

Circular Manufacturing Software Market Forecasts to 2034 – Global Analysis By Deployment (Cloud-Based and On-Premise), Software Type (Production Planning Software, Resource Optimization Software, Waste Management Software, Sustainability Management Software and Other Software Types), Technology, Manufacturing Process, End User, and Geography

<https://marketpublishers.com/r/CCD115F43ECDEN.html>

Date: August 2026

Pages: 0

Price: US\$ 4,150.00 (Single User License)

ID: CCD115F43ECDEN

Abstracts

According to Statistics MRC, the Global Circular Manufacturing Software Market is accounted for \$3.5 billion in 2026 and is expected to reach \$15.2 billion by 2034 growing at a CAGR of 20.1% during the forecast period. Circular manufacturing software refers to digital solutions that help manufacturers implement circular economy principles throughout production processes by optimizing material usage, reducing waste, extending product lifecycles, and improving resource recovery. These platforms integrate production planning, lifecycle management, material tracking, sustainability analytics, recycling management, and compliance reporting to support closed-loop manufacturing operations. Circular manufacturing software enhances operational efficiency, reduces environmental impact, and enables organizations to meet evolving sustainability regulations. Growing investment in sustainable manufacturing and circular business models is driving the global adoption of circular manufacturing software.

Market Dynamics:

Driver:

Rising demand for lifecycle visibility

Enterprises are increasingly focused on tracking materials, processes, and products from design to disposal. Circular manufacturing software enables transparency in resource usage and waste reduction. Governments are supporting lifecycle visibility initiatives to meet sustainability goals. Consumer demand for eco-friendly products reinforces the importance of lifecycle tracking. Collectively, lifecycle visibility ensures strong momentum for circular manufacturing software adoption.

Restraint:

Legacy manufacturing system integration

Many factories still rely on outdated infrastructure that cannot easily support advanced digital platforms. Integration requires significant investment in upgrades, data harmonization, and employee training. Smaller firms often lack the resources to manage these transitions effectively. The complexity of aligning diverse systems slows down implementation timelines. As a result, legacy integration challenges remain a barrier to widespread adoption.

Opportunity:

Expansion in digital factory platforms

Expansion in digital factory platforms presents a major opportunity for innovation and scalability. These platforms integrate IoT, AI, and analytics to optimize resource usage and reduce waste. Enterprises benefit from real-time monitoring and predictive insights into production cycles. Governments are encouraging digital factory adoption to strengthen sustainability initiatives. Consumer demand for efficient and eco-friendly products accelerates investment in these platforms. This opportunity is expected to reshape the competitive landscape of circular manufacturing software.

Threat:

Evolving sustainability compliance requirements

Regulatory bodies are introducing stricter frameworks for waste reduction, emissions, and resource efficiency. Companies must constantly update software to align with new standards, increasing operational burdens. Smaller firms struggle to keep pace with regulatory shifts compared to larger competitors. Sudden changes in compliance requirements can disrupt investment and planning cycles. Unless harmonization

improves, evolving regulations will remain a challenge.

Covid-19 Impact:

The Covid-19 pandemic disrupted manufacturing supply chains, creating short-term challenges for circular practices. Lockdowns slowed down production and delayed sustainability projects. However, the crisis accelerated digital adoption, with enterprises turning to software platforms for remote monitoring. Governments emphasized resilience and sustainability in recovery plans, reinforcing the importance of circular manufacturing. Consumer awareness of eco-friendly practices grew significantly during the crisis. Overall, Covid-19 strengthened the case for circular manufacturing software adoption.

The resource optimization software segment is expected to be the largest during the forecast period

The resource optimization software segment is expected to account for the largest market share during the forecast period as enterprises prioritize efficiency. These solutions enable real-time tracking of material usage and waste reduction. Manufacturers rely heavily on optimization tools to improve profitability and sustainability. Regulatory support for resource efficiency further boosts adoption. Consumer demand for eco-friendly products reinforces the importance of this segment. Consequently, resource optimization software remains the cornerstone of the circular manufacturing software market.

The artificial intelligence segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the artificial intelligence segment is predicted to witness the highest growth rate due to rising demand for predictive insights. AI-driven platforms enable adaptive resource management and process optimization. Enterprises are adopting AI to enhance decision-making and reduce inefficiencies. Governments are supporting AI integration in smart manufacturing initiatives. Consumer demand for innovative and sustainable products accelerates adoption. As a result, artificial intelligence achieves the fastest CAGR in the market.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest

market share owing to strong technological infrastructure and early adoption. The U.S. leads in digital factory innovation and sustainability initiatives. Enterprises in North America are investing heavily in AI-driven circular manufacturing platforms. Consumer demand for eco-friendly products is higher compared to other regions. Regulatory frameworks support innovation while ensuring compliance, further boosting adoption. These factors collectively secure North America's leadership in the market.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR driven by rapid industrialization and growing sustainability initiatives. Countries such as China, Japan, and India are investing in circular manufacturing technologies. Rising middle-class populations are fueling demand for eco-friendly consumer products. Governments are introducing supportive policies to encourage digital transformation in manufacturing. Local companies are scaling up innovations to meet both domestic and export demand. This dynamic environment positions Asia Pacific as the fastest-growing regional market.

Key players in the market

Some of the key players in Circular Manufacturing Software Market include Siemens AG, SAP SE, Dassault Systèmes SE, PTC Inc., Autodesk, Inc., Hexagon AB, AVEVA Group plc, Schneider Electric SE, Rockwell Automation, Inc., Emerson Electric Co., ABB Ltd., IBM Corporation, Oracle Corporation, Accenture plc and Capgemini SE.

Key Developments:

In June 2025, Siemens AG executed an advanced circular technology partnership with thermolysis recycling specialist Pyrum Innovations AG to digitize and optimize tire recycling operations. This industrial software deployment integrates Siemens' Digital Twin and SIMATIC PCS neo architectures natively into Pyrum's processing plants, allowing operators to scale the extraction of high-value recovered carbon black and steel while significantly mitigating manufacturing carbon footprints.

In May 2025, SAP SE completed a major sustainability product launch by rolling out its unified SAP Business Data Cloud architecture to automate circular supply chain tracking across enterprise networks. This intelligent data-governance platform embeds specialized generative AI agents directly into core ERP environments, allowing manufacturing clients to harmonize multi-vendor asset histories, predict raw material

reuse trajectories, and satisfy strict European circular economy compliance regulations.

Deployments Covered:

Cloud-Based

On-Premise

Software Types Covered:

Production Planning Software

Resource Optimization Software

Waste Management Software

Sustainability Management Software

Other Software Types

Technologies Covered:

Artificial Intelligence

Digital Twin

Industrial IoT

Cloud Computing

Other Technologies

Manufacturing Processes Covered:

Discrete Manufacturing

Process Manufacturing

Batch Manufacturing

Continuous Manufacturing

Other Manufacturing Processes

End Users Covered:

Automotive

Electronics

Chemicals

Industrial Manufacturing

Other End Users

Regions Covered:

North America

United States

Canada

Mexico

Europe

United Kingdom

Germany

France

Italy

Spain

Netherlands

Belgium

Sweden

Switzerland

Poland

Rest of Europe

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Thailand

Malaysia

Singapore

Vietnam

Rest of Asia Pacific

South America

Brazil

Argentina

Colombia

Chile

Peru

Rest of South America

Rest of the World (RoW)

Middle East

Saudi Arabia

United Arab Emirates

Qatar

Israel

Rest of Middle East

Africa

South Africa

Egypt

Morocco

Rest of Africa

What our report offers:

Market share assessments for the regional and country-level segments

Strategic recommendations for the new entrants

Covers Market data for the years 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034

Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)

Strategic recommendations in key business segments based on the market estimations

Competitive landscaping mapping the key common trends

Company profiling with detailed strategies, financials, and recent developments

Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

Contents

1 EXECUTIVE SUMMARY

- 1.1 Market Snapshot and Key Highlights
- 1.2 Growth Drivers, Challenges, and Opportunities
- 1.3 Competitive Landscape Overview
- 1.4 Strategic Insights and Recommendations

2 RESEARCH FRAMEWORK

- 2.1 Study Objectives and Scope
- 2.2 Stakeholder Analysis
- 2.3 Research Assumptions and Limitations
- 2.4 Research Methodology
 - 2.4.1 Data Collection (Primary and Secondary)
 - 2.4.2 Data Modeling and Estimation Techniques
 - 2.4.3 Data Validation and Triangulation
 - 2.4.4 Analytical and Forecasting Approach

3 MARKET DYNAMICS AND TREND ANALYSIS

- 3.1 Market Definition and Structure
- 3.2 Key Market Drivers
- 3.3 Market Restraints and Challenges
- 3.4 Growth Opportunities and Investment Hotspots
- 3.5 Industry Threats and Risk Assessment
- 3.6 Technology and Innovation Landscape
- 3.7 Emerging and High-Growth Markets
- 3.8 Regulatory and Policy Environment
- 3.9 Impact of COVID-19 and Recovery Outlook

4 COMPETITIVE AND STRATEGIC ASSESSMENT

- 4.1 Porter's Five Forces Analysis
 - 4.1.1 Supplier Bargaining Power
 - 4.1.2 Buyer Bargaining Power
 - 4.1.3 Threat of Substitutes
 - 4.1.4 Threat of New Entrants

- 4.1.5 Competitive Rivalry
- 4.2 Market Share Analysis of Key Players
- 4.3 Product Benchmarking and Performance Comparison

5 GLOBAL CIRCULAR MANUFACTURING SOFTWARE MARKET, BY DEPLOYMENT

- 5.1 Cloud-Based
- 5.2 On-Premise

6 GLOBAL CIRCULAR MANUFACTURING SOFTWARE MARKET, BY SOFTWARE TYPE

- 6.1 Production Planning Software
- 6.2 Resource Optimization Software
- 6.3 Waste Management Software
- 6.4 Sustainability Management Software
- 6.5 Other Software Types

7 GLOBAL CIRCULAR MANUFACTURING SOFTWARE MARKET, BY TECHNOLOGY

- 7.1 Artificial Intelligence
- 7.2 Digital Twin
- 7.3 Industrial IoT
- 7.4 Cloud Computing
- 7.5 Other Technologies

8 GLOBAL CIRCULAR MANUFACTURING SOFTWARE MARKET, BY MANUFACTURING PROCESS

- 8.1 Discrete Manufacturing
- 8.2 Process Manufacturing
- 8.3 Batch Manufacturing
- 8.4 Continuous Manufacturing
- 8.5 Other Manufacturing Processes

9 GLOBAL CIRCULAR MANUFACTURING SOFTWARE MARKET, BY END USER

- 9.1 Automotive
- 9.2 Electronics
- 9.3 Chemicals
- 9.4 Industrial Manufacturing
- 9.5 Other End Users

10 GLOBAL CIRCULAR MANUFACTURING SOFTWARE MARKET, BY GEOGRAPHY

- 10.1 North America
 - 10.1.1 United States
 - 10.1.2 Canada
 - 10.1.3 Mexico
- 10.2 Europe
 - 10.2.1 United Kingdom
 - 10.2.2 Germany
 - 10.2.3 France
 - 10.2.4 Italy
 - 10.2.5 Spain
 - 10.2.6 Netherlands
 - 10.2.7 Belgium
 - 10.2.8 Sweden
 - 10.2.9 Switzerland
 - 10.2.10 Poland
 - 10.2.11 Rest of Europe
- 10.3 Asia Pacific
 - 10.3.1 China
 - 10.3.2 Japan
 - 10.3.3 India
 - 10.3.4 South Korea
 - 10.3.5 Australia
 - 10.3.6 Indonesia
 - 10.3.7 Thailand
 - 10.3.8 Malaysia
 - 10.3.9 Singapore
 - 10.3.10 Vietnam
 - 10.3.11 Rest of Asia Pacific
- 10.4 South America
 - 10.4.1 Brazil

- 10.4.2 Argentina
- 10.4.3 Colombia
- 10.4.4 Chile
- 10.4.5 Peru
- 10.4.6 Rest of South America
- 10.5 Rest of the World (RoW)
 - 10.5.1 Middle East
 - 10.5.1.1 Saudi Arabia
 - 10.5.1.2 United Arab Emirates
 - 10.5.1.3 Qatar
 - 10.5.1.4 Israel
 - 10.5.1.5 Rest of Middle East
 - 10.5.2 Africa
 - 10.5.2.1 South Africa
 - 10.5.2.2 Egypt
 - 10.5.2.3 Morocco
 - 10.5.2.4 Rest of Africa

11 STRATEGIC MARKET INTELLIGENCE

- 11.1 Industry Value Network and Supply Chain Assessment
- 11.2 White-Space and Opportunity Mapping
- 11.3 Product Evolution and Market Life Cycle Analysis
- 11.4 Channel, Distributor, and Go-to-Market Assessment

12 INDUSTRY DEVELOPMENTS AND STRATEGIC INITIATIVES

- 12.1 Mergers and Acquisitions
- 12.2 Partnerships, Alliances, and Joint Ventures
- 12.3 New Product Launches and Certifications
- 12.4 Capacity Expansion and Investments
- 12.5 Other Strategic Initiatives

13 COMPANY PROFILES

- 13.1 Siemens AG
- 13.2 SAP SE
- 13.3 Dassault Syst?mes SE
- 13.4 PTC Inc.

- 13.5 Autodesk, Inc.
- 13.6 Hexagon AB
- 13.7 AVEVA Group plc
- 13.8 Schneider Electric SE
- 13.9 Rockwell Automation, Inc.
- 13.10 Emerson Electric Co.
- 13.11 ABB Ltd.
- 13.12 IBM Corporation
- 13.13 Oracle Corporation
- 13.14 Accenture plc
- 13.15 Capgemini SE

List Of Tables

LIST OF TABLES

Table 1 Global Circular Manufacturing Software Market Outlook, By Region (2023-2034) (\$MN)

Table 2 Global Circular Manufacturing Software Market, By Deployment (2023–2034) (\$MN)

Table 3 Global Circular Manufacturing Software Market, By Cloud-Based (2023–2034) (\$MN)

Table 4 Global Circular Manufacturing Software Market, By On-Premise (2023–2034) (\$MN)

Table 5 Global Circular Manufacturing Software Market, By Software Type (2023–2034) (\$MN)

Table 6 Global Circular Manufacturing Software Market, By Production Planning Software (2023–2034) (\$MN)

Table 7 Global Circular Manufacturing Software Market, By Resource Optimization Software (2023–2034) (\$MN)

Table 8 Global Circular Manufacturing Software Market, By Waste Management Software (2023–2034) (\$MN)

Table 9 Global Circular Manufacturing Software Market, By Sustainability Management Software (2023–2034) (\$MN)

Table 10 Global Circular Manufacturing Software Market, By Other Software Types (2023–2034) (\$MN)

Table 11 Global Circular Manufacturing Software Market, By Technology (2023–2034) (\$MN)

Table 12 Global Circular Manufacturing Software Market, By Artificial Intelligence (2023–2034) (\$MN)

Table 13 Global Circular Manufacturing Software Market, By Digital Twin (2023–2034) (\$MN)

Table 14 Global Circular Manufacturing Software Market, By Industrial IoT (2023–2034) (\$MN)

Table 15 Global Circular Manufacturing Software Market, By Cloud Computing (2023–2034) (\$MN)

Table 16 Global Circular Manufacturing Software Market, By Other Technologies (2023–2034) (\$MN)

Table 17 Global Circular Manufacturing Software Market, By Manufacturing Process (2023–2034) (\$MN)

Table 18 Global Circular Manufacturing Software Market, By Discrete Manufacturing

(2023–2034) (\$MN)

Table 19 Global Circular Manufacturing Software Market, By Process Manufacturing
(2023–2034) (\$MN)

Table 20 Global Circular Manufacturing Software Market, By Batch Manufacturing
(2023–2034) (\$MN)

Table 21 Global Circular Manufacturing Software Market, By Continuous Manufacturing
(2023–2034) (\$MN)

Table 22 Global Circular Manufacturing Software Market, By Other Manufacturing
Processes (2023–2034) (\$MN)

Table 23 Global Circular Manufacturing Software Market, By End User (2023–2034)
(\$MN)

Table 24 Global Circular Manufacturing Software Market, By Automotive (2023–2034)
(\$MN)

Table 25 Global Circular Manufacturing Software Market, By Electronics (2023–2034)
(\$MN)

Table 26 Global Circular Manufacturing Software Market, By Chemicals (2023–2034)
(\$MN)

Table 27 Global Circular Manufacturing Software Market, By Industrial Manufacturing
(2023–2034) (\$MN)

Table 28 Global Circular Manufacturing Software Market, By Other End Users
(2023–2034) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Rest of the World
(RoW) are also represented in the same manner as above.

I would like to order

Product name: Circular Manufacturing Software Market Forecasts to 2034 – Global Analysis By Deployment (Cloud-Based and On-Premise), Software Type (Production Planning Software, Resource Optimization Software, Waste Management Software, Sustainability Management Software and Other Software Types), Technology, Manufacturing Process, End User, and Geography

Product link: <https://marketpublishers.com/r/CCD115F43ECDEN.html>

Price: US\$ 4,150.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/CCD115F43ECDEN.html>