# Manufacturing execution system market set for rapid growth amid digital transformation



The manufacturing execution system (MES) market is undergoing rapid expansion, reflecting a broader trend of operational digital transformation across various industries. Organisations are increasingly embracing MES solutions as a fundamental element in modernising their manufacturing processes to enhance efficiency, productivity, and quality control.

Although MES technology has existed for some time, there has been a marked increase in demand in recent years. This surge is driven by the need for businesses to standardise and streamline operations in an increasingly competitive environment. By acting as a bridge between the shop floor and digital systems, MES enables real-time visibility into production activities and supports data-driven decision-making, which together improve overall operational performance.

Integration plays a critical role in the appeal of MES. These systems can connect seamlessly with enterprise resource planning (ERP) and supply chain planning (SCP) software, offering manufacturers comprehensive visibility and control over their entire production processes. This integration helps ensure efficient information flow and coordination across various departments, fostering a more agile manufacturing environment.

A notable industry trend is the move towards "composable ERP," which involves separating ERP’s core functions from specialised applications such as MES. This separation allows ERP systems to focus on their essential capabilities while giving operational users access to dedicated applications tailored to their specific needs.

Industry research supports the growing importance of MES in manufacturing digital transformation. The 2024 Gartner Market Guide for Global Trade Management identifies MES as a key enabler, emphasising its role in linking shop floor operations with broader enterprise systems. Gartner highlights how MES enhances operational excellence, quality improvement, and organisational agility. Similarly, the IDC MarketScape: Worldwide Manufacturing Execution Systems 2024–2025 Vendor Assessment notes manufacturers’ increasing investments in MES to obtain real-time production insights, optimise resource allocation, and boost overall equipment effectiveness (OEE). IDC’s report also points to the rising significance of MES in supporting sustainability goals and meeting environmental, social, and governance (ESG) criteria.

Financial forecasts underscore the sector’s robust growth. As detailed in a February 2025 update from Fortune Business Insights, the global MES market was valued at approximately US$14.88 billion in 2024, with projections estimating it will reach US$41.78 billion by 2032. This represents a compound annual growth rate (CAGR) of 14.1% over the forecast period.

Several key factors contribute to this expansion:

* Artificial intelligence (AI) and machine learning (ML): MES providers are increasingly integrating AI and ML functionalities to improve operational analytics and offer deeper, data-driven insights.
* Cloud-based MES solutions: The adoption of cloud computing models is rising because of benefits such as scalability, accessibility, and cost efficiency.
* Internet of Things (IoT) and Industry 4.0: The growing implementation of IoT devices and Industry 4.0 technologies is heightening demand for MES systems capable of managing and analysing large volumes of production data.

The evolving MES market is characterised by intense competition, technological advancements, and strategic partnerships. A significant number of manufacturers are transitioning from traditional paper-based methods and spreadsheets to sophisticated MES solutions, marking their initial foray into digital manufacturing. Although attention is also focused on emerging technologies, many manufacturers prioritise establishing a solid MES foundation as the first stage in their digital transformation journeys.

As industries face escalating pressures related to competitive dynamics, cost control, and regulatory compliance, MES systems have become indispensable tools for operational resilience and success. The forecasted growth trajectory highlights the sustained relevance of MES in shaping the future of manufacturing worldwide.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

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2. <https://www.globenewswire.com/news-release/2024/09/25/2953031/0/en/Manufacturing-Execution-Systems-MES-Market-Size-to-Reach-USD-32-9-Billion-by-2032-Driven-by-Industry-4-0-Adoption-Smart-Manufacturing-Trends-Research-by-SNS-Insider.html> - This resource underscores the impact of Industry 4.0 and smart manufacturing on MES adoption, enabling real-time data tracking and dynamic process adjustments.
3. <https://www.marketsandmarkets.com/Market-Reports/manufacturing-execution-systems-mes-market-536.html> - This market analysis highlights the growth of the MES market from $15.95 billion in 2025 to $25.78 billion by 2030, driven by the integration of MES with ERP and SCP systems.
4. <https://www.futuremarketinsights.com/reports/manufacturing-execution-systems-market> - This report emphasizes the integration of MES with cloud computing, IoT, and AI technologies to enhance operational efficiency and support Industry 4.0 initiatives.
5. <https://www.globenewswire.com/news-release/2025/03/25/3048576/0/en/Manufacturing-Execution-System-Market-Skyrockets-to-36-13-Billion-by-2031-Dominated-by-Tech-Giants-SAP-ABB-Dassault-Systemes-and-Schneider-Electric-The-Insight-Partners.html> - This market report highlights the dominance of tech giants in the MES market and emphasizes the importance of technology innovation, such as cloud-based solutions, in driving market growth.
6. <https://www.gartner.com/en/newsroom/press-releases/2024-01-18-gartner-says-organizations-must-bring-together-it-and-ot> - Although not directly focused on MES, this Gartner report discusses the integration of IT and OT systems, which is crucial for MES functionality and aligns with the trend of digital transformation in manufacturing.
7. <https://news.google.com/rss/articles/CBMimgFBVV95cUxOQWNkVFBvOFJ1d0hXNjlOZXEweEVKWjdUZXdvYXBMT3NnNmFySE82MmVmbG41bl9FdEtVTVJ0a3B0NFRFdHF4amRsdVdWTGtLT21LQmhZcU4xQVBpc0pKdWRLYk1FLUh5ZTNlc1JmcF9Jc0Zldy1TQU4xTGNnbF9jeXBPcGV6ZWRldWRQVmQ3MFpTX2V3N1E3cklB?oc=5&hl=en-US&gl=US&ceid=US:en> - Please view link - unable to able to access data