The Supply Chain Company®

Realizing $20 Million in Value at ON Semiconductor

Spinning off from Motorola and establishing itself as an independent corporation, ON Semiconductor was using an inefficient legacy system against intense industry competition. Having experienced the benefits of i2 solutions as a division of Motorola, ON Semiconductor again turned to i2 to help reengineer its supply chain. After implementing a number of i2 solutions, ON Semiconductor realized savings of $20 million through improvements in productivity and inventory management.

Companies in the semiconductor industry must confront intense competition—while also tackling an extremely complex supply chain. Meeting often unpredictable demand and balancing long planning cycles requires a flexible supply chain management process to ensure customer satisfaction.

After spinning off from Motorola to establish itself as a separate corporation, ON Semiconductor faced these competitive and supply chain challenges with an inefficient legacy system.

ON Semiconductor's executives recognized that, in order to successfully launch this new company, they needed to reengineer the semiconductor manufacturer's supply chain management processes, which included replacing legacy systems and establishing a more capable supply chain platform.

Why i2?

ON Semiconductor was looking for a company with experience in the semiconductor industry and that would enable the manufacturer to leverage best practices to restructure its supply chain management processes. With an abundance of SKUs and large amounts of data to manage, ON Semiconductor turned to the solutions provider that the company knew could provide a flexible, scalable platform.

ON Semiconductor®

Challenges
- Replace inefficient legacy system
- Establish more capable supply chain platform
- Balance long planning cycles

Solutions
- Utilize long-range sales and operations planning
- Generate integrated balance plans for on-time delivery
- Improve ability to position capacity in order to fulfill demand

Results
- Achieved at least $20 million in value
- Booked an additional $1 million in new business per quarter
- Increased planners' productivity by more than 50%

Company Description
Headquartered in Phoenix, **ON Semiconductor** manufactures semiconductor components with a focus on the data management and power management applications. The company employs more than 6,000 people world-wide and an additional 1,500 at non–wholly owned subsidiaries. ON Semiconductor has manufacturing and design facilities in the United States, Europe, and Asia, and generates more than $1 billion in annual revenue.

"We estimate that we've achieved at least $20 million in value from i2 solutions. Additionally, we've

generated more than double the amount of revenue

per planner."

> —*John Mallon*
> *Director of*
> *Supply Chain*
> *Management*
> *Services*

ON **ON Semiconductor®**

"Our relationship with i2 goes back to the days at Motorola," said John Mallon, ON Semiconductor's Director of Supply Chain Management Services.

"With Motorola, we were looking for an industry leader that could help us solve the difficult challenges within our industry on a global scale. As we spun off and became our own corporation, i2 was still the right fit for us to move forward on the supply chain reengineering program."

i2 is the undisputed leader in high-tech supply chain solutions, serving more than 70 percent of the industry. i2 is the only solution provider that can deliver an end-to-end supply chain management solution that helps high-tech companies and their partners become more responsive to market demands while simultaneously lowering their costs to serve the market.

i2's Contribution

ON Semiconductor implemented i2 Factory Planner,™ i2 Demand Planner,™ i2 Master Planner,™ and i2 Demand Fulfillment™ from the i2 Supply Chain Management™ (SCM) solution suite.

ON Semiconductor's planning process incorporates various cycles, including an 18-month, long-range planning process for sales and operations planning, a six-month tactical planning environment, and a short-range execution process.

ON Semiconductor began its implementation of i2 solutions with Factory Planner and Demand Planner. The company relies on Demand Planner for its long-range sales and operations planning. In such a highly competitive industry, the ability to plan more than a year in advance is critical.

"i2 solutions also had a huge impact on our inventory turns, which increased by 1.2 in one year," **Mallon said, "and our finished goods inventory turns have increased by more than 40 percent in a six-month period."**

"Demand Planner enables ON Semiconductor to build integrated demand plans across the entire company," Mallon said. "The solution has helped us considerably to gain a consensus view across the organization on where we think we're going with our demand within the coming year."

ON Semiconductor leverages Demand Planner to give the company a more integrated and consistent prediction of both long-range and short-term demand.

"We use the solution to perform what we call 'demand integration' across the company," Mallon said. "Many long-range forecasts are not so much based on mathematical techniques, but on knowledge and judgement of various parts of the organization. Demand Planner is ideally suited to integrating the various inputs across the company and to bring that into the process for final consensus demand planning in the organization. However, we do utilize the mathematical powers within Demand Planner for trend forecasting and statistical methods, particularly for our short-range forecasts that drive our planning execution process. Leveraging Demand Planner in the tactical environment to assist with short-range forecasting is improving our ability to position capacity at the right factories to fulfill the demand."

To fulfill its more mission-critical global initiatives, ON Semiconductor implemented Master Planner and Demand Fulfillment.

"Once we're in a short-range execution environment, we use Master Planner and Demand Fulfillment to run the entire enterprise. Demand Fulfillment operates 24 hours a day, seven days a week, in a real-time continuous order scheduling environment, while Master Planner runs multiple times per week. Master Planner generates the integrated balance plans across the factory network to deliver to the customers on time."

Plans generated by Master Planner are filtered to Factory Planner, which runs in both ON Semiconductor's wafer fabs and its assembly test sites.

"Factory Planner runs multiple times a week and enables our fabs to optimize their plans and also provide a reliable prediction of what they'll be able to output in the coming weeks. This type of predictability is invaluable."

ON Semiconductor's Results

From the onset of its implementation, ON Semiconductor realized benefits from its i2 implementation across the enterprise, including improvements in productivity and inventory management, and the ability to generate new business.

"We estimate that we've achieved at least $20 million in value from i2 solutions," Mallon said. "Additionally, we've generated more than double the amount of revenue per planner. At the same time, the company increased the number of deliveries handled by each planner by more than 50 percent. i2 solutions also had a huge impact on our inventory turns, which increased by 1.2 in one year, and our finished goods inventory turns have increased by more than 40 percent in a six-month period."

ON Semiconductor also attained a high level of auto-scheduling orders and quotes.

"It was imperative for us to be in an e-business—ready environment so that we could have that dynamic interaction with the customer base," Mallon said. "Autoscheduling took the potential human error out of the loop to answer those critical questions from the customer. We've moved from a very low percentage of order scheduling to up over 95 percent automated order scheduling in just a few months. It's a huge productivity improvement for the organization, and we have much more reliable and predictable answers on our order scheduling."

i2 solutions have also helped ON Semiconductor to become a high-velocity company, enabling the company to capitalize on new business opportunities.

"In the execution environment, we are moving in a much more capable way than we would have in the past," Mallon said. "ON Semiconductor has set up several Web-based processes for our sales managers in customer service to make real-time inquiries about quotes for availability and to answer these types of questions online for our customers. That type of speed has helped us tremendously to book new business that we otherwise would not have attained. In fact, with the quoting process, we've been able to book an additional $1 million per quarter."

i2
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