

Customer Case Study: Vattenfall

European Energy Company Harnesses
the Power of Data to Become Fossil Free

VATTENFALL 

- **Industry:** Energy & Utilities
- **Headquarters:** Solna, Sweden
- **Interesting Fact:** Vattenfall is aiming for net-zero CO2 emissions by 2040

Singular Goal, Complex Execution

“Fossil-free living within one generation” is more than the motto of Swedish power company Vattenfall. It’s the singular goal pursued by this organization, which operates in the complex industries of power generation, distribution, and sale of electricity, heat, and gas. Fossil-free living means Vattenfall is primarily focused on decarbonizing the production of electricity. But the company also works with partners in other industries. For example, they have developed a process that generates and provides hydrogen, instead of coal, to power steel production. Implementing fossil-free steel production in Sweden is expected to reduce the country’s total CO2 emissions by 10%.

Vattenfall operates in Sweden, the Netherlands, Denmark, the UK, and Germany. Operating within multiple business areas, energy sectors, and across borders adds to the complexity of Vattenfall’s operations. For example, wind energy produced in the Netherlands can be used to produce hydrogen, which can then be used to produce Swedish steel. This kind of sector coupling requires constant communication and data sharing between players to operate efficiently. However, lack of access to siloed data within Vattenfall hampered this level of collaboration.

Business Results



Potential savings of millions by avoiding non-compliance fines



Accelerated POC business value by 81%, to just 3-4 weeks



Improves data literacy and collaboration with a single source of truth

And data is essential to every sector of the business. Even day-to-day operations, such as evaluating equipment performance and planning maintenance, require extensive data insights. Ensuring that a technician knows which parts and tools to bring to a site where equipment is underperforming translates into cost savings for Vattenfall.

“To make the right decisions, we need to have deep insights and understanding,” says Sebastian Kaus, Data Governance Lead at Vattenfall. “Vattenfall needs to become more data driven. We need to be on top of the data as a resource to achieve the goal of fossil-free living within one generation.”

Furthermore, Vattenfall must comply with regulations in multiple countries and the European Union (EU). One such regulation is the General Data Protection Regulation (GDPR), which imposes massive fines for the unauthorized use of personal data. Stakes are also high for compliance with nuclear regulations and other government reporting requirements. Failure to comply can result in fines in the millions of Euros.

Vattenfall needed to improve its data governance to comply, not only with the GDPR, but with reporting, security, and compliance requirements from regulators in multiple countries, too. At the same time, they pursued enterprise-wide collaboration. They wanted to find a better way for their business units and partners to collaborate using the business and technical data locked away in siloed systems. Thus, they sought a solution that would simultaneously democratize their data while governing and protecting it from misuse.

Promoting Collaboration by Democratizing Data

Vattenfall chose the Alation Data Catalog as its platform for data collaboration and governance. Vattenfall curated the metadata from its many business units into the catalog to facilitate data search and discovery across the organization. A business glossary helps define standard terminology to ensure that all users have a common understanding of critical business terms. And SMEs can now share their expertise through articles in the catalog, speeding the transfer of knowledge throughout the company.

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Sebastian Kaus
Data Governance Lead, Vattenfall

“Alation is democratizing our data,” says Kaus. “It’s bringing people together to collaborate to solve our business problems.” For example, to improve the lifespan of the company’s assets through predictive maintenance, multiple departments must work together, sharing forecast and usage data. Alation helps bridge the data gaps between teams, providing context and transparency about the information they need to implement data-driven predictive maintenance on key equipment.

Vattenfall uses Alation to connect to their Microsoft Azure cloud data lake and to multiple on-premises databases. They are also expanding their use of the Snowflake Data Cloud. With Alation, Vattenfall has cataloged their Power BI reports that report down to the data source. This is not only essential for compliance audits, but for building trust in the data through transparency around its origin.

As of November 2021, Vattenfall had 750 user licenses with Alation, and over 300 current, active users.

Data Governance and Data Culture at Vattenfall

Active data governance features in Alation help ensure the proper use of data. People are guided to use data compliantly and educated, in-workflow, on the policies relevant to the data they handle. Vattenfall uses the catalog to implement policies and controls that prevent the misuse of data, including PII tagging and masking.

“We’re embedding a data culture around information governance. The more people trust the data and collaborate around it, the more efficient and profitable Vattenfall will be.”

Sebastian Kaus
Data Governance Lead, Vattenfall

Vattenfall takes a people-first approach to governance using Alation. As Vattenfall implemented the data catalog, they identified the experts: people who knew the most about, and who were already responsible for, the data. Because they were already accountable, these folks easily moved into the role of data steward for the Alation catalog. Stewards are responsible for using the Alation TrustCheck feature to tag data with endorsement, warning, or deprecation flags to guide users to data that is trusted and safe to use.

“This is not a fancy ‘data project’ that we’re running,” Kaus notes. “There’s no ‘governance program’ like some companies seem to have. Data governance is something we do every day.”

Kaus has worked to develop a strong data culture at the company. He spreads the message that many of the company’s business challenges — such as electricity production that’s more efficient and cost-effective, or risk-avoidance through better regulation compliance — can be solved by better use and sharing of data.

The best proponents of the data catalog are its active users. Once they discover how easy it is to find the data they need, they become champions for the platform. Kaus notes that collaboration around well-governed data is becoming part of the company’s organizational DNA.

Collaboration + Governance = Greater Efficiency, Lower Risk

Alation makes it possible for Vattenfall to democratize data for better collaboration while also implementing robust data governance practices.

Productivity and efficiency increase when data is easy to find, share, and update. Vattenfall uses Alation to scale business cases where collaboration is the key to success, such as predictive maintenance, regulatory reporting, security audits, and even customer service. By using Alation, Vattenfall has reduced their proof-of-concept (POC) time-to-value from 3-4 months to 3-4 weeks. This means the company can launch new projects and programs and gain business value from them up to 81% faster.

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The active data governance features in Alation empower Vattenfall employees to better manage risk. By implementing policies and clearly tagging data, they prevent misuse of customers’ personal information and avoid millions of euros in GDPR fines. Alation helps Vattenfall meet regulatory requirements that call for the use of quality data. Alation makes critical data easier to find and trust with an interface that promotes the most used (and trusted) assets to all.

As Vattenfall becomes more data driven, it will need its business units to share and collaborate around data more than ever. Predictive maintenance, for example, calls for complete data across multiple departments, which takes collaboration and communication. Enhanced governance does not impede collaboration at Vattenfall, because it doesn't keep people away from the data. Rather, it helps them use it responsibly and correctly through clear policies and TrustCheck indicators. By putting the right data into the right hands, Vattenfall solves business problems and boosts the company's success.

Kaus notes, "We're embedding a data culture around information governance. The more people trust the data and collaborate around it, the more efficient and profitable Vattenfall will be."

Looking to the Future: Integrating with Snowflake

The future is bright for Vattenfall as it continues a data-driven quest of its singular, fossil-free production goal. Vattenfall is implementing the Snowflake cloud data platform for many of their newest and most innovative POCs. More data from the company's B2B and B2C business units is uploaded to Snowflake and cataloged in Alation daily.

Key features, such as the Alation Policy Center for data governance, will soon help Vattenfall make data governance even more intuitive. Through the Policy Center, data-use policies set in Snowflake are automatically added to and updated in Alation, helping ensure proper data use.

About Vattenfall

Vattenfall is one of Europe's largest energy producers and retailers. Headquartered in Solna, Sweden, Vattenfall has been providing electricity in Sweden for more than 100 years. Today, Vattenfall also operates in Germany, the Netherlands, Denmark, and the UK. The company has approximately 20,000 employees and 6.7 million customers. The company's stated goal and motto is "Fossil-free living within one generation."

Data Platforms

- Microsoft Azure
- Snowflake

Business Intelligence Tools

- Power BI