

IDC MarketScape: Worldwide Manufacturing Intelligence Transformation 2023 Vendor Assessment

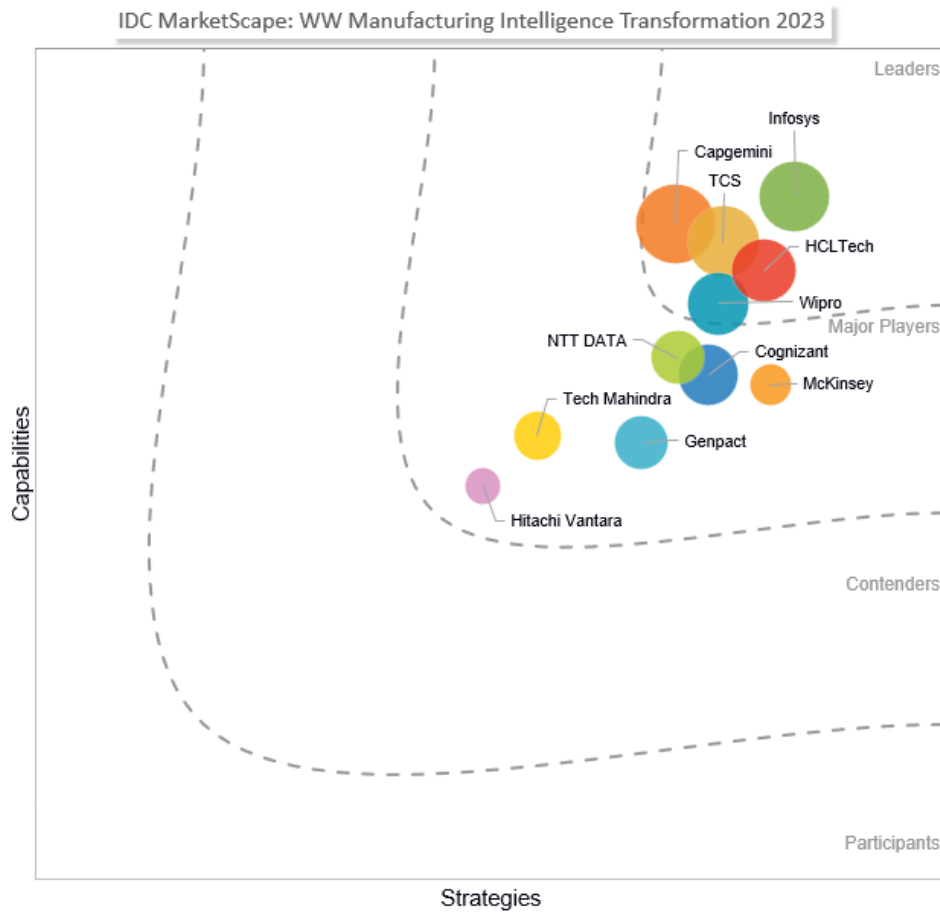
Reid Paquin

THIS IDC MARKETSCAPE EXCERPT FEATURES: INFOSYS

IDC MARKETSCAPE FIGURE

FIGURE 1

IDC MarketScape Worldwide Manufacturing Intelligence Transformation Vendor Assessment



Source: IDC, 2023

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 Intelligence Transformation 2023 Vendor Assessment (Doc #US50247822e). 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

This IDC study assesses the market for worldwide manufacturing intelligence transformation (IX) vendors through the IDC MarketScape model. This research is based on a quantitative and qualitative assessment of the characteristics that explain a vendor's success for intelligence transformation solutions in the manufacturing industry and that help assess current and anticipated performance. IDC defines intelligence transformation as an organization's ability to synthesize the information it needs to learn and to apply the resulting insights at scale. Dimensions of intelligence transformation include data discovery, value development, value realization, knowledge and collaboration, and information architecture. In addition, a key component of IX is applying technologies, such as business analytics, big data, information, and data management – usually in combination with other 3rd Platform technologies and innovation accelerators (cloud, mobile, social, Internet of Things (IoT), augmented reality/virtual reality [AR/VR], artificial intelligence/machine learning [AI/ML], cognitive, etc.). A companion to this document is *IDC MarketScape: Worldwide Manufacturing Intelligence Transformation Strategic Consulting 2023 Vendor Assessment* (IDC #US50247922, February 2023).

This study assesses the capabilities and business strategies of 11 of the prominent information technology (IT) service providers for IX projects that include:

- Application development, maintenance, and support
- System implementation, systems integration (SI), data integration, and infrastructure outsourcing
- BPO, outsourcing of business processes such as customer support, call centers, warranty registration, and any other ongoing repetitive processes, such as report generation (monthly/weekly/quarterly data analysis)

This evaluation is based on a comprehensive framework and a set of parameters expected to be most conducive to success in providing IT services for IX in both the short term and the long term. Key findings include:

- Intelligence transformation in manufacturing, as defined in this study, is one of the pillars of digital transformation (DX). In its simplest terms, IX services enable manufacturers to define and execute against an intelligence strategy that capitalizes on the value of data that is and will become available to manufacturers and embed intelligence in how manufacturers manage their operations and deliver products and services. Key elements include the ability to synthesize information, the capacity to learn, and delivering insights at scale.
- All 11 vendors included in this IDC MarketScape bring notable capability to the space, although they offer varying approaches to IX and its subcategories. All of them face

competition from niche service providers as well as other IT suppliers. However, these other categories of competitors have not committed to providing the wide range of services and depth and breadth that we find in the vendors included in this research. In addition to the specific capabilities noted in this document, they dedicate significant resources to developing a partner ecosystem that is broad and diverse to ensure that they are continually innovating in their approach.

- This IDC MarketScape looks at IX projects across the manufacturing value chain including outcomes such as customer experience management, product innovation, supply chain planning and execution, smart manufacturing, and field service management. This intelligence transformation IDC MarketScape was conducted in concert with *IDC MarketScape: Worldwide Manufacturing Intelligence Transformation Strategic Consulting 2023 Vendor Assessment* (IDC #US50247922, February 2023) and includes analysis, with recently published IDC MarketScape documents focused specifically on service life-cycle management (SLM) and product life-cycle management (PLM) transformation:
 - *IDC MarketScape: Worldwide Manufacturing Service Life-Cycle Management Systems Integrators/Business Process Outsourcing 2022-2023 Vendor Assessment* (IDC #US48840322, December 2022)
 - *IDC MarketScape: Worldwide Manufacturing Service Life-Cycle Management Strategic Consulting 2022-2023 Vendor Assessment* (IDC #US48840422, December 2022)
 - *IDC MarketScape: Worldwide Manufacturing PLM Systems Integrator and BPO Services 2022 Vendor Assessment* (IDC #US49838022, November 2022)
 - *IDC MarketScape: Worldwide Manufacturing PLM Strategic Consulting Services 2022 Vendor Assessment* (IDC #US48867622, November 2022)
- IT service providers' global network of delivery centers and centers of excellence (COEs) supports ongoing development and delivery of IX. This includes traditional analytics, big data, and advanced analytics, as well as increasingly incorporating other 3rd Platform technologies and innovation accelerators.
- The criteria used in this IDC MarketScape for worldwide manufacturing intelligence transformation (and the resulting position of the vendors [refer back to Figure 1]) are across dual dimensions of strategy (future plans and where the vendor is headed) and capability (where the vendor is today in terms of capabilities). Each of the elements within strategy and capability is then assigned a weighting based on the relative importance of each criterion in the opinion of IDC Manufacturing Insights and feedback from manufacturing customers.
- The results of this study reveal differences in experience by subindustry and delivery approach, and this information can be useful to manufacturers as they evaluate IT service providers in the SI/BPO/consulting space. How the vendor locates resources and what industries are most heavily represented in its customer list are two useful points of information.
- This IDC MarketScape is a starting point for manufacturers that are evaluating IT services vendors for help with implementation of IX projects. It is a short list, if you will – a way to initially winnow down the long list of providers that exist in the marketplace. It does not replace the "due diligence" that companies must then complete to select the ultimate vendor for assistance in an intelligence transformation initiative.

IDC MARKETSCAPE VENDOR INCLUSION CRITERIA

Intelligence transformation is a work in progress for many manufacturers. Far too many organizations learn and apply knowledge in silos (customers, operations, and finance) and one

transaction/activity/data point at a time, leading to many challenges and limiting the success of IX initiatives. The most advanced manufacturers can accelerate the pace of sophisticated analysis, the mix of data and data types, and the ability to optimize and predict business decisions. To gain competitive advantage and become increasingly customer centric, manufacturers must adapt their classic data management approaches to master a differentiated information value chain.

For the purposes of this IDC MarketScape, and any subsequent research on the topic from IDC Manufacturing Insights, we are defining services for intelligence transformation to include a combination of services, tools, and methodologies to support the development of an information strategy, ongoing information management, and increasing embedded intelligence and value from data. This includes analytics and visualization tools for IX and the ability to integrate across enterprise systems.

There are many IT service providers that offer services around manufacturing processes that make up intelligence transformation. For the purposes of this IDC MarketScape, we are focusing on vendors:

- With an annual revenue of \$500 million or greater
- With the ability to support global deployments
- With at least 10% of their revenue stemming from the manufacturing industry

We define manufacturing very broadly, including consumer products; chemicals, pulp and paper, metals, and other process manufacturing segments; automotive, aerospace, farm, construction, and industrial machinery and other discrete manufacturing segments; and high-tech equipment and components. (Note that our definition did not always align with the 11 vendors included in this study.)

ADVICE FOR TECHNOLOGY BUYERS

- **Think about your future business while solving the problems of today.** Manufacturers need to make sure to not just solve the problems in front of them without an eye to future disruptions and customer needs. Each investment and initiative should build upon each other to avoid siloed projects. Being successful in the long term requires a mindset of linked achievement and investments.
- **Evaluate IT maturity across the enterprise and how intelligence transformation fits into a broader view of transformation.** Digital technology, whether for the purpose of individual process improvement or wide-ranging transformation, should be incorporated into the broader enterprise intelligence transformation road map. With the emergence of platforms and ecosystems, digital technologies should be deployed with a mindset to integration and shared benefit. An individual manufacturing process such as scheduling, claims processes, or maintenance inspection has value across the digital thread of the organization but will go unutilized if systems aren't integrated.
- **Pay attention to industry-specific domain knowledge and capabilities.** Services providers have varying levels of expertise across segments (automotive, chemicals, etc.) and business processes (R&D, supply chain, plant floor, service, etc.). This combination of industry-specific needs and deep process understanding enables them to identify and recommend "best practices" that enable projects to deliver value and scale quickly. Therefore, understanding how the services provider addresses the business process within your industry segment is essential. If it's through packaged IP (intellectual property) in the form of tools, ensure that the provider's project leadership will make sure the tools work together for one solution; references commonly cited extra work being needed to make the solutions work for their

specific company. Operational technology (OT) and cybersecurity are two areas that should be paid close attention to for most manufacturers focusing on intelligence transformation.

- **Look to providers to supplement internal skills gaps.** Manufacturers have been combating a talent gap across their organization for years. IX projects in particular lack the necessary resources and knowledge around data science, decision science, and data architecture skills to take advantage of the latest technology and AI/ML. All the service providers in this IDC MarketScape have made commitments to expand the manufacturing expertise of their workforce, hiring directly from the industry.
- **Consider the advantages of working with a services provider that already knows your business.** Multiple references indicated that they selected a provider based on the provider's knowledge of their systems or their products and processes and how that knowledge allowed the project to move forward more quickly.
- **Focus on becoming a data-driven organization.** The ability to synthesize information does not mean delivery of more reports, dashboards, or other human-consumable indicators of past performance or status of operations. Data synthetization should focus on delivering actionable information in the context of its recipient. This is where true value can be derived and what will differentiate successful companies from those that struggle to compete.
- **Do not let data quality challenges hold back IX projects.** All of the providers in this study were able to help customers make forward progress without doing an all-encompassing data quality initiative. In some cases, they built some degree of data quality automation into the project, or they established a parallel data quality-as-a-service initiative.
- **Pay close attention to the AI capabilities/strategies.** It is clear that artificial intelligence will be a key technology for the industry as more manufacturers progress down their transformation initiatives. While AI is a hot topic across space, there is usually work that needs to be completed before a manufacturer can start taking advantage. Challenges around the data, both access to enough data and data cleanup, are commonly cited as inhibitors to AI adoption.
- **Understand how the services providers structure their interactions and populate the project teams.** In countless interviews with manufacturers, there was consistent advice to ensure that the way the services firm balanced onshore needs with offshore resources matched what the manufacturer needed. In the wake of COVID-19, this balancing and the ability to offer remote assistance has become even more pressing. This approach varies by services provider, and it is worth an extensive discussion up front to be certain that the right expectations are established to support the initiative.
- **Understand the delivery infrastructure that the service providers offer and how they innovate with the partners in their ecosystem.** Given the global nature of most manufacturers' businesses, and the potential for many IX projects to span geographies, it is important to understand what resources service providers have located in each region, including delivery centers and domain-specific FTEs, with most providers expanding their local presence. In addition, most service providers have built centers of excellence around various IX and innovation accelerator domains. They often rely on COEs and other centers to strengthen their ability to leverage partners' capabilities and foster the kind of innovation that is often only found in academia or start-ups.
- **Use this IDC MarketScape as part of the vendor evaluation process.** Use this IDC MarketScape in contract negotiations and as a tool to not only short-list vendors for IX service bids but also evaluate vendors' proposals and oral presentations. However, this should only be one part of your vendor selection process. It is important to also collaborate with internal SMEs and build KPIs/characteristics that you are looking for in a provider.

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 criterion 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 this 2023 IDC MarketScape for worldwide manufacturing intelligence transformation.

Infosys Ltd., with headquarters in Bengaluru, India, is a multinational corporation providing business consulting, information technology, and outsourcing services. Founded in 1981, Infosys has provided services to the manufacturing industry for more than 40 years, with clients across the globe and North America as its largest geography. Infosys customers are distributed across all manufacturing segments, with discrete manufacturing representing its top segment and the majority being large organizations with revenue over \$1 billion.

Infosys provides intelligence transformation services across the manufacturing value chains, including projects supporting product design/innovation, customer relationship management, supply chain planning and execution, enterprise quality management, plant/operational performance, asset performance management, and field service. Infosys has over 100 delivery centers across the world capable of delivering IX services to manufacturers. Infosys' innovation focus for the manufacturing industry is tuned to address business-critical challenges by leveraging emerging technologies and business process best practices.

Infosys has formal strategic partnerships within the intelligence transformation life-cycle management with Adobe, Google, Microsoft, Amazon Web Services (AWS), Bosch, Configit, Doppelio, Fanuc, IFS, IBM Maximo, OneTrust, ESG Book, Informatica, Stibo, Oracle, PTC, Dassault, Salesforce, SAP, ServiceMax, ServiceNow, Siemens, Enablon, and Pegasystems. The company has made a number of acquisitions that strengthen its IX approach, including oddity, Carter Digital, Kaleidoscope, and Blue Acorn iCi. Infosys plans to build its IX offering by systematically scanning the market for emerging technologies that can add value to its offerings.

Strengths

Infosys brings together a strong focus on the manufacturing industry and has built a track record of innovation and transformation for its clients. Infosys' large footprint in the manufacturing industry and strong relationships with executives are also a strength and help with name recognition. The industry expertise that Infosys has built over the past 40 years is supported by a strong focus on cultivating talent, with the training/development of employees through COEs, partnerships with academia and localization strategies all part of its ongoing workforce plans. References cited how onsite consultants were very capable and good at executing to a project plan (strong team with flexible subject matter experts).

Challenges

Infosys must continue to invest in both technical and industry expertise to maintain its Leaders position in this IDC MarketScape, especially as more IX projects require both aspects to deliver manufacturing outcomes. Talent issues are only going to accelerate across the industry, and the competition for these limited resources will be high. One reference reported consultant attrition as an issue encountered,

leaving a knowledge gap that had to be addressed when the resource moved on to a new project. Infosys should better leverage its multiple pricing models to provide contractual flexibility to clients and address any engagement-specific changes.

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.

For this IDC MarketScape on worldwide manufacturing intelligence transformation, because we are evaluating 11 vendors that are dominant in terms of market share and presence (rather than niche players), all of the vendors ended up within either the "Major Players" segment or the "Leaders" segment of this IDC MarketScape. These vendors have all demonstrated depth of experience with global 1,000 companies in this area. And while we have outlined some of the differences of offerings and strengths within the individual vendor profiles, IDC Manufacturing Insights would not hesitate to recommend any of them to a manufacturer evaluating this space.

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

IDC defines IX as an organization's ability to synthesize the information it needs to learn and to apply the resulting insights at scale to transform. Dimensions of intelligence transformation include data discovery, value development, value realization, knowledge and collaboration, and information architecture. In addition, a key component of IX is applying technologies such as business analytics, big data, and information and data management, usually in combination with other 3rd Platform

technologies and innovation accelerators (cloud, mobile, social, IoT, AR/VR, cognitive/AI/ML, etc.). Leaders in intelligence transformation can treat data and information as they would any critical business asset – with investments in people, processes, and technologies that acknowledge information's strategic importance and with a road map to maximize information's contribution to the business' success.

The following are select service capabilities/offerings for IX in manufacturing that vendors were evaluated against in the areas of business process focus:

- Customer relationship management (sales, contact center, marketing, website, and price)
- Supply chain execution (procurement, logistics, production plans, supplier, and inventory)
- Production/supply chain planning (demand, supply, production, and S&OP)
- Product (new product design, costing, product quality, compliance, sustainability, and product portfolio)
- Enterprise quality (in products and processes)
- Plant performance (manufacturing intelligence, OEE, output quality, environmental, energy, and compliance)
- Asset performance management (maintaining owned assets)
- Service (new service design and delivery, warranty, customer service, field service, and supporting sold products)

Among the considerations for engaging with an IX services firm is the firm's experience in vertical markets and its presence in each geography. Often, the geographic presence indicates how well the provider can offer onshore resources to meet customer needs. While there is a concentration of customers in North America and Europe for most of the vendors, there is an increasing opportunity in emerging markets for these companies, and we expect to see growth continue in these regions. Another consideration is the level of experience the vendor has within a certain vertical market or manufacturing segment.

[LEARN MORE](#)

Related Research

- *IDC MarketScape: Worldwide Manufacturing Intelligence Transformation Strategic Consulting 2023 Vendor Assessment* (IDC #US50247922, February 2023)
- *IDC MarketScape: Worldwide Manufacturing Service Life-Cycle Management Systems Integrators/Business Process Outsourcing 2022-2023 Vendor Assessment* (IDC #US48840322, December 2022)
- *IDC MarketScape: Worldwide Manufacturing Service Life-Cycle Management Strategic Consulting 2022-2023 Vendor Assessment* (IDC #US48840422, December 2022)
- *The Implications of Inflation and Potential Recession on the Manufacturing Industry* (IDC #US49844622, December 2022)
- *IDC MarketScape: Worldwide Manufacturing PLM Systems Integrator and BPO Services 2022 Vendor Assessment* (IDC #US49838022, November 2022)
- *IDC MarketScape: Worldwide Manufacturing PLM Strategic Consulting Services 2022 Vendor Assessment* (IDC #US48867622, November 2022)
- *Fostering Safety to Promote Operational Excellence* (IDC #US49736722, October 2022)

- *IDC FutureScape: Worldwide Manufacturing 2023 Predictions* (IDC #US48630122, October 2022)
- *IDC's Worldwide Digital Transformation Use Case Taxonomy, 2022: Asset-Oriented Value Chains in the Manufacturing Industry* (IDC #US49323522, September 2022)
- *IDC's Worldwide Digital Transformation Use Case Taxonomy, 2022: Brand-Oriented Value Chains in the Manufacturing Industry* (IDC #US49295122, July 2022)
- *IDC's Worldwide Digital Transformation Use Case Taxonomy, 2022: Engineering-Oriented Value Chains in the Manufacturing Industry* (IDC #US49294222, July 2022)
- *IDC's Worldwide Digital Transformation Use Case Taxonomy, 2022: Technology-Oriented Value Chains in the Manufacturing Industry* (IDC #US48629822, July 2022)
- *Manufacturing 2022 IT Investment Guide* (IDC #US49296222, June 2022)
- *Manufacturing Skills Gap: 2022 Talent Management Survey Highlights* (IDC #US48986121, March 2022)

Synopsis

This IDC study uses the IDC MarketScape model to provide an assessment of 11 service providers participating in the worldwide manufacturing intelligence transformation (IX) market. The IDC MarketScape is an evaluation based on a comprehensive framework and a set of parameters that assesses providers relative to one another and to those factors expected to be most conducive to success in a given market during both the short term and the long term.

"Intelligence transformation is an essential pillar of digital transformation and the future of intelligence. IX services play a critical role in a manufacturer's ability to synthesize information, generate value from data, and deliver that value at scale. IX service providers must be able to help manufacturers embed intelligence into how they develop, source, produce, service, market, and sell their products and services," says Reid Paquin, research director for IDC Manufacturing Insights' IT Priorities and Strategies practice.

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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