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# Oracle for Manufacturing

A platform for the new next

In recent years, manufacturers have faced intense challenges—and unprecedented opportunities—as they navigated volatile demand, broken supply chains, and changing customer expectations. Over the next decade, the most successful industrial, automotive, and high-tech manufacturers will be those that address the key forces shaping the industry.

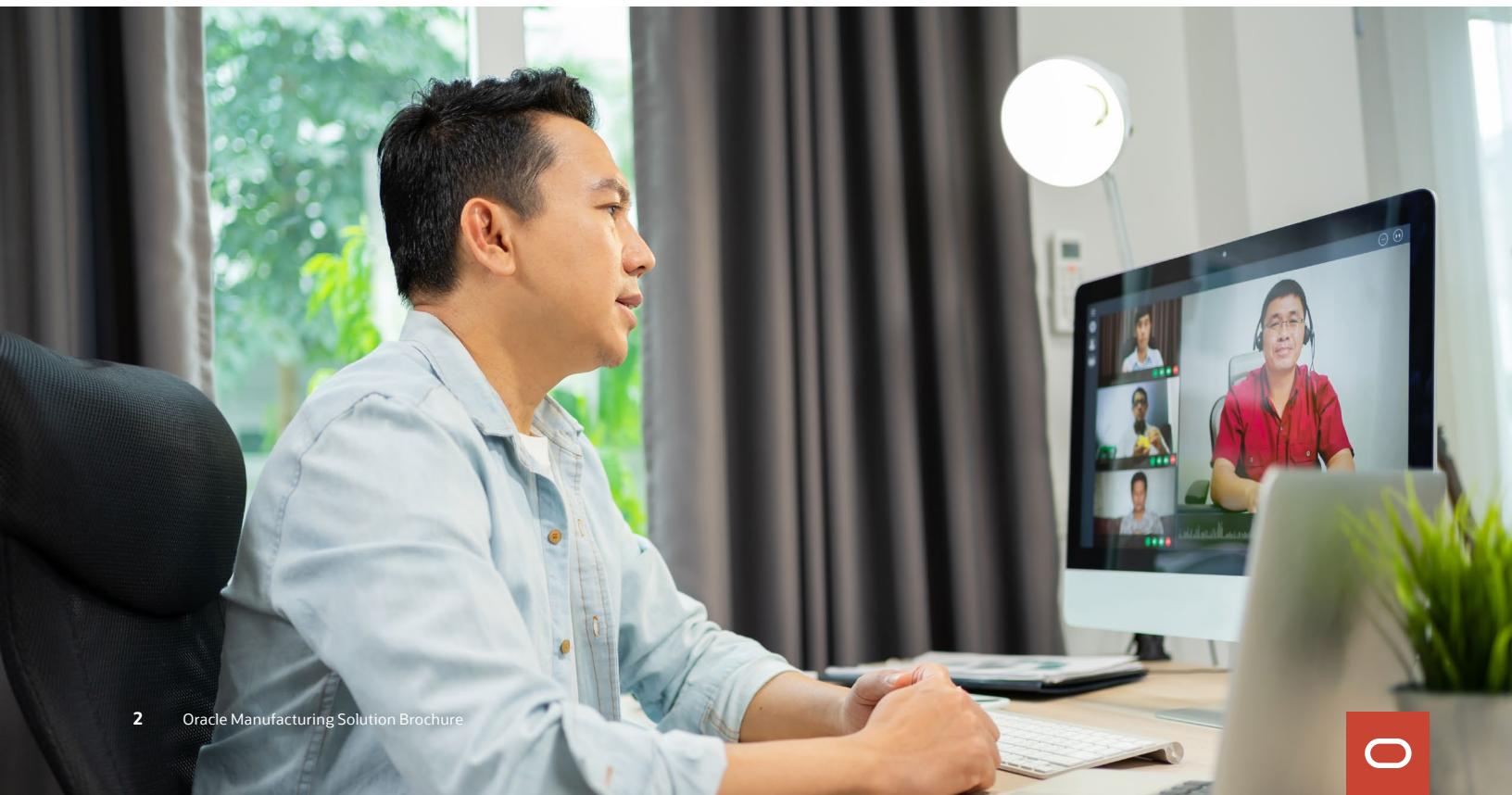
## 7 key challenges for manufacturers

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If you're a manufacturing executive, you've probably had better years. Inflation is at its highest rate since the 1980s, making it a challenge to control costs. Borrowing is more expensive than many executives can ever remember. And the unprecedented demand for pandemic-driven products—from medical equipment to new golf carts—has waned, as pent-up demand for events, travel, and in-person services have eaten away at consumer spending.

All of this has led to caution in the C-suite, with many CFOs and COOs being asked to reduce costs and protect profit margins. But in times of unprecedented technological change, some investments are too critical to postpone. [Research from McKinsey & Company](#) has shown that companies that invest in innovation during the toughest times emerge from the storm stronger, ready to outperform the competition.

Manufacturers who invest in tackling the following key challenges will find themselves in a stronger position to boost profits and growth, while lowering costs and increasing margins.



## **1 Managing shortages and disruptions**

Quick response times are top of mind for chief supply chain officers, who continue to face supply shortages and disruptions. Today's manufacturers need connected operations and insight to stay nimble, be resilient to change, and spot new revenue-generating opportunities.

## **2 Navigating demand risk and higher operating costs**

With demand volatility expected to last well into next year, companies are looking for ways to boost automation and avoid unnecessary costs. But the best decisions need accurate insights. C-suites are looking for easy-to-use dashboards, real-time alerts, built-in AI, and consistent data across HR, finance, and the supply chain.

## **3 Rising IT costs, legacy systems running on-premises, and data silos**

Manufacturers can't realize the promise of Industry 4.0 with aging, disconnected, legacy technologies. They need to connect operational data—from the factory to the field—with IT systems that can process, analyze, and present the information via charts and graphics that are easy to understand.

## **4 Aging workforce and a growing need for tech-savvy workers**

Manufacturers are struggling to fill open positions as they compete for workers seeking flexible schedules, higher wages, and opportunities for career advancement. They are also competing with technology companies for tech-savvy workers as they automate manufacturing. HR teams must find a way to tap new talent pools to replace workers aging out of the industry.

## **5 Adopting service-based business models and software-driven products**

Services have become an important growth engine, with companies using subscription-based models to offer services along with their products. The benefit to the customer is that they can make fewer capital investments and reduce their debt load. The benefit to the manufacturer is a stable, recurring revenue stream.

## **6 Creating a sustainable, circular supply chain**

Customers, investors, and governments continue to look closely at corporate environmental practices. From minimizing carbon emissions and energy consumption to safe disposal and reuse of parts, manufacturers and their suppliers must revamp their value chains to be more sustainable.

## **7 Cost and complexity of onboarding acquired companies**

[PwC predicts](#) that mergers and acquisitions will play a key role in driving growth for manufacturing companies. But growth via acquisition comes with integration headaches—whether it's integrating finance systems across subsidiaries or integrating employees into company operations.



## **Our complete cloud suite for delivering exceptional client value**

Oracle gives manufacturers the power to execute on all these imperatives with our [integrated suite of applications](#) and [Oracle Cloud Infrastructure \(OCI\)](#).

Our applications span every area of the business, including [supply chain management \(SCM\)](#) and [manufacturing](#), [enterprise resource planning](#) (ERP), [enterprise performance management](#) (EPM), [human capital management](#) (HCM), [customer experience](#) (CX), and [analytics](#). Using a common data model, these applications share one source of data, breaking down information silos and improving the accuracy of every financial, employee, customer, and product record. Manufacturers can use one application at a time or several at once; you can start with what your business needs most and tap into new capabilities as your needs evolve.

Manufacturers with construction and engineering portfolios can manage asset lifecycles and increase return on capital investments with [Oracle Primavera Capital Program Management](#).

Together, these connected cloud applications give you a powerful platform to digitalize product engineering, manufacturing operations, and supply chains. The table on the next page shows Oracle Cloud capabilities and how they address your key challenges.

## **Key imperatives for manufacturers**

To address these challenges and drive growth, manufacturers must:

- Digitalize the business
- Build agile, resilient supply chains
- Accelerate innovation and enhance quality with smart manufacturing
- Upskill, reskill, hire, and redefine the employee experience
- Adopt service-based business models and software-driven products
- Sustain green manufacturing
- Prepare for mergers, acquisitions, and growth



Oracle Fusion Cloud Applications					
	Build agile, resilient, and sustainable value chains	Upskill, reskill, hire, and redefine the employee experience	Accelerate innovation, enhance quality with smart manufacturing	Grow revenue with innovative services and connected products	Prepare for mergers, acquisitions, and growth with one global ERP
<b>Supply Chain Management (SCM)</b>					
Oracle Fusion Cloud Supply Planning	x		x		
Oracle Fusion Cloud Demand Management	x		x	x	
Oracle Fusion Cloud Sales and Operations Planning	x		x	x	
Oracle Fusion Cloud Order Management	x		x	x	
Oracle Fusion Cloud Inventory Management	x		x	x	
Oracle Fusion Cloud Product Lifecycle Management	x		x	x	
Oracle Fusion Cloud Maintenance	x		x	x	
Oracle Fusion Cloud Manufacturing	x		x		
Oracle Fusion Cloud IoT Intelligent Applications	x		x	x	
Oracle Fusion Cloud Quality Management	x		x		
Oracle Intelligent Track and Trace	x		x	x	
Oracle Logistics	x		x	x	
<b>Enterprise Resource Planning (ERP)</b>					
Oracle Fusion Cloud Procurement	x		x		
Oracle Fusion Cloud Financials	x	x	x	x	x
Oracle Fusion Cloud Project Management	x	x	x	x	
<b>Enterprise Performance Management (EPM)</b>					
Oracle Fusion Cloud EPM	x	x	x	x	x
ESG Planning & Reporting	x			x	
<b>Human Capital Management (HCM)</b>					
Oracle Core HR	x	x	x	x	x
Oracle Talent Management	x	x	x	x	x
Oracle Payroll		x			x
<b>Customer Experience (CX)</b>					
Oracle Sales & CPQ	x			x	
Oracle Marketing	x			x	
Oracle Service & Field Service	x			x	
Oracle Fusion Cloud Subscription Management				x	
Oracle Unity	x			x	
<b>Fusion Analytics</b>					
Fusion ERP Analytics				x	x
Fusion SCM Analytics	x		x		
Fusion HCM Analytics		x			
Fusion CX Analytics				x	
<b>Oracle Primavera Unifier (for Construction &amp; Engineering)</b>					
Essentials	x		x		
Project Controls	x		x		
Facilities and Asset Management	x		x		

### Digitize the business

#### Oracle Platform Services

Data	AI/ML	Redwood UX	Content	Chatbots	IoT	Knowledge	Integrations
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#### Oracle Gen 2 Cloud Infrastructure

<b>Extend SaaS</b> Extend functionality or create new apps for unique business needs	<b>Integration</b> Oracle and non-Oracle apps, robotic process automation	<b>Analytics</b> Data integration, reporting visualization, data science	<b>Security</b> Proactive security across apps, users, data, OS and infrastructure	<b>Autonomous</b> Self-driving, self-securing, self-repairing, data management	<b>Cloud Native</b> Modern application development, devops and deployment





## Digitalize the business

The first steps to Industry 4.0 are to transition from an on-premises environment to the cloud, and to connect business processes on a digital thread with a single set of cloud applications. New technologies, such as the Internet of Things (IoT), drones, robots, and smart manufacturing generate huge amounts of data, requiring fast hardware and sophisticated software to process and analyze it.

[Oracle Cloud Infrastructure](#) supports the high performance computing that manufacturers need to analyze machine data, model new products, run complex simulations, perform virtual QA testing, and expand at scale. Developers can use prebuilt AI services, open source frameworks, and familiar Oracle data platforms to create new apps and experiences. [Oracle Modern Data Platform](#) brings together large data sets; analyzes them; and uses AI to predict maintenance requirements, increase asset uptime, make better, faster field management decisions, and monitor workplace health and safety.



## Toyota moves high performance workloads to Oracle Cloud

The world's largest car manufacturer is on a mission to bring dramatic improvements to the basic performance of [Toyota](#) cars. The company runs computational fluid dynamics simulations on [Oracle Cloud Infrastructure](#) as part of its multicloud strategy. The move allowed Toyota to run computations faster at a lower cost—making the development of cars more efficient and helping Toyota produce cars with better performance.

# 20%

improvement in infrastructure performance  
High-tech manufacturer

# 5 minutes

for self-service analytics  
Construction and product development group

## How Oracle powers digital manufacturing

- Open and modular [Modern Data Platform](#) integrates all data sources to improve data quality and access
- [AI services](#) with prebuilt models help you develop innovative applications faster and at less cost
- High performance computing supports your most demanding workloads
- [Distributed cloud](#) offers more control and faster innovation for your existing Oracle estate
- [Dedicated cloud](#) solutions provide more than 100 cloud services entirely within your data center
- Oracle's [green cloud](#) reduces your environmental footprint for a sustainable future
- Open source [Oracle MySQL](#) or [low code APEX](#) platforms enable you to rapidly [build new apps](#) with minimal assistance





## Build agile, resilient, supply chains

The key to being agile is the ability to predict when things might go wrong and quickly change directions when they do. Oracle helps you move plans into action fast and minimize risk to performance targets. Set up a [supply chain command center](#) to help improve the quality and speed of your supply chain decision-making with predefined, cross-functional use cases that help you detect changes from digital signals, decide how to act based on that insight, and execute on your next-best action.

[Oracle Cloud Supply Chain & Manufacturing](#) (SCM) helps you procure, plan, make, ship, and deliver perfect orders every time, while lowering costs. With [Oracle Procurement](#), you can expand and diversify your supplier base to manage risk and control total landed costs. And with [Oracle Supply Chain Planning](#), you can connect plans across sales, operations, and finance functions so your teams can quickly adapt to changes in consumer demand and supply and handle operational issues.

You can sense, respond to, and orchestrate changes, and you can maximize order fulfillment and minimize logistics costs with our [connected logistics](#) solution.



## TaylorMade

A leading global manufacturer of golf equipment, [TaylorMade](#) moved its supply chain operations to Oracle Cloud Supply Chain & Manufacturing, gaining improved demand planning and order management capabilities. TaylorMade can now fulfill customer orders with greater precision based on accurate product availability and lead times.

# 90%

reduction in total  
cost of ownership

Transportation and logistics organization

# Real-time

visibility into supply chain status  
and KPIs

Original equipment manufacturer

## How Oracle powers manufacturing resilience

- Reduces organization friction and improves business agility
- Enables one view of end-to-end integrated business plans
- Adapts sales and operations plans and logistics execution when there are changes in demand, supply, and resources, with near-zero latency
- Optimizes supply networks and demand fulfilment



## Accelerate innovation and enhance quality with smart manufacturing

Oracle's [smart manufacturing](#) solution helps manufacturing companies correlate quality issues to machine and environmental factors, better predict and resolve maintenance requirements, reduce downtime, and improve quality.



### Litoplas hits 98% plant efficiency with smart manufacturing

[Litoplas](#) is a leading Colombian manufacturer of plastic packaging for food, health, and hygiene products. The company's legacy systems were making it difficult to plan and schedule preventative maintenance, gain a clear view of business performance, and keep machines running. With new facilities under construction in other countries, the company needed a standardized process that it could replicate at different plants. Litoplas selected [Oracle Cloud SCM](#) for supply chain and [Cloud ERP](#) for financials. The connected view of data enabled Litoplas to accurately forecast maintenance needs and plan work orders ahead of time, saving 15% in the total budget.

The company now takes 16 fewer days to produce the same number of products and is saving more than 160 hours of unplanned corrective maintenance per month. This has increased use of production lines by 5% and maximized product quality, reducing nonquality costs by 20%.

## **Alcar Ruote improves production efficiency with a connected factory**



Alcar Ruote's manufacturing plant in Switzerland designs, produces, and distributes steel wheels for the automotive aftermarket. The company wanted to gain real-time data to respond quickly when a new car hits the market, evaluate business systems, and correct any problems. The top priority was to build more flexible and effective planning and order management processes.

Alcar Ruote implemented [Oracle Cloud SCM](#) and [Oracle Cloud ERP](#) to manage planning, procurement, manufacturing, and distribution, while also enhancing visibility across those operations. [Oracle IoT Intelligent Applications](#) with embedded AI capabilities allow the company to analyze sensor data, identify trends, predict failures, and take action.

## **How Oracle powers smart manufacturing**

- Connects shop-floor data with manufacturing, maintenance, and planning business systems
- Uses built-in AI and machine learning to put information in context and provide insights that you can act on
- Predicts machine failures to get ahead of maintenance, adjust production schedules, and avoid costly downtimes
- Analyzes productivity and efficiency so you can instantly respond to trends and help improve quality across the board

# Upskill, reskill, hire, and redefine the employee experience

To meet a growing need for skilled, tech-savvy labor, manufacturers need strong recruiting tools. They also need technology for reskilling and easy-to-use tools for a better employee experience. With [Oracle Cloud Human Capital Management](#) (HCM) you can track, manage, and grow employee skills to align your workforce with your organizational goals. Comprehensive learning platforms can help workers improve their skills, while giving a lift to retention. Chatbots, AI, automation, and a mobile experience support employees regardless of location or device, providing a better employee journey from hire to retire. And you can connect your strategic workforce and financial plans using [Oracle Cloud Enterprise Performance Management](#) (EPM).



## Steel producer attracts more talent

[ArcelorMittal](#), one of the world's largest steel producers, moved to a cloud-based recruiting application to help fill technical jobs in highly competitive markets, such as Poland. In the eight weeks following the system rollout, the company received 1,400 job applications. Previously, the company's HR teams would receive just one or two applications per job opening in key markets.

**88%**

reduction in payroll processing time  
Industrial manufacturer

**31%**

increase in staff productivity  
Industrial manufacturer

## How Oracle can help power the manufacturing workforce

- Provides accurate, real-time people data and talent insights
- Speeds up the hiring process with easy-to-use, modern recruiting tools
- Reskills the workforce, supplementing hands-on training with structured, personalized online learning
- Delivers superior employee engagement, enabling hybrid work models and innovative workspaces



## Grow revenue with innovative services and connected products

Oracle's [anything-as-a-service](#) solution supports omnichannel order management; online configure, price, and quote; subscription management; customer service; IoT asset monitoring; and field service. It also includes Oracle Cloud EPM, which supports scenario planning, so you can model the potential costs and revenue of new, service-based offerings.

Oracle's [Connected Digital Innovation](#) helps you speed up product development, attach sensors to new products for continuous monitoring, and upgrade those products according to your service level agreement with your customers.

Oracle's new [Asset-Based Service for High Tech and Manufacturing](#) enables you to continually monitor assets in the field and automatically alert customers and your service teams to potential problems. You can perform fixes remotely or onsite before there's a failure, helping you reduce downtime, improve customer experience, capture upsell opportunities, create loyal subscribers, and increase renewal rates.



**10-15%**

increased service margins

High-tech manufacturer

**99%**

adoption rate of new  
processes and systems

Building tech manufacturer

### Johnson Controls delivers greater value with Oracle

[Johnson Controls](#) is the world's largest provider of building technology, software, and service solutions. The company wanted to give service employees better information on the job and improve customer satisfaction. Johnson's employees can access [Oracle Service](#) and [Oracle Field Service](#) while onsite—ensuring that all parts are accounted for, assigning the right specialist to each job, detailing the fastest route, and giving technicians real-time data to complete the work efficiently.

### How Oracle supports new business models and revenue streams

- Provides a unified digital experience that streamlines the offer-to-order-to-billing process, drives cross-selling, and improves renewal rates
- Connects products via the Internet of Things for ongoing performance insight and improvements
- Provides asset monitoring for predictive, proactive field services that reduce unplanned downtime
- Digitizes and streamlines service processes to help reduce response times and cost to serve, improve margins, and increase customer satisfaction



## Sustain green manufacturing programs

Oracle helps you adopt circular economy strategies to build a more sustainable business.

[Oracle Cloud SCM](#) lets you build sustainability into every part of your supply chain, while [OCI](#) runs efficiently using renewable energy sources. [Oracle Cloud EPM](#) collects; standardizes; and visualizes environment, social, and governance (ESG) data from across your organization so you can monitor and report on your ESG goals.

### Carbon neutral by 2030



[Tetra Pak](#) is a processing and packaging company that provides food and beverage products to millions of people around the world. One of Tetra Pak's goals is to become carbon neutral by 2030. The leading [transportation management](#) capabilities in Oracle Cloud SCM provide real-time visibility into logistics and supply chain operations, improving vehicle utilization and route planning to reduce the company's environmental impact.

# 50%

reduction in waste disposal

Global food manufacturer

# 20-30%

reduction in transportation costs

Transportation and logistics provider

### How Oracle powers green manufacturing

- Uncovers opportunities to use recycled materials in product design, packaging, and manufacturing
- Helps you understand the environmental impact of manufacturing and end-of-life scenarios with simulations and scenario planning
- Improves transparency at every step in your supply chain, from raw materials to final delivery
- Optimizes shipment capacity and routes, minimizes the deployment of empty trucks



## Prepare for mergers, acquisitions, and growth with a global ERP

Mergers and acquisitions require careful planning and analysis before the deal and quick onboarding after it closes. [Oracle Cloud EPM](#) supports scenario modeling and financial planning to identify the best targets and analyze the potential results. Together with [Oracle Cloud ERP](#), it helps improve forecast accuracy and reconcile financial transactions across your subsidiaries, so you can close and report faster. And [Oracle Fusion ERP Analytics](#) includes prebuilt KPIs and predictive analytics to help you uncover trends in financial performance for faster decision-making.

### Driving growth via M&A



[Hormel Foods](#) has a strategy of growth via acquisition.

But acquired companies come with their own legacy systems—many of them running on-premises, and most requiring a heavy lift to integrate with the parent company. Hormel decided to move all its brands to Oracle Cloud ERP, SCM, and HCM. Now the company runs all its brands on one instance of Oracle Cloud—giving them a complete view of operations and employees, and helping them onboard new companies much faster.

# 35%

reduction in time to  
assimilate M&A activity

High-tech company

# 30%

improved business performance  
and revenue growth

High-tech company

### How Oracle powers M&A

- Harmonizes accounting from disparate ERP and transactional systems
- Powerful, centralized accounting engine handles large transaction volumes with unmatched speed
- Helps you model and plan across finance, HR, supply chain, and sales for strategic investment decisions
- Provides insight into the impact of strategic decisions across your bottom line, balance sheet and cash flow
- Helps you optimize capital structure by modeling different funding options



## Why Oracle for manufacturing?

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- **Customer-centric:** Committed to our customers' ongoing success
- **Complete product:** Modular cloud applications suite and analytics
- **Best technology:** Brand-new infrastructure, AI, machine learning, and more industry and leadership awards than any other cloud provider
- **Industry specialization:** Deep capabilities across broad industry segments
- **Connected digital thread:** Alignment across enterprise and ecosystem
- **Sustainability:** Commitment to powering the entire Oracle Cloud with renewable energy by 2025
- **Security:** Built into every layer of the stack, from applications to hardware
- **Cloud@Customer:** Oracle's complete portfolio of public cloud infrastructure, fully managed cloud services, and Oracle Fusion Cloud Applications hosted at customer data centers

## Next steps to move manufacturing forward

As macroeconomic uncertainties continue to raise alarms in boardrooms around the globe, the instinct might be to hunker down and cut costs until demand exceeds prepandemic levels. However, for manufacturers, the time to innovate is now—or risk falling behind the frontrunners.

Oracle provides a wide range of products and services to help you become more agile, drive continuous innovation with advanced digital platforms, and build a strong talent pool and culture.

### Learn more

[Explore Oracle Cloud for manufacturing](#)

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