



Automotive Manufacturing

Increasing competitiveness in a global industry



Competitiveness and efficiency are more important now than at any time in the history of the automotive industry. Automotive manufacturers are pressed to keep prices low while coming out with multiple new models that excite the marketplace.

This leads to enormous pressures on automotive suppliers.

To be successful, suppliers to major automotive companies have to transform their businesses to become lean operations that are driven by demand and are focused on lowering the overall costs of their products. They need to create operational transparency necessary for reacting quickly while sharing the information that supports the entire supply chain while meeting the OEM's needs. In many cases, there is also a focus on supporting the aftermarket channel efficiently by delivering products to dealers and retail outlets, often at greatly improved margins. Plus, many auto suppliers must pay close attention to government regulations and environmental standards that demand strict accountability.

To meet these challenges, suppliers have to continually improve product quality while lowering product costs.

One way to do this is to increase the flexibility of your design, manufacturing, financial, and customer relationship management (CRM) solutions. With the right technology in place, you can run these systems in ways that will improve operations within your own walls, open visibility in the supply chain, and increase your competitiveness.

Efficient operations management

A constant need by you and your customers to plan in real time has created an unprecedented need for visibility of operations to be shared across the entire supply chain. Flexible, robust, and familiar technology can help you improve your productivity and increase visibility across processes, production lines, manufacturing plants, and throughout your supply chain.

A flexible computing environment provides the infrastructure for a variety of different manufacturing capabilities being used throughout today's automotive operations. For example, the planning and scheduling needs for automotive suppliers can vary depending on the customers served and their position within the supply chain. In a highly repetitive environment, software for demand planning and/or blanket orders can be used to establish inventory levels and production schedules. In a lean manufacturing environment, suppliers may rely on electronic kanbans to signal a request for product from a downstream operation. Some sophisticated supply chains may even require In Line Vehicle Sequencing (ILVS) where suppliers must deliver JIT as well as in the proper build sequence. Many automotive suppliers have all three environments, which requires a level of operations visibility that has not been required in the past.

A well-integrated business solution supporting these business practices is critical to a successful operation. An effective business solution can help you gather real-time forecasts from automotive manufacturers, create detailed manufacturing plans and supplier forecasts, react quickly to changes in demand, and summarize real-time and historic data for better business decisions.





Smooth supply chain operations

Efficient supply chain operations are a crucial element to profitable manufacturing. And creating efficient supply chains depends heavily on the IT systems that automotive suppliers have in place.

With the use of familiar desktop software, advanced technology solutions can help you see into your customer demand signals and coordinate with suppliers to ensure fast and accurate deliveries. Agile, open systems also enable electronic kanban throughout the supply chain, delivering more effective real-time reporting and reduction of waste.

The right technology can also deliver the visibility required to understand current demand and see deeper into the supply chain instead of working from inaccurate forecasts; collaborate globally in real time on product changes that directly affect manufacturing; and integrate deliveries into production systems with the assistance of technologies such as RFID and bar code systems.

Streamlined engineering

A flexible and integrated IT infrastructure helps automotive suppliers and their customers improve and streamline the key tasks in designing new products and getting them to market quickly. By extending enterprise collaboration, integrating workflow, and implementing information standards that work across an organization and in tandem with suppliers' systems, you can expedite the design and delivery of new products.

Consider, for example, cross-company collaborative design and engineering. At one time this was difficult to achieve. Today it's a reality that helps engineering teams and partners work closely together on technical specifications, 3-D drawings, and new product designs so they can reduce product development cycles and shorten time to market.

Meanwhile, integrated workflow complements and enhances collaborative design and other activities by reducing or eliminating the inefficiencies caused by slow communications and poorly connected islands of information. Integrating engineering with manufacturing operations, purchasing, and sales can also help you quickly move from design to manufacture of a new product.

Responsiveness to market demands

More than ever, automotive makers and suppliers have to respond quickly to the tastes and demands of their customers. They can accomplish this with a flexible, secure infrastructure that links automotive suppliers and auto manufacturers together to deliver greater value to a more demanding and informed automotive consumer.

For example, if the automotive manufacturer sees customer demand in a new model accelerating, integration of suppliers' systems enables a faster response leading to rapidly increased production.

To meet these goals, you need a comprehensive view of the customer and your suppliers in order to assist in customer choices, help customers through service coordination, and enable integration of customer relationship management tools with quotations, billings, and manufacturing.

Optimal performance with Microsoft Dynamics

Microsoft Dynamics® can help you with powerful manufacturing, financial, and CRM solutions that support lean business processes. Microsoft and its partners are uniquely qualified to deliver engineering, lean manufacturing, accounting, and CRM solutions that can help you shrink

development cycles, respond quickly to customer trends, comply with changing regulations, and compete globally. Microsoft Dynamics solutions support:

- **Lean manufacturing capabilities**
- **Customer and supply chain visibility**
- **Release accounting support**
- **Contract and supplier management**
- **Subcontracting**
- **Advanced Product Quality Planning (APQP)**
- **Collaborative design**
- **In Line Vehicle Sequencing (ILVS)**
- **Shop floor data collection**
- **Container tracking**
- **Field service and warranty tracking**

Innovative integration

Microsoft Dynamics delivers a flexible set of solutions that can be easily adapted to your operational needs. Built on the Microsoft® Windows Server™ platform, Microsoft Dynamics helps you to take advantage of technologies such as Microsoft Windows® SharePoint® Services for knowledge management and collaboration, Windows Terminal Services for extending access to data and processes, and Web services that can deliver visibility into your customers' and suppliers' systems. Microsoft SQL Server™ delivers a solid foundation for collecting, analyzing, and reporting data across your company's systems. And deep integration with Microsoft Office System applications such as Microsoft Excel®, Word, Outlook®, Internet Explorer, SharePoint, and Visio® can provide a clearer picture of inventory, help you manage production and lead times, design reports, and use data required to make accurate and cost-effective decisions. Microsoft is committed to designing and delivering the integrated systems that will give your organization the greatest ability to work efficiently and reduce operating overhead.

INTEGRATION

Partners with industry expertise

Microsoft Dynamics solutions are delivered by a network of partners with expertise in automotive manufacturing. They can provide local, personalized service—from planning and implementation, to customization, to ongoing support and education. That means you get world-class business solutions from professionals who understand your business and will be there as your business conditions change.

Plan for growth

Organizations need systems that can deliver a strong return on investment (ROI) in meeting current needs, while providing for the opportunity to scale dramatically to account for organic growth, acquisitions, changes in business focus, and other foreseeable future changes to the business. Microsoft Dynamics, along with Microsoft server technologies and productivity solutions, offers tremendous flexibility and scalability to implement the solution to meet today's requirements and to allow for substantial future growth and change.

To learn more about how integrated technology from Microsoft Dynamics can help you gain a competitive edge in automotive manufacturing, visit

www.microsoft.com/dynamics/AutomotiveManufacturing



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Microsoft Dynamics is a line of integrated, adaptable business management solutions that enables you and your people to make business decisions with greater confidence. Microsoft Dynamics works like familiar Microsoft software such as Microsoft Office, which means less of a learning curve for your people, so they can get up and running quickly and focus on what's most important. Built to work with Microsoft technologies, it works easily with the systems your company already has implemented. By automating and streamlining financial, customer relationship, and supply chain processes, Microsoft Dynamics brings together people, processes, and technologies, helping increase the productivity and effectiveness of your business, and helping you drive business success.

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