities such as Creative Design, Collection Development, Sourcing and Costing with Assortment and Line Planning, as well as Forecasting, Replenishment and the Supply Chain.

Latest advancements include:

- Significant extension of capabilities by an ever tighter integration of supplier collaboration with PLM, this now allows enhanced functionalities in the areas of production quality control, track and trace, forecasts sharing and transportation efficiencies
- We are also completing integration with the Aptos family of solutions which will directly provide focused information on CRM data and order management information.

Tell us what you believe are the most important trends shaping the near-term future of the industry - either in terms of technology or broader market forces.

A number of trends are strongly impacting the way companies design, plan and execute their assortments:

- Accelerated innovation, far beyond the concept of seasons: from fast to "ultra-fashion" with ever more frequent events
- Sustainable innovation, ever more socially and environmentally-conscious
- Digitalization: digital is the Customer experience, digital is the basis of a closer collaboration with suppliers; Digitalization is throughout the product development process (product creation and visualization, digital mood boards, trend research, catalogues)
- New technologies: predictive analytics, Artificial intelligence, mobility, augmented reality, 3d models; increasingly leveraged by Fashion companies to provide more personalized, engaging customer journeys and experiences
- New buying behaviours: non-linear across channels making demand more volatile, and asking for stronger Supply Chain and Fulfilment efforts and agility
- Extended processes and abundance of data (structured and unstructured) calling for PLM systems providing end-to-end visibility and orchestration.

MERCHANDISE LIFECYCLE MANAGEMENT

TXT Retail 9: One solution to design, plan, assort & sell

Design, Collection
Development, Costing
Quality Assurance, Sustainability,
Integrated Line and Assortment Planning,
Sourcing and Supply Chain Collaboration

End-to-End Merchandise Lifecycle Management capabilities that uniquely combine core PLM functionality with advanced line and assortment planning and the supply chain to deliver significant business value:

- One integrated process, from concept to customer
- Collections that balance creative and business perspectives
- Improved data quality and minimized reworking
- Improved supplier collaboration, faster time to market

 **6**
NEW CUSTOMERS OF RFA PLM.

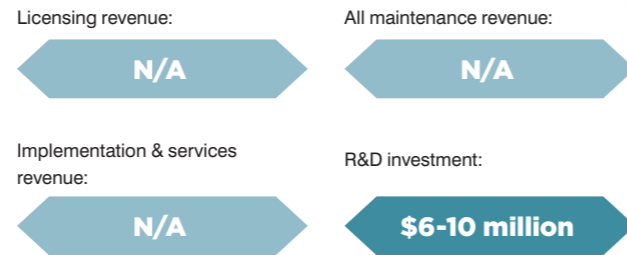
 **86**
OVERALL NUMBER OF ACTIVE CUSTOMERS of PLM within the RFA industry, excluding customers cited as new in 2017/18

 **N/A**
NUMBER OF RESOURCES SPECIFICALLY ENGAGED IN R&D

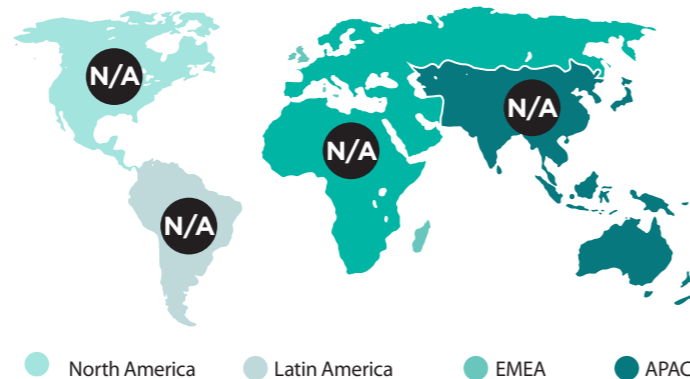
 **N/A**
TOTAL NUMBER OF INTERNAL USERS WORLDWIDE

 **N/A**
TOTAL NUMBER OF EXTERNAL USERS WORLDWIDE

REVENUE & INVESTMENT INFORMATION



TOTAL NUMBER OF RESOURCES FOCUSED ON THE RFA INDUSTRY BY REGION:
(Excluding those cited as R&D-specific resources above.)



Tell us what you feel has changed and / or advanced in your product offering this year to differentiate your company from others in the RFA PLM market.

Bamboo Rose helps companies cross the digital chasm to discover, develop, and deliver products at consumer speed. We help retailers, suppliers, wholesalers, manufacturers, agents, etc. collaboratively work together to bring great products to market 40 percent faster, 30 percent more efficiently, at margins showing 3 percent to 12 percent improvement.

The Bamboo Rose multi-enterprise product innovation platform simplifies and speeds the product creation and delivery process, covering PLM, Sourcing, PO Management, Supplier Management, GTM, Quality, Compliance, Logistics, and Finance. We differentiate ourselves with our executive team's deep retail, PLM, and supply chain expertise and focus delivering cost savings and value to all the enterprises collaborating on the platform – the community. This past year, we've launched numerous new 'cool tools' features, powered by AI and machine learning technologies, as well as enhanced personalization capabilities to help our customers improve collaboration, speed up product development and reduce costs.

Bamboo Rose is product agnostic and handles many product categories such as Food, Fashion, Hardlines, Electronics, Soft Home, Wholesale, and formulated products. The platform handles high volume transactions, with millions of SKUs, shipments, and orders.

Tell us what you believe are the most important trends shaping the near-term future of the industry – either in terms of technology or broader market forces.

Disruptive technologies will drive the retail industry's transformation. Companies that fear change and do not adopt new technologies to increase value for customers will fall behind. For instance, retailers need to shop and create products the way their consumers shop—digitally and socially. Competitive retailers are more willing to change and use digital technologies in every area of their business, not just on the storefront. Technologies like IoT, 3D, machine learning, and immersive technology and others that we haven't even heard of yet are poised to change the retail industry.

Additionally, new, transformative business and product development models are already reshaping the industry. We are seeing what Gartner calls "multi-enterprise business networks" or what IDC calls "Industry Cloud Collaborative Platforms" emerge and drive value in the industry. Companies are beginning to engage digitally on these platforms – with their communities – to speed the time to market, reduce costs and improve margins.

THE LEADING RETAIL PLATFORM to discover, develop and deliver products @ consumer speed.

B2B MARKETPLACE	PRODUCT LIFECYCLE MGMT
SOURCING & ORDER MGMT	GLOBAL TRADE MGMT & P2P

bamboorose.com



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NEW CUSTOMERS OF RFA PLM, INCLUDING:
4 Murs, Amaro, Auchan, Bellerose, Big Lots, Bogner, Branded Lifestyle Trading (BLS), Brandix Apparel, Buccellati, Camilla, Capa De Ozono, Carhart, Cemsel, Centex, Descente Japan, Deuter, Drykorn, Eifini Brand, Erming's Family, Fame & Partners, Frank and Oak, Huckberry, Huijie, Keen (Fuerst Group), Isabel Marant, JiaXing SEC, Justin Alexander, Lily Brand, Loblaws, Lojas Renner, Michael Kors, Mystery Ranch, Ortovox, Paco Rabanne, PVH USA, Safariland, ShoeFabrik, Skechers China, SMCP, Sonae, Super Dry, Supin, Tommy John, Trinity Limited, Urban Revivo, Woolworths, Xtep, Zucchi

235

OVERALL NUMBER OF ACTIVE CUSTOMERS of PLM within the RFA industry, excluding customers cited as new in 2017/18

81

NUMBER OF RESOURCES SPECIFICALLY ENGAGED IN R&D

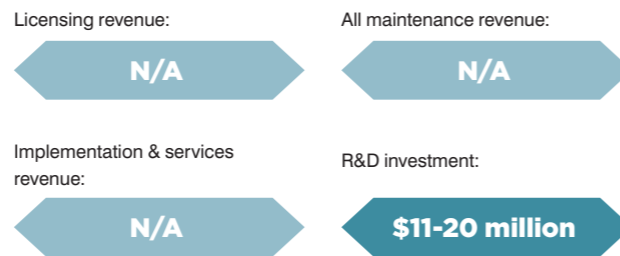
59,000

TOTAL NUMBER OF INTERNAL USERS WORLDWIDE

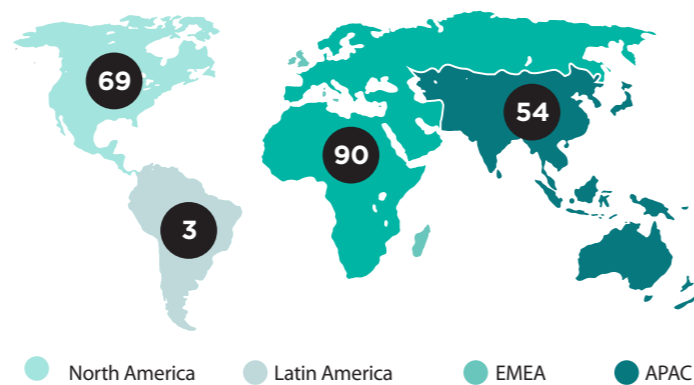
N/A

TOTAL NUMBER OF EXTERNAL USERS WORLDWIDE

REVENUE & INVESTMENT INFORMATION



TOTAL NUMBER OF RESOURCES FOCUSED ON THE RFA INDUSTRY BY REGION:
(Excluding those cited as R&D-specific resources above.)



Tell us what you feel has changed and / or advanced in your product offering this year to differentiate your company from others in the RFA PLM market.

New technologies such as artificial intelligence-based decision making and new touch-based digital boards (Centric Visual Innovation Platform) were rolled out with customer innovation partners in the past year. Through 2 major and 2 minor releases to our core C8 PLM users, we focused on facilitating global business (Develop Once, Sell & Source Globally) with enriched PIM and compliance/traceability features. There was also a big focus on eliminating work; making carryovers and changes to styles fast and easy with BOM Push and Section tools. New apps included Factory Audit for product quality control, and Showroom for streamlining the Sell-in process; both apps digitally transform traditionally paper-based processes. Finally, there continued to be a strong focus on improving UX; eliminating thousands of clicks, making the Centric experience as easy to learn as possible and even, daresay, fun!

Tell us what you believe are the most important trends shaping the near-term future of the industry – either in terms of technology or broader market forces.

Digital transformation and also the adoption of new, digitally native ways of working, continue to be needs communicated by the market.

All companies are under increasing pressure to transform their businesses by cutting time to market, improving product margins (despite price and cost pressures), boosting innovation and offering innovative products, orchestrating global supply chains, and selling to global markets.

Centric solutions are the foundation of such initiatives and are driven by our Customer Advisory Board, User Groups and Customer Innovation Partners.

Centric Software is the leading Product Lifecycle Management solution for fashion, retail, luxury, outdoor, footwear and consumer goods companies. 250 companies comprising over 600 brands around the world trust Centric Software for strategic and operational digital transformation.

Game-changing Centric VIP digital innovation boards.
Ground-breaking PLM mobile apps.
Cloud based, SaaS solutions.
Agile DeploymentSM brings fastest time to value and ROI.

centric@centricsoftware.com

www.centricsoftware.com





4
NEW CUSTOMERS OF RFA PLM, INCLUDING:
GymShark, Interloop, Providencia



43
OVERALL NUMBER OF ACTIVE CUSTOMERS
of PLM within the RFA industry, excluding customers cited
as new in 2017/18



12
NUMBER OF RESOURCES SPECIFICALLY
ENGAGED IN R&D

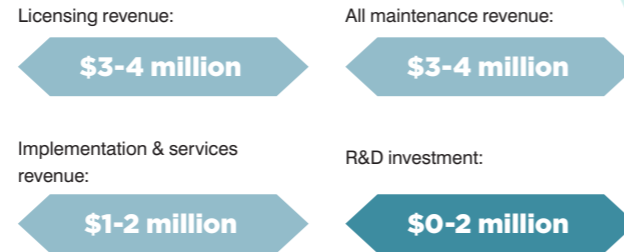


3,026
TOTAL NUMBER OF INTERNAL
USERS WORLDWIDE

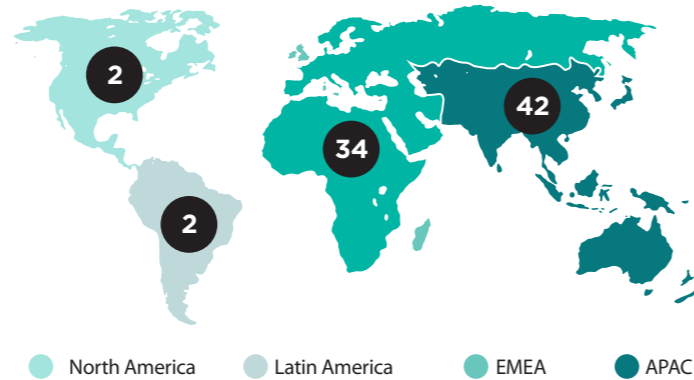


586
TOTAL NUMBER OF EXTERNAL
USERS WORLDWIDE

REVENUE & INVESTMENT INFORMATION



TOTAL NUMBER OF RESOURCES FOCUSED ON THE RFA INDUSTRY BY REGION: (Excluding those cited as R&D-specific resources above.)



Tell us what you feel has changed and / or advanced in your product offering this year to differentiate your company from others in the RFA PLM market.

Part of Coats Global Services, we offer expertise and solutions which support agile, efficient and integrated supply chains, from product development and sourcing (Vision^{ng} PLM), to time-cost benchmarking (GSD) and market leading planning solutions for garment manufacturers and fabric mills (Evolve/Align). Some key advancements over the last year include:

- **UI and UX:** Our latest release includes a number of UI and UX improvements focusing on fast, intuitive navigation, supporting efficient workflow and management by exception. Users can now customise their experience even further, with favourites and icon pinning menus, quick links to recent pages and individual/team problem filters with enhanced drill down.
- **Sample Management:** Further enhancements in this critical area, to support control of sample stocks and raw material requirements.
- **Material Management:** With material development often leading product, Vision^{ng} supports full fabric range planning, with hierarchy / attribute management and roll-up of critical path activities to product and purchase order.
- **Supply Chain Collaboration:** Drag and drop, 'what if' planning of high-level demand and supplier capacity, has now been extended to include materials as well as finished goods. This includes the ability to share scenarios and comments with T1/T2 suppliers, integrated tracking and automatic updates of PO status through to delivery.

Tell us what you believe are the most important trends shaping the near-term future of the industry – either in terms of technology or broader market forces.

While brands/retailers are increasingly seeking to engage consumers in a more emotionally led, experience based (rather than transactional) relationship, the reality is that this exacerbates rather than mitigates the challenges of exploding complexity and data! There is a growing recognition that responding to these challenges demands end-to-end digitization of the supply chain to drive streamlined processes and business insights, and that the biggest gains in speed and efficiency lie in upstream collaboration. Yes, of course, consumer and market insights, (increasingly driven by artificial intelligence, complex algorithms and machine learning), will continue to provide direction and focus, but increasingly 'winning where it matters' means digitising to support key internal processes and upstream collaboration.

What does digitization and upstream collaboration mean in practice for our industry? It means best in class, technology based solutions and specialist industry expertise, supporting transformative change and the seamless sharing of data to drive a truly collaborative, agile and efficient supply chain. From the internationally recognised standard for time-cost benchmarking (GSD) to targeted product development and sourcing driven by critical path and supplier collaboration (Vision^{ng}), feeding suppliers with the information they need to support fast and efficient production planning for RFA manufacturers (Evolve) and fabric mills (Align).

Making the complex simple...



...increasing speed to market and cost efficiency

- Unparalleled supply chain reach – win where it matters!
- Intuitive, highly visual, mobile solution
- Specialist fashion industry expertise supporting best practice
- Driven by critical path management and supplier collaboration
- Dynamic management and tracking of supplier capacity and POs
- Flexible solution and purchase options to suit all business sizes

+ 28
NEW CUSTOMERS OF RFA PLM, INCLUDING:
Alsico, NA-KD, Toad & Co

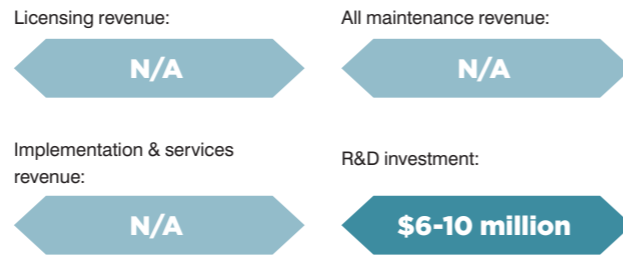
227
OVERALL NUMBER OF ACTIVE CUSTOMERS
of PLM within the RFA industry, excluding customers cited as new in 2017/18

60
NUMBER OF RESOURCES SPECIFICALLY ENGAGED IN R&D

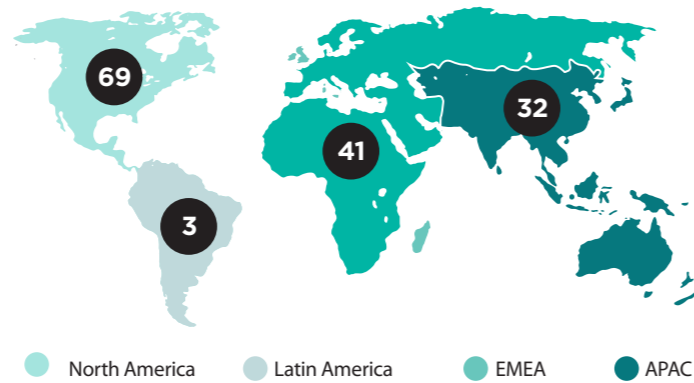
25,900
TOTAL NUMBER OF INTERNAL USERS WORLDWIDE

14,559
TOTAL NUMBER OF EXTERNAL USERS WORLDWIDE

REVENUE & INVESTMENT INFORMATION



TOTAL NUMBER OF RESOURCES FOCUSED ON THE RFA INDUSTRY BY REGION:
(Excluding those cited as R&D-specific resources above.)



Tell us what you feel has changed and / or advanced in your product offering this year to differentiate your company from others in the RFA PLM market.

We have fully embraced the move from on-premise to Cloud PLM within the last year. This has allowed us to continually develop new features based on client requests and deliver them in a more agile way, vs traditional on-premise PLM applications. Over the past year, we have developed 140 new features, most of which were developed through our Client Feature Request process, continuously delivering enhancements every 6-8 weeks. The cloud-based application allows us to respond to our clients changing business needs better than ever before all while keeping them completely out of the box.

With a robust set of APIs, the YuniquePLM® application integrates with many cloud and on-premise applications, so clients can easily connect to the tools they currently use today. For example, designers can use our Adobe® Illustrator® Plugin to connect their designs directly to YuniquePLM which is available through the Adobe App store and supports CC2018.

As part of our complete end-to-end digital solution, YuniquePLM is easily accessible to clients of any size and is easier to implement and faster to deploy. With a completely free Test Drive, we continue to be the ONLY apparel PLM provider that allows you to try the software before you buy it.

Tell us what you believe are the most important trends shaping the near-term future of the industry – either in terms of technology or broader market forces.

In today's "see now, buy now" marketplace, many businesses are looking for the fastest, most efficient way to deliver their product. Having a fully integrated digital suite of products allows teams to be more agile and efficient than ever before. Data is speed and being able to pass data to all areas of your business is critical. YuniquePLM allows you to have a data hub that integrates seamlessly into workflows you already have and those you continue to develop, from anywhere and at any time.

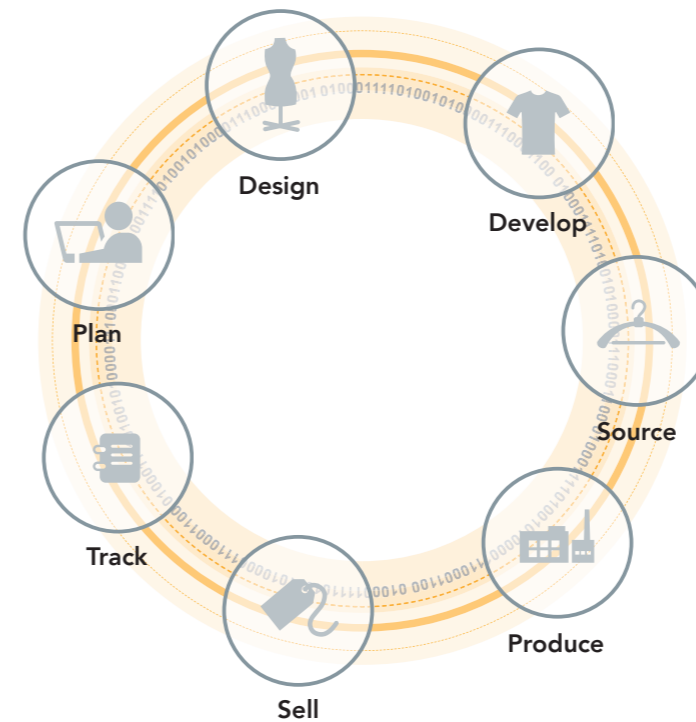
Integrating design tools like Adobe Illustrator, A&E Thread, Pointcarré and Pantone® color libraries keeps designers working the way they are most comfortable. This ensures that all design tools and data stay in one easy-to-use place.

All digital assets created in YuniquePLM can be directly imported into AccuMark® to use in the technical design process. Model and marker data created in AccuMark and AccuMark 3D can be directly linked to styles within YuniquePLM and be made part of your tech pack development process.

Fully integrating your PLM software provides a much deeper level of detail and enables better collaboration, planning and costing in the product development lifecycle.



THE NEW SPEED OF FASHION



Digitally Integrated Design to Save You Time.

We live in a time where trends move fast and consumers expect you to move faster. Fortunately, major technical innovations are enabling you to get your designs to market faster, meeting the demands of a see now, buy now mentality.

With instant cloud access to the industry's leading PLM, YuniquePLM®, and AccuMark® 2D and 3D CAD technologies you'll cut design times by weeks. Gerber Technology's digital solutions include a complete software platform from concept to production – allowing you to stay up to speed faster than ever before, anytime from anywhere!



Learn more about YuniquePLM, the industry-leading Cloud PLM solution that keeps you connected. Visit YuniquePLMCloud.com for a Free Test Drive.



5
NEW CUSTOMERS OF RFA PLM, INCLUDING:
Fortdress, Murk



70
OVERALL NUMBER OF ACTIVE CUSTOMERS
of PLM within the RFA industry, excluding customers cited as new in 2017/18



23
NUMBER OF RESOURCES SPECIFICALLY ENGAGED IN R&D

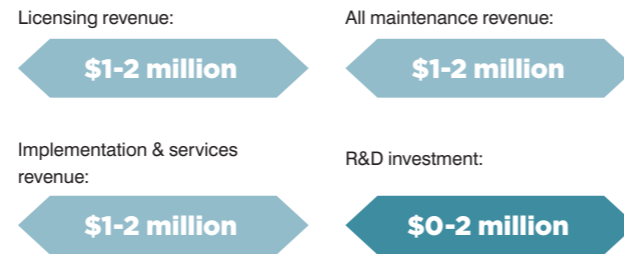


2,450
TOTAL NUMBER OF INTERNAL USERS WORLDWIDE



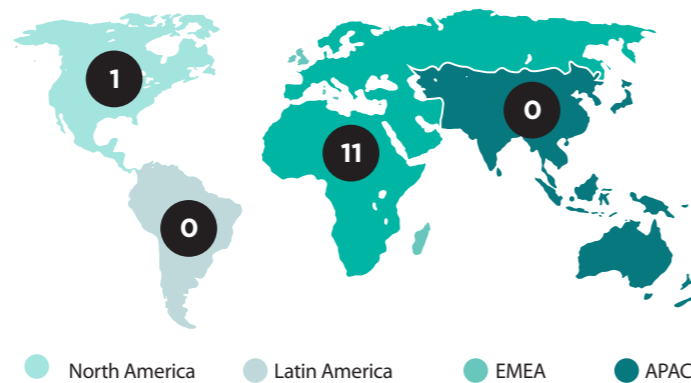
N/A
TOTAL NUMBER OF EXTERNAL USERS WORLDWIDE

REVENUE & INVESTMENT INFORMATION



TOTAL NUMBER OF RESOURCES FOCUSED ON THE RFA INDUSTRY BY REGION:

(Excluding those cited as R&D-specific resources above.)



Tell us what you feel has changed and / or advanced in your product offering this year to differentiate your company from others in the RFA PLM market.

With PLM GoLive, you can get your ideas faster to the market.

PLM GoLive supports a product during the whole journey from the very first idea to the shop. We see PLM as the turntable for digitization, it is the tool to master complex data and to ensure a seamless communication with all participants.

We offer the only PLM system, that delivers digital processes right from the start, including the management of 3D data, CAD cuts and more. It is directly integrated with Vidyia, one of the world's leading 3D simulation software.

With our Digital Fashionboard, we have introduced a tool to the market last year, where ideas can be collected, drafts can be presented in 3D, changes can be added – and it is also connected to PLM.

PLM GoLive is a standard system, where technical innovations are included in every release. The system is always future proof and combines many technologies of the Human Solutions Group.

Tell us what you believe are the most important trends shaping the near-term future of the industry – either in terms of technology or broader market forces.

Digitization will remain the driving force for the apparel industry. The aim is to get the right products faster into the shops – and the faster the process gets the more important reliant data management will be.

Physical workflows will be replaced by digital data processes. Therefore, the integration of data and communication of everybody involved (customers, brands, suppliers and retail) will become an important task. Cloud-compatibility will gain significance.

Furthermore, we will expand the creative and planning phase of our system and introduce a sales phase in which sales documents can be generated automatically.

The importance of 3D will continue to grow. Today, we are the only provider, with an integration of PLM and 3D. We will use this lead to develop new solutions and tools for our customers.

We make clothing digital

More turnover, faster time-to-market, new services for your customers. If you're looking for new solutions, you need PLM from Assyst. It's the only system that delivers digital processes right from the start – including the management of 3D data, CAD cuts & more. This means you can get your new ideas to market fast – saving up to 50% of your time. Go digital with Assyst.

Go digital!
www.assyst.de



TRENDS
PERFECT FIT
COST SAVINGS
FIRST TIME RIGHT
SEE NOW, BUY NOW, MAKE NOW
TIME-TO-MARKET



5
NEW CUSTOMERS OF RFA PLM, INCLUDING:
Vida Shoes



65
OVERALL NUMBER OF ACTIVE CUSTOMERS
of PLM within the RFA industry, excluding customers cited
as new in 2017/18



N/A
NUMBER OF RESOURCES SPECIFICALLY
ENGAGED IN R&D

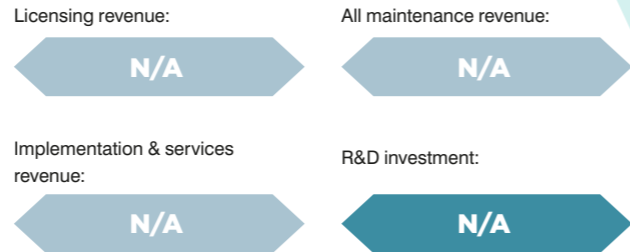


1,900
TOTAL NUMBER OF INTERNAL
USERS WORLDWIDE



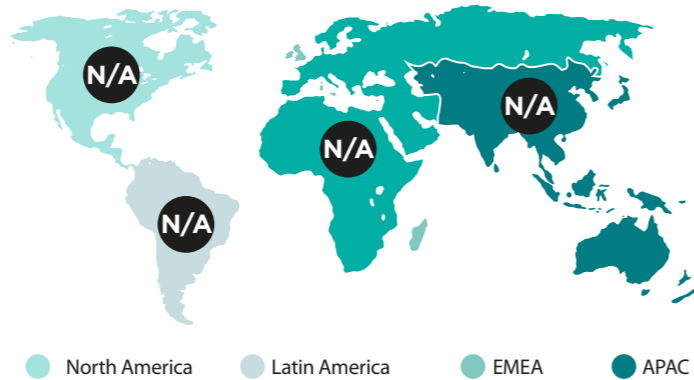
450
TOTAL NUMBER OF EXTERNAL
USERS WORLDWIDE

REVENUE & INVESTMENT INFORMATION



TOTAL NUMBER OF RESOURCES FOCUSED ON THE RFA INDUSTRY BY REGION:

(Excluding those cited as R&D-specific resources above.)



Tell us what you feel has changed and / or advanced in your product offering this year to differentiate your company from others in the RFA PLM market.

Infor continues to invest in its CloudSuite Fashion solutions and delivering its next generation multi-tenant suite as a service, with plans to add multi-tenant Fashion PLM soon. Infor Fashion PLM received a variety of enhancements during the year. These span greater functional depth, usability and compliance. A few examples are:

- With the new GDPR regulations coming into effect in May 2018, Infor introduced the ability to manage users in a compliant manner.
- Designers benefit from the update of the AI plugin for AI2018CC.
- For technical product developers there is an array of enhancements. These include auto-retrieval of complex compositions such as bonded materials, the ability to auto-generate compositions for styles and new fields for capturing waste on materials/trims.
- On the product costing side, improvements include the introduction of date based exchange rates in bill of material costings to achieve greater cost accuracy where exchange rates are volatile.
- Product compliance capabilities were augmented with the capability to add and store attachments at the style, material and trim level.
- Merchandisers benefit from the ability for product developers to select and enter the commercial description of feature, e.g. removable cuffs or reflective zippers.

Tell us what you believe are the most important trends shaping the near-term future of the industry – either in terms of technology or broader market forces.

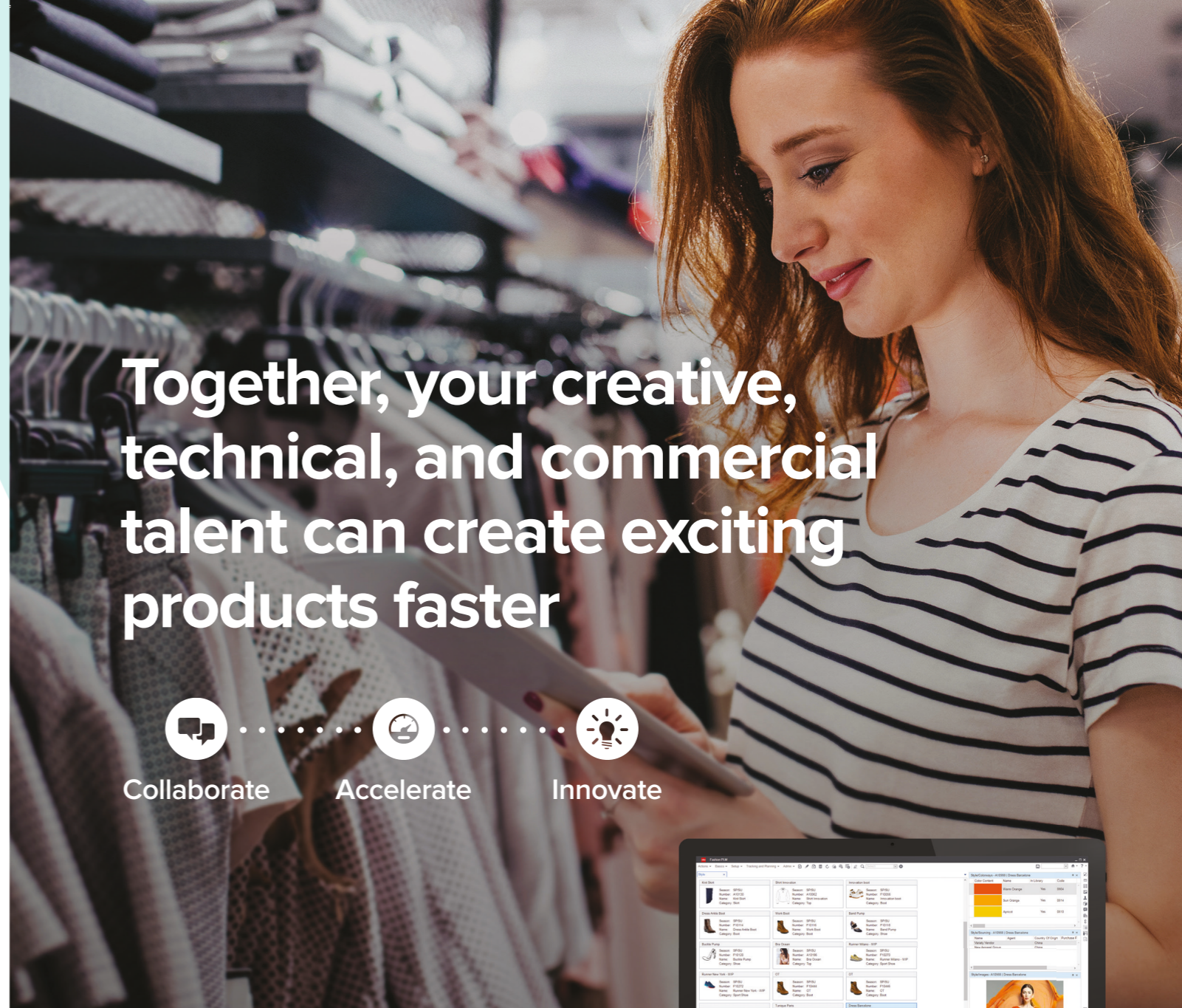
Retailers are under increasing pressure to perform and offer a personalized customer experience, to grow market share and build brand loyalty. RFA organizations are digitally transforming to disrupt and reshape markets and PLM remains a critical component.

In the digital world, PLM is becoming increasingly integrated with other complimentary digital tools such as 2D and 3D to improve the design process.

Those enterprises still using a legacy PDM or PLM solution are getting left behind. It's becoming increasingly important to have a web-based UI for device independence and access anywhere, anytime, as well as to attract and retain young talent.

Cloud is becoming increasingly prevalent, not just for small fashion brands, as larger enterprises look to focus on their core competencies. Cloud hosting is not enough, as companies look for more agile technology and a lower TCO.

Value chain collaboration with vendors is increasingly important as the world gets faster and faster. Seamless collaboration for both sourcing and procure-to-pay execution is becoming a necessity. The future is intelligent networks where artificial intelligence enables greater efficiencies and better decision-making. Traceability of materials and capture of supplier compliance information is also becoming a hot topic.



Together, your creative, technical, and commercial talent can create exciting products faster



Infor Fashion PLM

Infor's next generation PLM software covers the entire product lifecycle, from sales budgeting and merchandise planning to design, development and costing, to vendor collaboration, sample management and critical path management. Plus, sourcing compliance capabilities protect your brand integrity and ensure ethical conformity.

+ 10

NEW CUSTOMERS OF RFA PLM, INCLUDING:
Armor Lux, Brunello Cucinelli, Farm (SOMA Group), Held Biker Fashion, Import Arrasate (Ternua Group), Jinfa Labi, Millet Mountain Group, SOWA

194

OVERALL NUMBER OF ACTIVE CUSTOMERS of PLM within the RFA industry, excluding customers cited as new in 2017/18

165

NUMBER OF RESOURCES SPECIFICALLY ENGAGED IN R&D

7,773

TOTAL NUMBER OF INTERNAL USERS WORLDWIDE

N/A

TOTAL NUMBER OF EXTERNAL USERS WORLDWIDE

REVENUE & INVESTMENT INFORMATION

Licensing revenue:

\$1-2 million

All maintenance revenue:

\$3-4 million

Implementation & services revenue:

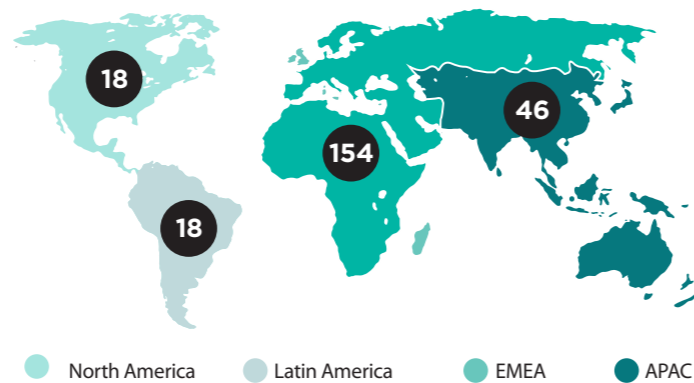
\$3-4 million

R&D investment:

\$11-20 million

TOTAL NUMBER OF RESOURCES FOCUSED ON THE RFA INDUSTRY BY REGION:

(Excluding those cited as R&D-specific resources above.)



Tell us what you feel has changed and / or advanced in your product offering this year to differentiate your company from others in the RFA PLM market.

In the digital age, fashion companies need to work faster to respond to their customers' needs. Lectra Fashion PLM 4.0 helps in that respect as it enables companies to work smarter, become more agile, create a friendly work environment and become more connected to their processes.

We are excited about the recent developments of our Industry 4.0- friendly solution. Firstly, our solution is modular where customers can start with a standard package that meets main market challenges, and then scale up by choosing from 7 advanced modules to add on. This makes the solution more malleable, as it can be adjusted to the customers' specific needs.

Secondly, the solution is highly configurable. We recognized that different users have different needs, and hence made the interface of the solution adjustable. Users can choose to configure their interface so they do not need to waste time trying to find information.

Thirdly, this solution is always ready. Ready to connect to other solutions, be them native or non-native ones, other IT systems such as ERP and CRM, thanks to the new Lectra Easy Connect tool. This will be included in the standard package to ensure a smooth and fast implementation and deployment process.

Tell us what you believe are the most important trends shaping the near-term future of the industry – either in terms of technology or broader market forces.

We believe that artificial intelligence will be the next big thing. It will shape the customer experience and give fashion companies some powerful insights on their consumers.

With existing technology such as virtual fitting sessions and chatbots, consumers are going to only expect more precision when it comes to delivering the right products for them. We should take into consideration that when millennial consumers leave a data trail behind, it comes with a price – they expect fashion companies to give them the product they want.

Very soon, fashion companies will slowly transition to more personalized production, as increasingly more consumers will demand for more tailor-made products.

Hence companies and suppliers need to be more agile, to be able to do switch between mass and made-to-measure production, as well as handling large and small-volume orders. That is where artificial intelligence plays a vital role – it will help fashion companies produce faster and better, without wasting fabric and money, with the consumer data they have on hand.

Be **FASHION/ABLE**

The power of digitalization is in your hands with Lectra Fashion PLM 4.0. Start your journey to a digitalized supply chain and get closer to consumers than ever before. Respond to shifting demands, increase your agility and work smarter with real-time data to meet your customers' fashion desires. It's what we call being FASHION/ABLE.

Be FASHION/ABLE with Lectra Fashion PLM 4.0

Lectra official
@LectraFashion
LectraFashionNetwork

<https://lectrafashionplm.lectra.com/en>



7

NEW CUSTOMERS OF RFA PLM, INCLUDING:
Canada Goose, Color Image, Follet, Hybrid Apparel, Swatfame, Rhone, TechStyle



146

OVERALL NUMBER OF ACTIVE CUSTOMERS
of PLM within the RFA industry, excluding customers cited as new in 2017/18



178

NUMBER OF RESOURCES SPECIFICALLY ENGAGED IN R&D



34,215

TOTAL NUMBER OF INTERNAL USERS WORLDWIDE



60,395

TOTAL NUMBER OF EXTERNAL USERS WORLDWIDE

REVENUE & INVESTMENT INFORMATION

Licensing revenue:

\$11-20 million

All maintenance revenue:

\$8-10 million

Implementation & services revenue:

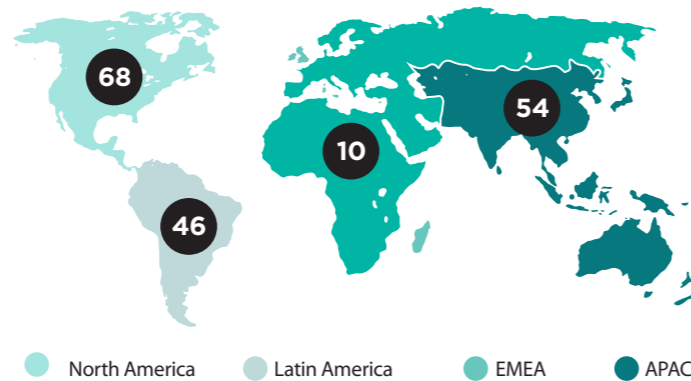
\$11-20 million

R&D investment:

\$6-10 million

TOTAL NUMBER OF RESOURCES FOCUSED ON THE RFA INDUSTRY BY REGION:

(Excluding those cited as R&D-specific resources above.)



Tell us what you feel has changed and / or advanced in your product offering this year to differentiate your company from others in the RFA PLM market.

NGC's release of our next-generation Andromeda Cloud Platform in April 2017 was a huge milestone for NGC and our customers. Andromeda powers the Digital Supply Chain by bringing together all departments – Merchandising, Product Development, Sourcing, Compliance, Purchasing, Production, Quality, Logistics, Marketing and Sales – into a single cloud-based solution that connects vendors, suppliers and other providers with advanced analytics, greater scalability and faster performance.

Andromeda provides a single platform, with core PLM and supply chain functionality that centralizes and shares information created in other legacy PLM, ERP, SCM, Planning and Point-of-Sale solutions. The Andromeda Cloud Platform allows companies to either replace outdated methods and solutions, or keep their existing enterprise application (including PLM) and just pass mission-critical data to Andromeda in order to create a seamless digital supply chain.

Andromeda is enabling leading fashion companies to overcome the barriers of siloed systems and enable true comprehensive supply chain transparency. With Andromeda, companies can react with speed and agility to rapidly changing market trends to optimize lead times, reduce expenses, improve quality and maximize company revenue and profit.

Tell us what you believe are the most important trends shaping the near-term future of the industry – either in terms of technology or broader market forces.

The rapid shift to a digital supply chain is the most important trend in our industry. Today, a company's product development and supply chain information is characterized by spreadsheets and disparate systems, and the critical stages of the product lifecycle – development, manufacturing and distribution – often act as separate business units. This limits a company's ability to have the information required to make critical, timely decisions.

The digital supply chain focuses on breaking down these barriers with a single cloud-based portal that centralizes and shares all the information that originates in legacy PLM, supply chain ERP, logistics and other enterprise systems, including sales. With a digital supply chain, companies have the ability to harness the power of real-time sales data to understand the latest trends and respond to rapidly shifting demand signals.

To do this, companies must embrace a digital future, as the product development and supply chain models of the past aren't adequate in today's real-time world. As McKinsey has noted, "apparel players have a major transformation ahead of them...effective digitization will help them deliver that transformation faster and with much greater impact."

Andromeda Cloud Platform Enables the Digital Supply Chain

Transform Design Productivity & Reduce Lead Times
Fashion moves faster than ever, but NGC's Andromeda Cloud Platform puts you back in control whether you already own a PLM solution or not. Instantly react to sales, supply chain and forecast data to give your customers what they want, when and where they want it.

10

NEW CUSTOMERS OF RFA PLM, INCLUDING:
AFFOA, Clas Ohlson, Global Brands Group, J.Crew, JR286, Kingfisher, Prym, Staples, Wacoal

128

OVERALL NUMBER OF ACTIVE CUSTOMERS
of PLM within the RFA industry, excluding customers cited as new in 2017/18

89

NUMBER OF RESOURCES SPECIFICALLY ENGAGED IN R&D

120,902

TOTAL NUMBER OF INTERNAL USERS WORLDWIDE

37,004

TOTAL NUMBER OF EXTERNAL USERS WORLDWIDE

REVENUE & INVESTMENT INFORMATION

Licensing revenue:

\$11-20 million

All maintenance revenue:

\$11-20 million

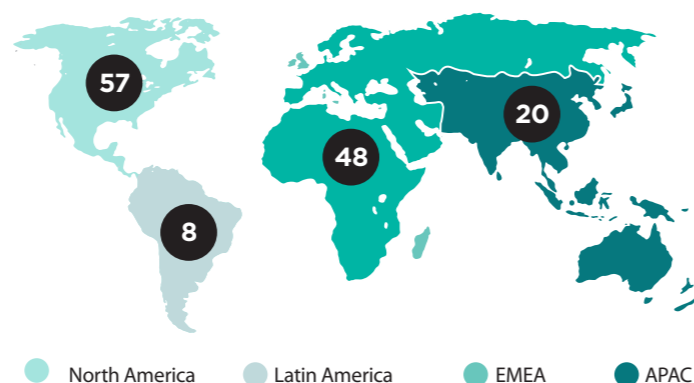
Implementation & services revenue:

\$11-20 million

R&D investment:

\$6-10 million
TOTAL NUMBER OF RESOURCES FOCUSED ON THE RFA INDUSTRY BY REGION:

(Excluding those cited as R&D-specific resources above.)


Tell us what you feel has changed and / or advanced in your product offering this year to differentiate your company from others in the RFA PLM market.

We recently launched our Retail Innovation Platform, an end-to-end environment designed to enable retailers and brand owners to manage today's most prominent market forces: fast fashion, digital consumers, the need to control costs, and to manage agile international supply chains. The platform includes our leading FlexPLM solution, award-winning IoT platform for data connectivity and cross-solution data visualization, embedded machine learning, and AR capabilities.

We believe that machine learning has huge potential in product development and sourcing processes. Brands often have valuable data (such as sales performance, customer engagement, supplier rankings and other metrics) locked in their PLM, ERP, planning, and sourcing systems. PTC's machine learning platform can extract and use this information to make intelligent predictions and recommendations that will help to drive positive outcomes.

We're also innovating in new areas, with our digital storyboard solution (FlexPLM Canvas) and augmented reality (Vuforia). Removing the need to rely on physical samples and low-fidelity sketches, AR and virtual models can significantly improve the way product designs are reviewed during development and sampling. From placing virtual designs in real spaces, to enabling a new paradigm of interactivity, we believe these exciting technologies will usher in a whole new way of reviewing products.

Tell us what you believe are the most important trends shaping the near-term future of the industry – either in terms of technology or broader market forces.

Today's anytime, anywhere fast fashion shoppers expect retailers to feature the hottest styles from social media, TV, and magazines in the here and now. Shoppers want constant access to detailed product data and up-to-the-minute inventory availability while retail moves towards more personalized products and services and season-less items. With supply chains growing increasingly complex, it can be hard to keep pace in this ultra-competitive space. Decision making during product planning, development and sourcing directly impacts speed to market and can have a lasting impact on brand reputation. Leading retailers are staying ahead of the curve by leveraging PTC's Retail Innovation Platform (that includes PLM, IoT, Machine Learning and AR) to be more agile and responsive to emerging trends. With stronger supply chain connectivity and visibility, as well as predictive analytics that identify what resonates most with consumers, retailers can shorten their ideation-to-delivery cycle to get the right product to the right place at the right time. As new AR solutions continue to blur physical and digital shopping realities, it's clear that technology will drive consumer engagement in retail as much as new styles will.



Go from trend to store faster than ever before

Named The #1 Market Leader in Retail PLM!

IDC Marketscape Report

ptc® flexplm®

PTC.com/retail
[@PTC_Retail](https://twitter.com/PTC_Retail)
retail@ptc.com

18

NEW CUSTOMERS OF RFA PLM, INCLUDING:
AYK, Boohoo.com, Corporativo Ivonne, Jolar Spek, JR Britches, Primo International, TM Couture, Trajes Mexico

78

OVERALL NUMBER OF ACTIVE CUSTOMERS
of PLM within the RFA industry, excluding customers cited as new in 2017/18

20

NUMBER OF RESOURCES SPECIFICALLY ENGAGED IN R&D

10,000

TOTAL NUMBER OF INTERNAL USERS WORLDWIDE

3,000

TOTAL NUMBER OF EXTERNAL USERS WORLDWIDE

REVENUE & INVESTMENT INFORMATION

Licensing revenue:

\$3-4 million

All maintenance revenue:

\$3-4 million

Implementation & services revenue:

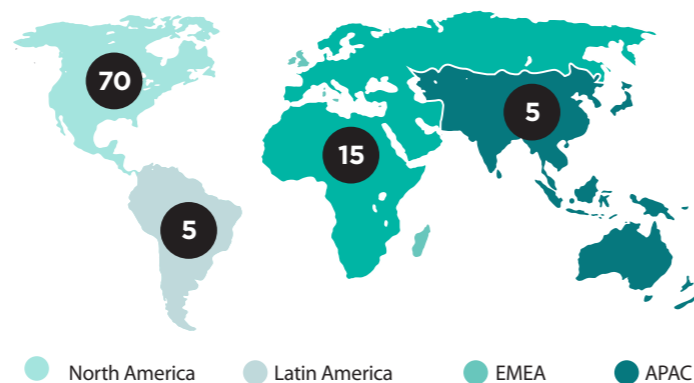
\$1-2 million

R&D investment:

\$0-2 million

TOTAL NUMBER OF RESOURCES FOCUSED ON THE RFA INDUSTRY BY REGION:

(Excluding those cited as R&D-specific resources above.)



Tell us what you feel has changed and / or advanced in your product offering this year to differentiate your company from others in the RFA PLM market.

Visual Next is known for their market foresight and for developing the latest in apparel-specific technology, ensuring that Visual PLM customers are always prepared for what's next.

As business environments are consistently growing more remote, this year's advancements were focused on empowering Visual PLM customers with a fully mobile set of tools.

The Visual PLM team completely transformed the platform to create the first fully mobile fashion PLM. Built on the latest HTML5 technology, Visual PLM now provides its users with the unparalleled advantage of full mobility and responsive display that adapts to any device, without the need to download platform specific applications.

In addition to its bidirectional Adobe Illustrator plugin, Visual Next is proud to now offer 3D design integrations. Visual PLM can now present 2D flat sketches into 3D designs, viewable by any PLM user, omitting the costly burden of purchasing multiple 3D design software licenses.

As a best of breed, out-of-the-box solution, Visual PLM prides itself on accelerating design teams, regardless of their needs. Visual PLM offers first time users a rapidly deployed set of tools to enhance their product lifecycle, while advanced users benefit from a toolbox of completely configurable options, they can adapt to their specific environment.

Tell us what you believe are the most important trends shaping the near-term future of the industry - either in terms of technology or broader market forces.

With our planet's future health as a global concern, the apparel industry's need to adopt more sustainable practices will only increase over time. Furthermore, consumers are demanding that brands reduce their carbon footprint and improve factory working conditions. Visual Next is proud to integrate Visual PLM with the Sustainable Apparel Coalition's Higgs Index, which will provide brands with a suite of tools to track and measure their sustainability performance.

The development of artificial intelligence is another key market shift that will shape the future of fashion. Utilizing Big Data from the multitude of consumer touch points, AI and machine learning integrated into PLM can propel a business' potential to utilize predictive algorithms that can help fuel design, sales, the supply chain, and more. Visual Next is already invested in AI development to help guide their PLM customers into the future.

Visual PLM is also introducing factory capacity planning and purchase order management. Factory capacity planning can streamline the entire supply chain and improve sourcing by providing real-time data to supply chain partners, including shipment tracking management, empowering them to make more informed decisions, faster. This greater visibility means more productive manufacturing facilities, and in turn, better margins.

BRING YOUR DESIGNS TO LIFE

Visual PLM now with 3D Integrations.



PLM CONSULTANT PROFILES

FINANCIAL YEAR 2017/18

“ **The work of preparing for a successful PLM project remains significant, whether the solution itself is being installed on-site or off, and whether or not configuration, training, and on-boarding represent the same barriers as they once did. As a result, independent advisors remain a key component of many PLM projects.** ”

The goal of this Buyer's Guide is to provide vendors and customers alike with the information they need to make informed investments in PLM and extended PLM technologies specifically designed for the retail, footwear and apparel industry.

Although selecting the right solution represents a significant part of this decision-making process, truly modern PLM and E-PLM projects extend far beyond the software level. And the extent of the whole-business transformation that an effective PLM project entails means that the services of experienced, independent advisors are now as sought-after and scrutinised as PLM platforms themselves.

Despite the rise of self-serve and user-configurable, cloud-based PLM, data reveals that customers of all shapes and sizes still solicit the help of third party advisors or consultants – with an especially strong correlation to business size. To put it bluntly, the work of preparing for a successful PLM project remains significant whether the solution itself is being installed on-site or off, and whether or not training and on-boarding represent the same barriers to adoption as they once did. As a result, advisors and selection and implementation partners remain key components of many brands' and retailers' PLM project strategies – whether it's conducting a thorough review of legacy technologies, planning ecosystem integrations, or conducting a detailed, scientific ROI analysis.

As a result, we have invited a select few of the world's leading apparel PLM consultancy practices and advisors to provide readers with some insight into their methods, the work they have undertaken to date, and their up-to-the-minute perspective on the industry's ongoing digital transformation. This information is intended to help readers make an informed decision about which advisory practice (if any) to work with at the different stages of their PLM project.

Depending on their history, available resources, and industry experience, an advisor or consultancy practice may offer a host of different services. Some will help clients to select a solution from a thorough knowledge of the market; some will assist their clients in implementing that solution and ensuring buy-in from the executive to the user level. Some will conduct a complete evaluation of the client's apparel-specific processes and technical environment; some will work within a scientific framework to consolidate the client's product development master data ahead of implementation. Some will do all of these things and more, while others will attempt instead to bend cross-industry boilerplate methods to fit the difficult and idiosyncratic world of apparel.

It is vital for prospective PLM customers to remember, then, that not all consultants are equal. A new apparel practice from a business that has typically focused on entirely different verticals, for example, should not be compared to a proven advisor who has catered to the retail, footwear and apparel industry for a number of years.

Those renowned international consultancy firms who have entered our sector in recent years may now be better established, but work still remains for them to build the kinds of methodologies, tools, and process frameworks that more experienced, apparel-specific consultants should boast as standard.

Conversely, larger consultancy practices can – and more than likely will – leverage international reach and a comparatively large pool of strategic resources to provide more comprehensive management services than their smaller, more specialised counterparts. This may prove to be less vital in the cloud-first market of the near future, but today it remains important for customers to make the distinction between broad strategic services and the kind of detailed knowledge that only a long-serving apparel industry specialist will have of the extended product development landscape.

Whether they are seeking remote support to make the most of a subscription solution or beginning a lengthy period of introspection and on-site implementation, customers should exercise caution when it comes to locating a truly independent and impartial advisor. Many consultancy practices obtain the bulk of their work from a single vendor in a partnership arrangement.

And although this does not necessarily imply that the business is tied exclusively to that vendor (indeed, many practices have established partnerships with more than one PLM vendor) it does increase the likelihood of that advisor preferring to work with a particular solution – particularly when unexpected growth has forced a vendor to effectively promote that partner to the status of preferred or primary implementer.

Customers, therefore, should continue to ensure that any third party they opt to work with is experienced with their chosen vendor, solution, and method of deployment – to the same degree they are with any other vendor on their roster.

Although many of the fundamental principles remain the same – customers are seeking the same industry experience, financial stability and long-term partnership potential – between selecting a PLM vendor and choosing the right advisor, there are a number of ways in which the two are distinct.

To that end, each of the consultancy practices that appears in this section was asked to provide a selection of key information: their status as vendor partners, multi-vendor services providers with a small pool of expertise, or truly vendor agnostic; and insight into their tactical and strategic strengths. We also asked each practice to enumerate the RFA PLM experts they employ on a global basis, and to name the marquee retailers and brands they have worked with to date – where that information is publicly available.

Prospective and existing customers of PLM are not, however, the only parties interested in the experience, expertise and international reach of consultancy practices and advisors.



Although automated onboarding, remote training, and user configuration are on the rise in the small business market segment, vendors' internal resources – for pre-sales, sales, technical demonstration, implementation and change management – continue to be stretched by potential projects, implementations, and upgrades in the upper tiers.

Needless to say, these third parties also have limitations of their own, and vendors should be as cautious as customers when it comes to satisfying themselves of the competence and availability of subject matter experts within any advisory practice – no matter how large or experienced they may seem on the surface.

Owing to the relatively small sample size and the difficulties inherent in comparing drastically different services on a like-by-like basis, This Buyer's Guide does not contain any analysis or evaluation of the consultancy practices listed in this section. Instead, we encourage prospective clients to undertake their own due diligence when working with any third party – whether they were selected directly, or nominated (either openly or covertly) by a vendor partner.

NB: As with our PLM vendor profiles, the final responsibility for the accuracy of all information contained within this section remains the responsibility of the companies listed. Although WhichPLM has made every effort to quantify and verify the information provided to us, nothing in these pages should be construed as an endorsement or assessment of any consultancy practice or advisor, and WhichPLM has no responsibility or liability for the content of advertisements that appear adjacent to these profiles.

Which PLM solutions / suppliers do you work with? If your services are vendor-agnostic, please say so.

Kalypso provides objective services designed to transform and optimize the end-to-end product development lifecycle for retail, footwear and apparel (RFA) clients. Our PLM services include assessments, strategy, process, organization alignment, requirements definition, selection, implementation planning and execution, as well as managed, outsourced and hosting services. These services can be delivered independently or with a strategic PLM solution partner. We work with any PLM vendor that best suits our clients' needs.

List your implementations of PLM within retail, footwear and apparel to date (including the year of implementation), accompanied by the name of the solution they chose where this is public information.

Kalypso does not publicly share client names. Our team has conducted over 100 PLM implementations across numerous industries. In RFA, we have helped many clients tackle core PLM challenges as well as integrate new digital technologies with PLM. Examples include:

- Multi-year, multi-brand, global PLM transformation for a \$70B+ home improvement goods retailer
- Visualization platform integration across a core PLM application, 3D design tool and visualization platform for a multi-division, global apparel manufacturer
- PLM transformation/implementation for hardlines and softlines for an international toy and children's apparel retailer
- Digital strategy and prototyping for the integration of a PLM application, 3D design tool and voice of the customer analytics solution for a specialty apparel retailer
- PLM assessment, requirements definition and selection for a \$10B+ hardlines and softlines home goods retailer
- Product and material development assessment, software selection, end-to-end process redesign and implementation strategy for a leading branded performance footwear, apparel and equipment wholesaler/retailer
- PLM transformation/implementation and managed services for a \$3B+ apparel and hardlines catalog retailer.

What do you consider your practice's strategic, tactical and implementation strengths to be in the region of retail, footwear and apparel lifecycle?

We work with RFA clients to transform innovation performance and drive differentiation through dramatically improved, scalable and sustainable capabilities across the broadly defined product development lifecycle. We do this by developing vision, strategy, business cases and roadmaps; by operationalizing these strategies into efficient processes and organizations; and by enabling them through industry-leading technologies.

Please provide the number of qualified domain experts you have specifically focused on implementations in the RFA sector, separated by region as follows:

North America: 200+, including resources located in our Monterrey, Mexico near-shore technology innovation center.

Latin America: We serve Latin America from our US/Mexico geographical centers.

EMEA (Europe, Middle East, Africa): 40+, including our near-shore technology innovation center in Hamburg, Germany.

APAC (Asia Pacific): Less than 10. Our resources in APAC primarily interface with the Asia-based sourcing operations of our clients from North America and EMEA.

Our exclusive focus on the end-to-end product development lifecycle, combined with extensive hands-on RFA industry experience, allows us to help retailers advance PLM to digital to drive true business transformation. We help clients understand, evaluate and apply adjacent digital capabilities that leverage a strong PLM foundation. This includes 3D digital product creation, leveraging technologies such as 3D design tools and augmented reality; and advanced analytics, leveraging technologies such as machine learning and voice of the customer analytics.

To accelerate ROI and time-to-benefit, we employ industry-specific methodologies, accelerators, leading practices and tools, including our proprietary Accel delivery model, Evolve upgrade framework, Rapid Results implementation methodology, and Pulse outsourced/managed services and hosting model.

Tell us (in a maximum of 150 of your own words) what you see as the two most important emerging trends for retailers and brands (particularly fashion, footwear and accessories) in the coming year?

Digital technologies have disrupted the RFA business, challenging companies to find new ways to transform their end-to-end product development lifecycle to deliver top and bottom-line results – and to stay competitive. Digital technologies are the way innovation happens today.

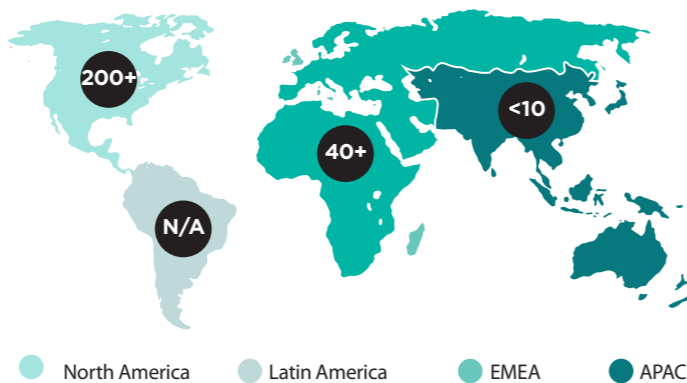
Our annual research on the "Adoption of Leading Product Development Practices in a Digital World" and our work with clients reveals two important, emerging areas where retailers recognize significant value in adoption:

1. Product lifecycle intelligence – leveraging machine learning to mine insights from product data to predict the impact of product development decisions on business performance metrics
2. 3D digital product creation – leveraging 3D design, fit analytics, and augmented and virtual reality to significantly shorten, streamline and/or disrupt the product development lifecycle process across innovation, design, development, sourcing and production.

Tell us (in a maximum of 150 of your own words) what you see as the two most important emerging trends for supply chain manufacturing (particularly fashion, footwear and accessories) in the coming year?

Given the complexity of the market and speed of emerging trends, there are several driving forces behind the adoption of cloud-based PLM in the RFA industry:

1. The need for a flexible, scalable platform that can adapt to rapidly evolving business needs
2. The removal of significant overhead costs and hardware commitments with a cost-effective, smaller IT footprint
3. The ability to deploy PLM faster and respond to the market more quickly as a result.



If you ask your PLM data how to decrease cycle time, does it answer you?

Your business is sitting on months, even years, of untapped product data. And today's PLM analytics only do so much to turn it into insights that matter.

Product Lifecycle Intelligence (PLI) uses machine learning to mine insights from product data that can help you predict the impact of product development decisions on business performance metrics.

PRODUCT LIFECYCLE MANAGEMENT



PRODUCT LIFECYCLE INTELLIGENCE



PREDICTIVE ANALYTICS & MACHINE LEARNING

How will my product development decisions impact business performance?

PREDICTIVE ANALYSIS

What is my **predicted cycle time** if...

I use a **new material or color** that I haven't used in the past?

I increase the number of versions or colorways I develop?

How can I quantify the **relationship between line volatility and product cost**?

PRESCRIPTIVE ANALYSIS

Where can I make reductions or adjustments to minimize product cost?

How can I optimize demand for my product assortment in a specific market or region?

Which **suppliers and plants** should I use to meet my **demand needs on time**?

Put your product data to work with PLI.

Learn more at kalypso.com/PLI

Which PLM solutions / suppliers do you work with? If your services are vendor-agnostic, please say so.

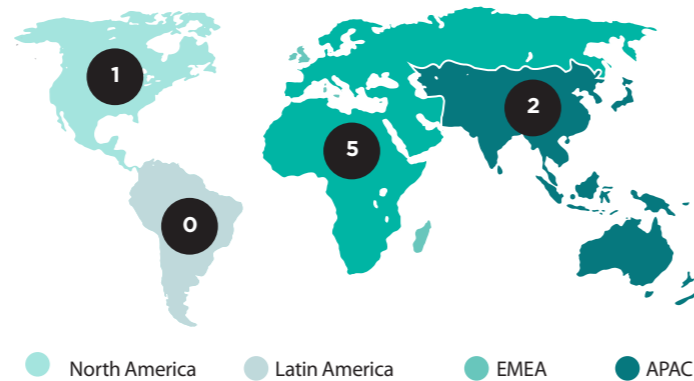
Vendor Agnostic. We work with Centric, Visual Next, Infor, PTC, Gerber, and Lectra.

List your implementations of PLM within retail, footwear and apparel to date (including the year of implementation), accompanied by the name of the solution they chose where this is public information.

- Ben Sherman – 2012/2013 – PTC
- Kwintet – 2012 – Gerber
- Marsylka – 2014/2015 – Visual 2000
- Tally Weijl – 2014 – Centric
- Build a Bear – 2013 – Centric
- Voice/Gresvig Sports – 2012/2013 – Lawson
- Local Boyz – 2016 – Visual 2000
- Closet Clothing – 2016 – Visual 2000
- Mountain Equipment Co-op – 2016/2016 – Visual 2000
- Seasalt – 2015/2016 – Visual 2000
- Pentex – 2015 – Visual 2000
- Studio One – 2016 – Visual 2000
- Trekmates – 2015/2016 – Visual 2000
- Boden – 2016 – Centric
- Tom Tailor – 2016/2017 - Centric
- Paragon Clothing – 2016/2017 – Visual 2000
- A&D Hope – 2016/2017 – Visual 2000
- ICW – 2017 – Visual 2000
- Focus International 2017/2018 – Visual Next
- *Plus 3 other clients in 2017/2018 who do not wish to be identified.

Over the last 8 years we have implemented in excess of 34 systems from PTC, Lectra, Gerber, Lawson/Infor, Visual 2000, Freeborders and Centric.

Please provide the number of qualified domain experts you have specifically focused on implementations in the RFA sector, separated by region as follows:



What do you consider your practice's strategic, tactical and implementation strengths to be in the region of retail, footwear and apparel lifecycle?

Deep understanding of the methods and processes used within the RFA sector. The knowledge and experience of our consultants both in the RFA industry and in implementing software systems within it. Ability to handle all aspects of an implementation including selection, business process re-engineering and definition, system configuration, onsite training and documentation, report writing and development and support services. As a team PDP is there from the initial concept right through to Go Live and beyond a true partnership.

Tell us (in a maximum of 150 of your own words) what you see as the two most important emerging trends for retailers and brands (particularly fashion, footwear and accessories) in the coming year?

Collaboration between the Retailer/Brand and the Supplier(s). Most companies still do not bring their external suppliers into PLM but this is now starting to change and 2017/2018 should see this become the norm rather than the exception.

Internet of Things (IoT) – A lot is being done to enable the IoT and PLM is at the forefront of combining different technologies (Electronics, Computing, Communication etc) with the ever changing landscape of Clothing, Footwear and Accessories .

Tell us (in a maximum of 150 of your own words) what you see as the two most important emerging trends for supply chain manufacturing (particularly fashion, footwear and accessories) in the coming year?

Collaboration is still the most important function for the extended supply chain. The growing trend of End to End solutions combining PLM and ERP means that this is even more important in providing a seamless communication and tracking system that enables all partners to participate and visualise the complete supply chain..

Use of 3D Technologies to enable Virtual Sampling, true to life visualisation and integration to the Design, Merchandising and Garment Tech roles.



Led by Perry Bonney, Product Development Partners provides expert consultation services to companies in the retail, footwear and apparel industries who are looking to implement new software or enhance their existing product lifecycle management environments.

Which PLM solutions / suppliers do you work with? If your services are vendor-agnostic, please say so.

Infor Fashion PLM

List your implementations of PLM within retail, footwear and apparel to date (including the year of implementation), accompanied by the name of the solution they chose where this is public information.

Ptex Solutions have been involved in several Infor Fashion PLM (earlier known as FreeBorders PLM and Lawson Fashion PLM) implementations. This includes providing different services to our customer. The time period mentioned below is when we provided the services to the customer.

- ITC Limited (India - 2006)
- Reliance Retail (India - 2007)
- Gini & Jony (India - 2007)
- Aditya Birla Retail (Madura Fashion & Lifestyle Division) (India - 2008)
- Colorplus Fashions (India - 2009)
- Peacock (UK in 2009)
- Weissman (USA in 2010)
- Club 21 (Singapore in 2010)
- TAL (Hong Kong in 2010)
- Big Strike (USA in 2012)
- Darice (USA in 2013)
- CUK Clothing Limited (UK in 2013)
- Badger Sportswear (USA - 2014)
- HH Brown (USA - 2015)
- Future Retail Limited (India - 2015)
- Indus League (India - 2016)
- Ziera Shoes (New Zealand - 2016)
- The Apparel Group (USA - 2016)
- Dynamic Designs (USA - 2016)
- Outpac Designs (Hong Kong - 2017)
- Michaels Retail (USA - 2017)
- Horseware (Ireland - 2017)
- LTP Limited (Lithuania - 2017)
- W.L. Gore (Germany 2018)
- Vida Shoes (USA 2018)

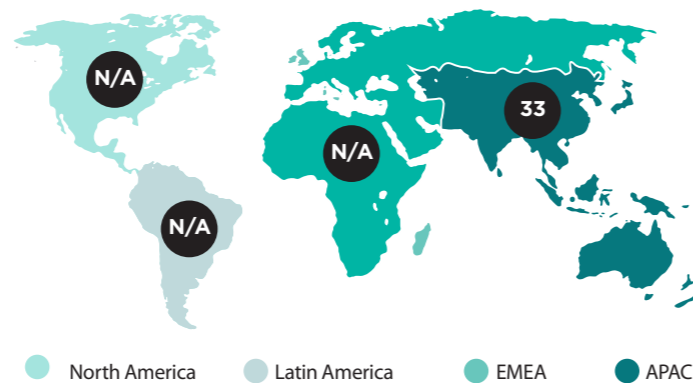
* Plus 14 other customers that do not wish to be named.

What do you consider your practice's strategic, tactical and implementation strengths to be in the region of retail, footwear and apparel lifecycle?

With a decade long service in PDM and PLM for RFA, Ptex Solutions have been involved in 35 PLM projects that are Retailers, Brands, Sourcing, Manufacturing, Apparel and Footwear companies. Ptex is a software

Please provide the number of qualified domain experts you have specifically focused on implementations in the RFA sector, separated by region as follows:

We have a team of 33 Business and Technical Consultants. All of them are based in India. However, they have travelled to many countries for Implementation. This includes US, UK, Europe, UAE, China, Singapore, Hong Kong and New Zealand.



services company that focuses only in Retail, Footwear and Apparel space.

Founder, Prasham Kamdar's association with the fashion and textile industry goes back several decades, due to his family business of garment manufacturing. He therefore understands the importance of having a team with domain experts. At Ptex, Business Consultants have education qualification from Fashion Institutes and or have the background of prior work experience in RFA. This has allowed Ptex to develop PLM implementation methodology that incorporates industry best practices and addresses customers' requirements.

Tell us (in a maximum of 150 of your own words) what you see as the two most important emerging trends for retailers and brands (particularly fashion, footwear and accessories) in the coming year?

In coming years, the focus will be to collect information from in-store customer facing technology integrated with PLM. I would like to highlight two such in store technology - Electronic Tags and In-store Traffic that can be used to communicate with the customer and collect a lot of insights.

Electronic tags can be attached to every garment in the store. Graphic e-paper display provides digital product information like the price, size, image on small screens on individual tags. The retailers can dynamically change the price, display its availability in size and colour and using NFC offer special pricing for every individual customer.

Second technology is In-store Traffic, allows to create Heat map of the store which can allow to visualise in which area of the store there is maximum footfall, customer walking paths and display delve time for each fixture. This will allow to capture their customer behaviour.

Tell us (in a maximum of 150 of your own words) what you see as the two most important emerging trends for supply chain manufacturing (particularly fashion, footwear and accessories) in the coming year?

PLM systems are typically organically grown over a period of time; they are often started as a small as pilot projects in one division or department for one season. The processes can be streamlined and once the pilot project is successful often system is rolled out to different divisions, departments, suppliers and in some cases customers. Besides PLM starts with one season with data, images and documents of style and materials. This grows exponentially over a period of time. With cloud computing, there are no up-front capital costs needed for servers, hardware, and data centres as is the case with on premise solutions. Solution providers takes responsibility of data, software versions, backups and hardware. Multi Tenant Cloud solutions delivers benefits including cost savings by removing IT expenses, simplifying implementation, uber type scalability, increasing security and providing a faster path to ROI.



PLM ON THE GO!

Create new styles or materials, review the range, evaluate the samples, update the production status from the PLM apps developed by Ptex Solutions.



PLM Expertise



RFA Expertise



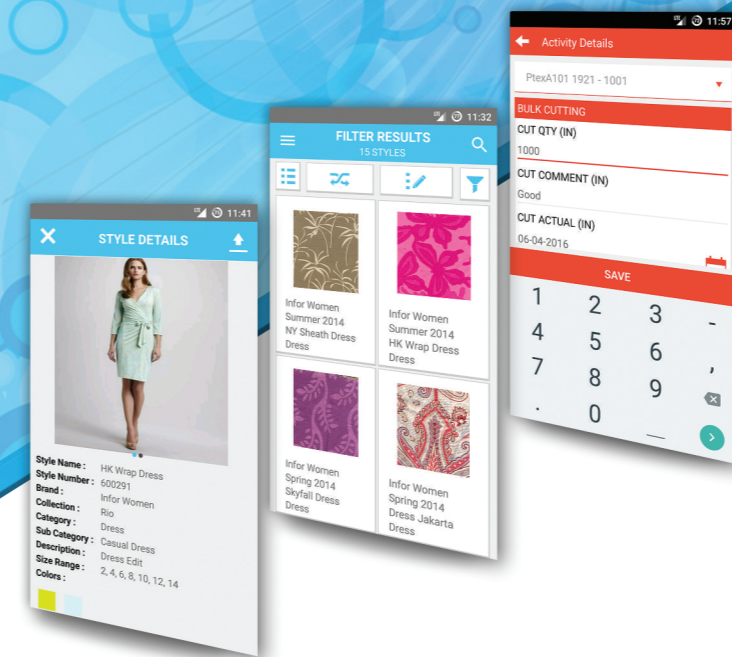
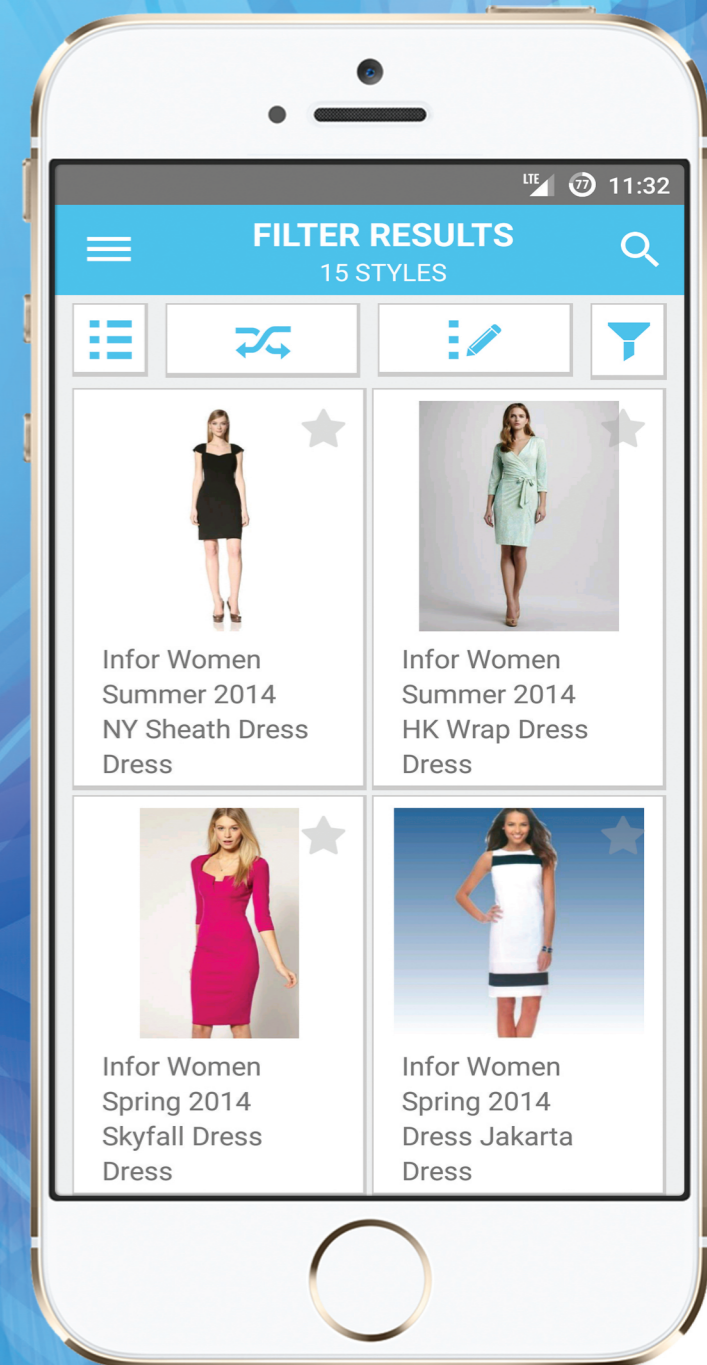
Tech. Services



Lower TCO



App Development



With more than 30 projects completed in 12 countries, Ptex has leveraged decades' worth of experience to lead the market in Retail, Apparel and Footwear PLM consulting across the world. Working with Fortune 500 companies and small fashion companies alike, our intimate knowledge of industry processes has helped us deliver real value.

Offering advisory and implementation services through a team of more than 25 experts, Ptex Solutions has helped retailers, private label brands, manufacturers and sourcing companies to achieve maximum return on their PLM investments. Now Ptex is providing enterprise PLM apps and custom development for both iOS and Android platforms for the RFA industry.



PLM Market Analysis 2017/18.

(1st April 2017 to 31st March 2018)

“ In terms of customer spending, the RFA PLM market has outpaced the general enterprise software industry, with 21% growth year-on-year. ”

Already armed with an understanding of the major vendors and consultants who are influencing the PLM industry, this section is the next step on your journey to understanding the broader market, and your place in it. Covering the financial year 2017/18, these pages provide extensive, exclusive analysis of who is buying PLM, where they are implementing it, and why.

Our approach

This RFA PLM Market Analysis follows the framework pioneered by WhichPLM in 2013, which in turn built on the customer satisfaction and PLM adoption analysis approach initially taken in 2010. Now in its eighth iteration, we have steadily refined this Market Analysis each year - everything from our data collection methods to our core metrics - all with the single goal of presenting what we believe to be the most accurate, unbiased snapshot of the PLM market for retail, footwear and apparel.

Over the coming pages we review the RFA PLM market at a global level, analyse the customers it comprises (segmented by Tiers, according to size and turnover), and examine the geographical spread of PLM adoption and its effect on the total international market size in the fiscal year 2017/18.

As always, WhichPLM is grateful to the vendors that contributed their time and effort to provide the information we requested, and those that share our desire to build a unique, transparent analysis of the global PLM market each fiscal year. Building on the reputation established by our previous publications, vendors, consultants and customers alike now clearly recognise how transparency and clear metrics of measurement can serve the international PLM market for retail, footwear and apparel as a whole.

Unlike previous publications, this Market Analysis covers both retail, footwear, and apparel and CPG Crossover categories. For more information on this change and an analysis of the effect it has had on overall results this year, please see the box labelled "Introducing CPG Crossover" on page 44.

Across RFA and CPG Crossover segments,

though, the scope of the research, intelligence and analysis seen over the following pages remains constrained to the market for core PLM solutions, rather than the wider set of extended PLM solutions that range from supply chain management and execution to 3D CAD and store visualisation.

The Glossary section at the rear of this publication includes a full definition of all terms used in this analysis, and clarifies the meaning that WhichPLM associates with each term. The definition of PLM itself, our criteria for new name sales, and our definition of a financial year are all important examples of why reference to the Glossary section can be helpful in understanding this analysis. Readers should not hesitate to look up any terms that are unfamiliar to them, or to refresh themselves on our interpretation of more common ones.

As always, WhichPLM has taken great care this year in obtaining, cataloguing, collating and analysing information from across the RFA PLM market. And although this is our first freely-available Buyer's Guide, this section adheres closely to the Market Analysis sections of our 5th, 6th, and 7th Editions, so that this Guide can be read alongside our historical publications for the purposes of charting changes in the composition of the market.

To help build this analysis, each of the supporting vendors (many of whom also appear in this publication's PLM vendor listings) has shared publicly available PLM sales data from the fiscal year 2017/18, and, under non-disclosure agreements, they have also each shared the identity of private sales.

To maintain the accuracy of our global market analysis and compare these results



to those we obtained in previous years, we also asked each vendor to provide further insight into global sales trends.

In the same vein, we have maintained our longstanding focus on the number of new name PLM sales as the key measure of the market, rather than other metrics such as seat numbers and revenue achieved - both of which are harder to secure and contrast, and are often entirely private - even in the context of relationships as strong as those WhichPLM maintains with key PLM vendors. As was the case in our previous publications, we have also been careful to discern between real sales of modern PLM, and PDM and E-PLM sales that, despite being grouped with PLM sales by some vendors, do

not meet the inclusion criteria set out in our Glossary.

Although reference is made throughout this section to figures from previous financial years, we encourage any reader who is keen to chart the evolution of the market to obtain free downloadable copies of our 5th, 6th, and 7th Edition publications from the WhichPLM website, since these can serve as a model for examining micro and macro-level changes to the composition of the market year-on-year.

Lastly, although WhichPLM is based in the United Kingdom, our online and print publications adopt a truly international perspective, and ours remains a growing, global

readership, including vendors, customers and analysts who are distributed worldwide. For ease of comparison and in recognition of this international reach, we continue to use the US Dollar (USD) as a common currency.

International readership of WhichPLM

WhichPLM readership by region, averaged over the 2017/18 fiscal period, is as follows:

EMEA	41%
APAC	24%
Americas	35%

It is interesting to note that, unlike the statistics seen in previous years, in 2017/18 the readership of the WhichPLM website quite closely resembles the makeup of the PLM market in the same timeframe. Visitors from the Asia Pacific (APAC) region made up 23% of all WhichPLM traffic in the financial year, and 22% of PLM sales in the same period. And while actual PLM sales to American customers (across both North and Latin America) account for 44% of the market, with EMEA a close second at 34%, those figures are effectively reversed when we examine visitor figures for the same period.

Although correlation does not often exist between these two data sets, this is still remarkable for two reasons. First, 2017/18 saw an influx of traffic from Europe - likely influenced by extensive coverage of European events - to the extent that America, long WhichPLM's biggest contributor of traffic, fell into second place. Similarly, although absolute sales for the APAC region have dropped this year, visitor numbers have increased to what appears to be their highest percentage share of overall traffic.

As this analysis explains in further detail, this explosion in readers throughout Asia was more than likely driven by increased activity by vendors in the region, as well as an apparent increase in traditional manufacturers now evaluating PLM as a method of supporting their private label businesses or ambitions. And although this appetite has not yet manifested itself as a significant increase in sales, we should note that several manufacturing strongholds (notably Pakistan, Sri Lanka, and Vietnam) have made their first appearances in our sales statistics.

The forces governing global adoption of PLM are examined in further detail in the following pages, but it seems logical to state that every indication suggests that Asia will become an even more fertile market for RFA PLM in the very near future.

Our qualifications

These Reports form only part of WhichPLM's constant industry analysis and comment, and our ongoing work has solidified our position in the RFA industry - a uniquely privileged one that enables us to speak from a perspective no other RFA PLM analyst or industry publication can:

- WhichPLM has been an independent source of information and advice to prospective customers looking for RFA PLM solutions (not to mention existing users of PLM) since 2008, and our audience has grown in absolute terms each year since the company was established.
- WhichPLM's editorial and executive board has deep international industry knowledge and expertise, born out of hands-on experience of design, development, selection and implementation of apparel-specific PLM and ERP products.
- WhichPLM has benchmarked many of the market's leading solutions and vendors, and has a deep understanding of the functionalities, capabilities and business potential of modern RFA PLM solutions, as well as a clear and well-documented roadmap for its future.
- WhichPLM team members have worked alongside all the market's primary vendors, but these relationships do not colour our analysis; our publications and services remain entirely unbiased.
- WhichPLM has received considerable praise for its efforts to create a fair, informed, and growing market. Our Annual Reviews (which became

our numbered "Editions" as of our 5th Edition, in 2015, and have now been replaced by yearly PLM Buyer's Guides, of which this is the first) are routinely cited as vital tools in large-scale digital transformation initiatives by PLM vendors, customers, and analysts.

For all this, however, the intelligence contained in these pages would not have been possible to assemble without the aforementioned participation of the premier PLM vendors, as well as those brands, retailers and manufacturers who contributed to this year's customer survey - helping us to provide an up to date view of the sharp end of the market.

Thanks to this approach, now firmly established, we are able to present a more comprehensive and robust view of the RFA PLM market and its true scale than ever before - and certainly one that we believe remains wholly unique and useful.

The RFA PLM market: retrospective

Each year, our analysis team has produced detailed predictions for the following year, setting down our expectations for how (and where) the PLM market is likely to grow or contract in the next twelve months. Often, the market defies expectations at both micro and macro levels, confounding predictions that were, at the time they were made, based on clear, observable information.

The financial year 2017/18 is no different. While our overall growth predictions were mostly accurate (we suggested that the year would exhibit 7% growth, while only 2% growth was evident,) the same cannot be said for the predictions our analysts made at the individual Tier level. In the interests of transparency, these are broken down below, accompanied by an examination of the factors that caused the difference between our expectations and reality:

- At the extreme upper end of the market (Tier 0) we predicted that sales would contract by 22% as a result of market saturation among the world's biggest businesses. In reality, this segment of the market grew by 44% this year - a significant difference. In practice this gulf was not something our team could have prepared for; against the odds, two of the world's biggest retailers (including many private label brands) opted to purchase PLM rather than build their own, despite having the resources and the expertise for the latter. This is also indicative of a larger drive towards PLM adoption in the upper Tiers of the market in the United States, where extending PLM into the supply chain has earned its overdue recognition as a source of considerable value.
- In Tier 1, our predictions aligned more closely with the reality - at least in spirit. Writing in our 7th Edition publication, WhichPLM predicted that this market segment would shrink by 21%. This year's data reveals that a contraction did take place, but it was not as severe as we expected it might be; the Tier 1 market segment decreased in its share of overall sales by 5%. The market forces behind this discrepancy are similar to those that drove the difference between our predictions at the Tier 0 level and the reality, but with the addition of expansion to agents and satellite offices overseas.
- At the upper end of the mid-market, Tier 2, our expectation for the



fiscal year 2017/18 was that this segment would remain static. At the time, only 22 sales had been made to Tier 2 businesses in 2016/17, and we saw very little reason to expect this figure to increase or decrease dramatically in the next twelve months. In reality, Tier 2 sales grew by a significant 63%. Broadly speaking, this discrepancy appears to have come about because our analysis team underestimated the importance of affordability in this market segment. Now that PLM is seen among Tier 2 and Tier 3 businesses as a "must have" tool, brands and retailers that we expected to wait a little longer and use their capital expenditure budgets to acquire an 'enterprise grade' solution instead opted to buy subscription-based PLM using operational budgets, rather than allowing their competition to gain an edge.

- While our predictions at the Tier 3 level were more accurate, the same forces applied here. The mid-market as a whole appears to have embraced low-cost PLM at a speed our analysis team did not expect.
- At the lower end of the market, in Tier 4, we predicted 15% growth in the conclusions of our 7th Edition market analysis. In reality, this market segment shrank by 7% when Tier 4 and the newly-separated Tier 5 are taken together. (For more on the split between these two Tiers, please see the box "Understanding Our Customer Tiers" on page 45. Generally speaking, while the late arrival of true, multi-tenant cloud has caused purchasing delays for many small to medium businesses, it is important to remember that a single-digit margin of error is of limited significance when Tiers 4 and 5 together accounted for 65% of all new name sales in 2017/18.

Some of these trends are analysed in greater detail further into this analysis - along with more insight into their likely catalysts, and the impact they may have on the medium and long-term future of the industry - so we now return to the overall size and span of the market in 2017/18.

The RFA PLM market in brief

There are two primary metrics by which the growth (or otherwise) of the RFA PLM market can be calculated: named sales, and revenue. For the reasons set out at the start of this Analysis, WhichPLM has always used named sales - in part due to the complexity and uncertainty associated with tracking revenue (most PLM vendors remain privately-held businesses who are not obliged to part with this information), and in part because the shape of the market is often more reliable an indicator of its direction than its financial performance.

Nevertheless, overall market revenue can be a useful way of benchmarking the RFA PLM market against similar industries, so this analysis sets out - on pages 48 and 49 - a detailed breakdown of how and where money was made this year.

At a higher level, however, we should note that the market has grown by 2% when evaluated on the basis of new name sales alone, whereas a revenue analysis shows a far more significant year-on-year increase of 21%.

To better understand how these figures measure up to expectations set by other markets, we turn to recent research by Gartner, found [here](#). In this report, Gartner sets out growth figures of 3.8% in overall spending on information technology in 2017, and a figure of 8.8% growth in enterprise software, which is the category in which most analysts would place PLM. The same research also contains

predictions for 2018, which sit at 6.2% for overall IT spending, and 11.1% for enterprise software spending.

Weighed against an average of these figures (achieved by blending both 2017 and 2018 figures) we see that, when judged in terms of new sales, the RFA PLM market falls short of cross-industry expectations. Average growth in enterprise software in the period 2017/18 will, according to Gartner, sit at 10%, while new name sales grew by just 2% in our industry.

Revenue, however, should be considered a better yardstick for comparison, and here we see that RFA PLM has outpaced the general enterprise software industry: 21% revenue growth versus 10% growth in customer spending.

Region	2015/16	2016/17	2017/18
EMEA	40%	35%	34%
Asia	23%	23%	22%
Americas	37%	42%	44%

At the broad regional level, sales concentration between the EMEA, APAC, and American regions remains essentially static. Country-by-country geographical drivers for PLM adoptions are analysed in greater detail later in this section, but at a high level the influences behind this stability are likely to remain the same as in the previous financial year:

- The ongoing evolution of manufacturers in Asian countries – particularly those in longer-established manufacturing hubs where domestic consumption markets have evolved – into private label brand owners. While these companies are purchasing PLM for their own-brand design and development work, pure manufacturers in both proven and emerging sourcing regions are increasingly being incentivised to use PLM through external user and vendor collaboration arrangements.
- The continuing rise of subscription-based solutions, which have made PLM affordable and accessible for the smallest businesses. Where previously we would have expected Tier 4 and Tier 5 businesses to average around 20 in-house users, evidence suggests that user counts below 10 are not uncommon, with sales in Tier 5 occasionally occurring to businesses where the PLM projects begin with just one or two users who may even be based at a co-working space rather than a permanent office.
- Extension of PLM into the supply chain - driven primarily by large American and European business that have begun to recognise the value in providing the right collaborative tools to their close manufacturing partners. While historically only larger businesses have had the purchasing power and influence to encourage their suppliers to adopt PLM, the affordability of cloud-based PLM now means that even small, hyper-ethical businesses will be able to use PLM to collaborate and co-create with their chosen suppliers.

Introducing CPG Crossover

As defined in the Glossary at the end of this publication, 2017/18 has seen what we anticipated would be a significant change to the way that our market performance data was collected and analysed.

Following several years of experimentation, several vendors have recently begun to adapt their RFA-focused PLM solutions to cater to businesses in the so-called “Consumer Packaged Goods” (“CPG”) category. With no fixed definition, what constitutes a consumer packaged good varies from vendor to vendor, making it somewhat difficult to determine where (or if) a particular vendor has successfully stepped outside their RFA niche, or where the CPG label is being assigned to businesses that would typically have been considered part of the RFA industry by WhichPLM.

To help bring some clarity to this cross-vertical expansion - which is something we expect to see continue in the future - this Buyer’s Guide is the first WhichPLM publication where we have allowed vendors to submit CPG customers for our newly-created “CPG Crossover” category.

While the list of companies that qualified (and did not qualify) for inclusion in this category is extensive, the following were considered valid for inclusion, where they incorporated some element of soft materials or a similar product-driven workflow to the one widely used in the RFA industry:

- Toys and games
- Home and office furniture
- Eyewear, watches, and jewellery

And conversely, companies in the food and beverage, beauty and cosmetics, pet care, and white goods industries were excluded on the grounds that no element of soft materials was present in their products, and thus their design, development, and sourcing practices would exhibit very minimal crossover with those of an RFA PLM customer.

While our analysts’ initial expectation was that the inclusion of CPG Crossover companies would measurably influence this Market Analysis, in practice very few such companies were submitted by vendors for inclusion in this publication, and fewer still were successfully deemed CPG Crossover businesses, rather than traditional CPG companies.

There is little doubt, though, that cross-vertical expansion will remain a major target for leading RFA PLM vendors that have ambitions beyond the RFA industry. And where customers do fall under the CPG Crossover umbrella, it is likely that they will benefit from the use of a PLM solution built for the demands of the RFA industry.

The same is also, however, sometimes true in reverse. While CPG companies are searching for a way to manage design and development of soft goods, some luxury businesses in particular are seeking a way to apply more traditional hard-goods engineering logic to the production processes of leather goods and accessories that do not vary from season to season.

Understanding our Customer Tiers

Throughout this section and elsewhere in this year’s Buyer’s Guide, we refer to customers as falling into five distinct “Tiers”. In a market where PLM sales are growing at an increasing rate, it is important to differentiate – especially for the purposes of market estimations – between a sale to a large, multinational, multi-billion-dollar organisation and one to a single-territory boutique brand. For the purposes of revenue and license quantity analysis alone, the former sale will likely be worth substantially more than the latter, and it is only possible to build fair and reasonable market estimations when these disparities in value and size are taken into account.

For clarity’s sake, our customer Tiers for retailers and brands are delineated as follows:

Tier 0 Also known as the “super tier”, customers who fall into this category demonstrate annual revenues in excess of \$10 billion, and are typically multinational organisations.

Tier 1 With revenues of between \$1 billion and \$9.9 billion, Tier 1 customers may share equal domestic renown to their larger counterparts, but lack the sheer sales volume and international impact that would elevate them to the super tier.

Tier 2 Encompasses a wide variety of retailers and brands in what is commonly referred to as the “mid-market”. These companies demonstrate revenue of between \$500 million to \$999 million.

Tier 3 Takes in those smaller organisations that fall below the revenue threshold of Tier 2 – typically single-territory or boutique retailers and brands with revenue from \$100 million up to \$499 million.

Tier 4 This Tier encompasses businesses – typically emerging designers, small brands, or retail startups – that fall below the Tier 3 bracket, turning over \$99 million or less per year.

Tier 5 Newly introduced for this Buyer’s Guide as a way of obtaining greater granularity in our insights into the very small and boutique segments of the market, Tier 5 companies will typically exhibit turnover of \$50 million or less per year.

Customer Tier	Percentage of new name sales
Tier 0	5%
Tier 1	7%
Tier 2	13%
Tier 3	10%
Tier 4	30%
Tier 5	35%

Over the last three years, we have progressively worked to break down the lower end of the market, to better understand the forces that are shaping the largest market segment by volume.

Until 2015/16, our analysts had used a 3-Tier structure, but the team had begun to notice its limitations. Capturing every PLM customer with turnovers of less than \$499 million, Tier 3 had begun to account for almost 80% of new-name PLM sales by market share, frustrating our attempts to understand and comment on the real composition of that extremely significant segment of the market.

That year, we took the step of splitting Tier 3 in two, creating the then-new Tier 4, which immediately became the largest market segment again, with a share of 55% of all new-name sales.

The following year, with our 7th Edition, we maintained the 4-Tier structure in an attempt to draw meaningful parallels between the fiscal year 2016/17 and the one that preceded it, but unfortunately the largest market segment again shifted downwards, and Tier 4 sales now accounted for more than 70% of all new-name sales at a global level.

For this Buyer’s Guide, we have introduced a further Tier: Tier 5. Designed to separate the small-to-medium business from the truly boutique, Tier 5 starts from a turnover of zero and continues up to annual sales of up to \$50 million.

For the fiscal year 2017/18, at least, it appears as though this additional segmentation has been effective. Rather than the absolute lowest Tier of the market accounting for an overwhelming share of sales, Tiers 4 and 5 share a very even split; 35% of sales were to Tier 5 businesses, while 30% were to Tier 4 companies.

Nevertheless, with these two Tiers combined we must remember that the lower end of the market remains by far the largest in terms of new sales. A full 65% of all RFA PLM sales remain to customers whose turnovers fall beneath \$100 million, and the largest market segment - albeit only by 5% - remains the lowest Tier.

It is important to note, though, that high volume does not necessarily indicate high value. This analysis will cover the financial composition of the market in a detailed breakdown on pages 48 and 49, but it is important to highlight the stark difference between the number of PLM sales made at the lower end of the market and the software and services revenue derived from these sales. As these data suggest, the race towards the volume market (Tiers 4 and 5, defined as such by dint of sheer numbers) has been effective at securing large amounts of new customers, but unless vendors have properly redesigned their business models in favour of self-service, user configuration, and automation, these reams of new deals are unlikely to have been especially profitable.

Geographic trends in RFA PLM

This section will analyse the international adoption of PLM in what we believe to be the most noteworthy regions highlighted in the “Regional Adoption of RFA PLM” heatmap that appears on page 49.

Broadly speaking, key PLM vendors who have established substantial operations outside their domestic markets have typically done so only after considerable success at home. This being the case, international expansion by one or more of the market leaders is typically taken as a strong indicator of growth potential in the locations they select. Put more bluntly, successful PLM vendors do not tend to invest unwisely in new markets, and as a result we believe that new name sales resulting from these expansions remain a stable metric for judging the potential of different regions.

It is unsurprising, given the United States’ continued dominance of the RFA PLM market (beating even its closest competitor by 26%) that most vendors who have pursued international expansion following domestic success are headquartered there. For each year that we have assessed the market, American companies like Centric Software, Gerber Technology, Infor, NGC, and PTC have remained forces to be reckoned with at home and abroad, along with their Canadian neighbour Visual Next (formerly Visual 2000). That being said, American and Canadian vendors are not the only ones to enjoy success outside their home countries: Lectra (a French company) has also achieved impressive results on a global level - particularly in Asia.

The following regional analysis examines the different markets in which these and other vendors competed in 2017/18, and considers how intrinsic and extrinsic forces have shaped the market share of the year’s most interesting regions.

United States

The USA has long been the biggest market for RFA PLM, and the fiscal year 2017/18 sees its share of total new name sales approach last year’s peak, with more than a third of all PLM projects worldwide taking place in the country.

Numerous factors contribute to this continued dominance, and while sheer geographical size and population count are noteworthy, they do

not explain why the USA continues to outsell countries like China and India, whose populations number in the billions.

Today, PLM adoption is instead being driven by America’s considerable advancements in infrastructure, its culture of innovation, and the country’s willingness to embrace the so-called circular economy. As a result of these influences, American brands and retailers now cater to an environmentally and ethically conscious consumer, and leaders have had significant success domestically and internationally by advertising their sustainability credentials.

Due to the maturity of the market, the USA also leads from the front when it comes to industrial optimisation and automation, and multinational supply chains that are connected to PLM as standard - rather than being a separate statement of work.

Interestingly, while much of the experimental work is being undertaken by the huge household names that have their headquarters in North America, no single tier is responsible for driving a new generation of PLM adoption there. A new name PLM sale in the USA is equally likely to be to a garage brand as it is to a global powerhouse, and from both extremes to the convergence point of the middle market, brands and retailers appear to fully understand and to be pursuing the value inherent in a connected, digital supply chain.

In this sense, the USA is setting an example for European nations to follow.

Latin America

Conditions in South America, however, are much less clear cut. For approximately the last four years, analysts and vendors have been anticipating an explosion of PLM interest in Latin America that, to date, has simply not materialised.

We would be hesitant, however, to refer to the market as completely stagnant. While Colombia has fallen from a place in the top 15 global PLM markets to being removed from our analysis entirely after three consecutive years of total inactivity, Brazil has this year recaptured some market share (albeit a small percentage). And while Argentina has also been removed for our analysis due to lack of sales, this twelve-month period saw Mexico catapult from a zero share of sales in 2016/17,

to appearing just behind established markets like the Netherlands and Hong Kong in this year’s statistics.

Our analysis team understands that, following years of inactivity, many vendors have relocated their Latin American teams to other, more promising locations. And while it would be difficult to disagree with this decision, the data received this year appear to demonstrate that treating Latin America as a single market is perhaps not the most effective approach. WhichPLM is certainly not a regional expert, but we would encourage any vendor still weighing its options regarding South America to focus instead on just Mexico and Brazil for the greater chance at a positive return on their investment in personnel.

China and Hong Kong

Although China has ceded some market share since its high watermark of 2015/16, when combined with Hong Kong the two markets are still the third largest in the world - beating India, and coming in only a half percentage point behind the United Kingdom.

As a long-serving manufacturing hub with its own affluent middle class, China still serves as the spearhead for a farther-ranging expansion of PLM (and the brands that use it) into Asia. Since our first formal Market Analysis – covering the period 2012/13 – sales to customers in Hong Kong and on the mainland have risen considerably. Most major vendors now have a presence in China, and a significant, PLM-focused event was held in Hong Kong in April of 2018.

Given the country’s history as a sourcing and production stronghold (a reputation it maintains, although ground is being lost to other Asian countries, as explained in the following paragraphs) the vendors achieving the most success in China remain those who have hooks into its manufacturing base. At a time when manufacturers are increasingly looking to launch their own private labels, this footprint has enabled them to articulate the benefits of designing and developing in PLM to a captive audience.

Pakistan, Sri Lanka, and Vietnam

While other former manufacturing strongholds lack the same domestic consumption market

as China, there is nevertheless a similar transformation taking hold in countries like Pakistan, Sri Lanka, and Vietnam.

In a fiscal year when India overtakes China as the third largest international market for RFA PLM, several other markets famous for their affordable labour have begun to prepare for the creation of their own domestic brands - often relying on expertise gained by working with multiple western businesses to leapfrog those business in terms of quality and originality.

Although these three countries combined only account for 1.5% of all PLM sales this year, this is a share we expect to see increase very soon.

Nordic Countries

A quiet success story in previous years, the Nordic countries remain a force to be reckoned with in 2017/18.

Although the region’s collective share has fallen (primarily due to slow sales in Denmark and Finland,) grouping these countries together still accounts for a 5% share of all PLM sales in 2017/18 - the equal of Germany, and only half a percentage point behind Canada.

This year, Sweden accounts for the majority of these sales, which is little wonder when we consider the impact that Swedish high fashion, streetwear, and boutique brands have had on the international scene.

Should sales continue in Sweden, and resume in the other countries in the bloc, WhichPLM will not be surprised to see the Nordic market achieve a second or third place within three years.

Japan

Another often-overlooked market, Japan has quietly cornered 1% of the international PLM market for the last two years, with that figure increasing to 1.5% in 2017/18.

And while Japan has few high-profile fashion exports beyond Rei Kawakubo’s famous Comme Des Garcons, its domestic consumption market alone should be enough to entice PLM vendors with established Asian operations to either consider expansion or to renew their focus on the country’s own brands and retailers.

Turkey

While firmly-established manufacturing regions in Asia are seeing considerable success with a switch to a private label culture, Turkey - a major sourcing destination for Europe - is experiencing the opposite effect.

Renowned for its textile production and low-cost manufacturing, Turkey has all the right ingredients for the creation of new brands for either domestic consumption or export, but its geopolitical position is rendering many of those advantages moot.

We expect European brands to continue to use Turkey as a relatively close base, but we predict that the country’s share of PLM sales is likely to dwindle as it becomes steadily more isolated in a political sense.

Russia

A similarly problematic country for Western brands and technology vendors to be doing business with, Russia has actually taken its largest share of the overall PLM market to date in 2017/18.

Home to several large retailers, Russia has been a minor fixture on the RFA PLM map for several years - with at least two deals of considerable size being made in the past twenty-four months.

The spectre of economic sanctions, however, looms large over Russia, and there is every chance that its own apparel exports may fail as a result, or that American and British PLM vendors working with Russian retailers may find themselves in a precarious position until implementation is complete.

Portugal

A new entrant in our Market Analysis, Portugal has a reputation as a home of traditional craftsmanship. According to our sources, however, the country has recently begun to invest in advanced 3D solutions and high-end digital printing to ensure that it can once again compete on the world stage.

Unlikely to be a major destination for PLM vendors to establish offices, Portugal nevertheless has the potential to make use of true multi-tenant, cloud-based solutions that will allow former manufacturers with limited technological experience to begin working with

the same tools as their big brand counterparts across the border in Spain.

Market Sizing

Drawing on our primary metric of new name RFA PLM sales and applying our own exhaustive cost calculations, the WhichPLM team has reached a number of conclusions regarding the overall market size for the financial period 2017/18, including some adjustments to take account of the following factors:

- Minor changes in the list of premier vendors that qualified for inclusion in this report, or who opted not to be included. This also covers a single vendor who, for various reasons, withdrew from our vendor listings this year after being present in every WhichPLM publication to date. Its customer numbers are, however, known, and have been factored into our calculations.
- The unwillingness of a small number of vendors to provide the requisite level of insight into their sales within the defined annual period.

These adjustments were made prior to this analysis, and have therefore been included in this accumulated market size and all geographical analysis, and their effect will therefore be felt in any analysis of the underlying trends. The effects of these adjustments are not significant, and remain consistent with the evidence visible in international and Tier-based adoptions.

The table on the next page demonstrates the method by which our analysis team calculates the total cost for a sale in each customer Tier, including each of the individual elements that are taken into account. These elements are based upon the variation in estimated typical costs and effort required to implement solutions across the different Tiers. Multiplied out, this table then shows the total value of the Tiered

Missing regions?

Although WhichPLM works internationally, we cannot monitor every region. If you feel your country is missing from our analysis, please contact us at info@whichplm.com.

segments of the market, and it is followed, on the adjacent page, by another table and accompanying interpretation that provide a monetary breakdown of the overall total market, segmented again by Tier.

Readers will notice that “maintenance” is assigned a zero figure for all sales in Tiers 4 and 5. This is because the typical annualised cost of maintaining is factored into the monthly subscription fees that the vast majority of customers at this end of the market pay in lieu of traditional licenses. As explained in the “Long Term Market Forces” section on page 50, PLM vendors who wish to succeed in the low-cost, high-volume Tier 4 and Tier 5 market will need to structure a business model where these kinds of “missing” source of revenue can be properly amortised in other ways.

Taking this difference in costing models into account, the composite total of licensing, maintenance, and servicing reveals a total size for new name sales in the RFA PLM market in 2017/18 of \$138.80 million. When compared to the year-on-year increase from 2015/16 to 2016/17 (1.33%), this year’s revenue increase of 21% is shown to be statistically significant, although readers are encouraged to read this analysis to the end in order to better understand where that additional revenue is being generated - and, conversely, where it is not.

As has been the case in all previous years, the RFA PLM market remains one where the bulk of sales are concentrated in a small number of countries. Although 2017/18 reveals some noteworthy changes in the distribution of sales (as examined in the earlier Geographic Trends in PLM section of this

Context for below table:

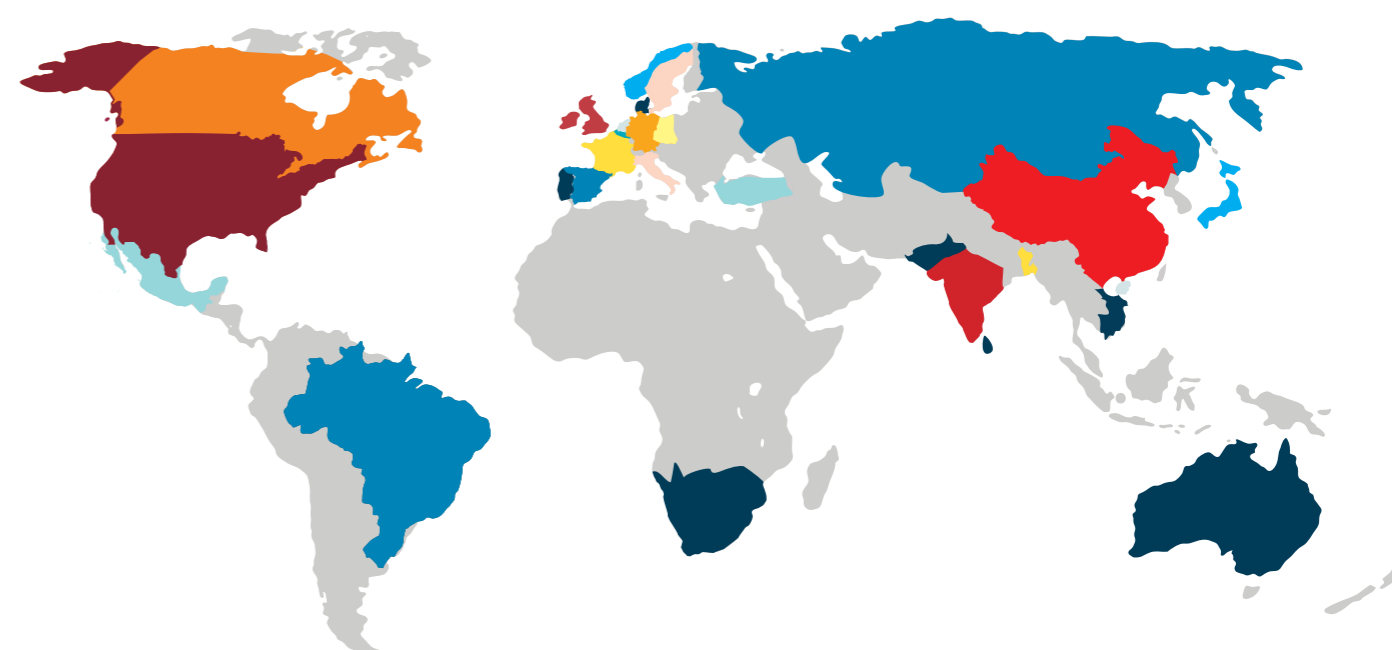
- Per user license costs are based on a traditional licensing model for Tiers 1-3, and then an annualised subscription for Tiers 4 and 5.
- Service days includes only supplier days which the customer pays for. Total costs and time could potentially be much greater when internal costs and hardware upgrades are factored in. Last year’s research suggested a ratio of two to one in man days of internal resource compared to external - a formula from which readers can quickly calculate their own in-house spend on a PLM project depending on their business size.

	Tier 0 (13 sales)	Tier 1 (18 sales)	Tier 2 (36 sales)	Tier 3 (28 sales)	Tier 4 (82 sales)	Tier 5 (94 sales)
Average seats per customer:	2,000 (comprised of 750 internal and 1,250 external)	600 (comprised of 200 internal and 400 external)	300 (comprised of 100 internal and 200 external)	75 (comprised of 50 internal and 25 external)	30 (comprised of 20 internal and 10 external)	15 (comprised of 5 internal and 10 external)
Total seats this year:	26,000 (comprised 9,750 internal and 16,250 external)	10,800 (comprised 3,600 internal and 7,200 external)	10,800 (comprised 3,600 internal and 7,200 external)	2,100 (comprised 1,400 internal and 700 external)	2,460 (comprised 1,640 internal and 820 external)	1,410 (comprised 470 internal and 940 external)
Typical per user license cost:	\$1,000 internal, \$500 external	\$2,500 internal, \$500 external	\$2,250 internal, \$500 external	\$2,000 internal, \$500 external	\$1,500 internal, \$750 external	\$960 internal, \$750 external
Total license cost this year:	\$17.88 million (\$9.75 million internal, \$8.13 million external)	\$12.60 million (\$9.00 million internal, \$3.60 million external)	\$11.70 million (\$8.10 million internal, \$360 million external)	\$3.15 million (\$2.80 million internal, \$0.35 million external)	\$3.08 million (\$2.46 million internal, \$0.62 million external)	\$1.15 million (\$0.45 million internal, \$0.71 million external)
First year maintenance:	18%	20%	17%	15%	0%	0%
Total maintenance this year:	\$3.22 million	\$2.52 million	\$1.99 million	\$0.47 million	\$0	\$0
Typical number of service days to conduct implementation:	2,000 man days	600 man days	300 man days	100 man days	25 days	10 days
Total service days this year:	26,000	10,800	10,800	2,800	2,050	940
Typical service costs per day:	\$1,750 per day	\$1,500 per day	\$1,250 per day	\$1,000 per day	\$1,000 per day	\$1,000 per day
Total service costs this year:	\$45.50 million	\$16.20 million	\$13.50 million	\$2.80 million	\$2.10 million	\$0.94 million

Total RFA Market Size for 2017/2018

	Tier 0	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5	Total
License Costs	\$17.88 million	\$12.60 million	\$11.70 million	\$3.15 million	\$3.08 million	\$1.15 million	\$49.56 million
Maintenance Costs	\$3.22 million	\$2.52 million	\$1.99 million	\$0.47 million	Zero	Zero	\$8.20 million
Service & Setup Costs	\$45.50 million	\$16.20 million	\$13.50 million	\$2.80 million	\$2.10 million	\$0.94 million	\$81.04 million
Composite Total	\$66.60 million	\$31.32 million	\$27.19 million	\$6.42 million	\$5.18 million	\$2.09 million	\$138.80 million

Regional Adoption of RFA PLM



United Kingdom	9.0%	France	3.5%	Japan	1.5%	Denmark	0.5%
India	7.0%	Italy	3.0%	Norway	1.5%	Pakistan	0.5%
China	6.0%	Sweden	3.0%	Belgium	1.0%	Portugal	0.5%
Canada	5.5%	Hong Kong	2.5%	Brazil	1.0%	South Africa	0.5%
Germany	5.0%	Netherlands	2.5%	Russia	1.0%	Sri Lanka	0.5%
Bangladesh	3.5%	Mexico	2.0%	Spain	1.0%	Vietnam	0.5%
		Turkey	2.0%	Australia	0.5%		

analysis,) those sales are primarily confined to six key locations: the USA, UK, India, China, Canada, and Germany. Each of these individual countries holds a 4% or greater share of the overall volume of new name sales, and is considered an established market, governed by clear and, for the most part, predictable forces.

These primary sales regions are then joined by a further eight countries who each hold a 3% or 2% share of the total global sales volume: Bangladesh, France, Italy, Sweden, Hong Kong, the Netherlands, Mexico, and Turkey.

From there, the remainder of the market - as it has been in every year that WhichPLM has analysed - is comprised of a list of smaller countries that each account for a 1.5% market share or less, and that together taper into a long tail. In 2017/18 there were 13 such countries, and the above heat map illustrates their distribution and sales concentration.

The following table (titled Share of Total RFA PLM Sales by Country) also includes 11 further countries where sales have been registered within the last three years, but where no attributable sales that met our assessment criteria took place in 2017/18.

Finally, three countries that have previously shown PLM sales outside that

Share Of Total RFA PLM Sales By Country (%)

Country	2015/16	2016/17	2017/18
Australia	0.0%	0.5%	0.5%
Bangladesh	0.0%	4.0%	3.5%
Belgium	0.5%	0.5%	1.0%
Brazil	0.5%	0.0%	1.0%
Canada	5.0%	3.0%	5.5%
China	10.0%	6.0%	6.0%
Denmark	1.0%	1.0%	0.5%
Finland	0.5%	0.5%	0.0%
France	8.0%	3.0%	3.5%
Guatemala	0.5%	0.0%	0.0%
Germany	4.0%	3.0%	5.0%
Greece	0.0%	0.5%	0.0%
Hong Kong	2.0%	2.0%	2.5%
India	6.0%	6.0%	7.0%
Israel	1.0%	0.5%	0.0%
Italy	4.0%	6.0%	3.0%
Japan	1.0%	1.0%	1.5%
Jordan	0.0%	0.5%	0.0%
Lithuania	0.5%	0.0%	0.0%
Mexico	0.5%	0.0%	2.0%
Netherlands	1.5%	3.0%	2.5%
New Zealand	0.5%	0.0%	0.0%
Norway	3.5%	2.0%	1.5%
Pakistan	0.0%	0.0%	0.5%
Poland	0.5%	1.0%	0.0%
Portugal	0.0%	0.0%	0.5%
Russia	0.0%	0.5%	1.0%
South Africa	0.5%	0.5%	0.5%
South Korea	1.0%	0.0%	0.0%
Spain	1.0%	1.0%	1.0%
Sri Lanka	0.0%	0.0%	0.5%
Sweden	3.0%	4.0%	3.0%
Switzerland	1.0%	1.0%	0.0%
Thailand	0.0%	0.5%	0.0%
Tunisia	0.5%	0.0%	0.0%
Turkey	3.0%	3.0%	2.0%
UK	9.0%	8.0%	9.0%
USA	30%	37.5%	35.0%
Vietnam	0.0%	0.0%	0.5%

three-year period but where none have been attributable since 2014/15 do not appear in this analysis. These are Argentina, Colombia, and Luxembourg. None of these countries held a significant share of the total market volume even at their peak, and all have now been inactive for some time.

Long Term Market Forces

In the conclusion to our 2016/17 Market Analysis (available in the 7th Edition Report, for readers interested in historical comparisons) our analysis team wrote that: "In WhichPLM's opinion, there can be little doubt that cloud deployments and high-volume, low-user-count sales will be the most significant influencing factors on both the medium and longer-term future of the RFA PLM market."

While this remains an accurate statement, it has perhaps been shown to be a little short-sighted by the surprising sales results seen in 2017/18. Our expectation was that a further rise in low-cost, high-volume PLM sales would be compensated for by contractions in the middle and upper tiers of the market - some by almost as much as a quarter. The reality, as we have seen, has proven to be quite different: growth has been most significant in Tiers 0 and 2 (44% and 63% respectively), which year-on-year sales of cloud-based, subscription PLM have fallen short of the high watermark set in 2016/17.

In essence, WhichPLM predicted that the prevailing business model for PLM sales (labour-intensive projects for large customers) would be steadily displaced by an automated future, where PLM vendors would shift their focuses towards Tiers 3, 4, and 5, to capitalise on the fact that 75% of all new name sales originate in those segments of the market.

As this year's data show, no vendor capable of securing new customers in the upper Tiers of the market would consider abandoning them in favour of Tiers 3, 4, and 5. In 2017/18, software and service revenue for Tier 0 alone (where only 13 sales were made) amounted to a staggering \$45.50 million, whereas the combined total revenue for software and services across Tiers 3, 4, and 5 (a total of 204 sales) was just over \$5 million. To put this in even starker terms, the value of a single Tier 0 sale (assuming the sales reported to WhichPLM this financial year are representative of the market segment as a whole) is \$3.5 million, while a single sale to a Tier 5 customer is worth just \$10,000.

Of course, the costs of acquisition will vary significantly between these two sales. Armies of pre-sales, technical, and marketing experts will be deployed to secure a single Tier 0 customer - often over the course of months or years. And sometimes all it takes to capture a new Tier 5 customer is a chat bot on a self-serve demonstration page.

What is evident, in light of the growth of almost every individual market segment in 2017/18, is that both business models must co-exist. This might be through separate vendors in the short term, but in the medium to longer term all the key PLM vendors who appear in this Buyer's Guide will need to reconcile the idea of operating essentially two different PLM businesses: one for the upper Tiers, and one for the volume market. Making this transition sustainably and profitably will be the largest single task facing PLM vendors in the coming 1-3 year period, and its impact is analysed in further detail in the concluding feature titled "Next Steps for PLM Vendors," on pages 56 and 57. Similar features for the attention of prospective PLM customers and PLM consultants also appear after the two-page advertisement that follows.



Market Predictions

With each passing year, our predictions have become better-informed, and while some have proven to be inaccurate at the individual Tier level, from a whole-market perspective we have often been a little too conservative.

For 2015/16 we predicted 17% total market growth in terms of new-name sales; 25% was realised. For 2016/17, we again predicted 17% total growth, and 24% was realised. On the assumption that growth on this scale was unsustainable, we then predicted 7% growth in new name sales for 2017/18, and as this Market Analysis has shown, a more sluggish 2% growth was actually realised.

For the coming financial year (2018/19) our analysts have decided again to err on the side of caution. While it is encouraging to see that sales to the upper and middle tiers of the market have been revitalised, the transition period our industry now faces - from a single prevailing business model to a more flexible structure, where different approaches to marketing, sales, implementation, and support must coexist - may not be a straightforward one. As a result we expect the RFA PLM market (incorporating the aforementioned elements of CPG Crossover) to grow by 5% in terms of new name sales in 2018/19. This prediction is comprised of informed predictions for each individual market segment as follows:

- Tier 0. WhichPLM predicts that sales to this market segment will continue to grow, spurred on by whispers that some of the world's biggest brands and retailers are turning to PLM as a new competitive edge. We expect to see 21 sales in this customer tier in the fiscal year 2018/19 - a percentage increase of 61%.
- Tier 1. We predict that sales to this market segment will increase by 11%, to a total sales figure of 20 in the financial year 2018/19. The driving forces behind the growth are the same as those we believe will govern Tier 0.
- Tier 2. Our analysis team predicts that this market segment will shrink by 17% in the financial year 2018/19. This expected decrease from 36 individual sales to 30 sales will be caused by the steady depletion

of those brands and retailers in the middle market who consider themselves "late" to PLM, and are now acquiring a solution as a way to remain competitive.

- Tier 3. We believe this market segment will grow by 7%, to a total sales figure of 30. This growth will be galvanised by the same forces that apply to Tier 2, but with a much larger potential market.
- Tier 4. Our analysts expect that this portion of the volume market will grow by a conservative 4% in the fiscal year 2018/19. This increase from 82 to 85 sales might sound unremarkable, but it is important to realise that this simply represents expected uptake of PLM among supplier and the steady influx of new boutique brands who have the potential to grow into the big brands of tomorrow.
- Tier 5. In our newest market segment, we expect to see a 6% increase to 100 total sales in 2018/19, catalysed by similar forces to Tier 4, but with the possibility of explosive growth when true multi-tenant cloud solutions become more widely adopted.

Prediction Accuracy Assessment

As internationally-renowned analysts and publishers, WhichPLM has a well-established history of making predictions for the future of the PLM industry for retail, footwear and apparel.

Although these broad predictions have, generally speaking, proven accurate or overly conservative, the growth predictions indicated in this analysis are made at a particular point in time (this publication being released in the early summer of 2018) and are therefore based upon the best information available at that time. No prediction is guaranteed, although our conclusions are based upon clear content, context, and a strong basis for anticipated growth.

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Advisory Services from WhichPLM

Experts in PLM and emerging technologies.

The retail, footwear, and apparel industry is in the midst of a digital transformation. To keep pace with consumer demand, outdated processes and legacy solutions need to be replaced by best practice and cutting-edge technologies.

Brands, retailers, and manufacturers all recognise the need to make careful choices when it comes to creating a foundation for future growth, but finding and implementing the right solutions isn't always as straightforward as it seems. Business cases have to be made, extensive data cleansing and process re-engineering must take place, followed by shortlisting, selecting, implementation, and ongoing training and support.

Working with major brands in Europe, the United States, and Asia, and across every stage of technology adoption, the WhichPLM advisory team has helped brands and retailers of all shapes and sizes to seize the opportunities presented by PLM, E-PLM, and other emerging technologies.

Why work with WhichPLM?

- We have been proponents of fashion technology since the late 1970s.
- Our leadership group was instrumental in launching the world's first fashion-specific PDM and PLM systems.
- We have real-life, hands on, needlepoint experience of every process in the global supply chain.
- Our team has designed and developed integrations and APIs between a range of different solutions over the course of several decades.
- We have been part of hundreds of fashion-specific PLM and E-PLM projects.
- Beyond PLM, we cast our net even wider, with internationally-recognised experts in material innovation, fashion design, global manufacturing, digital printing, and other supply chain in-house processes.
- We offer the only fashion-specific, accredited PLM training programme in the world.
- We are the only consultancy that is continually evaluating the leading PLM and 3D vendors, making our findings freely available to all.
- We are long-standing futurists, passionate about new technologies like the IoT, blockchain, AI, and 3D printing – with detailed publications covering three of these topics.



With more than 40 years' experience in fashion technology, WhichPLM are recognised as apparel PLM and E-PLM experts, and our advisors are ready to help your business make the most of new technologies and succeed in your digital transformation.

Full references are available upon request.

Contact advisory@whichplm.com to arrange an introductory conversation.

NEXT STEPS FOR PLM CUSTOMERS



In the opening pages of this Buyer's Guide, we referred to RFA PLM as a buyer's market. This remains the case, but like any open market, effectively wielding buying power requires knowledge, introspection, and a little patience.

It can be tempting to see the continuous growth of the RFA PLM market - particularly at the low-cost end of the spectrum - and to assume that, because modern solutions are as easy to spin up and configure as Microsoft Office, choosing the right PLM is as simple as browsing a few websites and reading some reviews.

The reality is perhaps closer to replacing the operating system of a computer that everyone in the office shares: it requires an understanding of not just the capabilities of the different software environments themselves, but the needs of a variety of different stakeholders. Most importantly, it requires an acknowledgement that, to get the most out of a new environment, you need to fully

understand the limitations of your existing one from every possible angle, and you need to identify how you and your colleagues visualise things changing in the future.

That may be a slightly tortuous analogy, but it is designed to prompt PLM project teams to consider not just their own immediate challenges and the capabilities of their longlist of PLM solutions, but also the level of business knowledge and cultural change that may be required to deliver a successful transformation.

Fortunately, it is easier than ever to begin your comprehensive PLM education, and to acquaint yourself with the full suite of possible solutions.

As we mentioned, it may seem like the logical first port of call after reading this Buyer's Guide is to either approach a PLM vendor and request a demonstration, or to use one of the self-serve demo solutions provided by leading vendors.

While there is nothing wrong with this approach, our recommendation would be to conduct that kind of experimentation at the same time as a comprehensive audit of your existing systems and processes. Take a pen and paper and sketch out the current workflow and critical path of a typical product, identify bottlenecks by talking to process managers, and consider just how many different solutions and data sources your chosen PLM solution may need to eventually integrate to.

If that seems like a tall order for something that sounded at first like a simple system selection project, then we've arrived at the main pillar of any modern PLM project: rather than simply

choosing a piece of software to tackle today's problems you are choosing the centre of an IT ecosystem that will power the digital future of your business.

Crucially, it's important to realise that even in an era of low-cost, low-risk, fully-functional PLM on the cloud, a large percentage of businesses still opt to employ the services of an independent advisor to assist them.

As the sales figures contained in the Market Analysis section of this publication suggest, though, you are not alone in making a choice of this magnitude. More than 200 businesses of all shapes and sizes made a definitive decision about their digital future this year alone, so don't hesitate to talk to your peers.

Download a copy of WhichPLM's 7th Edition Report, which contains extensive guidelines and words of wisdom provided by real PLM project team members and end users, as well as the results of our last and most complete PLM Customer Survey.

“ Rather than simply choosing a piece of software to tackle today's problems, you are choosing the centre of an IT ecosystem that will power the digital future of your business. ”

Where WhichPLM has been involved in these kinds of projects, our role usually begins far in advance of solution selection. More often than not, our independent advisors are brought in to help a brand, retailer, or manufacturer understand their own challenges and opportunities, and to make sense of the extended functionality and integrations that can together transform PLM from a pure design and development solution into a platform for collaboration and co-creation that spans the entire extended supply chain.

NEXT STEPS FOR PLM VENDORS



The good news? The PLM market for retail footwear and apparel is bigger, broader, and more diverse than ever before. The bad? Catering to that market will soon demand a blended business model that allows you to fulfil the consultancy needs of big enterprise clients at the same time as delivering remote training and support to a tiny startup. And you need to find a way to make both businesses profitable.

As a PLM vendor, you're accustomed to changing your approach to the market. From new advertising materials to the re-tooling of your professional services playbook, PLM for the RFA industry has always had to adapt itself to respond to customers' changing needs - which are, in turn, driven by the rapidly-evolving demands of end consumers.

Based on the findings of this Buyer's Guide, the need for agility will soon be so strong that any vendor wishing to cater to both large enterprise clients and the high-volume, low-revenue subscription PLM market will effectively need to run two different business models simultaneously.

In the interests of clarity, these two business models do not vary in terms of the solution itself (PLM on the cloud should generally be as fully-featured as possible, with some concessions made for usability and configurability) but rather the wildly different ways the solution is marketed, sold, implemented and supported.

To put this into context, consider that the value of a single Tier 0 sale is \$3.5 million, while a single sale to a Tier 5 customer is worth just \$10,000. In order for your mass market business (targeting Tiers 4 and 5 especially) to deliver a comparable revenue stream to your Tier 0 and Tier 1 business,

you will need to sell approximately 350 different low-cost subscription licenses.

On this basis alone, targeting the volume market would appear to be a fool's errand, but consider that small to medium businesses make up around 75% of all new name PLM sales, and the remaining 25% suddenly starts to feel very extremely cramped and competitive.

It is important, also, to consider the differing costs of customer acquisition across these different target customers. While a Tier 5 customer may be happy for their first-stage interaction with your solution being an online demo driven by tooltips, followed by an introductory offer to spin up their own instance of PLM, a Tier 0 customer will more than likely demand a team of senior product managers, marketing executives, technical presales professionals and more, to consult with their process champions and run through a complete 'day in the life' demonstration before

you are even considered for a shortlist.

When this level of effort and expense is factored in, the value equation begins to look a little different.

Either way, your business will not be satisfied with excluding itself from the biggest segment of the RFA PLM market by volume - especially when these sales can roll in with little or no manual intervention - or from potentially incredibly lucrative deals that take considerably more time and effort to secure.

The logical first step will be to ensure that the core functionality of your solution is both feature-complete and sufficiently modular to appeal to both extremes of the customer spectrum.

If your organisation has not done so already, consider submitting your solution for an

independent WhichPLM evaluation. As well as serving as a seal of approval for the level of functionality and process excellence that a high-worth client will demand, a self-serve solution bearing the Evaluated badge will appear more credible than one without.

“ Consider that small to medium businesses make up 75% of all new name PLM sales, and suddenly the remaining 25% starts to feel very competitive and cramped. ”

Then, ensure that you have automated training, education, support, and onboarding facilities ready to provide close to the complete professional services experience online.

Some vendors have already taken great strides in this area, and it should come as no surprise that their vision for easy, intuitive, subscription-based

PLM is proving popular with customers from Tiers 3, 4, and 5.

NEXT STEPS FOR PLM CONSULTANTS



As is the case with PLM vendors, consultants of every stripe – although especially implementation partners – will very rapidly need to remodel their businesses to service two very distinct markets simultaneously. At the upper end of the market, you will need to service the complete and complex needs of massive, multinational businesses for whom PLM is the centre of a huge I.T. ecosystem.

At the lower end, in Tiers 4 and 5, you will need to architect some level of automation, or become instrumental in the automation strategies of your vendor partners, to avoid being replaced by an entirely self-service model.

Across both segments, though, it will soon become essential for consultants to ensure that they are skilled and knowledgeable on a range of other extended-PLM opportunities rather than just the nuts and bolts of PLM itself.

To help, we will now set out in brief some background and useful next steps for catering to

both extremes of the market – and the middle-tier customers who fall in between.

The Upper Tiers

Once considered the norm, heavy customisation is now a thing of the past in PLM implementations – an improvement for customers, who previously had to swallow services to software spend ratios of as much as 10:1, but a challenge for vendors and consultants whose business models were, at the time, built on extensive, hands-on, bespoke implementations.

Today, PLM vendors have instead embraced their roles as software companies, whose major revenue stream is software licenses of various kinds – not long-running technical and professional services contracts.

As a consultant, you now need to follow suit, and to consider your place in an industry that is steadily moving towards an intuitive configuration model and a 1:1 software to services ratio, or even less. In this context, WhichPLM sees the primary value of consultants as being strategic services that help brands and retailers re-engineer their product lifecycles, undergo far-reaching digital transformations, and implement proven best practices that extend far beyond the level of implementing PLM at their headquarters.

In practice, this means that a PLM consultant must know about a lot more than just PLM. Whether it's 2D and 3D CAD, augmented reality, Industry 4.0, CRM, ERP, or even Blockchain, your

services teams need to be able to engage with a brand or retailer, understand their supply chain, and map a huge array of inputs and outputs – upstream and downstream - that will allow them to obtain value from PLM above

and beyond core design and development and sourcing processes.

The Volume Market

As we have identified in the Market Analysis portion of this Buyer's Guide, we believe that automation and self-serve configuration and training will be the keys to success in the lower tiers of the RFA PLM market.

Unlike big corporations whose PLM projects serve as a stepping stone to a broader vision for digital transformation, small businesses investing in subscription-based PLM want core design and development functionality up and running in weeks – and they want to be able to access online training and user-friendly configuration.

It can be difficult to visualise a role for the traditional consultant here. In these situations, are

professional services teams even needed on the ground? We expect so, but for much shorter windows of time, helping smaller companies prepare their data and processes for perhaps two or three weeks, and then supporting unique training and onboarding requirements for a short while afterwards.

It may be that consultants have a role to play here in helping their vendor partners to design, maintain, and update the kind of tutorials, videos, wizards, and other materials that these customers will need. Or alternatively you may wish to consider training and accrediting smaller sub-practices or partners in emerging markets to manage the immediate and short-term needs of the influx of Tier 4 and Tier 5 clients that are sure to arise in those areas.

Across the board, though, your primary consideration should be achieving a balance between this end of the PLM spectrum, where volume is the key to profitability, and the upper tiers where a single engagement can still – even today – encompass months or years' worth of strategic, extended-PLM advisory work, assuming you can upskill your resources to take it on.

Glossary.

WhichPLM has a history of introducing new ideas to the industry, and coining terms to better define and encapsulate existing ones.

The concept of Extended PLM (E-PLM) originated with us several years ago, and throughout our editorial, analytical, and advisory work, we have helped to define (or re-define) many common industry acronyms and terms.

Throughout this Buyer's Guide, readers will find those industry acronyms and common terms used or alluded to by both our in-house team and by vendors and consultants who appear in our listings. While we have made every attempt to define these where they first occur, the nature of this Buyer's Guide means that not every reader will approach its content in a linear fashion, cover to cover.

In order to avoid confusion and provide absolute clarity for all common acronyms and phraseology, this glossary collects concrete definitions from PLM experts of what we consider to be the most useful, contested, and popular PLM industry terms, arranged in alphabetical order.

2017/18 = Each WhichPLM publication represents a retrospective look at the financial year that has gone before it, this Report included. Our 7th Edition, released in autumn (fall) 2017, examined trends, market analysis, topics, events, end user feedback and more – all originating from or pertaining to the fiscal year 2016/17, while this Buyer's Guide contains similar content, but from the financial year 2017/18. As a British company, WhichPLM defines a fiscal year as beginning 1st April of the originating year, and ending 31st March of the following one - so when we refer to "2017/18" in these pages, we mean the period from 1st April 2017 to 31st March 2018 rather than both full calendar years.

CAD = An acronym for Computer Aided Design, which collectively refers to any software platform – including peripherals and hardware accessories – that enables a designer to work digitally rather than on paper, to agreed-upon and replicable standards of measurement.

Cloud = A catch-all term for any application, deployment, or strategy that involves distributed processing or storage. Historically, these were split into Software as a Service (SaaS), Managed Services, and a host of other labels, but while the differences between these approaches remain, WhichPLM considers the most important distinction today to be between whether a solution is hosted on-site (i.e. on hardware owned and maintained by the customer) or off-site, in data centres owned and maintained by the vendor. While this is not always the case, a cloud deployment is often tied to a subscription pricing model, rather than the traditional upfront license / ongoing maintenance model.

CPG & CPG Crossover = Short for Consumer Packaged Goods, CPG is an extremely broad term that, along with Retail, Footwear and Apparel (RFA) captures almost every product category for retail goods, besides food and beverage. For the first time, the Market Analysis contained in this Buyer's Guide incorporates customers that fall under the umbrella of CPG Crossover. Coined by WhichPLM, this category is designed to capture those PLM customers who fall somewhere in between the RFA market that WhichPLM has covered for close to a decade, and more traditional consumer products. Broadly speaking, crossover products will still incorporate soft materials and textiles or employ similar processes to apparel. By way of example, toys, pet care products in the soft category, home and office furnishings, eyewear, watches, and jewellery would be considered CPG Crossover product categories, and therefore brands and retailers who work in these categories are, as of this Buyer's Guide, considered valid for

inclusion in PLM vendor's customer lists, and are covered by our Market Analysis. And while this list is by no means exhaustive, pharmaceuticals, food and beverage, beauty and cosmetics, white goods, and other similar products are considered to be traditional CPG, and do not fall into the new CPG Crossover category. These products (and the brands and retailers that sell them) are not, therefore, included in either our Market Analysis, or in vendor customer lists.

E-PLM = Shorthand for "extended PLM", E-PLM is a catch-all term referring to any of a massive variety of product development related applications or data repositories that should rightly be considered a part of the product development environment for the purposes of integration and data integrity. Today, digital transformation initiatives centre around the creation of a unified technological environment comprising E-PLM, PLM and other enterprise solutions.

ERP = Enterprise Resource Planning is often cited as being one of two large business systems that sit at the heart of a modern retail or brand environment – the other being PLM itself. ERP is more financially and logistically-oriented than PLM, and although this is not an exhaustive definition, the simplest method of delineating the two is to remember that PLM handles all product development tasks, passing its information on to ERP at the point that a product becomes a reality and enters the ordering, shipping, allocation, and selling process.

External user = We define an external user as an active, individual license situated outside the parent company – typically within the offices of one of its geographically distant supply chain partners. These users will likely have restricted access to the PLM solution, so the functionality of an external license should not be automatically considered equivalent to an internal license. Prospective customers should also note that vendors' approaches to these licenses differ dramatically: some provide free-of-charge external user licenses; some assign a license fee; some choose not to distinguish between these and internal users; and still others offer a stripped-down "vendor portal" instead, and do not recognise the term "external user" at all.

Internal user = We define an internal user as an active, individual license situated within the confines of the parent company – either its own offices, satellite locations, or international representatives.

License = A PLM solution is typically sold on a license basis, with each individual user that the customer predicts will need access to the solution (whatever their role) charged an individual license fee at an agreed rate. This applies to both internal users and external users. Pricing for both types of user can be subject to volume pricing. The word "license" may also be used to refer to the actual agreement between customer and vendor.

Maintenance = While vendors' own definitions of the term "maintenance" vary, WhichPLM defines it as the ongoing contract between customer and vendor that stipulates the provision of help desk support facilities, as well as access to bug fixes and enhancements to the licensed solution provided as GA (see above). This does not typically include the costs of the implementation itself or any hosting costs, since these are usually factored into what are referred to as "first year" costs, alongside licensing and more immediate services.

New, signed customer = Readers will find this phrase throughout our Vendor and Consultant Profiles, as well as our Market Analysis section. Where it is used, we are referring to a business that has, in the period we define as 2017/18, signed a deal with – the case of the PLM Vendor Profiles - an apparel PLM vendor to acquire that vendor's PLM solution ready for implementation across one or more brands, and with any number of licensed users. Customers who adopted a different solution from the same vendor without PLM – CAD, for instance – do not fall within this definition, and neither do customers of ERP, warehouse management and so on, unless they bought and adopted those solutions concurrently and in addition to PLM. For the reasons stipulated in its definition, PDM does not qualify as PLM for the purposes of this Buyer's Guide, and customers of PDM (and CPM) are not included in overall figures or statistics for 2017/18, falling well outside the scope of this publication.

PDM = An acronym that saw widespread use prior to the year 2000, when Product Data Management solutions were considered to be the best possible tools available to retailers, brands and manufacturers seeking to modernise their product development environments. As the name suggests, these systems were focused on the production, cataloguing and communication of product data – typically in the form of a PDF "tech pack". Although these solutions were later web-enabled, refined and enhanced as the industry progressed, eventually more fully-featured, web-based solutions that handled a greater variety of processes emerged, and PLM replaced PDM in virtually all of the territories WhichPLM covers. No major vendor focuses on selling PDM systems today, and the majority that previously did have established clear transitional programmes to move their legacy PDM customers to their modern PLM platform.

PLM = An acronym used in place of its longhand version, Product Lifecycle Management. Considered to have superseded CPM in approximately 2003, PLM is a suite of tools (often collectively called a "platform") that enables retailers, brands and manufacturers to optimise their product development processes, consolidate their data, and create a centralised, contemporaneous, collaborative backbone for the people, products and processes that together make up the lifeblood of their business. Although the acronym itself originated in the aerospace and automotive industries, today there are many vendors who provide proven PLM solutions to the retail, footwear and apparel industry, either as their sole focus, or as one vertical amongst many.

Resourcing = Where we refer to a given vendor's "resourcing", or where (such as in this publication's Vendor Profiles section) we have requested statistics to support a vendor's "resources by region", we are referring to individuals in the employ of the vendor who work in the area of PLM for retail, footwear and apparel. This does not typically include third party implementation or development partners, but these may fall under the umbrella of "resources" where an extremely close relationship has been established between the vendor and its partners over the course of many years. It is clearly desirable that these individuals have direct RFA industry experience in addition to deep product knowledge, but sadly this is not always the case, and in order to draw a distinction between pure numbers and what we consider to be "real" apparel industry staff, we use the phrase "expert resources".

RFA = A common industry acronym, RFA stands for retail, footwear and apparel, and is widely-used shorthand for the fashion, accessories, jewellery, footwear, toys, and automotive and home furnishings upholstery / textiles industries. Beginning with this Buyer's Guide, both RFA and CPG Crossover market segments are included in both our Market Analysis and PLM Vendor Listings.

ROI = Return on Investment refers to the main metric by which implementations of any enterprise system is typically judged: financial performance relative to the required investment. Despite some reductions in the total cost of ownership of PLM, the expenditure involved in licensing, implementing, and maintaining a modern solution remains significant. As a result, PLM projects should only be undertaken when a clear ROI business case has been assembled – an objective analysis of how soon and in what form the chosen solution can be expected to deliver a financial return greater than the cost of obtaining it.

Seat = Essentially interchangeable with "license", seat refers to an active, maintained individual software license – i.e. a human being occupying a seat at a desk, performing a job role, and actively using the software in question.

UI / UX = These two acronyms are not – despite common misuse – interchangeable. UI refers to the user interface of a given piece of software – the actual design and interactivity components through which the user experiences raw functionality. UX, on the other hand, is a farther-reaching term, used to denote the broader experience of actually working with that software. UX will include UI, but will also factor in other aspects like speed, social collaboration, click rates, the flow of information and more.



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