

# INFORMATION DRIVEN ENTERPRISE

JD Edwards EnterpriseOne Supply Chain Management



Synchronize with customer and suppliers.  
Collaborate in real time.  
Adapt flexibly to changing demands.

## **INFORMATION DRIVEN ENTERPRISE**

Businesses in virtually all industry sectors are working to make their supply chains more efficient. They understand the value of shrinking their inventories, streamlining logistics, improving forecasts, and eliminating costs.

As customers demand products faster and look for value-added services that require great flexibility, supply chain leaders have responded by making quicker and better decisions. They execute rapidly, basing their actions on detailed plans that are drawn from the rich and interactive information that flows up and down their supply chains. These leaders know that inflexible forecasting and planning tools are of little use when the supply chain is a living organism— when customers, suppliers, production plants, and even entire business models are in flux. They also know the best plans in the world are useless if they're not followed by efficient execution.

Effective supply chain management demands comprehensive information systems that allow you to synchronize plans with your customers and suppliers, collaborate in real time both inside and outside your enterprise, execute plans, adapt to a dynamic environment, and measure performance to objectives.

## How Supply Chain Leadership Works

We offer a range of internet-enabled software that facilitates all stages of supply chain management, from planning through execution. JD Edwards EnterpriseOne Supply Chain Management (SCM) helps streamline everything from the earliest sales forecasts to customers' acknowledgements of orders received. It can also model complex supply chain scenarios, factoring in all relevant costs and all potential supply and demand constraints. The SCM software easily extends supply chain business processes beyond a company's four walls, making it possible to adjust to unforeseen events in real time.

To showcase the advantages of a well-integrated supply chain, we use a fictional account of a process manufacturer that faces a tough competitive challenge. Rylander Food Products Co., a fictitious \$450 million-a-year food-coloring processor, uses JD Edwards EnterpriseOne SCM software to model its available options and to add significant value for its premier customer.

### The JD Edwards EnterpriseOne Supply Chain Management Story

The news that Colorico is opening a new plant in the United States isn't news to Jim Leggett. The French firm—his toughest rival—has been making noise all year about shortening its supply lines to key U.S. customers.

It's the location of the new facility that worries Leggett. It's within 50 miles of candy maker Sendia Inc. As vice president of Sales for Rylander Food Products Co., the country's largest maker of food colorings, Leggett is especially protective of Sendia. It's his largest customer, and Rylander has had more than 45 percent of Sendia's business for years. Leggett takes a deep breath before phoning CEO Hal Thurman.

### Responding to the Competitor's Challenge

Thurman wastes no time. Two days later, he opens the emergency executive staff meeting with a bang. It's not a pretty meeting. But after two hours, the brainstorming list has narrowed to three big ideas:

- Aim to own at least 55 percent of Sendia's business inside a year—and help it challenge Mynah Confections Inc. for the market lead.
- Hold collective market share across the top three customers but boost margins by eight percent over the next 12 months.
- Accelerate the launch of the new Orange 22 food coloring product by six months. The best option will be nailed down in the next staff meeting.

The CEO is barely in his office when the call comes. It's Peter Blanco, Rylander's production chief, wanting 30 minutes of Thurman's time. "We can give Sendia and ourselves a leg up, Hal," he says. "And we've got a shot at launching Orange 22 early." Thurman knows Blanco gets results. "You're in my Palm for 7 a.m. tomorrow," he says.

Leaders evaluate business processes first—then consider technology and software. They make deep process improvements to cut manual steps, redundant data entry, and multiple interfaces. They focus on competitive advantage and customer service. And they bring these business processes online in real time.

Building a real-time enterprise begins with digitization of business processes for consistent results based on best practices. You connect customers, suppliers, partners, and employees. You integrate across locations, functions, and departments. You break down silos of information to create a single system of record. And when people, processes, and data run in real time, you improve your bottom line.

Blanco apologizes for taking the boss through the supply chain basics—especially because Rylander has been piloting a new supply chain management program for seven months, using JD Edwards EnterpriseOne software to improve its demand forecasting and smooth some bad production bumps. He describes the significance of the classic “Plan-Source-Make-Deliver” continuum. The supply chain management pilot has been Blanco’s pet project; he sees Thurman’s mandate as the opportunity to accelerate the program, and he’s pitching hard for it.

Blanco shows how far the company has come already. Just seven months ago, Rylander’s planning meetings relied on disconnected desktop spreadsheets, but already the SCM software has three of the firm’s five regional sales managers reporting their forecast updates electronically.

As Blanco describes a vendor-managed inventory (VMI) program for Sendia, Thurman senses strategic advantage: a way to strengthen relations with one of the candy industry’s most promising players. Blanco explains how the VMI program will tighten Sendia’s cash cycle, giving the confectioner room to trim prices and push for more market share. “So you’ll spearhead the project?” asks Thurman.

At the next staff meeting, Thurman takes the team through the three options. The marketing vice president has sized the 2005 market for U.S. candy sales, mapping competitors’—in particular, Colorico’s—likely moves. Displayed in clear charts and graphs with the JD Edwards EnterpriseOne Strategic Network Optimization software, the impact of the accelerated supply chain management program is easy to grasp. Sales chief Leggett shows how, by itself, an early launch for Orange 22 could help Sendia reach market leadership in two years.

The executives make a decision: Rylander will accelerate its SCM program to push for more than 55 percent of Sendia’s business as quickly as possible. Blanco will champion the initiative. Among the tactics are a VMI program and an accelerated product launch.

### Extending Supply Chain Visibility

“Hey, Jim! What’s up?” Beth Sienkowski sounds pleased to get Leggett’s call. She should be. Sendia’s new “Bloodbath” candies were a profitable hit this Halloween—and purchasing chief Sienkowski won kudos for Sendia’s early adoption of Blaze 16, Rylander’s brilliant new carmine-based red dye.

Leggett asks if she’ll agree to a pilot project where Sendia will share detailed forecast data, production plans, and inventory levels. Sienkowski is cautious. With more than half

of her business going to Rylander’s two big competitors—including Colorico—that kind of collaboration might be going too far.

“I think I can help you guys push for the top slot,” says Leggett. He starts to describe how a collaborative program will allow Rylander’s production capacity to run more efficiently and with less raw material on hand, shaving costs all along the supply chain.

The more data Sendia can share, the more Rylander can fine-tune everything from material shipment volumes to machine maintenance downtime. He talks about the tools that can exchange data in real time via the web, both inside and outside the company.

Sienkowski is interested. But it's not her decision alone, she reminds Leggett. He agrees and returns to his pitch, focusing on the VMI idea. Sendia can tighten its cash cycle, he says. How? Because it will be carrying less materials inventory, enabling it to plan early price cuts. Then he mentions Rylander's own research into candy consumption trends, mentioning what his marketing colleague had reported about demand for bright orange products. "You'd better come in," says Sienkowski.

Leggett told a compelling story when he presented at Sendia. He showed that Sendia could cut its red-dye costs by five percent over two years on volume alone if Rylander was to get another six percent of its business this year, with a further four percent the year after. In addition, Sendia could trim costs by eight percent if it gave Rylander full visibility into its sales forecasts, production plans, and inventory data. That would let Sendia cut average prices of its bulk candies by at least five percent— enough to boost Sendia's U.S. market share and put it level with leader Mynah. Then, if Sendia committed to Rylander's new orange dyes three months earlier than planned, Sendia could be first to market with new high-margin product—which should put Sendia in the number one position.

Sienkowski took the proposal to Sendia's management team and got agreement to give a nine-month increase in red-dye volumes, to purchase three batches of Orange 22 three months early, and to run a one-year trial to share detailed forecasts.

Two months later, Sienkowski is reviewing the new forecast data that has just been sent to Rylander: 4,800 gallons of Blaze 16 for delivery over the next two months, along with 200 gallons of Orange 22, scheduled for delivery three months from now. The supply chain website she's viewing ensures that all partners have secured access to the information simultaneously. Checking the expected delivery dates, she sees the screen flicker as a forecast update arrives in real time.

### **Managing Real-World Exceptions in Real Time**

Eight hundred miles away, Leggett is impressed. The sales chief has never had such a detailed forecast or one so early from Sendia before. But he is leaving nothing to chance. He's backstopping the forecasts with his colleague's updated projections on U.S. candy demand. Even if Sendia's numbers are off by quite a bit, SCM will rapidly account for the exception and instantly signal the need for updates throughout the supply chain.

As the supply chain management project leader, Blanco is just as interested in Sendia's forecast. Given the steady orders from other customers, he wants to make sure Rylander can meet Sendia's expectations. The software can do that in real time—a far cry from how it was at his last employer. Blanco remembers the debacle when his former company had failed to deliver a massive order on time because the key supplier had received inaccurate information— and received it too late. The company's materials requirements planning systems just hadn't been flexible enough to cope.

The forecasting competency index feature of JD Edwards EnterpriseOne Demand Consensus checks the accuracy of forecasts. The software employs powerful algorithms that gauge the historical accuracy of each forecast contributor.

### Five stages of SCM:

1. Model.
2. Optimize.
3. Collaborate.
4. Execute.
5. Measure.

Blanco pulls up the JD Edwards EnterpriseOne SCM software and double-checks that the new Sendia order forecast shows up. The software is set to aggregate Rylander's total order flow for the next 12 weeks, and it shows no problems with materials inventory—the red powder, refined from dried cochineal beetles, which Carmine Imports Inc. brings from Peru. But it signals one key constraint. Given Sendia's Easter sales push, the larger order—300 gallons larger than Sendia's average monthly order for red dye— would need to be processed over the holiday weekend, when Rylander can't guarantee three shifts. What if Blanco could deliver half the order a week early and the other half 10 days later? He enters the exception.

It's not so easy with the raw materials for Orange 22. An alert flashes on the screen. Rylander doesn't have the stock to handle the 200-gallon order that early and can't boost production in time. Blanco tries a two-week delay; that's better. Not much safety stock, but Rylander can do it. Out goes the acknowledgement with another exception.

Over in sales, Leggett sees the exception. At Sendia's offices, Sienkowski's screen shows it, too. Her screen refreshes with new data as the SCM software—installed at Sendia only last month—automatically gauges the confectioner's production and sales constraints and determines that Sendia can live with Rylander's adjustments. Back at Rylander, Leggett's screen now shows that the order acknowledgement has been accepted.

Leggett has another tool at his disposal: JD Edwards EnterpriseOne Demand Consensus. Sendia is just getting comfortable with using the software to gain supply chain visibility—but soon Leggett will start using the forecasting competency index feature to check the accuracy of the candy maker's forecasts. The software employs powerful algorithms that gauge the historical accuracy of each forecast contributor. Whoever has been the best forecaster will contribute most to future forecasts. If, for example, a customer and an internal sales rep come up with different demand numbers for a specific combination of customer, location, and product, the index determines whose data has higher accuracy and learns to give more weight to the more accurate forecaster.

Leggett thinks that having a Rylander employee at Sendia's plant one day a week for two months will help the candy maker set realistic safety-stock levels. After that, the SCM software can be used to manage the safety stock dynamically, matching the levels to production demand and automatically initiating replenishment orders when the stock drops to preset limits. Over two years, Leggett estimates he can save Sienkowski nearly \$40,000 in inventory carrying costs alone.

### Ensuring Profitability

As supply chain management sponsor, Blanco must stay on top of the details. The bigger volumes coming in early are terrific, he notes, unless Rylander doesn't make a high enough profit margin. He turns to the JD Edwards EnterpriseOne Order Promising module. It tells him that profits are acceptable on the Blaze 16 order, but Rylander will be giving money away if he brings on the extra capacity he'll need to run the Orange 22 job so early. What if he starts the run two weeks later? No go. Sendia's Easter market window is too narrow. With constraints loaded, the software rejects the exception.

Time for Plan B: bring on the contract blender he's used before to handle volume spikes. The blender uses older resource-planning systems, but Order Promising links by using Oracle's PeopleSoft XPI (Extended Process Integration) technology, confirming that the contractor can handle the work at a price that gives Rylander reasonable margins. But the software has assigned two sequential delivery dates that split the job roughly two-thirds/one-third. Blanco accepts. This option still means that Sendia's order will get there on time and make money for Rylander.

When Blanco releases the order to production, the supply chain execution software starts translating the work order in real time—and in a single pass—into a production timetable and bill of materials. By aggregating the Sendia order with work for a large Canadian confectioner, the software generates the job tickets for next week's blend. It specifies the conveyor fill rates, the blending cycle duration and temperature, and the tanker fill rate for each customer's order.

Four days later, the job is just about ready to ship. The whine of the pump dies away as the last of the Sendia order flows into the tanker. Rylander's shipping operator checks with the trucker, confirming that the truck will arrive as planned within Sendia's narrow delivery window. As the truck pulls out, the operator enters the shipment data, and the software pushes the confirmation and order-tracking data to Sendia.

The receipt acknowledgement that arrives the following afternoon automatically notifies Rylander's finance group, generating an invoice immediately. CEO Thurman likes what he hears from Finance: the new supply chain management system means days sales outstanding should fall by 13 percent over the next quarter.

## Results

Eighteen months later, Blanco is at the whiteboard in Thurman's office. The CEO is about to review the year with the board of directors, and he wants every detail.

The board will have a lot to ask, and Thurman has a lot to tell. Revenues are up nine percent for the year, with operating margins 13 percent better than last year. Colorico's North America venture is far behind its projections, while Rylander is getting strong inquiries about Orange 22 from two European candy companies.

Two weeks previously, Blanco had accepted Sendia's Supplier of the Year award. Sienkowski had credited Rylander's supply chain management initiative with helping Sendia take the number one position. Six months into the program, she has gotten sign-off to give Rylander the additional four percent of Sendia's business.

Thurman is satisfied with his visibility of the whole program. The software tools produced crisp roll-up reports that made it easy to gauge progress. And the JD Edwards EnterpriseOne Supply Chain Analytics that was installed four months ago really improved his team's strategic planning capabilities. But his concern now is whether the board will approve his new proposal for build a new 100,000-gallon-a-year plant in Milan to serve the fast-growing eastern European market.

The CEO knows he has a strong case. Oracle's PeopleSoft Strategic Network Optimization software has shown that Milan—on main transportation routes to the four largest confectionery makers in the old Eastern Bloc—is Rylander's optimal European location. And Thurman has the support of our services team to help ensure that Milan's systems will be up and running smoothly on day one.

These conditions make his Milan pitch quite a bit easier. JD Edwards EnterpriseOne Demand Management has helped his planners identify key constraints and seize the opportunity; the data meshes easily with the strategic planning scenarios he's about to display. Pointing to the colorful graphic, Thurman draws the directors' attention to the risk profiles developed by the software; Milan shows up clearly as the least risky of three options.

Two of the directors linger afterward. "Heck of a presentation, Hal," says one. "You're really on top of the numbers. The Italy move looks very promising, you know. A friend of mine at Merrill may be able to get us a better debt-financing deal. Call him at this number—see what he can do."

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