

# IDC MarketScape

# IDC MarketScape: Worldwide SaaS and Cloud-Enabled Manufacturing ERP Applications 2019 Vendor Assessment

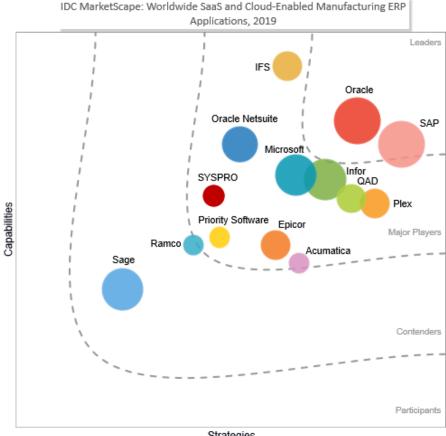
Reid Paquin Mickey North Rizza

#### THIS IDC MARKETSCAPE EXCERPT FEATURES ACUMATICA

#### IDC MARKETSCAPE FIGURE

#### FIGURE 1

## IDC MarketScape Worldwide SaaS and Cloud-Enabled Manufacturing ERP **Applications Vendor Assessment**



Strategies

Source: IDC, 2019

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

#### IN THIS EXCERPT

The content for this excerpt was taken directly IDC MarketScape: Worldwide SaaS and Cloud-Enabled Manufacturing ERP Applications 2019 Vendor Assessment (Doc # US45098119). 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**

## Digital Transformation Changing the Industry

Today, survival of the fittest is not linked to size or strength but to the ability to change – to move quickly, adapt, seize opportunities, and be agile. Capturing a piece of the digital transformation (DX) opportunity is at the center of business strategies today. Across all industries, this amounts to an opportunity for an increased annual economic value of \$18.5 trillion, or nearly 25% of global GDP. For the manufacturing industry, the opportunity is higher than most, representing \$4.5 trillion of the \$18.5 trillion opportunity. Digital transformation must be an enterprisewide, board-level strategic reality for companies wishing to remain relevant or maintain or enhance their leadership position in the digital economy. Digitally transformed businesses have a repeatable set of practices and disciplines used to leverage new businesses, 3rd Platform technologies, and operating models to disrupt businesses, customers, and markets in pursuit of business performance and growth. DX is driving businesses to rethink their technology strategy, and that includes moving beyond their legacy enterprise resource planning (ERP) and back-office systems.

## SaaS and Cloud-Enabled Software Driving Investment

While many manufacturers still invest in antiquated on-premises systems, the most mature DX businesses have turned their focus to SaaS and cloud-enabled software. This focus has been driven by the need for flexible and agile business applications that are relatively easy to implement, configure, and update. Demand for cloud-based manufacturing ERP applications continues to grow because of the ability to access and analyze massive amounts of data in near real time. With speed and agility being essential for DX, businesses want and need more from their enterprise systems than ever before, and that includes using the most up-to-date and advanced systems found in SaaS and cloudenabled systems. SaaS and cloud-enabled software enable growing businesses to quickly expand into new regions around the globe without making major investments into their technology infrastructure because they are extremely adaptive to accelerated rates of change. SaaS and cloud-enabled systems are adaptive to dynamic operations environments, which is why this IDC MarketScape for SaaS and cloud-enabled manufacturing ERP applications is extremely important as a technology vendor guide for today's COO, CFO, CIO, and IT buyer.

## Manufacturing ERP

Manufacturing ERP includes product-centric organizations across four distinct value chains:

- Asset-oriented value chain (AOVC) Industries include chemicals, metals pulp, and paper.
- Brand-oriented value chain (BOVC) Industries include consumer packaged goods (CPG), food and beverage (F&B), fashion, and life sciences.

- Engineering-oriented value chain (EOVC) Industries include automotive, aerospace and defense (A&D), and industrial machinery.
- Technology-oriented value chain (TOVC) Industries include electronics and semiconductors (high tech).

There are unique industries challenges and business processes within different segments of manufacturing, and it is critical to understand these differences. However, while there are many variables across value chains, segments, enterprises, and even individual locations within a company, all manufacturers utilize ERP systems as the backbone to run their business. Manufacturing ERP systems incorporate operational modules, including order management, finance, procurement, enterprise asset management (EAM), production, and supply chain, to maximize operational efficiencies. Manufacturers see benefits from the integration between core finance and operational capabilities, so that operational transactions with a financial impact are reflected directly in financial modules.

In today's fast-paced global business environment, successfully managing the operation's processes to meet the organization's financial obligations is essential. Moreover, as the digital economy continues to develop the organization, the finance, manufacturing, supply chain, sales, and asset management functions will play a larger forward-facing role – interacting with clients and customers. The operations of an organization can be complex and fraught with inefficiencies for companies of all sizes. During our interactions with manufacturing professionals, the following issues were top of mind:

- New product introduction (NPI) velocity: Bringing new offerings to market today is a complex endeavor. Customers are demanding that their products be feature rich, sold at a low cost, and reliable and deliver an enjoyable user experience. Compounding the issue is the need for companies to be first to market, as the voice of the customer is stronger than ever before. Projects that do not hit launch dates run the risk of failing to realize their full value. A major inhibitor to this process is internal silos and a lack of tools to effectively communicate change.
- Agility: Competition has never been higher in manufacturing, and more companies competing for the same customer base make differentiation a challenge. Standing out among these competitors is a top objective for any manufacturer and the best way to achieve this is by knowing your customer. Customer needs are evolving faster than ever before, and customization of products is key. This is resulting in factories being relied upon to handle more complex operations serving a wider range of products, with faster throughput, smaller lots, all at minimized costs. Balancing cost, quality, throughput, and agility is a complex equation that many manufacturers struggle with.
- Product/service mix: Many industries are suffering from the commoditization of products, which impacts their ability to grow revenue or move into new markets. A way to combat these issues and differentiate is through new value-add services that can be provided leading many manufacturing organizations to embrace servitization. This allows a company to provide services and solutions that supplement their traditional product offerings.
- Demographics: Talent is a hot button issue for most companies, but the manufacturing industry is feeling the pressure more than most. One of the main reasons is because the manufacturing workforce is skewed toward older workers and aging. Baby boomers are retiring every day and leaving gaps that need to be filled. In addition, attracting younger talent is a challenge as manufacturing is not viewed as an "exciting" industry. Companies need to rethink how they approach talent management to succeed going forward.

Manufacturing workflows are quickly changing as part of digital transformation initiatives. This shift brings forth a new chapter in the evolving story of manufacturing ERP applications. The new chapter within manufacturing ERP software applications will be characterized by the following:

- 3rd Platform: These technology enablers allow businesses to accelerate their digital transformation. At the core are the four pillar technology areas: big data and analytics, cloud, mobile, and social. These four technologies are important, foundational elements in a digital enterprise that can disrupt the market and successfully adapt to a new, digital transformation-focused economy. This year, 3rd Platform technologies and services will drive nearly 75% of IT spending growing at twice the rate of the total IT market. This spending will be fueled by further evolution of the 3rd Platform's four pillars as well as the rapid adoption of the innovation accelerators. This platform will be required for manufacturers to compete in the digital economy.
- Internet of Things (IoT): IoT is a hot topic across all industries but even more so among manufacturers, as the opportunity for transformation is largest. IoT is pervasive throughout all manufacturing value chains, with ongoing activity across three primary use case categories: smart manufacturing, connected supply chain, and connected products/services. The biggest opportunity for transformation comes from a product/service standpoint. Manufacturers (discrete manufacturers in particular) are looking to IoT-connected products as a way of transforming business models that capitalize on the intersection of products and services. This link between customer products and real-time IoT data is an opportunity for manufacturers to better understand customers, as well as their behaviors and what they value, in order to deliver customized offers.
- Rise of artificial intelligence (AI)/machine learning (ML): Recently, companies have turned to structured machine learning to speedup/streamline key financial processes such as matching, invoice reconciliation, transaction processing, and compliance. In addition, early adopters of machine learning have been able to eliminate a large amount of time spent on manual tasks while also decreasing the error rate of these same tasks. Also, roughly 80% of today's operations' professional time is spent on lower-level tasks like manual matching of receipts, invoices, purchase order, and inventory tagging. Artificial intelligence is being used to automate many of these lower-level tasks freeing up valuable organizational resources to focus on higher-level strategic tasks. When we look at the future of DX, AI and machine learning will be woven into every use case undertaken.

The goal of this document is to provide potential software customers with a list of manufacturing ERP software companies that have taken great strides to address the challenges listed previously. We have profiled and assessed their capabilities to support the complicated area of manufacturing ERP.

#### IDC MARKETSCAPE VENDOR INCLUSION CRITERIA

The vendor inclusion list for this IDC MarketScape is intended to include the most prominent ERP vendors focused on the manufacturing industry. To be included in this IDC MarketScape, vendors had to meet three criteria:

- The vendor had to provide at least two referenceable customers across the four manufacturing value chains.
- Vendors regularly appear in a manufacturer's consideration set, if not short lists, as they
  evaluate ERP software vendors.

 The vendors' manufacturing ERP systems had to qualify as SaaS or cloud enabled and were already serving clients.

Ultimately, all manufacturing ERP solutions included in this document met these criteria.

#### ADVICE FOR TECHNOLOGY BUYERS

SaaS and cloud-enabled manufacturing ERP technology is evolving with functionality improvements occurring as often as daily. From the addition of the 3rd Platform with big data and analytics, social, and mobile to the innovation accelerators of AI, 3D printing, robotics, IoT, and advanced security, the systems continue to advance and improve rapidly. Speed is the critical factor as in the digital economy, enabling businesses to significantly improve in terms of market share, revenue, and profitability. It is recommended manufacturers understand the current capabilities of their technology choices, along with the strategic direction and investment their ERP software provider is making now and in the next three to five years. A guiding factor in our vendor research was the 3rd Platform and innovation accelerators' current capabilities and their strategic and investment direction. Also ensuring that your vendor can support the unique industry challenges you face on a day-to-day basis. It is critical that buyers look for a technology partner they can trust and that can take them well into the future.

As SaaS and cloud-enabled manufacturing ERP systems have increased in popularity, so too has the requirement for companies to utilize an ERP system regardless of their business size. Large enterprises find manufacturing ERP systems enable visibility across the entire organization from customers through suppliers. But just as important are small and midsize (SMB) organizations using manufacturing ERP systems. Many large enterprise CFOs and CIOs move to small and medium-sized manufacturers and need a holistic ERP package they are accustomed to but at a fraction of the cost. The executives of small and midsize organizations want to move beyond spreadsheets and databases to SaaS and cloud-enabled manufacturing ERP software because it is an integrated, real-time business system that is always accessible and grows with the business. Last, organizations vary in products and require innovation to move beyond the current state into the intelligent enterprise world. SaaS and cloud-enabled manufacturing ERP systems are the critical core to build intelligent systems. which use machine learning and natural language processing on curated data sets, with advanced analytics and an assistive user interface (UI) across the resources of people, process, and technology. These intelligent ERP (i-ERP) systems forecast, track, learn, route, analyze, predict, report, and manage business decisions and outcomes. Many of the vendors in this IDC MarketScape have already invested in the 3rd Platform and innovation accelerators, utilizing these innovation areas to deliver higher value to their customers, while others are just beginning this investment journey. Several vendors outlined in this research study have more manufacturing depth and breadth than others. And some are still moving from on-premises to single tenancy and just beginning their journey toward multitenancy. Before making purchasing decisions on SaaS and cloud-enabled manufacturing ERP software, businesses should consider:

- Does the vendor have experience with my type of industry, product, and operational requirements?
- Does the vendor understand the regulations that will impact my business? How are these regulations reflected in my current technology, and how will it change in the future?
- What levels of support are available, and are they geographically available for my business?
- What are my internal support resources and capabilities?

- Should I hire a third party to plan and assist with the implementation of the manufacturing ERP solution?
- Is the vendor financially able to provide needed support? Can the vendor support needed investment in the development of future manufacturing ERP software requirements?
- Is the vendor committed to this market or industry for the long term?
- Is the ROI achievable? Does the vendor have a track record of meeting the ROI requirements?
- Can the vendor or partners support global operations?
- Can the vendor integrate with my company's other IT systems and those of my partners?
- Can the vendor integrate with my company's OT systems, connecting the shop floor with the top floor?
- Is the product available anywhere and anytime?
- Is the product updated frequently enough for my business needs?
- What new innovations is the vendor considering, investing, and tied to with its road map? How and when will it impact manufacturing as a whole and my business?
- What is the vendor's strategic investment outlook for the next three to five years? Why?
- Will the vendor be a partner, helping my business grow now and in the long term?

This IDC MarketScape vendor assessment assists in answering these questions and others. Some of the references that participated in this study noted the current state of the SaaS and cloud-enabled manufacturing ERP software market is evolving. In addition, many of the references were impressed there are now more vendor choices within the manufacturing ERP market. IDC expects some consolidation and specialization by niche may occur as the market matures and as manufacturing ERP software vendors look to add additional capabilities to their portfolio of products. The point being, there are a lot of options when it comes to manufacturing ERP, selecting the best vendor for your requirements is a challenging task but one critical to long-term success.

#### **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.

#### **Acumatica**

After a thorough evaluation of Acumatica's strategies and capabilities, IDC has positioned the company in the Major Players category within this 2019 IDC MarketScape for worldwide SaaS and cloud-enabled manufacturing ERP applications.

Acumatica is a private software vendor and provides a complete cloud ERP solution for business management needs including finance, accounting, inventory management, procurement, distribution, and customer relationship management (CRM). Special editions for field services, manufacturing, commerce, and construction provide deep industry specialization, and truly useful mobile apps enable real work to be done anywhere, any time, and on any device. Flexible deployment options (public cloud, private cloud, on-premises) and consumption-based licensing delight customers while helping ensure rapid ROI. Acumatica was founded in 2008 and is headquartered in Bellevue, Washington, the United States.

#### Quick facts about Acumatica:

- Employees: 250+
- Total number of clients: 5,200+ customers
- Globalization: Supports sales in 21 localizations and 23 countries
- Manufacturing focus: Acumatica offers solutions across all four manufacturing value chains –
  AOVC, BOVC, EOVC, and TOVC. Engineering-oriented (automotive, A&D, and industrial
  products) and brand-oriented (CPG/F&B) manufacturers make up the largest portion of
  Acumatica's manufacturing customer base.
- Ideal customer size: Growing SMBs with \$10 million to \$200 million annual revenue
- SaaS: A multitenant architecture at the infrastructure and application layers but not at the database layer
- Pricing model: Subscription based on resources used, with no per-user fees
- Largest customer: Largest customers support 5,000 users
- Partner ecosystem: Over 275 VARs
- Interesting stat/fact: Acumatica's ability to move seamlessly to cloud/SaaS model in under 15 minutes any time from the on-premises version

## Strengths

- Modern platform: Acumatica has a modern cloud-based platform (open APIs) approach with strong business process workflows built in, highly functional mobile application, consumptionbased licensing, and additional modules such as CRM fully integrated on the same platform – along with UI, dashboards, and reporting.
- Multi-entity transactions: Acumatica has enhanced its offering significantly and is now able to support customers with complex global corporate structures, allowing the books to be closed independent of other subsidiaries or business units.
- 3rd Platform and innovation investment: Acumatica's continued investment in the 3rd Platform and innovation accelerators is putting it on a trajectory for future growth – with investments in machine learning, natural language processing, business intelligence (BI), and analytics.
   Customer references note Acumatica is willing to invest and help them (the customer) to excel.

## Challenges

- Brand awareness: One of the biggest challenges for Acumatica remains brand awareness among manufacturers. As a newer company, relative to the legacy ERP and financial application providers, more marketing and education is needed for prospects, particularly the CFO. Customers agreed that Acumatica's marketing message clarity could be improved to help offset this disparity in brand awareness.
- Globalization: Accumatica must add more functionality to support the growing number of small
  to midmarket manufacturers with complex multi-entity, multiunit, and multicounty operations.
   Executive briefings reveal that further multicompany consolidation is on the near-term product
  road map.
- Larger partnerships: Several references believe Acumatica could be more successful with larger service providers as part of their ecosystem.

## Consider Acumatica When

Consider Acumatica when you are a small business looking for a system that will grow with you as you transition to the midmarket or you are a midmarket company looking for a straightforward manufacturing ERP application that can be customized to fit your business.

## **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.

After an initial evaluation of software vendors serving this market, which included each vendor's high-level application capabilities and existing manufacturing ERP client base, IDC's Enterprise Applications team extended formal invitations to software vendors to participate in our study.

All vendors actively participated in the research with a total of 42 references contacted and interviewed. Discussions with references included the systems utilized and their perception of the vendor and software in terms of technical support, account management, marketing message, level of value delivered versus price paid, ease of integration, user interface, innovation, intelligent workflows, and ROI. In addition, references also provided areas of improvement, their future business requirements, and top 3 metrics.

## **Market Definition**

This IDC MarketScape evaluation focuses on SaaS and cloud-enabled manufacturing ERP solutions. ERP is a packaged integrated suite of technology business applications with common data and process models that digitally support the administrative, financial, and operational business processes across the manufacturing industry. These processes manage resources including some or all the following: people, finances, capital, materials, suppliers, production, supply chains, customers, products, projects, contracts, orders, and facilities.

Manufacturing ERP includes product-centric organizations across four distinct value chains:

- Asset-oriented value chain (AOVC) Industries include chemicals, metals pulp, and paper.
- Brand-oriented value chain (BOVC) Industries include consumer packaged goods (CPG), food & beverage (F&B), fashion, and life sciences
- Engineering-oriented value chain (EOVC) Industries include automotive, aerospace and defense (A&D), and industrial machinery
- Technology-oriented value chain (TOVC) Industries include electronics and semiconductors (high tech)

Manufacturing ERP systems incorporate operational modules, including order management, finance, procurement, enterprise asset management (EAM), production, and supply chain, to maximize operational efficiencies. Manufacturers see benefits from the integration between core finance and operational capabilities so that operational transactions with a financial impact are reflected directly in financial modules. Typically, ERP solutions are architected with an integrated set of business rules and metadata, accessing a common data set (logical or physical) from a single, consistent user interface. Manufacturing ERP solutions are available as on-premises, hybrid and, increasingly, cloud SaaS deployments.

## The Role of Technology in Manufacturing

Technology is critically important within manufacturing. From transactions to production to compliance, to savings and discounts to inventory management and cash flow, technology is a critical resource for the organization. Manufacturing ERP touches upon:

- Purchase orders
- Customer orders
- Bill of materials
- Invoicing
- Inventory
- Products
- Assets
- Suppliers
- Payments
- Customers

#### **LEARN MORE**

## **Related Research**

- IDC MarketScape: Worldwide SaaS and Cloud-Enabled Operational ERP Applications 2019
   Vendor Assessment (IDC #US43702818, March 2019)
- IDC FutureScape: Worldwide Manufacturing 2019 Predictions (IDC #US44467118, December 2018)
- IDC FutureScape: Worldwide Intelligent ERP 2019 Predictions (IDC #US43262918, October 2018)
- *i-ERP (Intelligent ERP): The New Backbone for Digital Transformation* (IDC #US41732516, September 2016)

## **Synopsis**

This IDC study provides an assessment of the leading SaaS and cloud-enabled manufacturing ERP software solutions and discusses what criteria are most important for manufacturers to consider when selecting a system.

"No matter the type of manufacturer you are, the one thing every company has to come to terms with is change. The manufacturing industry is changing faster than ever before, and it will be those ready to adapt that will succeed in this environment. However, most manufacturers are still utilizing legacy ERP systems that can't evolve fast enough. Modernizing your manufacturing ERP software is a critical step in every digital transformation journey," stated Reid Paquin, research director, Manufacturing IT Priorities & Strategies (ITP&S). "There are a lot of options when it comes to manufacturing ERP, selecting the best vendor for your requirements is a challenging task but one essential to long-term success."

## **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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