IDC MarketScape

IDC MarketScape: Worldwide Manufacturing PLM Strategic Consulting 2018 Vendor Assessment

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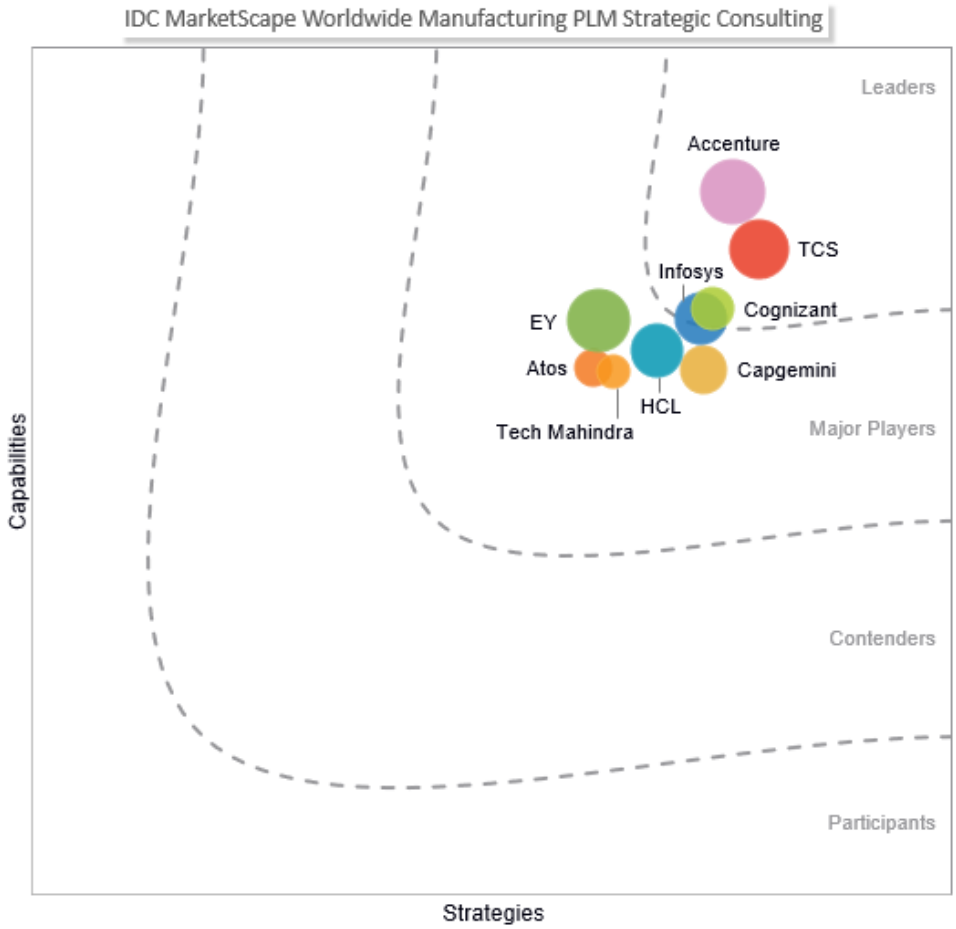
THIS IDC MARKETSCAPE EXCERPT FEATURES: INFOSYS

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.

Infosys

Infosys is positioned in the Leaders category in the 2018 IDC MarketScape for manufacturing PLM strategic consulting. Our research shows that Infosys is differentiated by strong industry knowledge in process industries such as consumer goods and life sciences as well as in discrete manufacturing such as high tech with a significantly large number of PLM customers, and a growing focus on analytics and manufacturing shop floor. It combines this with strong strategic consulting capability that is rooted in deep knowledge of PLM across varied industries.

Overall, customer references were positive for Infosys, perhaps in part because over a third of its consultants are from the manufacturing industry, so there is a strong domain knowledge and ability to speak the language of its customers — both process and discrete manufacturing. This was a key point from customers three years ago, and it is so now as well. In particular, there are a large number of consultants from CPG, as well as from high tech and automotive. One industrial customer said that Infosys' account management and customer support capabilities are very strong and that the company combines this with strong data management and integration capabilities as well as an ability to condense multiple systems into a unified approach. This particular customer is in the design and development phase of rationalizing and integrating 900 different versions (some "homemade") of PLM

and CAD together, integrated with sales and manufacturing for CTO – thus far, this company is happy with the work Infosys has done. An industrial customer said, "if we have a problem, we trust that they will be there for support – never have been disappointed." Infosys uses its PLM maturity assessment framework at an early stage of strategic consulting, as a catalyst for its systems integration work that it does. This framework spans the entire PLM process including design, commercialization, sourcing, manufacturing, and service and has an underlying focus on establishing a digital thread across these domains.

Infosys is shifting to a profit share/outcome-based model, with 6–10% of its revenue coming from this model. Although not the only reason for growth certainly, this is an indication that this approach can translate to revenue growth. The company also has 30+ delivery centers in the rest of the world, far more than other service providers, seeing an opportunity to expand its business and planning for future growth. Infosys complements this with strategic partnership with academia (e.g., Stanford University for design thinking as well as data science and analytics and the University of Aachen in Germany for PLM's impact on Industry 4.0). Its positioning in emerging markets, combined with a diverse industry capability across discrete and process manufacturing industries as well as 30%+ of its employees hired from these industries, bodes well for Infosys' future growth.

Strengths

Multiple companies (their references and others as well) mentioned Infosys' capabilities in data management, cleansing, and rationalization, which is a critical (albeit not the most exciting) offering moving forward as companies continue to digitally transform. This, combined with its homegrown artificial intelligence analytics platform Nia, investment in manufacturing shop floor talent and capabilities as well as marked experience and expertise in direct materials sourcing will be a differentiating capability in the PLM market in the near term and likely will continue to drive growth for the company. For strategic consulting, Infosys brings a wide lens to "PLM," combining strong knowledge of IoT, analytics, configuration management, and product line engineering, with the ability to run design thinking workshops for clients and see how a digital innovation platform approach to PLM ties from R&D and engineering to the rest of the business. The company has spent considerable time over the past few years ramping up its expertise in manufacturing operations as previously alluded to, which it ties with its analytics consulting and product offering with the goal toward enabling customers to realize an Industry 4.0 or smart manufacturing approach to NPI, as well as ongoing product and service improvement.

Challenges

One low mark from customer conversations is for Infosys' ability to communicate the company's current capabilities, as well as long-term services road map to its customers and prospects. This is less about its ability to convey a marketing message at the corporate level to the market and more about its consultants being enabled to understand the scope of capabilities that the company possesses and when to apply those capabilities and resources. The aforementioned industrial customer said it is generally happy with the 20–25 person onsite, 60+ person offsite approach Infosys has in work with itself, although "sometimes it takes two to three weeks to find the right person for a project."

Consider Infosys When

- You need support for data management, cleansing, and analytics across your product life-cycle management process and into manufacturing (i.e., when you are moving to establish a digital thread and product innovation platform across these processes).

- You require strong consumer products or high-tech expertise as well as application development work across discrete industry (38% of its business is from app dev).

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.

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