PANORAMA
CONSULTING GROUP

THE 2022 TOP 10

Manufacturing ERP Systems Report

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Introduction

All manufacturers, regardless of their sub-vertical, have been impacted by the supply chain disruptions that have been wreaking havoc for over a year.

Many manufacturers have been responding to the disruption by replacing their outdated technology with modern enterprise software. Others have been going one step further and implementing IoT to leverage data from multiple sources and devices throughout the supply chain.

If you're thinking about following suit, we've provided a list of the top manufacturing ERP systems based on our client experience, which includes evaluating vendor RFI and RFP responses, managing the demonstration process, and more.

The 2022 Top 10 Manufacturing ERP Systems Report is designed to help mid- to large-sized manufacturers understand what kind of functionality is available in the market today. The systems in this report were chosen based on the depth and breadth of this functionality. The order of listing is not based on ranking.

2022 TOP 10

Manufacturing ERP Systems

About SAP

Headquarters:
Waldorf, Germany

Ownership:
Public

Founded:
1972

SAP S/4HANA

SAP S/4HANA is an integrated ERP system that runs on SAP HANA, the in-memory database of SAP. Leveraging AI and machine learning, it's designed to meet industry-specific requirements and aid in decision-making. The system is suitable for businesses of all sizes and offers on-premises, cloud, and hybrid deployment.

Key Features

▸ Enables end-to-end planning that allocates production resources finitely beyond classic MRP functionality and considers capacity and material availability constraints

▸ Includes integrated scheduling functionality for model-mix planning, minimum and maximum distances, and alternative modes throughout global production environments

▸ Includes engineering functionality that facilitates digital collaboration of manufacturing master data and build packaging

▸ Provides operations management functionality that allows organizations to analyze change impact and perform system-optimized monitoring of all shop floor operations

▸ Provides manufacturing execution functionality allowing organizations to digitally control, monitor, and automate their manufacturing operations to enable a production lot size of one

▸ Includes manufacturing integration intelligence with real-time analytics and integrated Industrial Internet of Things (IIoT) and machine-to-machine (M2M) technology

▸ Includes functionality for environment, health, and safety management that incorporates risk management into daily operations

SAP Digital Manufacturing Cloud

SAP Digital Manufacturing Cloud is a suite of five applications with Internet of Things (IoT) sub-programs. Some of its features include data analytics, shop-floor execution, integrated scheduling, and situational awareness management.

Key Features

▶ Enables organizations to analyze global and plant-level manufacturing performance and associated causes through preconfigured analytics

▶ Allows organizations to acquire data from different manufacturing operations management (MOM) systems and automation systems

▶ Includes machine learning that enables root-cause analysis and continuous business improvement

▶ Allows organizations to adapt to individualization requirements to meet "market-of-one" demand

▶ Includes industry standards that enable organizations to define and leverage their S88 or S95 production model
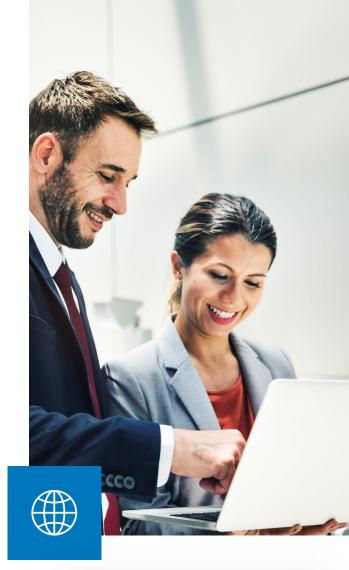
ORACLE®
NETSUITE

NetSuite ERP

NetSuite ERP automates and centralizes processes across departments, including tasks such as financial management, distribution, CRM, and supply chain management. This software is cloud-based, customizable, and has automated software maintenance.

Key Features

▶ Provides real-time data insights and allows organizations to build custom dashboards

▶ Provides parameterized configuration options by location, configurable work order completion logic, enhanced BOM, and Work Order Record functionality

▶ Supports full MES and Manufacturing Operations Management capabilities

▶ Includes a native mobile feature set that supports fully-integrated barcode scanning and wireless tablet functionality

▶ Includes scanner capabilities that support lite WMS transactions for PO receipt & put-away, material issuance, transfer or move, as well as pick, pack and ship

▶ Provides customizable QA Test and inspection records with customizable data entry formats and dashboards

About Oracle

Headquarters:
Redwood City, CA

Ownership:
Public

Founded:
1977

About Microsoft

Headquarters:
Redmond, WA

Ownership:
Public

Founded:
1975

Microsoft Dynamics 365 Finance & Operations

Dynamics 365 Finance & Operations is a cloud-based ERP system well-suited for large or diversified companies. While most customers, commentators, and consultants still refer to it as a single solution, Microsoft now technically licenses it as two different applications:

Key Features of Dynamics 365 Finance

▶ Includes AI and automation functionality encompassing customer payment predictions, cash flow forecasting, and budget proposals

▶ Integrates with Microsoft's Power BI

▶ Includes expense management functionality that allows organizations to enter expenses on any Windows-enabled device, including mobile

▶ Leverages Azure Cognitive Services, enabling automated receipt matching and processing

Key Features of Dynamics 365 Supply Chain Management

▶ Includes a full range of business applications for manufacturers, distributors, and retailers

▶ Allows organizations to perform supply planning and production planning multiple times per day with in-memory services

▶ Includes AI, IoT, and mixed reality, allowing organizations to obtain a real-time view of their entire production and stock

▶ Provides hands-free delivery of work instruction using mixed reality

Infor CloudSuite

The Infor CloudSuite solution provides enterprise and SMB manufacturing companies with an end-to-end planning system designed for specific manufacturing industries. Infor delivers its industry CloudSuites as a service in the multi-tenant cloud, securely hosted through Amazon Web Services.

About Infor

Headquarters:
New York, NY

Ownership:
Private

Founded:
2002

Key Features

▸ Includes pre-built industry capabilities with prepackaged workflows, content, integrations, and analytics

▸ Allows cloud-enabled data aggregation, workflow integration, hyperscaling, and automatic upgrades

▸ Includes enterprise business intelligence and analytics

▸ Connects suppliers and manufacturers, brokers, 3PLs, and banks to the supply chain, enabling predictive intelligence

▸ Includes AI models that anticipate, recommend, and derive insights, white powering robotic process automation, machine learning and IoT

EPICOR

Kinetic

Kinetic (formerly called Epicor ERP) is a manufacturing tool that connects various workflows and departments within a business. It has a cloud-based deployment option and contains advanced reporting and analysis tools that enable users to develop actionable insights.

Key Features

▶ Includes CPQ capabilities that offer 2D and 3D configurations leveraging CAD files

▶ Includes a product configurator that leverages a no code/low code configuration tool for maintaining configurations

▶ Provides Amazon and eBay connectors that work with the Epicor Supplier Portal to provide visibility across supplier connections

▶ Includes Advanced Planning and Scheduling, serial, sub serial, and lot traceability, as well as dimensional inventory management

▶ Includes an Advanced MES that allows organizations to use IoT on the shop floor to track equipment efficiency, production throughput, and energy consumption

▶ Features Epicor Virtual Agent (EVA), an application that delivers natural language mobile applications

About IFS

Headquarters:
Linköping, Sweden

Ownership:
Private

Founded:
1983

IFS Cloud

IFS Cloud is a suite of connected workflows, including accounting, warehouse management, distribution, sales, HCM, and more. The software can be accessed either through the cloud or on-premise. It's intended for use by mid-sized and large organizations.

Key Features

▸ Includes built-in best practices, processes, and capabilities specific to manufacturing, such as shelf-life quality, traceability, and automotive scheduling

▸ Provides the ability to plan, execute, control, and analyze many types of manufacturing

▸ Includes lobbies and dashboards allowing organizations to track KPIs and surface key activity and progress at every stage

▸ Includes AI, machine learning, and augmented reality capabilities

▸ Supported by a global ecosystem of partners trained by IFS

DELMIAworks

DELMIAworks (formerly IQMS) is available in the cloud or on-premise, making it suitable for a wide spectrum of organizations. The system has a special emphasis on functionality for organizations with a heavy manufacturing component.

About DELMIAworks

Headquarters:
Paso Robles, CA

Ownership:
Public

Founded:
1989

Key Features

▶ Runs on a single database and provides native integration of ERP, MES, Quality Management, and many other modules

▶ Includes 28 different pre-made Bills of Materials (BOMs) for multilevel BOMs

▶ Provides Quality Management functionality that encompasses inspection as well as product track & traceability

▶ Includes a touchscreen-based shop floor interface with configurable Work Center dashboards

▶ Includes RealTime™ Production & Process Monitoring as native functionality

▶ Allows various deployment options: on-premise, Hosted Managed Services (HMS), and SaaS

About Sage

Headquarters:
Newcastle upon Tyne, England

Ownership:
Public

Founded:
1981

Sage Business Cloud X3

Sage Business Cloud X3 enables automation between key processes, such as sales and financial management. It has on-premise and cloud deployment options and caters to all industries and businesses of any size. Users may customize it to fit their business requirements and permit APIs to utilize external services.

Key Features

▶ Provides functionality for managing project-based manufacturing as well as complex global distribution supply chains

▶ Includes manufacturing functionality for both process and discrete environments

▶ Provides advanced production management functionality that integrates all manufacturing processes into one solution

▶ Enables real-time monitoring of inventory status

▶ Provides financial management functionality with the ability to accommodate local operational requirements

▶ Includes reporting and analytics capabilities that generate insights from business data across multiple machines and sources

QAD Cloud ERP

QAD Cloud ERP is a scalable solution for companies looking to take control of their warehousing processes. The system is cloud-based and has flexible deployment options. It supports business processes specific to key industries.

Key Features

▸ Provides multinational finance functionality for small to medium sized global entities

▸ Includes Demand and Supply Chain Planning functionality that provides capability around forecasting and S&OP

▸ Includes extended capability in Supplier Relations Management encompassing procurement and supplier maintenance capabilities

▸ Provides Global Trade and Transportation Execution capabilities that help manage complex global supply chain operations

▸ Includes a fully-integrated and embedded EQMS solution that addresses full enterprise quality planning and execution

▸ Includes industry best practices built into embedded processes maps

About QAD

Headquarters:
Santa Barbara, CA

Ownership:
Public

Founded:
1979

MANUFACTURING ERP SELECTION TIPS FROM OUR EXPERTS

1. Focus on Your Business Processes Before ERP Selection

As you look for technology that provides up-to-the-minute inventory management and cross-functional reporting, have you taken a moment to look at your business processes?

Without understanding your organization's desired future state, you can't improve your operations nor determine your software requirements. We recommend looking for pain points and designing your future state – all before evaluating ERP vendors.

2. Consider Usability

How user-friendly is the software you're considering? Usability is an important consideration when you're evaluating ERP systems because younger people are entering the workforce. These employees have different expectations for the user experience, and the old technology that many manufacturers use frustrates them.

Evaluating the user interface of each system under consideration will help you find a system that ensures high employee retention.

3. Prepare Your Workforce

Technology alone isn't the key to achieving your business goals. You also need a workforce that understands these goals and can effectively use the new software to achieve them.

Developing an organizational change management strategy and plan is the best way to manage resistance to change and equip your workforce with the knowledge they need to embrace new processes and technology.

Conclusion

While enterprise software and IoT technology can gather masses of data, few manufacturers have been able to make a sense of all these insights. A modern ERP solution, like the ones in this report, can provide advanced analytics that enable you to make proactive decisions about machinery, inventory, and more.

Another important piece of the supply chain puzzle is optimizing your business processes. Before selecting ERP software, you need to ensure that your processes enable data integration across departments. This will enable you to leverage real-time data insights to meet customer expectations, like flexible, user-friendly purchasing and on-time deliveries.

We're here to help you define your processes and select technology that increases your visibility into real-time, actionable data. Request a free consultation below to speak with our ERP consultants.

Click the Button Below to Schedule Your **Free Consultation**
With an ERP Systems Expert Today!

FREE CONSULTATION

About Panorama Consulting Group

Panorama Consulting Group is an independent, niche consulting firm specializing in business 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

(click to learn more)

▸ ERP Selection	▸ Business Process Management
▸ ERP Implementation	▸ M&A Integration
▸ ERP Contract Negotiation	▸ Turnaround Analysis
▸ ERP University	▸ Business Crisis Consulting
▸ Digital Strategy	▸ Financial Restructuring
▸ Technology Assessment	▸ Operational Restructuring
▸ Change Management	▸ Project Auditing & Recovery
▸ Human Capital Management	▸ Software Expert Witness

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