i2® The Supply Chain Company®

# A Comprehensive Approach to Supply Chain Management at Infineon Technologies

When Infineon Technologies decided to improve its supply chain management systems, it left nothing to chance. Formerly the semiconductor group of Siemens AG, the company has undertaken a comprehensive overhaul of its supply chain using i2 solutions. Infineon's implementation of i2 solutions encompasses five business groups, nine manufacturing locations, all countries with operations, and all business processes from demand forecasting and master planning to factory loading.

In what is a fast-growing and extremely volatile industry environment, Infineon Technologies recognised the need for an integrated supply chain management system to run its complex business.

Infineon's objectives were comprehensive and challenging. The company sought to decrease forecasting lead time; increase forecasting reliability; gain visibility of products and potential problems throughout the entire supply chain; shorten planning cycle time; create uniform processes and data across all business units; improve decision support; decrease response times to customers; and reduce inventory.

Why i2?

After reviewing the solutions available on the market, Infineon found that i2 Supply Chain Management™ (SCM) provided an excellent solution for its new processes. Not only did i2 have the most complete offering to meet the needs of Infineon, but i2 also showed its commitment to the vision and long-term strategic direction of Infineon. Additionally, both Infineon's and i2's management believed in the success of the project and were personally involved—another major factor in the decision-making process.

Infineon
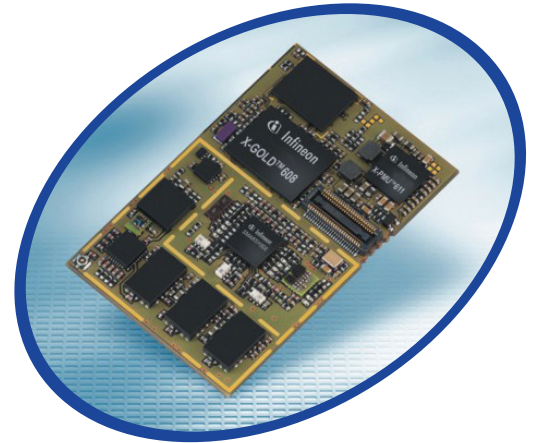
Challenges
- Integrate end-to-end supply chain processes to improve profitability, competitiveness, and customer service
- Achieve uniform processes across all business units to enable visibility of information and improved decision making
- Reduce planning cycle times to increase efficiency and improve the speed and accuracy of forecasting
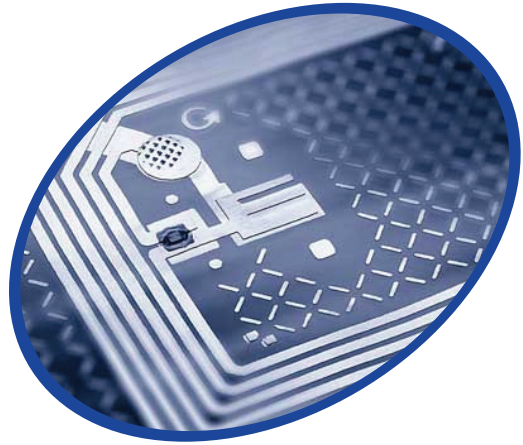
Solutions
- Implement i2 Supply Chain Management suite
- Fully integrate via logistics and database
- Create backbone for new supply chain processes

Results
- Reduced rolling forecast cycle (demand and capacity planning) company-wide from quarterly to monthly
- Implemented feedback processes from capacity planning back to marketing and demand planning
- Reduced master planning cycle from 1 month to 1 week

Company Description
Infineon Technologies AG, Munich, Germany, offers semiconductor and system solutions for the automotive and industrial sectors, for applications in the wired communications markets, secure mobile solutions as well as memory products. Infineon operates in the US from San Jose, CA, in the Asia-Pacific region from Singapore and in Japan from Tokyo. In the fiscal year 2002 (ending September), the company achieved sales of Euro 5.21 billion with about 30,400 employees worldwide.

"Infineon has been able to use the i2 supply chain management solutions to accelerate its internal production processes, improve capacity utilization, and increase performance and workflow quality. **With i2, Infineon has found a partner that is reliable and visionary at the same time."**

—*Michael Schmelmer*
Vice President, IT Logistics and
Supply Chain Management
Infineon Technologies

"i2 Technologies offered the broadest functionality, supported us at the highest level, and shared our 'big vision'," said Michael Schmelmer, Vice President, IT Logistics and Supply Chain Management, Infineon Technologies. "We think that i2 provides a very effective platform to support Infineon's individual innovative and future-directed supply chain management."

Infineon Technologies selected i2 Supply Chain Planner,™ i2 Demand Planner,™ i2 Factory Planner,™ and i2 Scenario Analyzer™ from the i2 SCM suite.

i2's Contribution

Infineon Technologies' i2 SCM implementation is unique due to its comprehensive scope. It embraces all four of the company's core processes—demand (volume and turnover) planning; corporate planning, including medium- and long-term volume and capacity planning; master planning and scheduling; and factory controlling— generating start and completion lists.

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i2 solutions have enabled Infineon to create the backbone for its new supply chain processes, based on a three-tier architecture. First, within the Corporate Model, the Business Groups' capacity planner receives short-term and long-term forecast figures from the product marketing departments all over the world.

This process is supported through Demand Planner and performs volume planning, as well as the annual budgeting process.

Next, within the Divisional Model, operations receive the volume planning and capacity allocation out of Corporate Model. On this basis, it runs master planning per Product Line. Finally, the Facility Model creates start and completion lists for production control.

The implementation was carried out by a project team comprising employees from Infineon Technologies, i2, Siemens Business Services, and KPMG. Each of the parties had a specific role in this complex implementation project. Based on Infineon's concepts for the remodelling of the processes, i2 began with the implementation of i2 SCM software and related interfaces.

At the same time, KPMG supported the change management process and solution rollout. Siemens Business Services' role was on the infrastructure side, including systems administration, database development, and data warehouse implementation. Now that the implementation process has been completed, a professional service provider handles operations and support of the running systems.

Infineon's Results

Within Infineon's core process, "Vision to Plan", the so-called Volume Rolling Forecast, has been reduced from a quarterly cycle to a monthly cycle and now forms one integrated solution. The Volume Rolling Forecast Process comprises the demand planning in Product Marketing and company-wide volume and capacity planning, as well as capacity re-allocation, including feedback to marketing and sales.

The master planning process has been reduced from a monthly cycle to a weekly cycle, and daily adjustments can be made as required. One integrated solution replaces several previous tools. Greater transparency, as well as speed and accuracy in the planning process, is a prerequisite for improvements in delivery performance.

The visibility and consistency of data within the company have been significantly improved, and corporate-wide logistical data has been cleansed — an essential basis for successful value chain management. Gains in accuracy, speed, and flexibility have been successfully harnessed in order to improve the company's focus on the most profitable and strategic product mix. In turn, this has led to higher revenue opportunities for Infineon.

The full extent of Infineon Technologies' comprehensive plan is still to be realised. At present, capacity planning with the Corporate Model of i2 SCM software is done company-wide. Demand Planner is in place in all logic products Business Groups. The Divisional Model for master planning is currently rolled out in all product lines (logic products). Finally, the Facility Model, performing start and completion lists in this suite of solutions, is implemented in most important front-end manufacturing locations. The usage is already widely spread. For example, Demand Planner is now in place with 300–400 users worldwide.

The Supply Chain Company®

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