

CASE STUDY



Shell Adopts Global Supply Chain Process to Increase Profitability, and Drive an "Enterprise First" Strategy



**“The envisaged benefits are real.
We now have faster evaluation of
opportunities in a larger time horizon.”**

– Piet-Hein Daverveld, Shell, NPRA October 2007



Shell is a global group of energy and petrochemical companies headquartered in The Hague, Netherlands. Its corporate strategy is “More Upstream, Profitable Downstream,” utilizing technology and innovation for sustainable development that delivers growth for shareholders.

As part of Shell’s Global Supply Excellence Program, the company focuses on three key management objectives: operational excellence, flexibility to respond to market opportunities, and margin optimization across the supply chain.

After the company identified uncommon operating procedures at each of its many refineries — which led to inefficiencies and lower margins — Shell launched “Enterprise First,” an initiative designed to standardize processes and technology across the organization. The key to driving this strategy — and meeting its objectives — is an integrated aspenONE® Supply Chain solution that helps Shell optimize refinery production, reduce costs, and increase margin.

CUSTOMER PROFILE - Shell - Refining & Marketing

CHALLENGE

Standardize and simplify supply chain processes across the global enterprise.

SOLUTION

- aspenONE Planning & Scheduling to cost-effectively procure feedstock and optimize refinery production
- aspenONE Supply & Distribution to profitably manage customer demand and minimize transportation and distribution costs

BENEFITS

- Improve operational performance
- Respond faster to market opportunities
- Increase margin across the value petroleum chain

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Leveraging aspenONE Supply Chain Solutions for Refining and Marketing, Shell simplifies and standardizes business processes to maintain leadership in fuel retailing and business-to-business commerce and lubes marketing.

THE CHALLENGE: INEFFICIENCY AND LIMITED FLEXIBILITY

With so many refineries operating independently in a global landscape, Shell realized that the actions of one refinery could adversely affect another refinery in the same region. Each conducted business in its own unique way to increase profit margin, but such “siloes” operations often resulted in higher costs and lower overall profits for Shell.

THE SOLUTION: ENTERPRISE FIRST

To address these challenges, Shells’ management team created the Enterprise First initiative, which focused on three main tenets:

- Standardize and simplify business processes across all of Shell
- Standardize technology solutions that support the standardized business processes
- Optimize profit margins across the supply chain

Shell’s review of its business processes discovered that many refineries had developed their own supply chain planning and operational processes. By standardizing the business practices, Shell could improve efficiency.

In addition, Shell discovered a large number of home-grown spreadsheets and obsolete one-off applications supporting the refineries, resulting in high support, maintenance, and training costs. If Shell could standardize IT applications across its refineries, it would not only reduce operational costs, but also respond faster to changing market activities.

The last tenet of the solution was to optimize profitability across the supply chain. Shell organized its refineries into regions called “supply envelopes” where planning, scheduling, and operations are coordinated to optimize profitability across the regional supply chain.

ASPENONE’S ROLE IN ENTERPRISE FIRST

A key enabler of the Enterprise First initiative is aspenONE for Refining and Marketing. aspenONE Planning & Scheduling is accomplished using Aspen PIMS™ and Aspen Petroleum Scheduler—core products that help optimize feedstock selection and refinery performance.

Shell also leverages components of the aspenONE Supply & Distribution solution such as Aspen Collaborative Demand Manager, which is used to manage demand and improve customer service. In addition, Aspen Petroleum Supply Chain Planner enables Shell to optimize inventory levels and minimize distribution costs across its distribution and planning network.

With aspenONE and Enterprise First, Shell has realized its goals of improving operational performance, responding faster to market opportunities, and improving profit margins throughout the value chain.



AspenTech is a leading supplier of software that optimizes process manufacturing—for energy, chemicals, engineering and construction, and other industries that manufacture and produce products from a chemical process. With integrated aspenONE® solutions, process manufacturers can implement best practices for optimizing their engineering, manufacturing, and supply chain operations. As a result, AspenTech customers are better able to increase capacity, improve margins, reduce costs, and become more energy efficient. To see how the world's leading process manufacturers rely on AspenTech to achieve their operational excellence goals, visit www.aspentech.com.

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