

Executive Overview

Asset Management, Corporate Strategy
and Sustainability, Manufacturing, and
R&D / Engineering

Executive
Summary

SAP Solutions

SAP Innovations

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Delivering from Idea to Performance



Integrate Processes for Faster Value Creation

Market Situation

Integration to Speed Value

Business Priorities

SAP Innovations

Markets have grown complex in this age of resource constraints and exploding populations. Global regulations and customer demands multiply as the world becomes increasingly connected. Companies are shifting their strategic focus from delivering products towards delivering performance. The keys to achieving this strategy are sustainable innovation, responsive manufacturing, operational excellence, and aftermarket service.

Response cycles are short, but information volumes are massive and technical complexities are daunting. These trends are squeezing margins and challenging growth.

Companies must seize short-lived opportunities, empower employees to make smarter decisions, and simplify technology landscapes. And they must be responsible stewards of energy, environmental, and human resources. To address these issues, companies are transforming business models to support real-time interaction.

Continuous, sustainable innovation attracts new customers and optimizes demand. It also enables companies to design operations for simplicity, efficiency, and sustainability.

Overhauling manufacturing to make capacity flexible – rather than fixed – helps accommodate volatile demand.

To deliver dependable performance throughout the product lifecycle, the value chain must be transparent and auditable, while anchored in sustainable innovation, responsive manufacturing, aftermarket service, and operational excellence.

SAP software can help by aligning processes for product development, manufacturing, sustainability, and enterprise asset management and giving all players access to the same reliable data. As a result, work becomes smarter, faster, and simpler.



Creating a Performance-Driven Organization

Market Situation

Integration to Speed Value

Business Priorities

SAP Innovations

Integrate and optimize processes to meet market expectations.

Idea-to-performance software from SAP helps turn ideas into revenue quickly by coordinating activities along the value chain – no matter how complex and dynamic.

By integrating processes across product development, operations, and service, companies can innovate nimbly and respond quickly to market change. Everyone works smarter and faster, basing decision making on real-time facts. Human organizations and technical infrastructures become simpler – thanks to timely information accessible on mobile devices.

Organizations can enrich decision making by linking visualizations to business data. Contextual analytics solutions powered by the SAP HANA platform help keep the right information at the right fingertips. This enables real-time planning to focus efforts on the highest business priorities.

In manufacturing and logistics, SAP software can help reduce consumption of energy and raw materials, while maximizing asset utilization. Plus, enriching aftermarket service increases customer interaction, revenue, and competitive differentiation.

Best-Run Idea to Performance



Idea-to-performance software from SAP helps companies bring innovative, sustainable products to market faster, while compressing manufacturing cycles and optimizing service delivery.



Priorities for Best-Run Companies

Market Situation

Integration to Speed Value

Business Priorities

SAP Innovations

Best-run companies satisfy savvy customers, while navigating a highly connected planet with limited resources. Idea-to-performance software from SAP helps them compete with integrated processes that deliver performance. By supporting integrated processes across sustainable innovation, responsive manufacturing, aftermarket service, and operational excellence, the solution provides real-time data, speeds execution, and enables visualization and enterprise mobility.

- Sustainable innovation
- Responsive manufacturing
- Operational excellence
- Aftermarket service



Understanding the value drivers for each of these priorities is crucial to executing as a best-run company in every industry.



SAP Innovations

Market Situation

Integration to Speed Value

Business Priorities

SAP Innovations

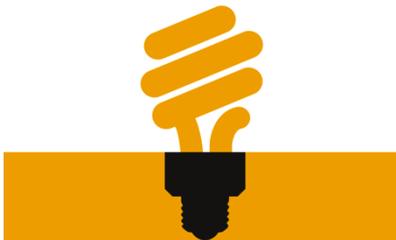
Idea-to-performance software from SAP leverages SAP Mobile Platform and SAP Business Suite software powered by SAP HANA. Functionality supporting 3D visualization fosters more efficient design, manufacturing, service, and training. SAP BusinessObjects software helps analyze Big Data collected in manufacturing and deliver actionable insight across the enterprise.

Reduce complexity, increase productivity, and improve quality with 3D-enriched processes and decision making. Simplify complex processes and detailed concepts by providing users with the information they need, when they need it.

Communication among machines can enable machines and operators to work more effectively through all stages of the manufacturing process. By collecting real-time feedback, operators can react faster to changes during production.

Idea-to-performance software from SAP, in-memory data management, and advanced analytics help turn Big Data into actionable information at any level of granularity. With 3D visualization, the data can be presented in an intuitive format that promotes productivity. Plus, mobile solutions enable decision makers to access that data, anytime and anywhere.

And with cloud-based solutions, companies can integrate processes at lower cost and risk, while maintaining flexibility and scalability.



Asset Management, Corporate Strategy and Sustainability, Manufacturing, and R&D / Engineering Value Map

SAP Solutions

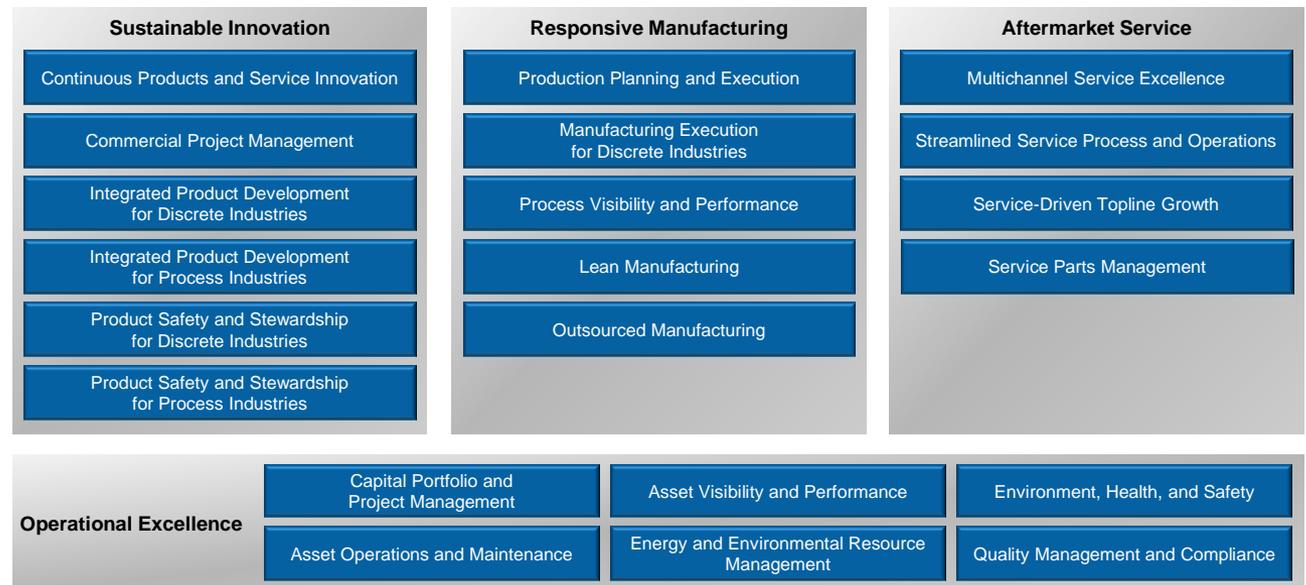
Sustainable Innovation

Responsive Manufacturing

Aftermarket Service

Operational Excellence

Integrate product development, manufacturing, and service processes.



Sustainable Innovation

SAP Solutions

Sustainable Innovation

Priorities

SAP Solutions

In a volatile global market, staying competitive is increasingly challenging. Consumers expect tailored products and rapid delivery. As product complexity soars, lifecycles shrink, and compliance regulations multiply, companies must integrate and optimize processes to accelerate the speed of innovation.



61%

Of product development companies in a recent survey chose the need to launch products quickly as a top business priority

Source: Aberdeen Group, March 2012

Now more than ever, companies must run faster, smarter, and simpler to innovate rapidly and launch new products in competitive time frames. At the same time, they are required to meet compliance, safety, and quality mandates.

Organizations are hard at work optimizing performance and eliminating activities that don't add value. However, several constraints obstruct the full success of those efforts.

First, legacy process silos often leave departments working mainly within their own boundaries – impeding communication with other stakeholders and integration across functions.

Second, the piecemeal adoption of best-of-breed solutions from multiple vendors creates complex heterogeneous IT landscapes.

Third, the digital age is producing large volumes of data and spurring demand volatility. Savvy consumers demand individualized offerings, driving complexity in product design and structure. Demand information is collected through multiple channels, and companies track product performance details. The key is to extract essential insights that support effective innovation.

These challenges feed into the biggest challenge of all – limited visibility.



Sustainable Innovation

SAP Solutions

Sustainable Innovation

Priorities

SAP Solutions

26%

Lower time to market for new products (in months) when appropriate team members are notified and informed in advance of an approaching phase-gate decision

Source: SAP Performance Benchmarking

Don't just make products – sell performance.

Design and deliver products to win market share, satisfy consumers, and meet regulatory and quality requirements. Manage business- and consumer-driven innovation, while breaking down silos to integrate processes.

Continuous Product and Service Innovation

Drive higher performance with integrated innovation. Close the loop across ideation, planning, execution, and portfolio management.

Commercial Project Management

Effectively manage processes for commercial projects to leverage real-time transparency and standardize processes and project structures.

Integrated Product Development for Discrete Industries

Shorten development through better communication, including 3D data. Cut sourcing costs, and reduce quality issues for more efficient ramp-up.

Integrated Product Development for Process Industries

Create formulas reusing ingredients, and gauge performance with contextual analytics. Speed development, while boosting compliance and lowering costs.

Product Stewardship for Discrete Industries

Shield revenue and expand markets through built-in compliance. Lower compliance cost by automating processes while addressing environmental concerns.

Product Stewardship for Process Industries

Maintain compliance with industry and consumer requirements for transparency. Classify products reliably and track registrations and substance volumes.

Benefits

- Boost visibility into product data
- Cut R & D and manufacturing costs
- Keep commercial projects transparent
- Reduce time to market for innovations
- Improve engineering collaboration
- Lower compliance and supply risk



Responsive Manufacturing

SAP Solutions

Responsive Manufacturing

Priorities

SAP Solutions

Manufacturers face rising consumer demand for new products, along with scarce raw materials and various regulations that vary by region. Protecting margins requires lower manufacturing and energy costs. Reducing system complexity and streamlining processes are critical to speed product to market.



To meet demand quickly and efficiently, companies must integrate design, shop-floor, and delivery processes. Plus, they must reduce material, manufacturing, and support costs to remain profitable.

Manufacturing needs to be flexible to adapt rapidly to change. All the while, the brand should be protected in a world where social media connects all consumers 24x7. Success in this climate demands responsive manufacturing.

Companies run smarter when they are responsive. They collect real-time data from the shop floor and integrate it with business data to help stakeholders analyze operations and act wisely. In addition, they let networked devices exchange information and initiate action without human intervention.

Responsive manufacturing companies also run faster. To shorten time to value, they integrate processes across multiple locations. They respond nimbly to variable supplier quality, track issues and trends, and provide full audit trails to regulatory bodies.

But more important, responsive manufacturing companies run simpler. They synchronize engineering and manufacturing bills of material and use visual work instructions and automated data collection to improve shop-floor execution.

6%

Higher plant on-time delivery rates when production personnel in discrete manufacturing can quickly pinpoint root causes of problems and identify possible solutions

Source: SAP Performance Benchmarking



Responsive Manufacturing

SAP Solutions

Responsive Manufacturing

Priorities

SAP Solutions

8%

Higher production plan adherence when customer delivery dates are integrated with material availability and real-time manufacturing conditions

Source: SAP Performance Benchmarking

Become more responsive to customers.

Develop real-time visibility and transparency over manufacturing operations, optimize manufacturing processes, and collaborate in global networks while lowering total manufacturing costs.

Production Planning and Execution

Drive demand planning and forecasting to improve accuracy, optimize production, raise resource and inventory utilization, and boost customer service.

Manufacturing Execution for Discrete Industries

Streamline manufacturing from design to delivery. Use machine-to-machine communication to exchange real-time data among devices and business systems.

Process Visibility and Performance

Control and analyze across manufacturing operations. Use 3D visualization to improve communication, reduce training efforts, and lower failure rates.

Lean Manufacturing

Use lean manufacturing techniques to simplify processes, boost collaboration, lower operational costs, and deliver high-quality products and services.

Outsourced Manufacturing

Streamline supply networks, and keep complete information readily available. Resolve issues quickly to fulfill delivery and increase satisfaction.

Benefits

- Deliver on time
- Optimize capacity
- Synchronize operations with demand
- Lower production cost
- Shorten manufacturing cycle time
- Reduce unplanned downtime



Aftermarket Service

SAP Solutions

Aftermarket Service

Priorities

SAP Solutions

To stand out, manufacturers must deliver performance – and not just products – to a customer base empowered by the Internet and social media. Companies must provide services in multiple channels and interact proactively to build customer loyalty and drive new revenue.



38%

Lower customer complaints (% of order processed) in organizations that provide enterprise-wide access to real-time, up-to-date order and delivery information

Source: SAP Performance Benchmarking

Today's customers are digitally connected, socially networked, and highly informed. They expect great service, no matter where or how they interact with a company. And they are simply willing to spend more money with firms that provide excellent service.

Providers that miss the mark can find their shortcomings broadcast across powerful, far-reaching social media channels. That's another reason why service processes must be efficient and effective.

Companies must find ways to manage costs and continue to eliminate activities that don't add value, while increasing productivity.

Successfully managing complaints and returns and offering multichannel customer service are among the best ways to help ensure a satisfactory customer experience.

In addition, 3D visualization can help clarify product-related communication. It can also shorten training sessions for service staff by delivering visual instructions and historical data to workers during repair operations.



Aftermarket Service

SAP Solutions

Aftermarket Service

Priorities

SAP Solutions

13%

Lower cost per interaction for organizations that use multi-channel communication to interact with customers

Source: SAP Performance Benchmarking

Take customer service to the next level.

Build customer satisfaction and loyalty. Gain a competitive advantage by solving issues faster, streamlining service operations, and increasing service profitability.

Multichannel Service Excellence

Enhance customer satisfaction and promote loyalty by exceeding the expectations of even the most demanding customers.

Streamlined Service Process and Operations

Optimize end-to-end service management for increased productivity of field engineers. Use mobile apps and 3D visualization to help complete jobs faster.

Service-Driven Topline Growth

Grow a profitable service business with flexible contract offerings and bundle services and products as complete solutions.

Service Parts Management

Reduce investments in service parts, streamline the supply chain, and meet customer needs swiftly. Leverage real-time supplier and operations data.

Benefits

- Grow new revenue streams
- Differentiate with services
- Increase customer satisfaction
- Deliver omnichannel services
- Boost productivity with mobile apps
- Solve hard cases via collaboration



Operational Excellence

SAP Solutions

Operational Excellence

Priorities

SAP Solutions

Staying competitive means lowering operational risk, boosting safety and quality, optimizing assets, and curbing energy use. Businesses are also continuously improving operations to accomplish more with less. All the while, innovations in visualization and enterprise mobility are changing work styles.



11%

Higher operating equipment effectiveness when asset management systems are fully integrated with inventory management, purchasing, engineering, and finance

Source: SAP Performance Benchmarking

In manufacturing and other asset-intensive industries, reliability engineers, health and safety experts, maintenance supervisors, quality specialists, and operations managers once focused separately on their own responsibilities. Today, stakeholders in all functions need to access the same consistent risk, cost, and performance data and collaborate on informed decisions.

As they drive revenue through customer value, companies need to ensure operational sustainability to compete. The management team must holistically and proactively control risks that can impair safety, quality, reliability, and asset productivity. This calls for transparency across all resources and investments, including capital projects.

And because we live in an interconnected world, machines communicate with each other, information flows seamlessly, and value chains grow in size and complexity. Plus, consumers are influencing product direction like never before. As a result, some companies are serving “markets of one” – customizing products to each customer’s specifications.

These trends make it crucial to integrate environmental health and safety, energy management, quality, and maintenance processes. As a result, asset-intensive industries are aiming for operational excellence through continuous improvement.



Operational Excellence

SAP Solutions

Operational Excellence

Priorities

SAP Solutions

27%

Lower service and maintenance costs when cost and financial analysis for assets is regularly conducted to track and minimize the variance from the initial budget

Source: SAP Performance Benchmarking

Foster reliable business growth.

Reduce risk, improve operational safety, enhance product quality, maximize return on production assets, avoid unplanned downtime, and gain competitive advantage by optimizing energy use.

Capital Portfolio and Project Management

Improve transparency into capital projects to manage risks, activities, budgets, and costs and to reach strategic goals on schedule and within budget.

Asset Operations and Maintenance

Automate processes for holistic asset and maintenance management. Use 3D visualizations to deliver on-site instructions and train staff faster.

Energy and Environmental Resource Management

Optimize energy spending and lower emissions by embedding energy data and compliance processes at the operational and enterprise level.

Asset Visibility and Performance

Improve visibility into asset performance and control manufacturing operations by integrating shop-floor systems with core business applications.

Environment, Health, and Safety

Proactively reduce operational risks to continuously improve safety, occupational health, and environmental performance.

Quality Management and Compliance

Use closed-loop quality management to prevent defects, enhance quality, and continuously improve processes – while satisfying global regulations.

Benefits

- Optimize the asset portfolio
- Improve asset performance
- Reduce risk
- Control energy consumption
- Sustain quality and compliance



SAP Innovations

SAP Innovations

Applications

The SAP HANA Platform

Mobile

Analytics

Cloud

80%

Of decision makers think access to the right information at the right time is critical to their business

Source: SAP Performance Benchmarking

“Industry 4.0” – the fourth industrial revolution after steam power, mass production, and automation – is changing the face of manufacturing. Companies, nations, and industry groups are investing in advanced strategies and technologies to stay competitive and to reap the advantages of this new paradigm.



Applications

Combine real-time data from SAP Business Suite software with 3D visualization for better collaboration and faster communication across the value chain.

SAP HANA and Analytics

Distill insight from Big Data created through interconnectivity, diversification of products and supply chains, and tighter audit requirements.

Mobile

Transform information delivery to the field – for example, by giving service teams interactive 3D instructions to repair an aircraft.

Cloud

Use cloud solutions from SAP to identify and implement new ways to manage large multilevel systems.



SAP 3D Visual Enterprise Applications

SAP Innovations

Applications

The SAP HANA Platform

Mobile

Analytics

Cloud

11%

Higher business satisfaction rating for organizations that have a strategy in place for a single solution/platform landscape consolidation

Source: SAP Performance Benchmarking

Business information, products, and processes are increasingly complex – and can't be explained fully with just words and numbers. Integrated 3D visual information provides a more complete view of data and increases the understanding of complex processes.



Sustainable Innovation

Share 3D CAD models throughout the value chain. SAP 3D Visual Enterprise applications take 3D models beyond engineering by converting them into a neutral, lightweight format that makes them portable and useable without CAD application knowledge.

Responsive Manufacturing

Create and maintain manufacturing master data by using engineering structures as input through a visually guided planning process. View and manage the entire planning process, from the original design data right through to the manufacturing master data.

Aftermarket Service

Visualize parts and assemblies when working on tasks within a business process. Using the mobile app on an iPad, service technicians in the field can quickly access and view the latest instructions at a job site.

Operational Excellence

Animate detailed maintenance instructions in a movie format to show workers how to execute a specific procedure or task. This simplifies and speeds learning by showing users how to do the work, as there's no need to read text and interpret static illustrations.



The SAP HANA Platform

SAP Innovations

Applications

The SAP HANA Platform

Mobile

Analytics

Cloud

65%

Of enterprises believe that cloud computing will amplify other technology megatrends such as enterprise mobility and Big Data

Source: SAP Performance Benchmarking

Supply real-time data across the product lifecycle to foster sustainable innovation. Accelerate planning processes to support responsive manufacturing. Increase operational excellence with rigorous risk management and analytics. And in the end, keep projects efficient and aligned with strategic goals.



Sustainable Innovation

Make product development more efficient by delivering up-to-date product data across the lifecycle. Explore complex bills of material, and predict and manage the impact of new regulatory requirements and large commercial projects.

Responsive Manufacturing

Support agile material requirements planning and accelerate processes involving a large network of materials, components, and production facilities. Analyze large amounts of data that can be generated from assets connected for machine-to-machine communication and optimize manufacturing processes.

Operational Excellence

Make faster decisions based on accurate data and implement intelligent maintenance scheduling. Leverage high-velocity Big Data and promote real-time risk management with in-memory computing. Empower the enterprise with analytics comparing asset and operational performance across multiple sites and comparable workflows. Support robust energy and environmental resource management.



Mobile

SAP Innovations

Applications

The SAP HANA Platform

Mobile

Analytics

Cloud

24%

Higher operating margins
where enterprise mobility is
embedded in all business
processes

Source: SAP Performance
Benchmarking

Provide the latest information – where and when it is needed most – to improve operational efficiency and execute complex programs on time and within budget. Bring information to the point of work in real time and as needed.



Sustainable Innovation

Provide 3D views of products on mobile devices, so they are accessible for everyone to evaluate and innovate anytime and anywhere.

Responsive Manufacturing

Make complex assembly and manufacturing data available to workers on the shop floor to support efficient change management. Provide 3D visual work instructions to streamline the assembly of complex products.

Operational Excellence

Give maintenance technicians secure mobile access to work orders, notifications, and inventory information on the go. Take advantage of 3D visual work instructions to enhance maintenance procedures and training materials. Use mobile safety apps to help achieve environmental health and safety goals.

Analytics

SAP Innovations

Applications

The SAP HANA Platform

Mobile

Analytics

Cloud

Provide enterprise-wide, up-to-the-minute visibility into performance against key metrics across all business operations. Take advantage of real-time monitoring, project controlling, risk mitigation, predictive maintenance, and resource optimization to run more intelligently.



Sustainable Innovation

Support full-lifecycle decision making with spatial analytics that provide location context in conjunction with business data, helping people assess the impact of proposed engineering changes.

Responsive Manufacturing

Provide visibility into plant performance with real-time updates on key metrics. Evaluate the potential impact of changes in operations on the entire value chain.

Operational Excellence

Gain visibility into operations and asset maintenance to minimize disruption and downtime, forecast demand and capacity more effectively, and increase asset utilization. Proactively evaluate the safety of people, processes, and assets.

Cloud

SAP Innovations

Applications

The SAP HANA Platform

Mobile

Analytics

Cloud

Improve speed and flexibility, and create new opportunities. Run SAP applications in the cloud to help IT provision complex software landscapes within hours, instead of weeks. Build differentiated solutions cost-effectively designed for the user at the point of engagement.



Sustainable Innovation

Keep product safety information transparent and deliver it on demand to all qualified stakeholders by using the idea-to-performance software from SAP. Manufacturers and their supply chain members can also obtain and distribute information related to product and material sustainability with the SAP Product Stewardship Network online collaboration community.

Responsive Manufacturing

Run applications in the cloud and integrate regulatory content and documentation for environmental health and safety, along with on-demand product safety.

Operational Excellence

Drive efficiency and data quality, while building trusted supplier relations within product compliance programs with SAP Product Stewardship Network. As a result, companies can turn reduce compliance risk and minimize time-to-market delays.

Best-Run Customers

Best-Run Customers

American Eurocopter

ArcelorMittal

Cinterion

Endicott Interconnect

Northrup Grumman

Nova Chemicals

Tangshan Railway

Why SAP?

SAP customers represent 98% of the top 100 most valued brands in the world.
Product safety solutions from SAP touch US\$5 trillion of all manufactured goods.
SAP customers distribute more than 78% of the world's food.





Best-Run Customers

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Tangshan Railway

Why SAP?

American Eurocopter Corporation manufactures, sells, supports, and provides training solutions for Eurocopter rotary-wing aircraft.

To secure government contracts, American Eurocopter had to track government-furnished equipment and material throughout its lifecycle, receive and place assets in inventory, track maintenance and services performed, and depreciate the items.

Key Benefits

- Enhanced visibility into asset management lifecycle
- Increased business opportunities through compliance with government regulations
- 80% reduction in data entry time
- 78% less paperwork
- 58% increase in automation of asset management
- 50% improvement in inventory accuracy

80%

Reduced data entry time

58%

Increased automation of asset management

50%

Improved inventory accuracy

“As we continue to grow our business with the Department of Defense, the SAP Enterprise Asset Management solution helps us comply with strict regulations while improving our ability to track assets.”

Doug Hamilton, Senior Director, MIS, American Eurocopter Corporation





ArcelorMittal

Best-Run Customers

American Eurocopter

ArcelorMittal

Cinterion

Endicott Interconnect

Northrup Grumman

Nova Chemicals

Tangshan Railway

Why SAP?

ArcelorMittal Brasil is one of Latin America’s main steelmaking companies with a significant presence in the long and flat carbon steel sectors.

The company chose the SAP Environment, Health, and Safety Management application to replace its disparate collection of legacy health and safety solutions. As a result, ArcelorMittal Brasil standardized its processes and set a benchmark for excellence within the global ArcelorMittal group.

Key Benefits

- Greater access to consolidated environment, health, and safety (EHS) data with online analytics and management reports
- Single solution for standardized EHS management
- Real-time integration of EHS practices throughout facilities and business areas
- Ability to negotiate better insurance rates

80%

Reduction in time to complete accident investigations and reports

50%

Increase in the identification of anomalies

40%

Reduction in cost of occupational health exams

“The ability to easily access employees’ health indicators and make sure that the occupational health processes are being conducted accordingly shows us, on a daily basis, the benefits of using SAP EHS Management.”

Enilson Miranda Santos, Personnel Admin Manager, ArcelorMittal Brasil





Best-Run Customers

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ArcelorMittal

Cinterion

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Northrup Grumman

Nova Chemicals

Tangshan Railway

Why SAP?

Streamlining Collaborative Engineer-to-Order Processes

Cinterion Wireless Modules GmbH supplies innovative wireless modules for cellular machine-to-machine communication. For efficiency, Cinterion replaced its legacy product lifecycle management system with the SAP Product Lifecycle Management (SAP PLM) application.

Key Benefits

- Elimination of legacy system maintenance costs
- Ability to take advantage of robust PLM functionality within existing SAP software
- More responsive supply networks
- Increased communication speed between manufacturing facilities and suppliers

+20%

Product quality improvement

+60%

Flexibility to choose best component suppliers

+80%

Flexibility to choose best external manufacturing partners

-10%

Manufacturing cycle time

"The SAP software helped us optimize the entire component qualification process as well as the product release process. These new-product lifecycle efficiencies will support our company's growth."

Annette Boelcke, Team Leader, Mechanical Design Systems and Support
Cinterion Wireless Modules GmbH





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Cinterion

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Tangshan Railway

Why SAP?

Endicott Interconnect Technologies Inc. (EI) is a supplier of electronic interconnect solutions and electromechanical equipment.

EI chose SAP software to better integrate its high-tech manufacturing environment and to eliminate leasing fees associated with the company's legacy systems. As a result, EI has streamlined important manufacturing processes, gained more effective component traceability, and lowered its system maintenance costs.

Key Benefits

- Elimination of system leasing costs
- Single source of data and one point of contact for shop-floor information
- Integrated data exchange among the SAP ERP application and the manufacturing systems
- Better system support for growth in highly regulated industries such as healthcare, aerospace, and defense

-40%

Manufacturing cycle
time

-75%

Steps in rework
routes

“The ease and flexibility with which we can gather the traceability information required by our customers is significantly better with the SAP software.”

Christopher Mahoney, Director of Information Technologies, Endicott Interconnect Technologies Inc.



NORTHROP GRUMMAN

Best-Run Customers

American Eurocopter

ArcelorMittal

Cinterion

Endicott Interconnect

Northrup Grumman

Nova Chemicals

Tangshan Railway

Why SAP?

Northrop Grumman, a world-leading defense contractor, delivers innovative solutions that range from undersea to outer space and into cyberspace.

In the face of increasing budget pressures, Northrop Grumman needed to think and act differently to improve operational efficiency and further improve product quality. In addition to the broad deployment of SAP Business Suite software, Northrop Grumman now leverages SAP 3D Visual Enterprise applications across half of its business in support of manufacturing, training, and technical documentation.

Key Benefits

- Improved data consistency across departments and functions
- Reduced labor hours through up-to-date 3D graphics, not out-of-date paper manuals
- Reduced cost via reuse of graphics for multiple downstream purposes

15–20%

Improved delivery times



Significant cost savings over 5 years



Fewer errors, improved accuracy

“Where SAP 3D Visual Enterprise is used, our delivery times have been reduced by 15%–20% due to less rework and more efficient operations.”

John Patrick Batache, Director of Lifecycle Logistics and Support,
Northrop Grumman





Best-Run Customers

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ArcelorMittal

Cinterion

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Northrup Grumman

Nova Chemicals

Tangshan Railway

Why SAP?

NOVA Chemicals develops and manufactures chemicals, plastic resins, and end products that make everyday life safer, healthier, and easier.

To improve maintenance scheduling and operations at 11 manufacturing facilities, the company deployed advanced plant maintenance functionality of the SAP Enterprise Asset Management solution.

Key Benefits

- 47% less time spent on reactive, emergency work
- 61% more time spent on proactive, preventative maintenance
- Coordinated and integrated maintenance scheduling
- 22% improvement in maintenance scheduling compliance
- Increased communication between maintenance and operations and decreased unplanned equipment outages

47%

Reduced time spent on reactive, emergency work

61%

Increased time spent on proactive, preventative maintenance

22%

Improved maintenance scheduling compliance

“SAP Enterprise Asset Management provides a holistic view of the overall maintenance schedule and pre-execution work. And it gives all of our business users the details they need to make better decisions.”

Ron Chow, Maintenance and Reliability Leader, NOVA Chemicals Corporation





Best-Run Customers

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ArcelorMittal

Cinterion

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Northrup Grumman

Nova Chemicals

Tangshan Railway

Why SAP?

CNR Tangshan Railway Vehicle Co. Ltd. (TRC) integrated R & D, manufacturing, and maintenance with the SAP Product Lifecycle Management (SAP PLM) application, improving quality and efficiency while reducing costs.

SAP PLM helped increase TRC's overall operating efficiency by unifying product R & D, manufacturing, and maintenance through the realization of enterprise-wide project management and process standardization. Results included significantly improved accuracy of product data, greater project management effectiveness, and enhanced process efficiency.

Key Benefits

- Significantly improved R & D management, efficiency, and quality while reducing costs
- Unified source data across departments with a single application
- Establishment of a well-trained and efficient operation and maintenance team for the R & D software to continuously meet the requirements of R & D management

33%

Faster product
R & D cycle

13%

Decrease in product
costs

40%

Improvement
in accuracy
of engineering
changes

By offering a single application that supports unified market management, R & D, manufacturing, and customer service, SAP has helped TRC run better.”

Song Yubin, CIO, CNR Tangshan Railway Vehicle Co. Ltd.



Why SAP?

Best-Run Customers

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Tangshan Railway

Why SAP?

SAP solutions help companies integrate processes across functional and geographic boundaries. A comprehensive portfolio management strategy in a single package supports regulatory compliance and full-spectrum insight into performance throughout the product and project lifecycle.

Idea-to-performance software from SAP is a set of integrated offerings that deliver three important benefits: intelligent process execution, efficient manufacturing operations, and intuitive user experiences.

The portfolio leverages the latest breakthrough technology innovations – including in-memory computing, enterprise mobility, advanced analytics, and cloud computing – to optimize business processes, sharpen competitive edge, and keep costs low.

For more than 40 years, SAP has consistently delivered value to manufacturing companies in a wide array of industries. Top companies across the globe continue to rely on SAP Business Suite software to facilitate every aspect of their business.



Find Out More About How Your Organization Can Become Best-Run

Benchmark Your Performance

Position your organization for dominance in this new economy with the business performance benchmarking program from SAP – available free to SAP customers and select prospects. The SAP benchmarking program has helped more than 3,000 organizations assess their strengths, uncover areas for improvement, and identify best practices and IT strategies that generate clear, tangible value – not someday, but today.

Visit valuemanagement.sap.com >>

Go Live in Weeks

Here's the fastest way to run your business better: our rapid-deployment solutions. In one package, you get everything you need to be up and running quickly – including preconfigured software and implementation services – in just weeks. With a defined scope and predictable costs, there are no surprises.

Visit sap.com/solutions/rds >>

Join Your Community of Practices

Every day, SAP Community Network (SCN) changes the way that thousands of SAP users work. It lets members help one another solve problems, learn, and invent new ways to get things done – faster. Find out how to connect with people, content, and resources.

Visit scn.sap.com >>



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and Sustainability, Manufacturing, and
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References

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CMP 27050 (14/01)

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