IDC MarketScape

IDC MarketScape: Worldwide Manufacturing PLM Strategic Consulting 2018 Vendor Assessment

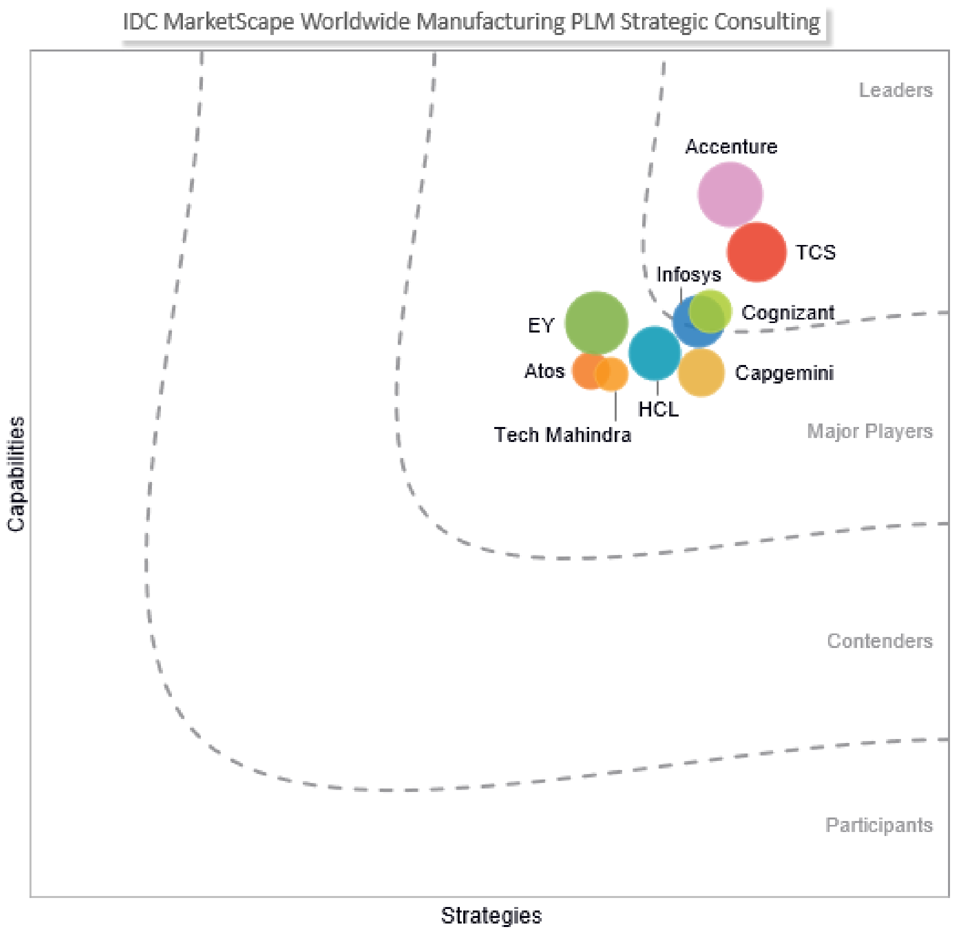
Jeffrey Hojlo

THIS IDC MARKETSCAPE EXCERPT FEATURES: COGNIZANT

IDC MARKETSCAPE FIGURE

FIGURE 1

IDC MarketScape Worldwide Manufacturing PLM Strategic Consulting Vendor Assessment



Source: IDC, 2018

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Please see the Appendix for detailed methodology, market definition, and scoring criteria.

IN THIS EXCERPT

The content for this excerpt was taken directly from IDC MarketScape: Worldwide Manufacturing PLM Strategic Consulting 2018 Vendor Assessment (Doc # US44515418). All or parts of the following sections are included in this excerpt: IDC Opinion, IDC MarketScape Vendor Inclusion Criteria, Essential Guidance, Vendor Summary Profile, Appendix and Learn More. Also included is Figure 1.

IDC OPINION

PLM and product innovation are digitally transforming and continue to extend within organizations and outside to the ecosystem that every manufacturer needs to have in place. Data from interconnected processes needs to be rationalized and cleansed constantly; analytics needs to be applied for decision support across product development, manufacturing, supply chain, and service; and legacy applications and processes need to be modernized by 3rd Platform digital technology — just a few examples of the work that needs to be done to digitally transform innovation.

It's a lot for any single company to stitch together, unify, maintain, and optimize. That is why a key part of every manufacturer's ecosystem is their network of systems integrators and strategic consultants. These technology and business strategy experts are indispensable enablers of a manufacturer's success and digital transformation, expected to function as members of the team, whether in IT, engineering, manufacturing, or service, not just as a project contractor.

This 2018 IDC MarketScape for manufacturing PLM strategic consulting analyzes nine service providers that support PLM strategic consulting from a vendor RFI, briefings and materials, and customer reference calls. Through this information and analysis, three common challenges faced by manufacturers surfaced, and that service providers have an opportunity to address:

- The manufacturers still struggle with unification of data, processes, and legacy systems for product innovation.
- They want to leverage new 3rd Platform technology such as cloud, analytics, social, and IoT to enable rapid, high-quality digital engineering, R&D, and product development.
- They all have multidomain, global, cross-business unit teams that need to work together (and don't always want to) for product innovation and development, across design, engineering/R&D, marketing, sales, manufacturing, supply chain, and service.
- They need to connect PLM to the business of products, which incorporates nonengineering/R&D into the design, development, and NPI process.

Related to these challenges, there are common expectations that these manufacturers have for their service providers:

- They have deep industry- and client-specific expertise — which they understand in part develops over time.
- Manufacturers expect a balance between training and enablement of their workforce while recognizing the human side of learning new technology — important in industries where there's an aging workforce.

- Manufacturers expect a deep level of complementary technical and domain know-how to complement strategic consulting capability. This is particularly important now as product innovation, engineering, and R&D digitally transforms and expands to encompass entire organizations.
- PLM strategic consulting must work in concert with technical architecture planning and be connected to a closed loop of information that constantly improves the direction of a company.
- Just as with systems integration and BPO work with strategic consulting, manufacturers expect consultants to function as an extension of their team and provide proactive advice and guidance to keep the product life cycle and innovation engines operating at optimal conditions.

The next decade will bring tremendous change to all industries, and service provider partners are needed to extend teams, enable support, and provide strategic business, technology, and industry guidance on what digital transformation means to executive, IT, and engineering professionals who can't do it all on their own.

IDC MARKETSCAPE VENDOR INCLUSION CRITERIA

There are multiple IT service providers, large and small, that offer strategic consulting for any number of PLM processes: product design, portfolio management, data management, and collaboration among coworkers, partners, and customers. For the purposes of this IDC MarketScape, we focus on the notable players with annual revenue of at least $1 billion that currently are focusing on strategic consulting for PLM at a customer site or support other product development processes and engineering services on an ongoing basis.

ADVICE FOR TECHNOLOGY BUYERS

In this time of digital innovation platforms, digital threads, and digital transformation, manufacturers need partners that extend and multiply innovation, from business strategy to the design of products through development, manufacturing, and service. Increasingly, it's not only the nuts and bolts, systems integration, data migration, and IT support that these companies need, it's also strategic planning and consulting guidance on how to navigate and accelerate an organization.

Large ($1+ billion in revenue) PLM service providers provide a unified business consulting and SI practice for PLM because they have to: PLM and product innovation is an integral part of every manufacturer's growth plan, and thus the new, digitally transformed approach to design, innovation, R&D, and engineering must be considered in concert with business strategy, plans, and goals. "Consulting" to many service providers in the PLM space often is strategic technology architecture planning, which is critical to execute the CEO's business plan and vision for the company, however, not the high-level, visionary business strategy that organizations also need to mature to the next level of innovation.

To accelerate digital transformation for manufacturers across industry and achieve long-term growth and success, PLM service providers must balance the need to provide systems, data, and process integration support, with strategic planning and consulting services that bridge corporate strategy, digital transformation, business planning, and IT architecture planning. The service providers featured in this document have all invested in developing these two sets of offerings; the next step is to continue the morph them into cohesive offerings that flexibly and completely address manufacturers changing and evolving digital needs.

For the technology buyer, we offer the following guidance regarding services providers that support PLM strategic consulting:

- Ensure there is a joint way of working between your strategic consulting between technology and strategic roles, to ensure a smooth transition or handoff between executives, business strategy, and the engineering/R&D systems that support new product introduction initiatives.
- Determine industry-specific expertise first when considering working with an outside partner, both of your industry at large and your specific business. Service providers have invested considerably in boosting their industry knowledge, so they can more effectively guide your strategy and approach.
- Work with your service provider to understand the analytics product or "wrapper" it can put around the different data models that you create, as well as the services it can provide in support of this.
- Focus on data model construction with strategic consulting as this frames how organizations will leverage the ubiquitous connectivity of products and processes.
- Leverage outcome-based pricing for service provider engagements, particularly when the work involves design and development of new products and services, as well as customer experiences. Service providers that have shifted to this approach have seen consistently high single-digit growth for the past two years — not the only reason but a factor nonetheless.
- Make PLM strategic consulting an ongoing initiative that is perpetually revisited during this incredible time of digital change, as a complement to annual, internal business planning initiatives. Assess and enhance the fitness of your products and services to ensure continual improvement, as they are the lifeblood for your company.

VENDOR SUMMARY PROFILES

This section briefly explains IDC's key observations resulting in a vendor's position in the IDC MarketScape. While every vendor is evaluated against each of the criteria outlined in the Appendix, the description here provides a summary of each vendor's strengths and challenges.

Cognizant

Cognizant is positioned in the Leaders category in the 2018 IDC MarketScape for manufacturing PLM strategic consulting, as it continues its maturity in supporting PLM. Our research shows Cognizant is differentiated by strong expertise in healthcare and consumer products industries and a rapidly growing practice in discrete manufacturing, including automotive and high tech.

Cognizant had 10% companywide growth last year, similar to 2015 (the last version of this document) when it also grew 10-15%. Cognizant is also highly profitable compared with other service providers analyzed for this document. In 2015, we cited a focus on 3rd Platform technology enablement, and this is still the case as companies begin to increasingly leverage cloud, mobile, big data analytics, social business, and IoT to increase the rate, quality, and delivery of new products and services. Cognizant in particular has the knowledge of process best practices around closed loop quality and a growing focus on NPI analytics. It has also made multiple acquisitions to bolster its ability to support digital transformation initiatives, including ReD Associates, Idea Couture, Mirabeau, Brilliant Services, Adaptra, Netcentric, Zone, and Hedera. This, combined with PLM and engineering services capability, as well as expertise in discrete and process manufacturing industries, makes Cognizant a formidable player in the PLM service provider space.

Historically strong in consumer goods, life sciences, and oil and gas, Cognizant has ramped up its focus and capabilities in growth segments such as automotive, machinery, and high tech — really any industry that has a need for design, innovation, analytics, and technical support for connected products. Automotive is now its second-largest industry behind life sciences with over 25 customers, while high tech is expanding quickly. 75-80% of the company's revenue is from North America, and 15-20% is from Europe — this is complemented by an even distribution of delivery centers across these regions as well as India and the rest of the world (Asia/Pacific, Middle East, and Latin America). Cognizant also has a growing collection of frameworks and accelerators such as the "ASPIRE" framework for PLM-led business transformation, Evalpro — a proprietary PLM package evaluation framework, PLM migration solutions, and multiple tools (i.e., OnePLM, Product Cost and Weight Analytics, and the AI-based PLM Chatbox) to enable faster ROI for customers. The intent of OnePLM is to eliminate the need for heavy customization on existing PLM applications to ensure easier future upgrades.

Cognizant also offers frameworks that could complement these offerings as PLM continues to extend in organizations today internally and externally, working closely with multiple PLM vendors to enable these transformations. These include the OnePlant Solution framework, APEx IoT platform, and Cognizant Customer 360, an analytics/CRM accelerator that can enable a "360 degree" view of the customer. Customer 360 in particular will become an increasingly important complement to Cognizant's work in the automotive space, as the industry progresses toward L5 vehicle autonomy. The company also has an expertise in new product development (NPD) analytics, which can be applied across industry and domain including product, manufacturing, supply chain, and service. Cognizant's view of PLM is broad, spanning each of these areas across industry and, much like other leaders in this document, has a combined strategic business consulting and systems integration focus for PLM.

Strengths

Cognizant had overall very good ratings from the customer references we spoke with including one vehicle industry supplier that needed to rationalize its product data management landscape by consolidating multiple non-collaborative applications and providing a "single source of its truth." The company is working with Cognizant on a future road map and an architecture plan to define closed loop PLM, as well as support for the company's all-important ETO efforts, which drive a lot of complexity into its business. Cognizant also has an expertise in life sciences and medical device, to complement its growing discrete manufacturing business. As far as the basics of account management, Cognizant excels; according to customers, Cognizant is "better than other companies" and many of the other services firms struggle with this because of turnover and/or multiple, different people working on the same project. Continuity between manufacturer and service provider is key, where the service provider team works as a manufacturing partner with a consistent group of people who don't often changeover — the customers we spoke with felt Cognizant had achieved this continuity. Another customer stated, "We've had the same people here for past two years, who are recognized as part of the team — we don't see them as contractors, they are there when they need them. They understand our needs, urgency, and can scale back and forth."

Challenges

One customer we spoke with said Cognizant meets its expectations for project management capabilities and PLM expertise, yet is excellent at maintaining consistency of resources on a project, which is a challenge for other large, matrixed services firms. In addition, Cognizant does not have a strong presence in Asia/Pacific (China, Japan, Korea, and Australia) currently, but it is planning to invest significantly to expand its business.

Consider Cognizant When

- You are focused on digitally transforming your PLM process and connecting this with IoT, manufacturing, and customer processes to enhance analytics and decision support, as well as overall enterprisewide product and process quality. Cognizant has a strength in strategic consulting for PLM, which it combines in a collaborative model with its systems integration team.
- You are looking to work with a services firm experienced in outcome-based pricing models, whether a process or discrete manufacturing organization.

APPENDIX

Reading an IDC MarketScape Graph

For the purposes of this analysis, IDC divided potential key measures for success into two primary categories: capabilities and strategies.

Positioning on the y-axis reflects the vendor's current capabilities and menu of services and how well aligned the vendor is to customer needs. The capabilities category focuses on the capabilities of the company and product today, here and now. Under this category, IDC analysts will look at how well a vendor is building/delivering capabilities that enable it to execute its chosen strategy in the market.

Positioning on the x-axis, or strategies axis, indicates how well the vendor's future strategy aligns with what customers will require in three to five years. The strategies category focuses on high-level decisions and underlying assumptions about offerings, customer segments, and business and go-to-market plans for the next three to five years.

The size of the individual vendor markers in the IDC MarketScape represents the market share of each individual vendor within the specific market segment being assessed.

IDC MarketScape Methodology

IDC MarketScape criteria selection, weightings, and vendor scores represent well-researched IDC judgment about the market and specific vendors. IDC analysts tailor the range of standard characteristics by which vendors are measured through structured discussions, surveys, and interviews with market leaders, participants, and end users. Market weightings are based on user interviews, buyer surveys, and the input of IDC experts in each market. IDC analysts base individual vendor scores, and ultimately vendor positions on the IDC MarketScape, on detailed surveys and interviews with the vendors, publicly available information, and end-user experiences in an effort to provide an accurate and consistent assessment of each vendor's characteristics, behavior, and capability.

Market Definition

Product Life-Cycle Management

IDC Manufacturing Insights defines the PLM market as an enterprise software application solution that brings together a number of activities required to develop, model, track, manage, and control the products and to manufacture, sell, maintain and, finally, retire these products. PLM applications are:

- Actively involved in enabling at least some of the PLM functions described in this section
- Sold into product-centric environments (e.g., manufacturing)
- Integrated to allow for data exchange and collaboration among employees, with a range of different responsibilities within the enterprise, as well as with outside partners (customers, marketing and sales, outsourced manufacturers, and so on)

For a vendor to be defined by IDC as a provider of PLM solutions, the vendor's enterprise software should offer any of the following core functions:

- Engineering software or some access to it, including mechanical computer-aided design (MCAD), mechanical computer-aided engineering (MCAE), and mechanical computer-aided manufacturing (MCAM)
- cPDM, which according to IDC's taxonomy has a number of subsegments including vaulting, document management, change management, light geometry with view/markup capabilities for visualization across the web, parts libraries, and newly emerging idea management and product-focused environmental compliance management
- Project and portfolio management (PPM) software used for new product development and introduction (NPDI)

Beyond these features that form the core of PLM applications, a comprehensive solution should also include:

- Collaboration applications, especially for team collaboration within the enterprise as well as with external business partners
- Business performance measurement software to analyze cost efficiencies and search for process improvements (see Figure 2)

We also think that manufacturers will begin to connect their PLM systems into a broader ecosystem of enterprise systems, data, and processes to form a product innovation platform, as shown in Figure 2. PLM systems integrators will be critical to support this approach.

FIGURE 2

Product Innovation Platform Framework

Source: IDC Manufacturing Insights, 2018

LEARN MORE

Related Research

- *IDC MarketScape: Worldwide Manufacturing PLM Systems Integrator and BPO Services 2018 Vendor Assessment* (IDC #US42139318, October 2018)
- *Digital Transformation Use Cases for Product Innovation* (IDC #US43668818, July 2018)
- *IDC PlanScape: Product Life-Cycle Analytics* (IDC #US42139118, June 2018)
- *IDC PlanScape: Digital Twins for Products, Assets, and Ecosystems* (IDC #US43134418, April 2018)
- *IDC MaturityScape Benchmark: Product Innovation Platform in North America, 2018* (IDC #US41837817, December 2017)
- *IDC MarketScape: Worldwide Manufacturing PLM Strategic Consulting 2015 Vendor Assessment* (IDC #US40637915, December 2015)

Synopsis

This IDC study analyzes select strategic consulting providers in the PLM market.

"In this time of digital innovation platforms, digital threads, and digital transformation, manufacturers need partners that extend and multiply innovation, from business strategy to the design of products, through development, manufacturing, and service. Increasingly, it's not only the nuts and bolts, systems integration, data migration, and IT support that these companies need, it's also strategic planning and consulting guidance on how to navigate and accelerate an organization," said Jeff Hojlo, program director, Product Innovation Strategies at IDC.

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

Global Headquarters

5 Speen Street
Framingham, MA 01701
USA
508.872.8200
Twitter: @IDC
idc-community.com
www.idc.com