

Hyper Automation in SAP Production Planning

Transforming Manufacturing Operations with Advanced Automation Technologies



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Introduction to Hyper Automation

Hyper automation represents the evolution of process automation, integrating technologies like:

- Robotic Process Automation (RPA)
- Artificial Intelligence (AI)
- Machine Learning (ML)
- Process Mining

Key Objective: Create a fully automated production planning system that enhances efficiency, accuracy, and decision-making in manufacturing operations.

Market Insight:

Projected market growth at a CAGR of 18.7%, reaching \$26.5 billion by 2026.



Key Components of Hyper Automation

- **Robotic Process Automation (RPA):** Automates repetitive tasks (e.g., data entry, order processing) up to 70% faster.
- **Artificial Intelligence (AI):** Analyzes production data for predictive insights with up to 95% accuracy.
- **Machine Learning (ML):** Continuously improves production scheduling, enhancing efficiency by 20%.
- **Process Mining:** Identifies inefficiencies, reducing cycle times by 15%.



BENEFITS OF HYPER AUTOMATION IN SAP PP

Efficiency Gains: Reduced manual intervention and accelerated production processes.

- Lead time reduction: 25-40%
- Resource utilization improvement: 20-30%

Accuracy Improvements: Enhanced forecasting and inventory management.

- Forecasting accuracy increase: 15-40%
- Inventory level reduction: 15-25%

Real-Time Insights: Improved decision-making and issue detection.

- Detection and response time reduced by 50%
- Downtime minimized by 25-45%



Case Study Highlight

- **Client:** A leading automotive manufacturer with a complex production ecosystem.
- **Objective:** Streamline production planning, improve resource management, and increase on-time delivery rates.

Implementation:

- Integrated RPA to automate manual scheduling tasks.
- Leveraged AI for predictive maintenance to anticipate machinery failures.
- Utilized ML to optimize production schedules based on historical data.
- Applied Process Mining to identify inefficiencies in workflow.

Impact on Production Planning

Efficiency: Automation reduces lead times and optimizes production schedules.

Accuracy: AI and ML enhance forecasting, reducing errors and aligning production with demand.

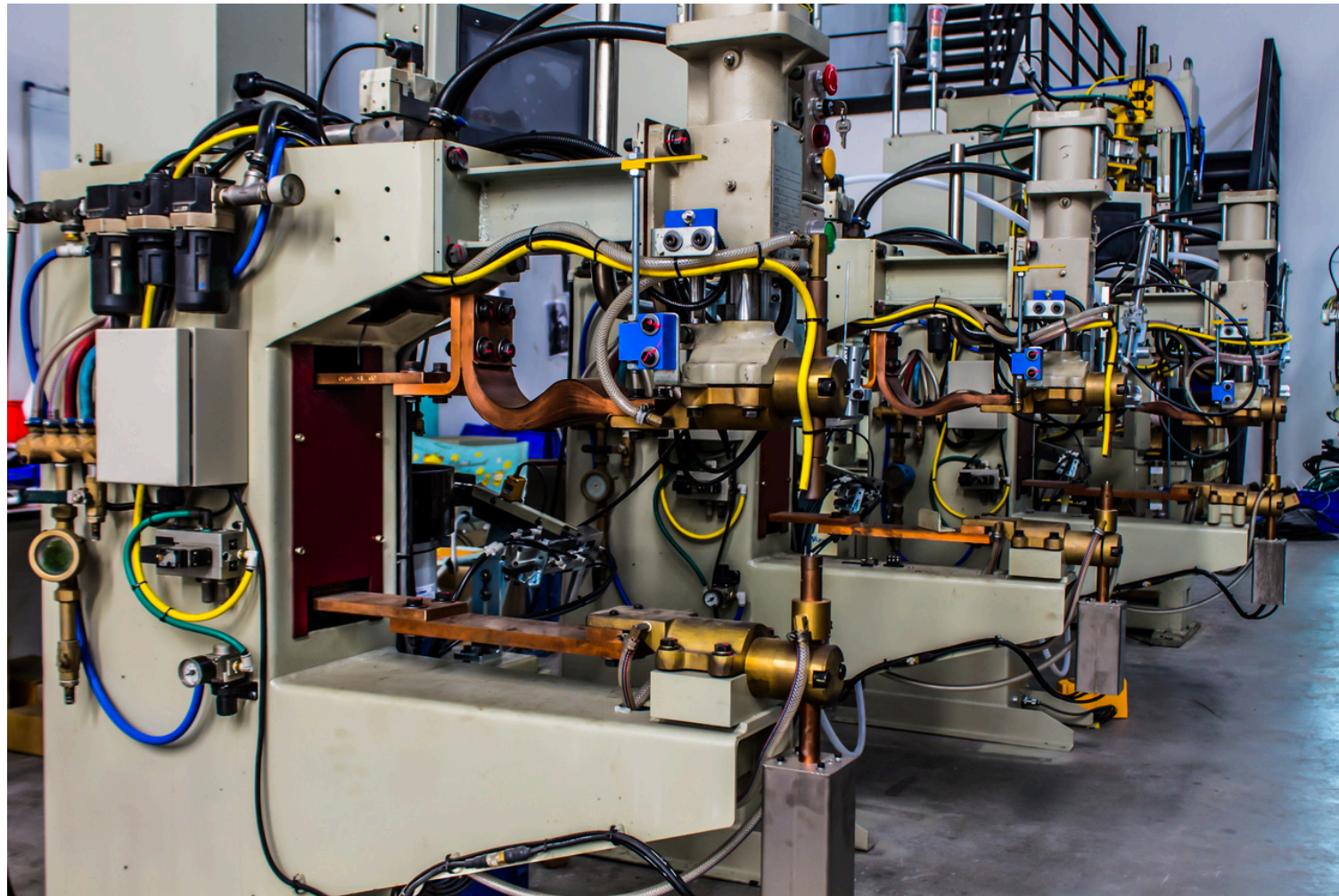
Insights: Real-time analytics for dynamic adjustments and predictive maintenance.

Key Data Points:

- Equipment failure prediction accuracy: 90%
- Unplanned downtime reduction: 35%



TECHNOLOGIES POWERING HYPER AUTOMATION



RPA: Automates MRP runs, reduces manual data handling by 70%, and minimizes errors by 90%.

AI: Predicts demand and enhances maintenance scheduling.

ML: Adaptive learning for better production scheduling and anomaly detection.

Process Mining: Identifies process inefficiencies for continuous improvement.

Statistics:

- Process mining reduces production cycle time by up to 15%.

CHALLENGES AND ETHICAL CONSIDERATIONS



Challenges:

- Data privacy concerns (31% of executives cite as a major concern).
- Integration complexity and resource allocation.

Ethical Considerations:

- Ensuring bias-free AI.
- Building trust with responsible AI implementation.

THE FUTURE OF SAP PP AND HYPER AUTOMATION



- Hyper automation as a critical enabler for Industry 4.0.
- Anticipated advancements in AI and ML will further optimize production.
- **Gartner's projection:** The market for hyper automation-enabling software will reach \$860 billion by 2025, with significant impacts on manufacturing.

Conclusion and Q&A



- Hyper automation integrates cutting-edge technologies to transform SAP Production Planning.
- It drives substantial efficiency gains, cost reductions, and better decision-making.
- Organizations need to implement responsible AI practices as they adopt these technologies.

Thank you!

