



Table of Contents

Introduction	03
The Top 10 Manufacturing ERP Systems	
► Acumatica Manufacturing Edition	05
▶ Epicor Kinetic	06
▶ IFS Cloud	07
► Infor CloudSuites	08
► Microsoft Dynamics 365 Finance and Operations	09
Oracle NetSuite ERP	10
 Oracle Supply Chain Management (SCM) & Manufacturing 	11
➤ Sage ERP	12
▶ SAP S/4HANA and SAP Digital Manufacturing Cloud	13
► SYSPRO ERP	14
Manufacturing Industry Challenges & Solutions	15
Conclusion	17
About Panorama Consulting Group	18

Introduction

Many manufacturers have been responding to supply chain disruptions and other industry challenges by replacing their outdated technology. If you're thinking about following suit, this list of the top manufacturing ERP systems is for you.

The 2023 Top 10 Manufacturing ERP Systems Report is designed to help manufacturers across verticals understand what kind of functionality is available in the market today.

(Note: The vendors featured in this report were chosen by our ERP experts based on what vendors they are most frequently asking for RFPs and demos for manufacturing clients. The order of listing is alphabetical and not based on ranking.)







Acumatica Manufacturing Edition is a suite of connected business applications that provides manufacturing depth for production, estimating, engineering, material planning, scheduling, product configuration, and manufacturing data collection.

Quick Facts

Headquarters: **Kirkland, WA**

Ownership:

Private

Founded:

2008

Acumatica Manufacturing Edition

- Includes native field service, commerce, and project accounting functionality
- Allows you to connect modern technologies, including cloud computing, big data and analytics, additive manufacturing, robotics, and the Industrial Internet of Things
- Allows you to set customer and vendor restrictions by branch and pre-defined security roles for engineers, planners, production managers, schedulers, and more
- Features time-phased MRP and finite capacity scheduling
- Provides predefined and custom-configured dashboards and business intelligence with real-time information
- Includes a full suite of accounting applications with reporting, analysis, budgeting, and planning tools





<u>Epicor</u> Kinetic is a manufacturing tool that connects various workflows and departments within a business. It has a cloud-based deployment option and contains a full range of supply chain management capabilities.

Epicor Kinetic

- Provides end-to-end tools for complete lifecycle management
- Enables real-time production and process monitoring
- Includes robust financial management processes with financial dashboards and reporting
- Includes advanced reporting and analysis tools that enable you to gather actionable insights
- Provides governance, risk, and compliance tools for addressing legal, regulatory, and supply chain mandates
- Includes advanced planning and scheduling capabilities, serial, sub serial, and lot traceability, as well as dimensional inventory management
- Allows you to use IoT on the shop floor to track equipment efficiency, production throughput, and energy consumption



<u>IFS</u> Cloud is a single solution that includes Enterprise Resource Planning capabilities alongside Service Management and Enterprise Asset Management. It is designed for large and mid-sized organizations.



Headquarters:

Linköping, Sweden

Ownership:

Private

Founded:

1983

IFS Cloud

- Includes built-in best practices and processes specific to manufacturing, such as shelflife quality and traceability
- Covers the full manufacturing process from design, engineering, estimating, and configuration to operational planning, production, delivery, and service
- Allows you to implement just the solutions you need with choices that include
 Manufacturing, Supply Chain, Finance, Projects, Procurement, HCM, CRM, and Commerce
- Includes emerging technologies such as artificial intelligence, automation, augmented reality, and machine learning
- Supported by a global ecosystem of partners trained by IFS





<u>Infor's</u> industry CloudSuites are designed for specific manufacturing industries at both the enterprise-level and for small and medium sized businesses (SMBs). Infor delivers its CloudSuites as a service in the multitenant cloud, securely hosted through Amazon Web Services.

Quick Facts

Headquarters:

New York, NY

Ownership:

Private

Founded:

2002

Industry CloudSuites

- Include pre-built industry capabilities with prepackaged workflows, content, integrations, and analytics, all designed with industry best practices
- Enable application development, system integration, process automation, data aggregation, and in-context industry machine learning
- Provide capabilities around security, hyper-scaling, automatic upgrades, and anywhere access to apps and data
- Include enterprise business intelligence, reporting, and analytics
- Connect suppliers/manufacturers, brokers, 3PLs, and banks to the supply chain enabling visibility, collaboration, and predictive intelligence
- Include AI/ML models that anticipate, recommend, and derive manufacturing insights







Headquarters:

Redmond, WA

Ownership:

Public

Founded:

1975

<u>Microsoft Dynamics 365</u> Finance and Operations apps are a SaaS ERP offering built on Microsoft Azure. These apps can include one or more of the following solution areas: Dynamics 365 Finance, Dynamics 365 Human Resources, Dynamics 365 Supply Chain Management, Dynamics 365 Commerce, and Dynamics 365 Project Operations.

Microsoft Dynamics 365 Finance and Operations

- Can be extended with Microsoft Power Platform tools, separately procured independent software vendor solutions from Microsoft AppSource, and more
- Allows seamless integration with other Microsoft products and services
- ▶ Has the ability to scale to business growth and handle peak volumes of traffic without disruption to sales and operations
- Includes native integration with Power BI, allowing you to view dashboards and reports in the Power BI service, the Power BI mobile apps, and in your Dynamics 365 dashboards
- Features a fully configurable platform design allowing you to extend capabilities without code

ORACLE NETSUITE

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.

NetSuite ERP

- Provides real-time visibility into operational and financial performance
- Includes a single, integrated suite of applications for managing accounting, order processing, inventory management, production, supply chain, and warehouse operations
- Provides tools for tracking inventory in multiple locations, determining reorder points, managing replenishment, and optimizing safety stock
- Includes warehouse management functionality with capabilities like wave management, cartonization, cycle count planning, real-time inventory updates, and shipping system integrations
- Allows you to link production processes to financial reports, inventory management and outstanding orders in real time
- Enables you to customize dashboards, reports, and visual analytics



Quick Facts

Headquarters: Redwood City, CA

Ownership:

Public

Founded:

1977



Headquarters:

Redwood City, CA



<u>Oracle</u> Supply Chain Management (SCM) & Manufacturing is a full suite of supply chain and manufacturing applications that run in the cloud. It is a unified solution for sales, service, and supply chain management.

Oracle Supply Chain Management (SCM) & Manufacturing

- Allows you to manage procurement, manufacturing, inventory, and logistics in one platform
- Uses sensory data, machine learning, and blockchain technology to monitor the flow of goods, connect fleets, anticipate machine repairs, and monitor workplace safety
- Allows you to leverage customer experience, operational, machine, and product data to predict trends and model scenarios
- Enables you to run simulations and use scenario planning to identify demand and supply changes and understand the environmental impact of manufacturing and end-of-life scenarios
- Includes a manufacturing execution system (MES) that allows you to manage global, mixed-mode manufacturing using built-in supply chain integration, IoT, and AI



Headquarters:

Newcastle upon Tyne, England

Ownership:

Public

Founded:

1981



<u>Sage</u> X3 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.

Sage X3

- 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 and Shop Floor Execution into one solution
- Enables real-time monitoring of inventory status and includes Stock Control and Advanced Warehousing and Automation
- Provides deep financial management functionality with multi-language, multi-currency, multi-tax, and the ability to accommodate local operational requirements
- Includes a suite of reporting and analytics capabilities that generate insights from business data across multiple machines and sources





Headquarters:

Waldorf, Germany

Ownership:

Public

Founded:

1972

SAP S/4HANA

- Includes Industry 4.0 technologies, such as IIoT, AI, intelligent automation, and edge computing
- Supports circular supply chains, allowing you to reuse, refurbish, remanufacture, and recycle parts and products
- Enables you to allocate production resources finitely while considering capacity and material availability constraints
- Includes integrated scheduling capabilities that support model-mix planning, minimum and maximum distances, and alternative modes
- Allows you to analyze change impact and perform system-optimized monitoring of all shop floor operations
- Includes environment, health, and safety management capabilities with integrated business processes and shared data and workflows

SAP Digital Manufacturing Cloud

- Includes preconfigured analytics that allow you to analyze global and plantlevel manufacturing performance and associated causes
- Allows you to acquire data from different MOM systems and automation systems by integrating multiple systems and standards-based interfaces
- Supports transparent production management, allowing you to assess and resolve quality and productivity issues
- Allows you to adapt to individualization requirements to meet market-of-one demand, handle extreme product variability, and maintain productivity/margin/quality levels
- Includes industry standards that allow you to define and leverage your S88 or S95 production model





Headquarters:

Castle Donnington, UK

Ownership:

Private

Founded:

1978

<u>SYSPRO</u> ERP is a scalable solution that can be deployed in the cloud, on-premise, or both, and accessed via the web on any device.

SYSPRO ERP

- Includes manufacturing operations management functionality that provides complete manufacturing lifecycle management encompassing planning, scheduling, publishing, collecting, tracking, and analyzing productivity
- Includes a batch lot & serial traceability module that enables you to identify and control stock at the batch and production run level while considering customer complaints and advanced recall management
- Includes an inventory forecasting and optimization module that allows you to create varying demand sources and ensures that the demand that is on the system is up to date and accurate
- Includes a supply chain portal with self-service information management delivered via out-of-the- box customer account & supplier account management portals
- Provides low or no code tailoring and customization capabilities as well as APIs that allow you to easily connect to many different applications and solutions

4 MANUFACTURING INDUSTRY CHALLENGES & SOLUTIONS

1. Fluctuating Customer Demand

Manufacturers are grappling with shifting timelines, product shortages, and delivery delays.

In years past, they could more easily anticipate future needs and create accurate forecasts. Now, customer demand is constantly changing, and it's almost impossible to predict buying behaviors.

This is where advanced data analytics becomes useful. The systems in this report are capable of handling large amounts of data and providing actionable insights. This goes beyond standard data intelligence into the realm of predictive and prescriptive analytics.

Manufacturers can use these insights to create custom reports and dashboards, allowing them to make business decisions that lead to the right product innovations, while streamlining production.

2. Shortage of Skilled Workers

Competition and turnover rates are high, and the tides don't appear to be shifting any time soon. In short, manufacturers are struggling to find qualified team members.

As a result, many manufacturers are modernizing their technology to attract more workers.

Considering that the talent pool is mostly comprised of young workers with expectations for user-friendliness and mobility as well as a proclivity toward remote work, it's no surprise that organizations are implementing modern ERP systems to attract talent. The systems in this report have cloud deployment options and mobile capabilities that are attractive to the modern worker.

3. Less Opportunity to Think Long-Term

With so many immediate problems facing manufacturers, it can be hard for them to think about long-term goals.

To enable team members to think more long-term, manufacturers should consider adopting technology that supports the Industrial Internet of Things (IIoT). By relying on this extended network of interconnected devices, manufacturers can anticipate long-term challenges.

For example, by using sensors to monitor when a part is about to fail, manufacturers can enable real-time preventative maintenance.

4. Increased Transportation Costs

Regardless of the form of transportation, shipping costs have increased dramatically. In an industry where profit margins are already slim, these increases can be difficult to absorb.

Many manufacturers are turning to third-party logistics providers to offset these costs. Implementing modern ERP software is another strategy that's helping manufacturers optimize their approach to transportation management. The top manufacturing ERP systems provide full visibility into shipments and rates so users can make real-time decisions to ensure speed and safety while minimizing waste.



The technology we've been discussing isn't just for early adopters — it's been readily available for years, and it's rapidly being adopted by manufacturers of all sizes.

If one of the ERP systems in this report doesn't catch your eye, there are many others to consider, and there are a number of point solutions available that may address one of your very specific pain points.

Regardless of the challenges you're facing, our ERP consultants are here to help. We have experience with a variety of enterprise solutions and can assess your business requirements to help you narrow your options. Request a free consultation below to engage our team.

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
- ► <u>ERP Implementation</u>
- ► ERP Contract Negotiation
- **▶** ERP University
- Digital Strategy
- ► <u>Technology Assessment</u>
- Change Management
- Human Capital Management

- Business Process Management
- ▶ M&A Integration
- ▶ Turnaround Analysis
- Business Crisis Consulting
- ▶ Financial Restructuring
- Operational Restructuring
- Project Auditing & Recovery
- Software Expert Witness

(If viewing this in Adobe Acrobat, please follow these instructions to enable external links: https://helpx.adobe.com/acrobat/using/allow-or-block-links-internet.html)

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

FREE CONSULTATION