

SAP Value Paper | PUBLIC

Transform Your Automotive Organization into an Intelligent Enterprise

Achieve Value with Intelligent ERP



Customer Centricity



Strategic Priorities

E2E Scenarios SAP Strategy

SAP Value Proposition

References

he Power of Intelligent ERP

Support next practices with Intelligent ERP

models, innovative manufacturing techniques, and connected ecosystems are fundamentally reshaping the needs and demands of customers. To successfully turn these seismic changes into competitive advantages, organizations – both established and startup – need to become intelligent enterprises. More important, companies need to unlock new revenue opportunities using the power of data-driven insights. The automotive industry is set to change more in the next 5 years than in the past 50. Disruptions in propulsion technology and infrastructure, the advent of new mobility business



Personalized Mobility

realize that they need to find new and different ways to generate revenue using the machine learning and the Internet of Things (IoT) are essential in interpreting the connected nature of the autonomous vehicle. Intelligent technologies such as delivery of personalized mobility experiences vast quantities of data consumers produce to optimize interactions and ensure the The combination of autonomous driving, connected vehicles, ride sharing, and



strategic decisions. Transformation - not only of the automotive buying experience

provides key insights into the market's next move.

relationship – strengthens brand loyalty, promotes customer retention, and but also of the customer experience throughout the entire lifecycle of the An intelligent enterprise places the needs of its customers at the heart of all

electrification is reshaping the mobility experience. Many automotive manufacturers



7 **Hungry New Entrants**

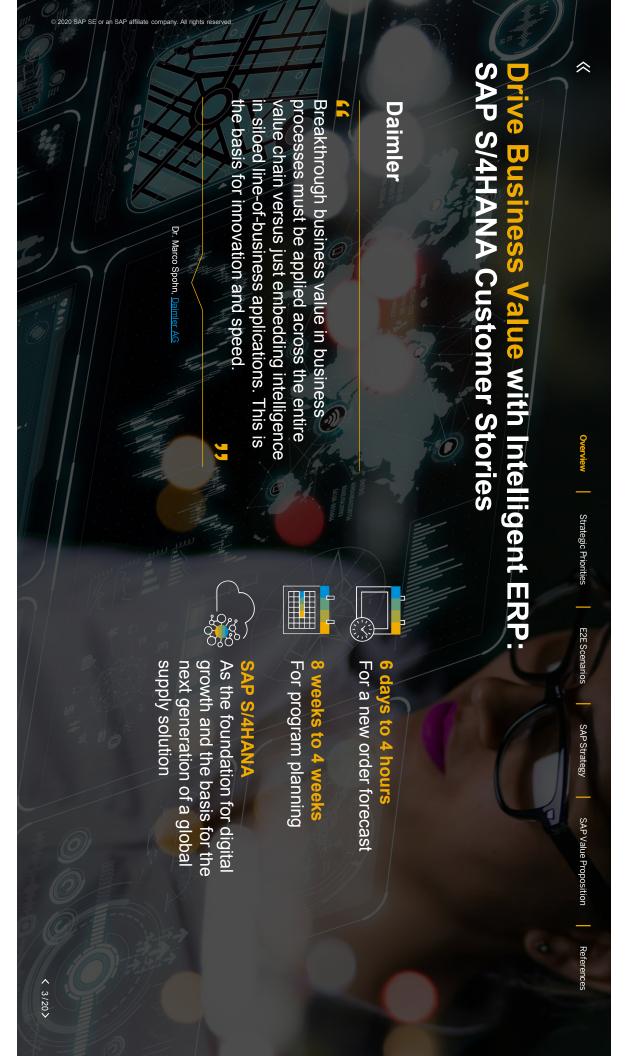
stay competitive. Both kinds of organizations need to harness the power of data around the world. At the same time, established players are investing heavily to looking to leapfrog incumbents, are aggressively competing for market share processes to compete effectively in this marketplace the IoT, and machine learning to gain complete visibility and optimize their The scope of disruption in the automotive sector is unprecedented. New entrants

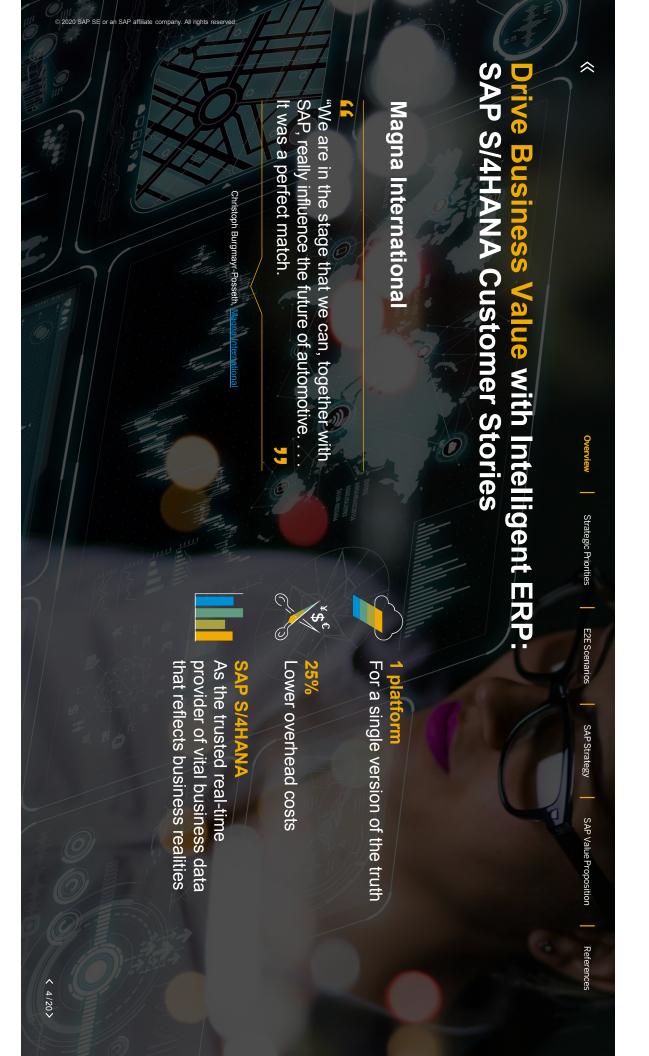
Intelligent Manufacturing

meet demand profitably. For example, using service parts software that uses the market expectations with real-time supply chain planning features that help them easily and transparently across the entire supply network. power of Industry 4.0 technologies, companies can share demand signals more manufacturing happen. Automotive companies must be enabled to respond to new Intelligent technologies transform the ways mobility hardware supply chains and

Enhance and Extend Next-Generation Processes with Intelligent ERP

is to automate, extend business processes, or even transform the entire business model. Intelligent technologies such as collaborative artificial intelligence, robotic process Embedding intelligent technologies into SAP S/4HANA® is a key value contributor to enable the intelligent automotive enterprise. The principle of an intelligent enterprise automation, and machine learning are the foundation to an insight-to-action-driven enterprise. Leading automotive companies have already begun the journey toward becoming an intelligent enterprise





SAP Strategy

Strategic Priorities in a Digital Age

support the strategic priorities of the digital economy This digital age is disruptive. Automotive companies need strategic priorities that drive transformation. SAP supports a reimagined set of end-to-end (E2E) business scenarios to



Be customer centric

As the market is constantly shifting, putting your customers (and their customers) at the center of your business is an imperative. Transformation not only of the buying experience but also of the customer's experience throughout the entire lifecycle of the relationship strengthens brand loyalty, promotes customer retention, and gives you key insights into the market's next move.

E2E scenario: Lead to cash – Contextualize the customer's individual needs and provide a smooth, frictionless experience.



Deliver mobility services

Due to market trends, an increasing amount of automotive-related revenue will be derived from shared mobility, transportation as a service, and other digital services related to automotive. Therefore, OEMs, suppliers, dealers, and retailers are exploiting new, connected technologies to open up new business models and explore new possibilities for monetizing and offering innovative services.

E2E scenario: **Subscription model** – Redefine traditional vehicle ownership models to meet changing customer expectations.

that combine physical products with embedded sensors and software. By so doing, they can introduce capabilities and value beyond traditional components, vehicle systems,

Throughout the value chain, companies are designing and developing new innovations

Design connected cars

and all types of vehicles - and develop the capabilities to support the lifecycle of the

to end consumers to increase customer satisfaction

products while in service.

E2E scenario: Individualized product offerings – Provide individualized products



if the buying lifecycle of the lifecycle

Implement the digital supply chain and smart manufacturing

Digital technology on the shop floor and in the supply chain is not new. What is new is the way the entire value chain is intelligently connected to the rest of the business and can leverage predictive analytics to provide a more precise forecast of customer demand. With near-real-time insight into demand signals, managers can effectively adapt to short-term changes. Furthermore, they can position the company and supply chains to fulfill future customer needs.

E2E scenario: Increase production with interactive demand and capacity management – Improve productivity and reduce inventory.



Engage with a changing workforce

Two trends are dramatically reshaping the automotive workforce. First, the demographic shift from boomers to millennials requires new approaches to attract, retain, and develop the skills of a younger workforce. Checking the pulse of your workforce in real time ensures that your company can align experience with expectation. Workers have different experience and skill levels and new expectations for technology in the workplace. Second, the shift in focus from physical to smart products requires a new type of automotive worker. Software developers, data scientists, and artificial intelligence (AI) experts are needed, forcing companies to compete for talent with the likes of Google, Apple, and Facebook.

E2E scenario: Attract, acquire, and develop the right talent – Improve the effectiveness of talent acquisition, compensation, and retention processes.



Be Customer Centric

ead to Cash

adapt and automate the lead-to-cash process with a real-time integrated and automated multichannel system – is essential. department but also applies to which products are built and what services are offered. Enabling real-time, 360-degree insight into customers and vehicles – and the ability to Understanding and putting the end customer's point of view at the center of every decision is a key prerequisite for success in the digital age. This does not stop in the sales

Traditional scenario



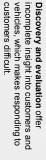




wrong opportunities. which results in spending time on the with slow routing and categorization, Leads have low visibility, combined















Quote and order is a complex and time-

Decisions and communications are not consuming manual process

Upselling and cross-selling are limited.











inflexible, making compliance and monetization difficult. Billing and revenue systems are

A new world with SAP

Lead inquiry





Immediate visibility of leads along with a 360-degree view of customers and vehicles to accelerate the time to hand off leads and close

> and evaluation Al-powered discovery



reliable insight, making it easier Consistent, accessible, and Integrated and collaborative

to respond quickly to customers

























Billing and revenue

Anytime, anywhere

- **Simpler quote and order system** with bundled offers
- Constant monitoring of sales order status
- Relevant insights and collaboration features for internal sales to maximize opportunities
- Seamless delivery
 Robust integration into ERP
 Live available-to-promise (ATP) checks, with ATP requirements transferred to

complete view of consumption

Consolidated invoicing for a

production or purchasing

Increase

Revenue growth

Top value drivers

Improve

Customer satisfaction

Sales and service cost Reduce

SAP Value Proposition

E2E Scenarios



Subscription Model

monetized based on value delivered to the customer. As automotive companies move from product-centric to customer- and service-centric offerings, they must implement these customers who value flexible and convenient choices for buying and leasing automobiles. Offerings need to be configured and priced based on new service business models and Emerging business models focus on providing complementary and alternative solutions to vehicle purchasing and leasing. The new business models are intended to attract new new business models. SAP® Customer Experience solutions and SAP S/4HANA provide capabilities that help companies pursue subscription or pay-per-use business models.

Traditional scenario

- Companies struggle to implement and run new business models Siloed approach results in several for subscription-based models. support for an end-to-end process independent processes and no

of ERP, limiting system follow-up. model typically happens outside

processes.

support subscription-based development is needed to High manual effort or add-on

is not available for follow-up

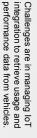














invoices. to create accurate usage-based High manual effort is required

A new world with SAP

- One integrated solution
- Support for the complete end-to-end process for subscription-based models



Business model design enabling flexible creation of new digital offerings and products, including

including individual agreements

Easier setup and maintenance of subscription-based customer contracts for vehicle usage,

pricing conditions

the definition and simulation of













More accurate billing through an automated rating of usage and performance, and according to contract conditions without any user interaction

Top value drivers*

Improve

Customer centricity of sales engagements

Customer satisfaction and retention

Increase

Service revenue from new business models

SAP Value Proposition



ndividualized Product Offerings

products faster and at a lower cost. of engineering, procurement, and manufacturing to collaborate becomes more important. Automotive companies need the ability to provide their customers with individualized Differentiation and flexibility for vehicle options are more important than ever. As design complexity and collaboration between different groups become more important, the ability

Traditional scenario

- Inefficient development process Treatment of every variant as a new
- product in the enterprise system



offered in the variant product catalog Limited number of variants



Inconsistency and errors as an independent product Existence of every variant

in variant management

- Individualized product or production engineering process

Time-consuming and costly



and service procurement, manufacturing, No variant referencing

- Inefficient and error-prone High lead time and cost variant fulfillment

A new world with SAP

- Solutions from SAP, including configurable materials. provide a bill of materials (BOM) for SAP Intelligent Product Design solution, SAP S/4HANA and the cloud-based
- BOMs contain all the components, personalized vehicles. dependencies, and routings needed to design, source, sell, and manufacture



- Rules-based management, helping ensure accuracy for product and production engineering of all variants
- Greater flexibility with support multidiscipline designs for smart products and

and sales systems, enabling greater consistency and fewer

with a variant configuration interface between point-of-sale





Integration with SAP Ariba® solutions, enabling supplier collaboration for lead times and accelerating time to

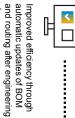




changes











- Personalized vehicles delivered quickly at the same price as an off-the-lot vehicle
- High customer satisfaction

Top value drivers

Faster

Time to market

R&D costs Lower

Increase

In revenue from new products

E2E Scenarios

SAP Value Proposition

Implement the Digital Supply Chain and Smart Manufacturing

Management ncrease Production with Interactive Demand and Capacity

time insight into demand signals, automotive leaders can have complete confidence in their strategy as they can dynamically adapt their organization to manage demand, supply, Automotive companies face highly variable demand. The companies that can forecast demand effectively and shift resources optimally will be the most profitable. With near-realand capacity.

Traditional scenario



- Finite capacity production planning















in-transit goods capabilities for event-tracking No "out-of-the-box"

 Limited options for alternative scenarios Operative material requirements planning MRP runs scheduled and periodic, resulting in out-of- date information (MRP) run for noncritical components Delay in identifying critical issues and

Different applications for different planning

- Difficult for mid- and long-term
- Manual approach to managing conflicts buffers to make up for the lack of inventory visibility, locking up Increased safety



warehouses, driving complexity and cost Multiple local



and dispatch processes in disparate systems Delivery, transportation, partner collaboration with inefficient business

A new world with SAP

 No interactive simulation of long-No interactive capacity adjustment

term planning (batch runs)



with alternative versions Capture mid- and long-term demand



 Use predictive MRP to check considering availability of capacity feasibility of demand versions

Provide recommendations and

decisions, and demand leveling capacity adjustment, sourcing interactive planning to support



and long-term planning Release an optimized midversion for operative MRP



Run MRP live multiple times short-term material shortages

Increase on-time delivery by applying chain (consider planning data for bullwhip effect in the internal supply dynamic buffer calculation) demand-driven MRP, avoiding a





and dispatch management for delivery, transportation. with real-time embedded Utilize a single platform

analytics

for all warehousing Rely on a single



logistics and improving time, optimizing sensor data in real Analyze vehicle and

Top value drivers

In on-time delivery **Improvement**

sized buffer levels and capacities Inventory levels due to appropriately

Reduction

In revenue loss due to stock-outs

Top value drivers

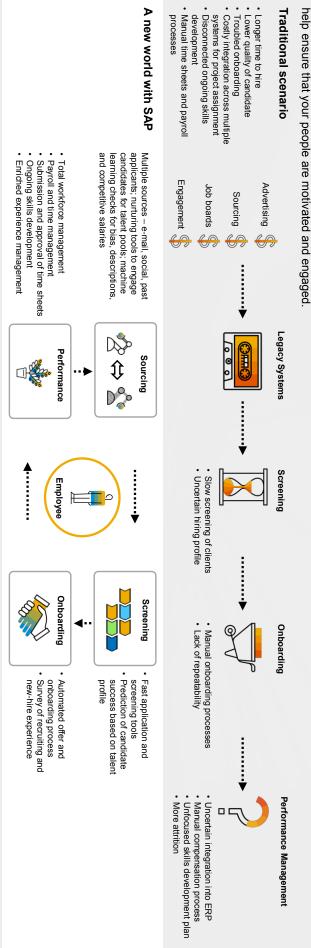
Reduce Time to hire

Overview

Engage with a Changing Workforce

Attract, Acquire, and Develop the Right Talent

automated user and role provisioning, while simplified integration setup and minimized replication errors further smooth HR processes. Real-time pulse checks of your workforce the candidate and thinking about new ways to attract and acquire the best talent. Companies can achieve faster onboarding of new employees or contingent workers thanks to for job opportunities. Whether a "ready to switch" job seeker or a targeted top prospect, today's talent won't tolerate a painful recruiting process. This reality demands focusing on Candidates today can present themselves or are targeted through an unlimited number of sources and channels. Often some of the best candidates are not even actively looking



Reduce Cost per hire

Faster

Time to contribution



Strategic Priorities

Overview

E2E Scenarios

SAP Strategy SAP Value Proposition

References

SAP Strategy – Deliver the Intelligent Enterprise

Intelligent enterprises run agile, integrated business processes and use advanced technologies such as artificial intelligence, machine

partner, and employee sentiment, and they understand and manage their environmental impact. This makes them resilient, successful learning, and the Internet of Things. They apply leading-edge industry best practices and work together to build flexible value chains. They evaluate and act on customer,

and sustainable.



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SAP S/4HANA Provides New Capabilities to Enable the Strategic **Priorities of A&D Companies**

Changing Engage a Cars **SAP S/4HANA** Workforce Manufacturing Connected Design Services Chain and Smart Digital Supply Implement the **Delivery Mobility** Centric and Offer Be Customer **Innovations** Integrated, end-to-end HR processes Integration of SAP Concur® and SAP SuccessFactors® solutions Expense management Supply assignment during back-order Alternative-based confirmations Embedded software and compatibility Product compliance Project and portfolio management Service quotation Service request, order, and contract Solution quotation and billing management Advanced variant configuration Increased profitability (revenue and costs) Quotation conversion probability 360-degree customer view Production bill of materials management -Subscription contracts, billing, and Business solution portfolio Service ticket intelligence Service billing Analysis of delivery performance Routing management revenue management Economic Value Added Predictive and live MRP Integration of SAP Fieldglass® solutions Extended transportation Constraint-based planning Efficient field service management Subscription contracts Extended service parts planning Production engineering and operations Predictive stock in transit Advanced available to promise Workforce planning and analytics management Production engineering Demand-driven replenishment Optimized usage of capital (working capital and equipment) Extended production operations Real-time inventory Prediction of slow-moving materials Production scheduling Extended warehouse management

Overview

SAP's Value Proposition for Automotive Companies

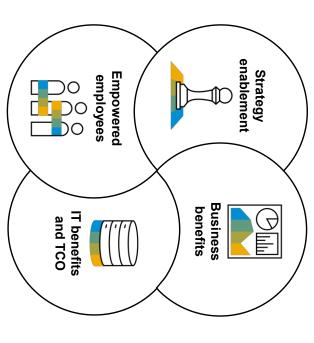
SAP S/4HANA provides automotive companies with a proven framework to adopt industry next practices while attaining operational excellence across the full value chain.

Strategy enablement

- Accelerate creation of new business models
- Enter new markets and industries
- Accelerate synergy for mergers and acquisitions
- Run live (SAP Digital Boardroom)
- Reorganize on the fly
- Achieve greater speed and agility
- Run simply (master complexity)
- Manage risk and enable compliance

Empowered employees

- working enabled by a responsive, intuitive SAP Fiori® Higher productivity with a new, role-based way of user experience on all devices
- Role-driven, user-centric processes and self-service business intelligence for user empowerment
- Actionable insights on unified, real-time data and processes with built-in system suggestions for decision



Business benefits*

- 5%-8% increase in service revenue from new business models
- 10%-20% increase in customer satisfaction
- 10%-15% reduction in order-fulfillment lead time
- Up to 15% reduction in revenue loss due to stock-outs
- 10%-15% reduction in inventory levels
- Up to 5% reduction in total manufacturing costs
- due to predictive maintenance 10%-20% increase in after-sales service revenue
- 10%-20% reduction in employee attrition

IT benefits and total cost of ownership (TCO)

- Reduced data footprint
- Merging of OLAP and OLTP
- Elimination of many desktop clients
- Lower testing costs
- Simplified landscapes
- Native integration

Overview

Customers Are Achieving Value with SAP Solutions

Daimler



Automotive

SAP Solution
SAP S/4HANA



Customer Web site www.daimler.com

Click here to watch the customer testimonial video.

Lead the market with the latest innovations while creating a sustainable, flexible, and agile IT environment. Look at how Daimler AG is deploying a next-generation global order and supply solution with SAP S/4HANA to remain competitive and deliver key

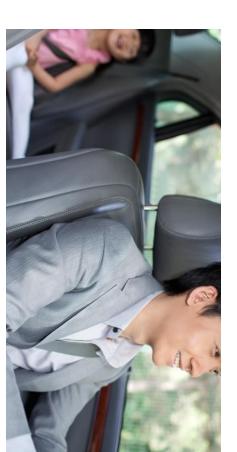
capabilities successfully to its business and its valued customers.



Breakthrough business value in business processes must be applied across the entire value chain versus just embedding intelligence in siloed line-of-business applications. This is the basis for innovation and speed.



Dr. Marco Spohn, Daimler AG



operations with accurate, real-time data and process simplification.

Magna International is a leading global automotive supplier with 92 product development, engineering, and sales centers in 28 countries. With the help of SAP S/4HANA Cloud, Magna International has a centralized view of its business

Overview

Customers Are Achieving Value with SAP Solutions

Magna International



Industry Automotive

SAP S/4HANA

SAP solution



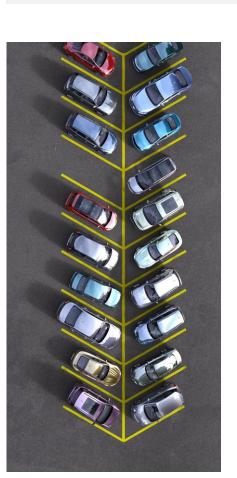
Customer Web site www.magna.com

Click here to watch the customer testimonial video.

For the first time in the history of Magna, we can be up to date every 90 days.

•

Christoph Burgmayr-Posseth, Magna International



support to help it create new business systems quickly and hit the ground running mobility of the future. To facilitate this innovation, the company needed expert

worldwide to develop innovative lighting solutions that take automotive lighting to a new level - enabling the more connected, safe, individualized, and sustainable

OSRAM Continental GmbH employs approximately 1,500 employees at 16 locations

Overview

Customers Are Achieving Value with SAP Solutions

OSRAM Continental



Automotive Industry



SAP S/4HANA



Customer Web site

transformation study. Click here to read the business



of automotive lighting and play a decisive role in the market. This has allowed us to create a new company that will rethink the future Company services, along with tools and processes to speed implementation. [SAP] helped us build strong roots using SAP S/4HANA and SAP Model



Harald Renner, Chief Financial Officer, OSRAM Continental GmbH



and procurement operations to keep pace with its booming business.

new back office that transformed production planning, sales and distribution, finance to struggle under the additional workload. With its partner Deloitte, NAVECO built a

off-road vehicles. As manufacturing volume increased, its legacy ERP system began

Nanjing Iveco Automobile Co. Ltd. (NAVECO) produces and sells buses, trucks, and

Overview

Customers Are Achieving Value with SAP Solutions

NAVECO



Industry



SAP S/4HANA



Customer Web site

transformation study. Click here to read the business



sharpen our competitive edge. leaner and more productive so that we can improve customer service and SAP S/4HANA has helped us make our manufacturing operations significantly



Min Xie, Head of IT, Nanjing Iveco Automobile Co. Ltd.



providing the end user with a near-seamless, high-quality experience.

with the help of SAP S/4HANA. Enabled by SAP's scalable and flexible platform, ERGO was able to introduce profitable on-demand and usage-based insurance products. The company saw efficiencies across the entire value chain, thereby

Solutions GmbH to keep ahead of competitors by deploying new business models

The connected vehicle allows established companies such as ERGO Mobility

Customers Are Achieving Value with SAP Solutions

ERGO Mobility Solutions





SAP Solution
SAP S/4HANA



Customer Web site

www.ergo.com

Click here to read the business transformation study.

Our core objective is to develop digital services that help secure risks arising from what we call 'new mobility.'



Karsten Crede, Chairman, ERGO Mobility Solutions GmbH



sped up processing time and refined business processes.

customer demand. After migrating to SAP S/4HANA, UNO MINDA dramatically

to modernize its supply chain and improve its collaboration with suppliers to meet

advanced driver assistance systems into its product portfolio. However, it needed automotive supplier, sought to integrate more sophisticated telematics and

Driven by automakers' desire to make their vehicles safer, UNO MINDA, an

Overview

SAP Strategy

Customers Are Achieving Value with SAP Solutions

UNO MINDA



Automotive Industry

SAP S/4HANA **SAP** solution



Customer Web site

transformation study. Click here to read the business

enable seamless transactions with suppliers. chain of the business. Changes like material valuation in multiple currencies We have been successful in improving transparency across the entire value

Nirmal K. Minda, Chairman and Managing Director, Minda Industries Ltd.



su wollo:









www.sap.com/contactsap

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