

# Ford Spain Revs Up Supply Chain with BusinessWare®



*“BusinessWare® has been instrumental to the V-Chain project and in helping us to solve our main supply chain challenge: to optimally control the flow of information between us and our suppliers.”*

► *Roque Alonso, manager of material planning and logistics at Ford, Almussafes, Spain*



Ford Motor Company's manufacturing plant in Almussafes, Spain was built on the site of some former orange groves just south of the city of Valencia in 1976. It came as a result of Henry Ford II's resolution to manufacture a small-sized car in Europe in a completely new plant. Since then, Ford Spain has grown to achieve quality and productivity levels that give it a leading position among all European manufacturing plants.

2002 was a year of big challenges and new motivations for Ford's Almussafes plant. Business objectives for the year included: 1) reintroduce manufacturing of the Ford Fiesta; 2) establish the addition of a third vehicle production shift; 3) opening a new Duratech engines plant; and finally, 4) begin to manufacture a Mazda model, earning the distinction as the first plant in Europe to produce that brand of automobile.

## The Automotive Manufacturing Challenge: Supply Chain Inefficiency

Today, car manufacturers like Ford buy the majority of the parts they need for vehicle production from third party suppliers. This scattered supply chain model leaves much room for potential delays. Any delay in delivery of parts, from spark plugs to door locks, can affect the entire production cycle, particularly if the assembly line must be halted.

To address these situations, the management team at Ford Spain commissioned DMR Consulting, a leading international provider of management consulting and information technology services, to solve the challenge of improving overall supply chain management at its Almussafes plant. It was their objective to integrate the top component and technology suppliers into a streamlined supply chain.

## Business Profile

Ford Spain was established in 1976 to manufacture a small-sized car in Europe in a completely new plant. Since that time, the plant has become a leader among European manufacturing plants, producing 384,324 cars in 2003, up 2.9 percent from 2002. Approximately 88 percent of the cars are exported annually with roughly 2,000 cars leaving the plant in Almussafes each day.

**Employees:** 7259

**Revenue:** 5.211 m€ in 2002

**Industry:** Automotive Manufacturing

**Region:** Europe

## Challenges

- Phase I: Build a flexible IT infrastructure to handle the integration of over 9 initial supplier systems. Phase II: Integrate more than 30 suppliers. Phase III: Integrate up to 500 suppliers.
- Reduce costs associated with inventory and materials
- Improve customer service through on-time delivery of components
- Gain greater control over exceptions through increased visibility to real-time information within the supply chain
- Enhance supply-chain agility through better communication, coordination and cooperation among all suppliers

## Vitria Solution

- BusinessWare and B2BI framework
- Components: IBM 3270 Connector, FTP Connector, BW Administration Seat, EAI Process Management & Intelligence Server, RDBMS Oracle Connector, B2Bi Hub Server, B2Bi Partner Server, Development Kit

## Benefits

- Streamlined supply chain that prevents slow downs of the assembly line
- Reduced costs through synchronization of supplier systems
- Faster production lifecycle and improved on-time delivery of cars
- End-to-end process visibility enabling supply chain optimization and better overall decision-making

## The Project: V-Chain

The Virtual Enterprise for Supply Chain Management (V-Chain) project began in February 2001 with the involvement of over ten organizations and institutions including suppliers like Dynamit Nobel, Francisco Segura and Johnson Controls, the logistics company Exel, the Universidad Politecnica de Valencia and Vitria® Technology under the direction of the Spanish branch of DMR Consulting. In order to support the development of future-oriented solutions within the European automotive industry, the European Union contributed fifty percent of the project costs through public funds. The other fifty percent came from private investments. The overall budget was 4.7 million EUR.

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▶ Roque Alonso, manager of material planning and logistics at Ford’s plant in Almussafes, Spain

V-Chain’s goal was to develop innovative, collaborative business and IT systems to enable flexible adjustment, optimization and automation for all business processes across the entire value chain. “Our plan is to react more quickly to unplanned situations such as missing parts or a change in supplier,” said Roque Alonso, manager

of material and logistic planning at Ford’s plant in Almussafes, Spain. “With a more efficient flow of information between all parties involved in the production process, everyone benefits from cost reduction.”

## Why Vitria

BusinessWare was selected as the underlying integration platform by the DMR Consulting team responsible for the overall project. Vitria’s solutions are instrumental in facilitating the flow of information across the production process, from the industrial park to the production line. Specifically, BusinessWare manages the

business interactions between Ford and its suppliers, allowing information, as well as any changes or errors in the production line, to be transmitted to all parties in real-time.

Connectors within the BusinessWare platform are currently integrating more than 10 standard and customized supplier solutions, enabling coordination between myriad systems. This provides for visibility on all sides of the forecasting equation—not only for assembly at Ford, but also at all points along the suppliers’ production processes, facilitating more accurate forecasting and planning across the value chain.

## The Goal: Finished Goods to their Final Destination on Time

The ultimate goal of Ford’s Almussafes plant is, of course, to get the new vehicles to their final destination on time so that sales can be completed. Forecasting for demand lies at the core of all process optimization within the supply chain. This technical achievement had to be based on the planning and management of the business processes. With Vitria as the underlying platform, V-Chain is today an end-to-end supply chain planning solution that provides visibility to and management of processes at all points along the value chain.

With this integration initiative, the objectives of cost reduction, faster production cycles and on-time delivery to final destination have also been met. The next step is Phase III of the V-Chain project: integration of more than 500 suppliers to Ford’s plant in Almussafes into the single supply chain optimization solution.



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