

THE AUTOMOTIVE SUPPLIER INDUSTRY

STRATEGIES FOR PROFITABLE GROWTH



THE BEST-RUN BUSINESSES RUN SAP™





CHALLENGES AND CHANGE FOR AUTOMOTIVE SUPPLIERS

For years, automotive suppliers have worked hard to increase efficiency, and they've had considerable success with those efforts – but the pressure to cut costs continues without letup. At the same time, suppliers need to deliver more to original equipment manufacturers (OEMs) in terms of service, quality, and the ability to coordinate design and development, production, assembly, and logistics with ever-increasing precision.

It's an industry where things are constantly changing, and companies are looking beyond the traditional approaches. To meet today's challenges, suppliers are working to collaborate more closely with OEMs and operate in a seamless, global network with a range of partners. The question is how to make the transition to these new ways of doing business – and build profits in a challenging industry.

CHARTING THE COURSE AHEAD

SAP is working with customers, partners, industry experts, and corporate executives to change the game and enable suppliers to work proactively to shape their environment and ultimately thrive in an evolving industry. In the following pages, we examine some of the solutions, strategies, practices, and tools that are making suppliers successful and enabling new approaches to profitable growth.

HIGHLY TARGETED SOLUTIONS . . .

“By working closely with customers and opinion leaders on the future of IT support for evolving strategic business processes and challenges, SAP clearly understands its customers’ key business issues.”

Stephen Brown, Director for Services Leadership, Arizona State University



“Today’s companies are highly competitive, global operating environments where the best suppliers are geographically dispersed. In this world, instantaneous, real-time information regarding a supplier’s status is critical to enabling the pull, or flow, type of manufacturing, distribution, and sales operations.”

Terence T. Burton and Thomas E. Shaw,
“Building the Lean Extended Enterprise
Through Adaptive Supply Chain Networks”

SAP® SOLUTIONS FOR AUTOMOTIVE SUPPLIERS

SAP supports all key business processes in the automotive supplier industry, and provides tools to drive processes that are both efficient and effective. One of these tools is the industry solution map shown below.

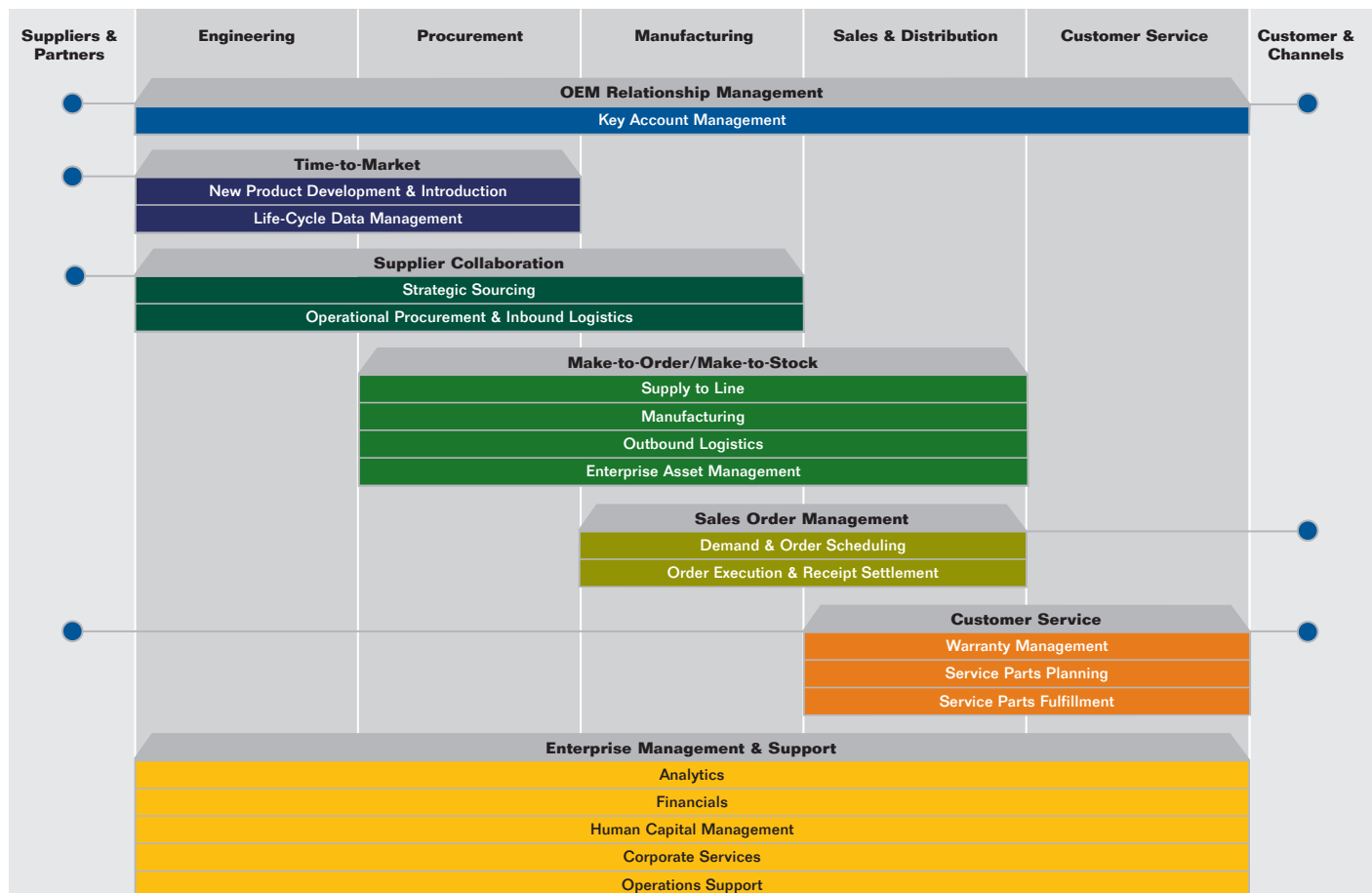
Built using input from customers, partners, and industry experts – as well as the technical expertise that SAP has gained through extensive automotive experience and research – SAP® industry solution maps are multilevel blueprints of processes defined for a particular industry.

They are designed to help you visualize, plan, and implement a coherent, integrated, and comprehensive solution that meets your company’s needs. With scenario-based solution maps, you can see how processes are supported and enabled by SAP and its partners – and the business value that those solutions can bring.

“Implementing an SAP solution provides us with an enterprise management system that can integrate completely with, and provide greater transparency to, our headquarters operations.”

Rainer Ingenfeld, IT Manager, IBS Filtran (Subsidiary of SPX Corporation)

AUTOMOTIVE SUPPLIERS SOLUTION MAP



TAKE CONTROL OF YOUR BUSINESS

Today, automotive suppliers are under intense pressure to increase efficiency and streamline processes: Indeed, analysts report that some manufacturers are mandating a 20% cost reduction by 2006. At the same time, suppliers have to deal with growing complexity in processes and products, and meet tighter delivery schedules – or incur penalties from OEMs.

WHAT ANALYSTS RECOMMEND

Suppliers need to reduce the number of non-value-added processes in their operations, and apply lean manufacturing and Six Sigma principles to reduce waste. They can also collaborate more closely with their own suppliers to ensure cost-effective, on-time deliveries, and develop integrated views of the business that allow them to measure and improve performance more accurately.

WHAT SAP OFFERS

SAP for Automotive gives suppliers the capabilities needed to execute deliveries with precision. It supports collaboration in everything from order management through inbound logistics – including receipt of material forecasts – to delivery and confirmation. Regardless of order type, customer requirements, or authorization process, SAP improves the supplier's ability to optimize end-to-end planning and execution while streamlining production and logistics processes. SAP solutions also provide the reports and analyses needed for an integrated view of the business.

“What’s missing at some companies now – they don’t see the value of the relationship . . . The system we have is built on hundreds of years of tradition of: I do something, I sell it to you, you take it, and sell it to someone else. And everyone is protecting their corporate turf.

“Everybody is saying now let’s beat up the supply base. What they should be doing – and what some are doing – is getting closer to them. And do it more strategically.”

Thomas T. Stallkamp, Former President and Vice Chairman, Chrysler Corporation



LOOK OUTSIDE TO SUPPORT THE CUSTOMER

Manufacturers are relying on fewer suppliers, and some observers predict that the number of suppliers could decline by as much as 90% by 2010. To thrive in that environment, suppliers need to forge tighter links with OEMs, and work collaboratively across the supply chain network to help OEMs meet their goals for lower costs, improved quality, and shorter time to market.

WHAT ANALYSTS RECOMMEND

Suppliers need to link up with extended OEM processes and gain improved visibility into demand. They need to work seamlessly with the entire supply network to respond to customer needs, remove friction from processes, collaborate on product design and development, and position themselves as integral members of the OEMs' value chains.

WHAT SAP OFFERS

SAP solutions let companies integrate their processes with OEMs and use business analysis tools to develop insights into demand, inventory, and capacity – and ultimately, respond more accurately to end customers' needs. SAP supports make-to-order and make-to-stock processes, as well as just-in-time and sequenced delivery strategies. And online exchange and enterprise portal technologies streamline collaboration among employees, partners, and customers.

MANAGE RISK AND ENSURE COMPLIANCE

Today, suppliers must be ready to meet stringent financial reporting standards, such as Sarbanes-Oxley and Basel II. They must comply with international material data sheet (IMDS) requirements in Europe, which call for improved environmental accountability, including information about potential health and biological hazards on all products. They must adapt to the TREAD Act requirement for detailed data on consumer complaints, service events, and warranty claims. And they have to provide more operational data to OEMs to help identify sources of quality issues and recall problems.

WHAT ANALYSTS RECOMMEND

Suppliers can employ tools that provide greater transaction visibility and the ability to aggregate product, production, and enterprise-level financial data. Full-featured, integrated accounting, quality, and environmental, health, and safety systems enable companies to manage risk and track products as they move through the supply network. Not only do suppliers need to gather data on all these fronts, but they also have to analyze it and report it clearly.

WHAT SAP OFFERS

With the mySAP™ Business Suite family of business solutions and the SAP NetWeaver™ platform, suppliers can maintain accurate, up-to-date data in a single repository that is integrated with back-office applications. Corporate governance and accountability are supported by easy access to data for reporting and analysis and clear audit trails for activity in critical financial, procurement, and receiving systems. The ability to pull and push enterprise data from a variety of sources – flexibly and easily, to meet the needs of employees, customers, and outside parties – lets suppliers keep up with growing demands for data transparency and information access.

KNOW YOUR CORE COMPETENCE: PRODUCT PORTFOLIO AND CUSTOMER MIX MANAGEMENT

In a challenging environment where mature markets are saturated and global capacity exceeds demand, suppliers need to protect today's business by adapting to changing customer requirements. At the same time, they must invest with an eye toward tomorrow to grow and expand into new markets.

WHAT ANALYSTS RECOMMEND

Suppliers need to manage portfolios of products, markets, customers, and technologies to meet current and future needs – and ensure that investments are aligned with business objectives. Doing so will eliminate the effort that goes into the design, purchase, manufacture, and delivery of products that do not add business value. To enable a portfolio-based approach, suppliers must be able to identify which products, technologies, customers, and processes will drive top-line growth and bottom-line earnings, and then eliminate those that are clearly inefficient and unprofitable.

WHAT SAP OFFERS

SAP's portfolio management capabilities let corporations evaluate the financial mix and contribution of their ongoing commitments with customers. These capabilities provide analytics that help in the management of programs and the assessment of their financial value to the organization. And they support the execution of R&D and IT strategies by helping business managers and teams optimize project portfolios, improve project execution, discover organizational expertise, and improve resource allocation. With SAP, companies can continuously fine-tune portfolios and drive internal innovation, resulting in project acceleration, enhanced quality, improved results, and increased employee satisfaction.

FOLLOW THE CUSTOMER

Suppliers can enhance revenues and reduce risk by expanding their customer base and serving more OEMs around the world. To do so, they must "follow" OEMs, and support them with a local engineering, sourcing, and manufacturing presence in various markets.

WHAT ANALYSTS RECOMMEND

Suppliers can establish global account management processes that enable them to coordinate resources located across numerous regions, and ensure that their processes are aligned with customer sourcing and engineering in each market. At the same time, they need to be sure that they can offer the innovative products and technologies – combined with cost-effective, flexible processes – needed to succeed in a global arena.

WHAT SAP OFFERS

The SAP NetWeaver platform – the foundation of SAP solutions – facilitates integration and collaboration with suppliers, provides full visibility into enterprise data, and increases speed and flexibility across global business processes. These capabilities enable suppliers to balance local needs and centralized control, and open the door to innovation in key industry growth areas such as collaborative product development.

SAP's automotive experience is augmented by its extensive global presence and international organization. Personnel understand regional and operating nuances and consider local market requirements in all solution deployments.

GROW THE BUSINESS

In a consolidating industry faced with relentless cost pressures and increasing global competition, suppliers need to not only increase efficiency, but also explore new ways to grow market share, revenues, and profits. Cutting costs is not enough; they also need to focus on top-line growth.

WHAT ANALYSTS RECOMMEND

Suppliers can implement flexible IT platforms that allow them to quickly assimilate acquired operations into their own. They can also strengthen their ability to compete in the aftermarket, where they have the opportunity to reach consumers directly, provide superior customer service, and ultimately increase margins and revenues. And they can offer OEMs a broader array of services in areas such as engineering, purchasing, logistics, and product testing.

WHAT SAP OFFERS

SAP for Automotive, with its scalability and flexibility, provides an open foundation that simplifies the integration of merged operations – including people, information, and processes – and makes it easy to deliver outsourced services to OEMs. In addition, the SAP NetWeaver platform provides the capabilities needed to manage the complexity of integrating diverse legacy and operating systems.

SAP also enables suppliers to accurately forecast aftermarket demand; optimize service and product-parts planning; integrate aftermarket distribution practices with OEM applications, and monitor inventory levels at service centers and retail outlets.



INCREASE SPEED AND RESPONSIVENESS

Suppliers today face a combination of accelerating product life cycles and growing customer expectations for variety and innovation. To thrive, they need to shorten time to market, handle late engineering changes without creating cost or quality problems, and improve their ability to stay in step with new OEM needs.

WHAT ANALYSTS RECOMMEND

Automotive suppliers can better manage the innovation and product-development processes by working across internal company boundaries and with external partners to collaborate on new designs. They can also reduce complexity in development processes to enhance both speed and cost-effectiveness.

WHAT SAP OFFERS

SAP's comprehensive supply chain management and product life-cycle management solutions enable suppliers to collaborate with partners to accelerate the design and launch of new products. SAP also simplifies the move to this integrated, collaborative approach with implementation road maps, built-in automotive-specific functionality, and rapid, out-of-the-box deployment.

ENHANCE AGILITY AND FLEXIBILITY

OEMs need to respond to changing markets quickly and easily – and they expect their suppliers to do the same. The ability to deal with increasingly complex OEM requirements and a constantly evolving business environment is critical to success.

WHAT ANALYSTS RECOMMEND

By sharing real-time information about supply and demand and implementing adaptive manufacturing techniques, suppliers and OEMs can adjust quickly to change. Suppliers can also integrate systems to support decentralized decision making and production while maintaining centralized control. And they can establish multiple business models, encompassing make-to-stock and make-to-order production strategies to meet both the high-volume and niche needs of OEMs.

WHAT SAP OFFERS

Comprehensive and integrated SAP solutions provide real-time information about projects, processes, operational performance, and markets – giving companies early warning of shifts in demand, customer requirements, and economic conditions. With SAP, suppliers can support manufacturers' pull strategies and create a seamless information flow that extends up the value chain so that production is driven by actual customer orders. And SAP's flexible and scalable IT platform ensures that growth, whether organic or through acquisition, is not limited by technology.

ENHANCE VISIBILITY ACROSS THE SUPPLY NETWORK

To meet OEM requirements, suppliers must work closely with a multitiered, geographically dispersed network of partners. As a result, they often waste time and effort trying to get systems and people to communicate, forcing decision makers to work with inaccurate or incomplete information.

WHAT ANALYSTS RECOMMEND

Suppliers can integrate systems to gather and share information about products and processes up and down the supply chain. Technologies such as radio frequency identification (RFID), supply chain event management, and inventory management tools can bring new levels of precision to the tracing of parts and processes. Data warehousing systems let suppliers understand trends, provide targeted reports to OEMs, and develop improvement plans in response to identified problems.

WHAT SAP OFFERS

With SAP, suppliers can have end-to-end visibility into operations, finances, and customers, and they can make the right information available to the right decision makers at the right time. The SAP NetWeaver platform supports the integration of systems, and its master data management capabilities let suppliers and partners work with consistent, accurate data. Advanced analytics help companies identify precisely where they are incurring product and production costs, and ultimately make better decisions about how to respond to changing conditions.



STRATEGIES FOR . . .

TODAY

- **Take control of the business** by reducing the number of non-value-added processes, applying lean manufacturing and Six Sigma principles, and collaborating more closely with partners to ensure high quality and cost-effective on-time deliveries.
- **Look outside to support the customer** by becoming an integral member of the extended automotive ecosystem and working collaboratively across the supply chain network to help customers meet their goals for lower costs, improved quality, and shorter time to market.
- **Manage risk and ensure compliance** by establishing greater transaction visibility; aggregating product, production, and enterprise-level financial data; and integrating accounting, quality, and environmental, health, and safety systems.

TOMORROW

- **Manage portfolios of products, markets, customers, and technologies** by ensuring that the proper mix of resources, investments, and processes is in place to grow the business while boosting bottom-line returns – and align resources across the enterprise to leverage core competencies in support of business objectives and goals.
- **Follow the customer** by serving more OEMs around the world and establishing global account management processes while supporting OEMs with local engineering, sourcing, and manufacturing capabilities in various markets.
- **Grow the business** by implementing flexible IT platforms that enable the rapid assimilation of acquired operations; strengthening the ability to compete in the after-market; and offering OEMs a broader array of services in areas such as engineering, purchasing, logistics, and product testing.

LONG-TERM

COMPETITIVE ADVANTAGE

- **Increase speed and responsiveness** by working across internal company boundaries and with external partners to collaborate on new designs, and reducing complexity in development processes.
- **Build in agility and flexibility** by sharing real-time information about supply and demand with suppliers and OEMs; implementing adaptive manufacturing techniques; establishing multiple business models to serve both high-volume and niche markets; and decentralizing decision making while maintaining centralized control.
- **Enhance visibility across the supply network** by integrating information about products and processes up and down the supply chain, and using RFID, supply chain event management, and inventory management tools to track and analyze operations with precision.

INDUSTRY-STANDARD PRACTICES VERSUS INDUSTRY-LEADING PRACTICES

Today, many automotive supply companies are moving away from traditional practices and adopting forward-thinking “leading practices.”

	INDUSTRY-STANDARD PRACTICE	INDUSTRY-LEADING PRACTICE
MANUFACTURING	Making components for both customer orders and stock, including buffers for protection against schedule variability and other unknown contingencies	Adaptive manufacturing based upon specific customer orders requiring sequenced JIT calls for inbound shipments and outbound JIT calls to tier II and III suppliers
SUPPLY CHAIN MANAGEMENT	Linear supply chains with sequential handoff of information resulting in delays and increased costs	Networked, adaptive supply networks based on real-time information enabling increased flexibility, efficiency, and responsiveness to change
INVENTORY MANAGEMENT	Varying levels of inventory maintained throughout network based on lead times and capacities. Simple economic reorder point calculations used	Optimized inventory levels and improved safety stock sizing including forward coverage and increased speed of replenishment
PRODUCT DEVELOPMENT	Use of different systems and files formats by suppliers, customers, and partners, making data sharing and cooperation difficult, inefficient, and costly	Collaborative engineering, including the management of simultaneous vehicle programs across key customers and platforms, to achieve cost, quality, and timing targets
BUSINESS ACQUISITION	Fragmented business processes involving multiple entities, dependent on information that is neither accurate nor available throughout the organization, impairing cost and quote management	Workflow-based processes using cost templates, centralized cost books containing component libraries that enable companies to quickly find commonly used bills of materials during the estimating process

STAYING IN STEP WITH OEMs

In the automotive industry, OEMs are evolving rapidly and suppliers need to keep pace. That means finding new ways of working, redesigning processes, considering new business models, and constantly driving greater efficiency and squeezing costs out of operations.

It's not easy – but the automotive suppliers that can make these changes will be equipped to:

- **Stay close to OEMs**
- **Minimize costs and risk**
- **Cultivate new sources of revenue**
- **Control speed and innovation**
- **Increase responsiveness to changing markets**
- **Manage – and compete – on a global stage**
- **Thrive in tomorrow's fast-moving supply networks**

“We knew when we decided on SAP that we had found a partner that understands the automotive market. We rely on a partner that is open to innovation, not just for JIS [just-in-sequential] production, but also to implement other new processes, such as e-commerce or sequenced delivery schedules for the supplier.”

Christian Ley, Logistics Department Manager, Brose Group

EMERGING TECHNOLOGIES AND TRENDS

In the years ahead, automotive suppliers will continue to focus on the integration of internal and external operations and on working seamlessly with OEMs and other suppliers in dynamic supply networks – all of which promises to increase efficiency and responsiveness.

A number of new and emerging technologies are helping to drive that trend. These include:

- **Web-based supplier portals**, which simplify the task of linking various partners and enabling collaboration among decentralized operating groups
- **Online exchange of data**, which enables extensive information sharing and the linking of processes – and an enhanced ability to control costs
- **Master data management**, which lets collaborating organizations using disparate systems work with consistent, accurate information across the supply network
- **Product life-cycle solutions**, that display digital models and increase speed, precision, and efficiency in product engineering, manufacturing, and life-cycle support
- **RFID technology**, which enables the automatic tracking of goods through the supply network. RFID has the potential to streamline parts management and distribution, and provide new levels of visibility into product life cycles.
- **Business intelligence tools**, which let suppliers analyze costs, production, and markets, and gain insights that can boost efficiency, target and accelerate product development, and improve overall profitability
- **Integrated software**, that links processes in critical areas, including ERP, supplier relationship management, supply chain management, service parts planning and management, customer relationship management, and product life-cycle management. These integrated systems can cut time and costs out of processes, and enable supply network partners to smoothly integrate information and processes.



LOOKING AHEAD . . .

A number of management trends are emerging in the automotive supplier industry.

- **System and module-engineering integration is driving more sequenced content.**
- **De-proliferation programs are increasing the use of carry-over parts across customer vehicle lines to support global platform sharing.**
- **Suppliers are emphasizing the continued rollout of lean tools and techniques supported by Six Sigma teams.**
- **A heightened focus on fixed-cost relief is compelling companies to seek manufacturing and material sourcing options in countries such as Poland, Slovakia, China, India, and Mexico.**
- **Companies are looking to expand top-line revenue and bottom-line earnings from sales generated by aftermarket parts and accessories.**

A COMPLETE SET OF SOLUTIONS FOR AUTOMOTIVE SUPPLIERS

SAP works with all automotive partners, including suppliers, customers, and thought leaders, to understand the challenges facing the industry – and to help companies address those problems and succeed in a changing, competitive industry. No other technology company providing solutions to the automotive industry can match the thousands of development hours and collaboration with manufacturers across the globe that have been incorporated into SAP products.

The result of those efforts is SAP for Automotive, a set of solutions designed specifically for the automotive industry – and for suppliers of all sizes, from tier I to tier n companies. SAP's complete,

end-to-end automotive solution includes several easy-to-deploy, preconfigured applications that target specific business needs, such as collaborative product development, which enables suppliers and OEMs to work together on creating new products; and the SAP ERP Automotive Supplier packaged solution, which streamlines the integration of supplier and OEM production using industry best practices. SAP solutions help suppliers to collaborate in a flexible, agile supply network and manage everything in the extended enterprise, including product life-cycle management, supplier relationship management, and other critical processes impacting manufacturing, orders, products, and financial reporting.

The SAP solution for automotive suppliers is built on the SAP NetWeaver platform, which lets companies integrate SAP and non-SAP applications to streamline connectivity and reduce total cost of ownership. SAP NetWeaver provides the technological foundation for online data exchange; master data management across systems; data analysis with business intelligence tools; and the integration of people, processes, and information needed for true collaboration in the automotive network.



THE BEST-RUN AUTOMOTIVE SUPPLIERS RUN SAP

SAP solutions are used by a wide range of automotive suppliers around the world, including:

- Borg Warner
- Brose
- Cooper Industries Inc.
- Cosworth Technology Ltd.
- Delphi
- Erich Jaeger
- FAG
- Freudenberg
- Goodyear
- Hella
- IBS Filtran
- Krupp Bilstein
- Mahle Co.
- Plastal
- Robert Bosch GmbH
- Siemens VDO
- Stabilus Inc.
- Teksid Aluminum Foundry Inc.
- Tenneco
- Visteon
- ZF Industries

FOR ADDITIONAL INFORMATION ON HOW SAP SOLUTIONS CAN HELP YOUR COMPANY OPERATE MORE EFFICIENTLY AND PROFITABLY, PLEASE VISIT: www.sap.com/automotive

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