



# 2019 Top 10 Manufacturing ERP Systems Report

# Introduction

Panorama Consulting Solutions developed the *2019 Top 10 Manufacturing ERP Systems Report* to analyze the strengths of the Tier I and Tier II ERP systems best suited for the manufacturing industry.

We define software Tiers as follows:

- Tier I - These systems are designed for organizations with more than \$750 million in annual revenue.
- Tier II - These systems typically serve small to mid-sized organizations with \$10 million to \$750 million in annual revenue.

Our analysis is based on past client experience, vendor RFI and RFP responses we've received, as well as data from reliable industry sources. We've managed the demonstration process for numerous clients, giving us direct exposure to the applications and development teams behind them. We also attend influencer conferences where executive leadership teams discuss product visions in detail.

The vendors featured in this report were chosen based on the strength of their manufacturing functionality as well as the amount of research and development invested in these products:

## Tier I

- SAP S/4HANA
- Infor M3
- Dynamics 365 for Finance and Operations

## Tier II

- IFS
- Sage Enterprise Management
- Epicor E10
- IQMS
- abas
- Syspro
- Plex

# Tier I



## SAP S/4HANA Manufacturing

### Strengths:

- Features operational purchasing capabilities that use machine learning to propose material groups
- Provides real-time, embedded analytics
- Supports complex assembly manufacturing
- Provides digital collaboration capabilities that bridge the gap between engineering and manufacturing
- Provides completely embedded advanced planning and scheduling functionality
- Provides project reporting currency to simplify reporting in cross-border projects



“SAP’s continued ability to bring innovative solutions to support end-to-end business processes with an integrated set of cloud ERP products gives their customer base a powerful toolset to manage its manufacturing operations. SAP’s extensive network of software partners and third-party integrators provides customers with an abundance of additional software solutions and implementation support options.”

- Steve Ditty, Senior Project Manager at Panorama

<b>Vendor Annual Revenue</b>	\$27.4 billion
<b>Target Customer</b>	\$1 billion+ annual revenue

# Tier I



## Infor M3

### Strengths:

- Includes deep industry-specific functionality as well as analytics that use in-memory processing
- Integrates with Infor’s supply chain solutions, including Infor Nexus, a solution that provides a large-scale commerce network
- Sold on-premise but also used as the core for Infor CloudSuite Food and Beverage, CloudSuite Equipment, CloudSuite Fashion and CloudSuite Distribution Enterprise
- Provides capabilities in managing complex mixed-mode manufacturing and distribution-intensive environments
- Helps organizations manage global operations with multi-company, multisite, multi-country, multicurrency and multi-language capabilities

“Infor M3 is a fully-functional ERP for large organizations. The standard functionality can add tremendous value to a company, while additional advanced functionality can be leveraged as a competitive advantage. Infor is a leading vendor with a focus on enabling their clients to leverage AI and IoT throughout their organizations.”

- Chris Devault, Manager of Software Selection at Panorama



<b>Vendor Annual Revenue</b>	\$2.9 billion
<b>Target Customer</b>	Enterprise and mid-sized organizations

# Tier I



## Dynamics 365 for Finance and Operations

### Strengths:

- Features a spatial-planning application that helps users visualize shop floor layouts in a 3D real-world scale and proactively resolve issues using guides and mixed reality
- Includes role-based workspaces that provide intelligent automation, task prioritization and integration across other Dynamics 365 workloads and with Office 365 applications
- Offers Power BI, a warehouse management solution that provides complete visibility of warehousing
- Allows users to identify and resolve quality issues through real-time insights and predictive intelligence
- Features PowerApps and Microsoft Flow allowing users to easily create custom applications with little to no additional code development

“The D365 platform is Microsoft’s flagship ERP. Typically, channel partners handle the implementations, but Microsoft’s FastTrack customer success program provides direct engineering assistance to closely work with partners and ensure faster deployment and onboarding. Microsoft also has dedicated teams that continuously work to improve product functionality. An extensive partner network provides product bolt-ons when more granular functionality is required. Microsoft has a very large D365 user community with forums and discussions.”

- Craig Wright, Manager, Client Services at Panorama



<b>Vendor Annual Revenue</b>	\$90 billion
<b>Target Customer</b>	\$500 million+ annual revenue

# Tier II



## Strengths:

- Provides a single, integrated, cloud-enabled ERP application suite designed to meet the demands of both discrete, automotive and process manufacturers
- Includes Sales & Operations Planning and Demand Driven MRP, which offers a set of planning capabilities
- Includes a range of smart, visual tools— like a configurable drag’n’drop schedule— to support informed decision making
- Includes embedded tools for quality assurance, control plans and analysis
- Includes a unique capability for project-based manufacturing that spans across a multitude of activities ranging from engineering and procurement to manufacturing, delivery and installation

“With an emerging US market, IFS has robust end-to-end functionality. The product is a good fit for large CPG organizations with a global footprint. IFS is innovative in terms of user experience, and the product has high adoption rates.”

- Chris Devault, Manager of Software Selection at Panorama



<b>Vendor Annual Revenue</b>	\$606 million
<b>Target Customer</b>	\$250 million to \$5 billion annual revenue

## Sage Enterprise Management

### Strengths:

- Offers flexible configuration options and applications to support industry-specific processes
- Features Intelligent Inventory Advisory which provides advanced demand planning for midsized organizations
- Provides integrated quality control in warehouse and production processes
- Features manufacturing project management with labor and material planning
- Provides advanced revenue recognition capabilities for complex projects



“As Sage’s flagship ERP, this product has solid end-to-end functionality. Our clients have been pleased with it’s intuitive user interface. As such, the product has high adoption rates.”

- Chris Devault, Manager of Software Selection at Panorama

<b>Vendor Annual Revenue</b>	~\$2.1 billion
<b>Target Customer</b>	\$250 million+ annual revenue

# Tier II



## Epicor E10

### Strengths:

- Built on Microsoft platform making it easily configurable
- Features functionality for make-to-order, engineer-to-order configure-to-order, make-to-stock and mixed-mode manufacturing
- Provides the ability to optimize lean manufacturing with end-to-end visibility that enables users to eliminate waste and adjust energy usage
- Provides multiple menu viewing options and easy-to-create dashboards
- Provides a mobile app for time and expense management that features internationalization support



“Epicor leadership recognizes that companies are facing challenges around market volatility, supply chain risk and an ever-increasing bar to delight their customers, so the focus for research and development is on future proofing the investment. Their partnership with Microsoft makes a world-class, innovative solution available to the small-medium cap market.”

- Laura Florence, Director of Business Development at Panorama

<b>Vendor Annual Revenue</b>	~\$900 million
<b>Target Customer</b>	~\$25+ million annual revenue

# Tier II



## Strengths:

- Provides a single solution to manage and monitor the entire manufacturing process, including MES data and shop floor data
- Provides a modular and scalable solution for discrete and batch process manufacturing
- Features the ability to quickly monitor, track, trace and communicate products, activities and data throughout the supply chain
- Includes MRP, WMS, production/process monitoring and embedded EDI with a very large library of EDI documents
- Recent merger with Dassault Systèmes extended the end-to-end solution all the way from concept design and simulation to manufacturing operations and execution



“In addition to ERP, IQMS has an integrated manufacturing execution system (MES) that can interface with shop floor programmable logic controllers. EDI is also an integral part of their product, which is very important to automotive and other manufacturers. IQMS is a lean, no-nonsense group that takes the time to understand the unique business needs of a customer before scoping and planning a project. Their exceptional industry knowledge helps mitigate the risks associated with implementation.”

- Ed Spotts, Manager at Panorama

<b>Vendor Annual Revenue</b>	~\$70 million
<b>Target Customer</b>	SMB, Midmarket and divisions of Fortune 1000 companies

# Tier II



### Strengths:

- Features a graphical workflow manager that allows organizations to develop graphical representations of production, material, work center and custom schedules
- Provides the ability to prioritize work and purchase orders based on sales order forecast, minimum stock and other demands
- Enables integration between work order management and advanced planning & scheduling
- Provides the ability to create an assortment of production schedules based on available capacity and material for production
- Provides the ability to define alternative resources to shift work and optimize demand planning

“The system has broad capabilities for small- to mid-sized manufacturers in the assemble-to-order, make-to-order and engineer-to-order environments. For smaller organizations, abas consultants are able to configure and implement the standard application very economically if the customer is willing to use standard functionality. For mid-sized organizations, the system is highly configurable to serve more complex needs. abas listens to the needs of their customers and makes adjustments to their releases to meet customer needs.”

- Ed Spotts, Manager at Panorama



<b>Annual Revenue</b>	~\$92 million
<b>Target Customer</b>	~\$10+ million annual revenue

# Tier II



## Strengths:

- Provides a go-to-market focus on twelve sub-verticals to deliver core industry functionality
- Gives organizations options for how to access (mobile, cloud, rich-client, web), pay (subscription or perpetual) and leverage digital connections (AI/ML, IoT, Bots)
- Provides a single ERP product that has the ability to support process, discrete and mixed-mode manufacturing
- Includes a machine learning designer allowing non-technical users to easily design their own AI models
- Provides a configurable toolset for the easy creation of business processes using artificial intelligence, machine learning, Bots, IoT and social ERP

<b>Vendor Annual Revenue</b>	~\$60 million (U.S.)
<b>Target Customer</b>	\$25+ million annual revenue

# Tier II



### Strengths:

- Plex’s ERP+MES suite is a multi-tenant SaaS solution built exclusively for manufacturers
- Designed for configurability, extensibility and integration to meet the needs of production lines and individual plants, while maintaining enterprise-wide control and insight
- Offers a robust set of APIs to connect to shop floor equipment, third-party enterprise systems, EDI transactions and mobile or wearable devices
- Serves discrete and process manufacturers with core capabilities supporting numerous industry-specific quality standards, including ISO 9001, IATF 16949, APQP and FSMA
- Leverages industrial IoT and analytics to capture enterprise-wide data and provide business intelligence that supports real-time decision making

**Vendor Annual Revenue**

~\$125 to 150 million

**Target Customer**

\$25 million to \$2 billion annual revenue

# Honorable Mentions

<p><b>Oracle / NetSuite</b></p>	<p>The recent acquisition of NetSuite by Oracle is proving beneficial for both sides. NetSuite is able to develop and offer add-on advanced functionality from the Oracle product suite, while Oracle is benefiting from NetSuite's leading SaaS methodologies and market presence. The Oracle Cloud Apps offering is innovative and deep in functionality (where it has been developed). Oracle, being a leading technology company, is very calculated in identifying the niche industries within manufacturing for which they develop functionality. We're excluding them from the Top 10 ranking simply because not all functionality is within the new cloud offering to serve all manufacturing sub-industries.</p> <p>NetSuite still stands as a SaaS innovator and leader. It is an excellent fit for organizations in the SMB market that are looking to standardize and operate in a less complex manner.</p>
<p><b>Microsoft Dynamics 365 Business Central (NAV)</b></p>	<p>As Microsoft D365 Business Central goes through the cloud evolution—much like the flagship Microsoft D365 Enterprise (AX) — it will mature and offer the SMB market a solid product. The channel partners will have to catch up on IP and certifications while many of them transition away from GP and SL focusing on the re-written NAV product that includes many best practices from those predecessors.</p>
<p><b>Infor CloudSuite Industrial</b></p>	<p>Infor CloudSuite Industrial is gaining market share as it continues to develop its richness in functionality. The IOS platform allows point solutions and advanced Infor functionality to be developed with the same methodology and technology, which allows for better integration. Infor is always focusing on the user experience and is continuously advancing the interaction with the end user.</p>
<p><b>SAP Business One</b></p>	<p>SAP Business One continues to improve its user experience and workflow automation. As Business One slowly expands its technology and solution set, they continue to find themselves a good fit for the smaller organizations that are more of 'job shop' type of manufacturer.</p>
<p><b>QAD</b></p>	<p>QAD, by size and nature, is a smaller organization so R&amp;D is somewhat limited. Nonetheless, QAD is a strong solution provider for the automotive industry and is becoming increasingly functional. QAD is also focusing on targeting other manufacturing industries. The company continues to improve the user experience along with workflow automation and the underlying technology.</p>

## Conclusion

Many ERP vendors have been quick to respond to the evolving needs of manufacturers. They've started building capabilities such as IoT, machine learning, artificial intelligence, big data and blockchain directly into their products. IoT is an essential component to integrate into your ERP system as it gathers sensor data from the supply chain and provides actionable analytics on design issues, lead time, maintenance needs, inventory levels, energy consumption and even the customer experience.

While fully digitizing and integrating your supply chain seems like an ambitious endeavor, manufacturers who move first will realize benefits unachievable for slower moving competitors. We hope this report has helped you identify which innovative ERP solutions align most closely with your organizational goals.

## About Panorama Consulting Solutions

Panorama Consulting Solutions is an independent, niche consulting firm specializing in digital transformation and ERP system implementations for mid- to large-sized private- and public-sector organizations worldwide. One-hundred percent technology agnostic and independent of vendor affiliation, Panorama offers a phased, top-down strategic alignment approach and a bottom-up tactical approach, enabling each client to achieve its unique business transformation objectives by transforming its people, processes and technology. Panorama's services include ERP Selection, ERP Implementation, ERP Contract Negotiation, ERP University, Digital Strategy, Technology Assessment, Change Management, Human Capital Management, Business Process Management, Business Process Reengineering, Value Stream Mapping, M&A Integration, IT Staffing, Project Auditing, Project Recovery and Software Expert Witness Testimony.

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**Free Consultation**