



Company Name: Arla Foods ARLA FOODS

Primary Theme:
Enterprise Integration Using Open Standards

Secondary Theme:
Enabling Plant-to-Enterprise Interoperability

AT A GLANCE SECTION

Industry: Consumer products

Revenue: €7 billion

Employees: 20,000

Headquarters: Århus, Denmark

Web Site: www.arlafoods.com

SAP® Solution and Services: SAP® Manufacturing Integration and Intelligence application

Solution Partner: Invensys plc, developer of Wonderware

BTS Executive Summary

Arla Foods amba is one of the largest dairy cooperatives in the international dairy industry. Serving millions of consumers around the world, Arla Foods is owned by more than 8,500 Danish and Swedish members and has 75 production sites worldwide. To integrate its far-flung operations, the company set out on an ambitious journey in 2002, called “One Arla,” to harmonize processes across the company’s global empire through enterprise integration using open standards and by leveraging SAP® solutions.

BTS DASHBOARD

KEY CHALLENGES

- Implement and measure a set of standard business practices across multiple Arla sites
- Create “One Arla” by unifying the production approach in all Arla global operations
- Integrate heterogeneous plant-floor applications with a global database
- Enable business-to-manufacturing (B2M) integration and full plant-to-enterprise interoperability among applications

WHY SAP

- Focus of Arla’s manufacturing application framework on SAP® and Wonderware software
- Strategic match of SAP manufacturing strategy with Arla’s growth strategy
- Lack of strategic viability of alternative Solutions such as like reporting services
- Interoperability with Wonderware software
- Completion of solution map for “One Arla” with SAP solutions for plant visibility

IMPLEMENTATION BEST PRACTICES

- Corporate support for “One Arla” and full plant-to-enterprise interoperability
- Immediate buy-in by Arla’s IT organization
- Business and IT cooperation in unifying Arla with technology and best practices
- Focused strategic cooperation between SAP and Wonderware that streamlined implementation

LOW TOTAL COST OF OWNERSHIP

- Lower total cost of ownership resulting from real-time operations visibility coupled with generic approach to integrated manufacturing
- Rapid rollout across multiple plants based on repeatable and adaptable B2M implementation
- Focus on process optimization through use of existing plant infrastructures
- Lower costs and shorter delivery time for IT due to standards-based integration

FINANCIAL AND STRATEGIC BENEFITS

- Reduced work hours in daily operations by coupling the plant floor and the enterprise
- Improved processes with real-time reporting, a prerequisite for detailed scheduling
- Enhanced compliance in fulfilling food-safety regulatory requirements
- Avoided plant stoppages by reducing unplanned downtime
- Improved global IT agility and enabled person-independent, 24x7 support
- Improved quality management with standard scenarios that support the move to a fully integrated quality management system

OPERATIONAL BENEFITS

Key Performance Indicator	Impact
Work hours	-200 hours/month/plant
Plant stop time	-€7,000/hour
Penalty costs due to inaccurate labeling	-€50,000 per occurrence or incident

PAGE 2: CUSTOMER QUOTE AND NARRATIVE

LEAD CUSTOMER QUOTE

“For today’s global manufacturing to be real we need solutions like those from SAP and its partners that can talk through open standards to Wonderware software or any other plant-floor application – you name it.”

Arne Svendsen, Production IT Manager,

The Quest for Business-to-Manufacturing Integration at Arla Foods

Like most global companies, Arla Foods a.m.b.a, one of the largest dairy cooperatives in the international dairy industry, has grown through acquisitions, which resulted in a heterogeneous mix of legacy manufacturing systems and a lack of standard business practices across Arla's 75 sites worldwide. These nonintegrated plants and systems made it difficult for the large company to produce consistently high-quality products, reduce costs, accurately measure material consumption and production, and compete successfully, especially against low-cost competitors in eastern Europe. "We were under extreme pricing pressure in our markets," says Arne Svendsen, Arla's production IT manager. "We really needed to rationalize our business."

That rationalization began in 2002 with "One Arla," an initiative to unify the production approach across Arla's global operations. Under the initiative's ambitious goal, no matter what a site makes – milk, cheese, or powder – all production elements, regardless of the site or product, would be part of an integrated web of manufacturing by 2010.

Arla Enables Plant-to-Enterprise Interoperability

In terms of technology, rationalizing Arla's sprawling business operations meant connecting the company's many shop-floor operations and processes. As a result, Arla decided to extend its SAP® software footprint. This was achieved by connecting the SAP NetWeaver® technology platform and the SAP Manufacturing Integration and Intelligence (SAP MII) application to the SAP ERP application and enterprise business processes.

Arla's supply chain needed to be better linked to the plant floor. For that, in 2004 Arla teamed up with Wonderware, a business unit of Invensys and an SAP software solution provider. Arla decided to build their plant-floor software solutions on Invensys ArchestrA, industrial automation and information software architecture. The objective was to use Wonderware and the ArchestrA technology to connect all Arla shop-floor operations, following the ISA-95 standard, to SAP MII. This would improve production quality by capturing in-line quality data and sending it directly to the quality management component of SAP ERP. It would also support the goal of "One Arla" by providing a unified analytical environment based on ISA-95 for driving better management and superior performance.

The rollout of Arla's plant-to-enterprise solution to all of its sites is nearing completion. By 2010, a common technology and business platform will enable enterprise-wide measurements of key performance indicators. The platform consists of three layers, beginning with SAP NetWeaver, the Web services framework for creating composite applications. The second layer is composed of SAP MII, Wonderware, and the ArchestrA technology, providing the way to link the plant floor with the enterprise following ISA-95. The third layer is a common set of best practices. Together, these layers form Arla's solution map to "One Arla" and the benefits it brings to the innovative company.

The Business Benefits of Open-Standards Enterprise Integration

When the shop floor is connected to the enterprise, work hours go down. Arla reports work-hour reductions of more than 200 hours per month per site. Other benefits to daily operations include improved processes with real-time reporting – a prerequisite for detailed scheduling. Customer-specific labeling is also improved and kept current using centrally stored master packaging specifications. This helps to avoid high penalties from retailers. In addition, plant-to-enterprise interoperability enables independency of planned and unplanned downtime, resulting in reduced plant stop time – and that can save Arla up to €7,000 an hour.

Where will Arla take its open-standards enterprise when the full implementation is complete in 2010? One thing is clear. "We'll be working as one enterprise when we get there," says Svendsen.

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