

Aligning IT and Business at **StatoilHydro**

Building a common Enterprise
Architecture with QualiWare
Lifecycle Manager.

StatoilHydro is an integrated Oil & Gas Company with extensive international activity in 33 countries. In 15 of these, Statoil is engaged in exploration and production. One of the world's largest sellers of crude oil and a substantial supplier of natural gas to the European market, StatoilHydro markets two-thirds of all Norwegian gas. The company is the largest retailer of oil products in Scandinavia with about 26,000 employees, half of whom are located outside Norway. The annual turnover in 2015 was NOK 482 billion.





The StatoilHydro Group's information systems are important drivers in implementing world-class business processes, fulfilling the company strategy, and achieving clear growth targets. ICT (Information & Communications Technology) at StatoilHydro is considered a crucial business contributor that must be incorporated in all relevant strategies.

Terje Lie, responsible for StatoilHydro's Business Process Model, says: "All business process modeling is handled with QualiWare Lifecycle Manager (QLM). QLM is an important management system tool for further implementation work on a common enterprise model at StatoilHydro."

Harald Wesenberg, Discipline Advisor for Enterprise Architecture on the Corporate Staff of IS/IT at StatoilHydro, adds, "QLM is the foundation of our quality management system. The ability to manage work processes, application portfolios, and government regulations and legislative mandates in a single tool while integrating this work with other corporate management tools provides us with the ability to continuously improve company performance. And, we retain previous improvements even as we move forward with new ones."

Benefits achieved

Terje Lie continues, "The work to date has resulted in a number of benefits — for example, cost savings from improved application portfolio management, improved efficiency in projects, improved interoperability, and the creation of a common modeling platform for business and IT, incorporating high-level models and risk reduction related to migration plans."

Substantial savings

An important initial effect of the QLM implementation at Statoil is a substantial savings on software maintenance and application development and operations costs. By the end of the implementation, more than 500 applications had been discontinued at the company, resulting in substantially improved IT governance. StatoilHydro has achieved an annual saving in excess of NOK 60 million and anticipates further potential savings in excess of NOK 60 millions in ICT operations. StatoilHydro has implemented unified global models for the production and supply of gas and, by the end of the project, was SOX 404 compliant using QLM Business Process Modeling.

Alignment of IT processes

The initial motivation for StatoilHydro was to build a high-level model showing how IT systems supported business processes and to identify the need for process information and data. In the beginning, StatoilHydro initiated several first steps to align IT applications with business processes. The goal was to achieve three key objectives:

- Ensure a linkage from business strategy and improvement goals to the migration of plans and projects ("alignment")
- Establish a model of the enterprise with different views and levels of detail, depending on the purpose
- Build a governance structure to ensure that the delivery of IT solutions follows best practices and also ensure continuous updating of the architecture.

The alignment of more than 3000 IT applications involved the grouping of applications into three categories:

1. Key applications for further refinement and development
2. Applications to be maintained
3. Redundant and overlapping applications to be phased out.

From Business Strategy to ICT Projects

StatoilHydro is following an Enterprise Architecture-based methodology to evaluate the need for ICT tools. This methodology makes it possible to compare future strategic requirements and architectural principles with the company's current environment, including business processes, systems, infrastructure etc. The resulting gap analysis will lead to migration planning and project execution for new solutions.

Process Reengineering of Gas Sales

A few years prior to the project, public regulations for the marketing and sales of gas changed. This called for reengineering of some of the company's key processes. StatoilHydro took advantage of the situation to synchronize its operational processes in Norway and the UK.

Future Challenges

Among future challenges facing StatoilHydro, Terje Lie mentions "achieving and maintaining quality with increased model complexity; implementing new ways of working across process areas, business areas and internal ICT vendors; and fostering and focusing organizational awareness. Challenges regarding implementation of new processes in organizations, and linguistic and cultural differences should not be underestimated."



Key controls	Control description	Frequency	Responsible
4.3.3 Verification of nominations	Recognize/daily/weekly nominations/forecasts	04.03.01 Perform gas operations manual queries	N&S GSS
4.10.1 Verification of user access to NG IT systems	Verify user access rights	04.07.02 Administrative access to IT systems	N&S GSS
4.10.2 Periodic review of access rights	Perform periodic control of access rights	04.07.01 Perform periodic control of access rights	N&S GSS
4.11.1 Verify correct input of master data in Gazelle	Update system with additional deal information. Verify deal information master data.	03.05.02 Implement deal for invoicing 03.09.01 Seek permission to sign deal	N&S GSS
4.12.1 Verify correct entry of price information in GPS	Request validation on price formula negotiation	04.06.09 Perform change index in price formula 03.02.01 Seek permission to sign deal	N&S GSS
4.12.2 Verify entry of periodical master data in	Request that price formula	04.06.09 Perform change index in price formula 03.02.01 Seek permission to sign deal	N&S GSS
4.12.3 Verify entry of periodical master data in	Verify price	04.04.03 Calculate price for	N&S GSS

Enabling positive change

Founded in 1991, QualiWare is a company whose modeling solutions are used all over the world. Our comprehensive modeling and management products and services provide the marketplace with solutions focusing on enhancing efficiency, effectiveness, productivity, competitive positioning, and organizational profitability. Everyone in an organization can benefit from the use of QualiWare solutions and the business models that are managed within and published by our solutions. QualiWare has offices and distributorships in Australia, Brazil, Canada, Denmark, Great Britain, Netherlands, Norway, South Africa, Spain, Sweden, South Korea, Ukraine, United Arab Emirates and United States.

QualiWare's clients include large and medium-sized enterprises; both public and private. Among these are: ATP (Denmark's largest administrator of pensions & labor agreements), Kopenhagen Fur, DONG Energy, the Danish Broadcasting Corporation, Foss, Statoil, Borealis, The Capital Region of Denmark, Hydro Aluminium, INOVYN, IBM Corporation, IFS (Industrial and Financial Systems), LM Glasfiber, Danish Medicines Agency, Danish National Board of Health, Nokia Denmark, ENGIE E&P Norge, Aibel, EDB Business Partner, DNB (Norway's largest financial services group), PFA Pensions, The Swedish Post, Aker Solutions, Sauer-Danfoss, SOS International, Sund & Bælt Holding, Schenker, Danish National Rail Authority, Nycomed, The Municipalities of Denmark, Hifab, PMC Technology, the Greater Toronto Airports Authority (GTAA), Blue Cross Life Insurance of Canada, and Oceaneering.

qualiware[®]
Enabling positive change

Terje Lie, responsible for Statoil's Business Process Model, says:

"All business process modeling here is handled with QualiWare Lifecycle Manager (QLM). QLM is an important management system tool for further implementation work on a common enterprise model at StatoilHydro"

Harald Wesenberg, Discipline Advisor for Enterprise Architecture on the Corporate Staff of IS/IT, says:

"QLM is the foundation of our quality management system"

"The ability to manage work processes, application portfolios, and government regulations/legislative mandates in a single tool and integrate this with other corporate management tools provides us with the ability to continuously improve company performance while ensuring that previous improvements are not lost"

QualiWare ApS

Ryttermarken 15-21
DK-3520 Farum
Denmark
Telephone: +45 45 47 07 00
Email: sales@qualiware.com
www.qualiware.com

QualiWare AB

Kornhamnstorg 6
S-111 27 Stockholm
Sweden
Telephone: +46 8 429 12 60
Email: sales@qualiware.se
www.qualiware.com

Qualisoft AS

Ipark, P.O.box 8034
N-4068 Stavanger
Norway
Telephone: +47 51 87 48 70
Email: kundesenter@qualisoft.no
www.qualisoft.no

QualiWare Inc.

200 Business Park Drive
Armonk, NY 10504
USA
Telephone: +914-730-7099
Email: salesNA@qualiware.com
www.qualiware.com

QualiWare

Rua Oscar Freire, 379 – cj.32
01426-001 São Paulo – SP
Brasil
Telephone: +55(11)21270784
Email: salesbr@qualiware.com
www.qualiware.com