

RABOBANK FACILITATES FINANCIAL INDEPENDENCE THROUGH REAL-TIME DATA INSIGHTS

8.3M

Customers worldwide

Impact

- Preventing financial dilemmas before they happen through machine learning and financial modelling
- Real-time data analytics to provide immediate customer insight and shorten time to market
- Scalable data infrastructure to innovate at the speed of life

Rabobank is one of the largest financial services institutions in the Netherlands, with over 8.3 million customers worldwide. Founded by farmers in the late 19th century, Rabobank specialises in agriculture financing and sustainability-oriented banking across global markets. At its home base in the Netherlands, Rabobank offers a broad range of products and services tailored to the Dutch market and aims to helping its customers become more self-reliant in their finances.

With its inception as a co-operative bank, Rabobank is a highly purpose-led organisation with local communities at the heart of its mission. Its unique ethos stems from the idea that self-reliance is a more effective remedy to improving one's finances than charitable aid, a principle that has defined Rabobank's mission since its merger with Raffeissen and Boerenleen bank in 1972.

The bank operates across many countries worldwide and continues to serve both individual and organisational customers - primarily consisting of food or agricultural businesses - through a wide range of financial services, including corporate lending, liquidity management, and more.

Collecting and processing data at scale

In order to help its customers - including small businesses and farmers - become more self-sufficient and improve their financial situation such as debt settlement, Rabobank needed access to a varied mix of high quality, accurate, and timely customer data. Martijn Groen, IT lead of the Data Lake at Rabobank, emphasised how data plays a mission critical role in the organisation's goal, stating that "it is critical for every financial institution to have insight into the financial statements of wholesale, SME, and retail clients, to help them understand what their financial situation is."

The challenge to providing this insight, however, was the ability to execute sophisticated and timely data analytics at scale. Though Rabobank could conduct batch processing and analyse large amounts of historical data daily, it lacked the ability to stream and analyse data in real time. "We required real-time data to know not what the status of our customer was yesterday, but what the status of the customer is today," Groen recounted. This limited Rabobank's ability to not only give customers up-to-date insights into their finances, but also provide them with useful advice on how to improve their financial status-quo.

Rabobank was also faced with the challenge of shortening time-to-market. Armed with new ideas on how to help and support its customers, but lacking the capacity to develop them quickly, it needed easier access to customers' datasets to ensure they were using and receiving the right financial support at the right time. With data quality and speed of processing highlighted as two vital areas of improvement, Rabobank was looking to create a new data environment that would not only allow the organisation to create a centralised repository of high-quality data, but also would allow them to stream and conduct data analytics on the fly to create actionable insights and deliver a strong customer experience.

“Cloudera helped our organisation get to the next level by providing us with a streaming data platform, which provides us with real-time data. Rabobank is aiming for a self-service environment for our data, and we want our customers to be able to access the data at a click of the button in a secure and controlled manner. Within a financial institution it’s very important to be in control of your data, and Cloudera is helping us to support that.”

Martijn Groen, IT lead of the Data Lake, Rabobank

Leveraging real-time data to innovate at the speed of life

Rabobank searched the market for a new solution that would help it establish a secure, governed database and execute processing-heavy tasks. Working with Cloudera, Rabobank selected HDP and CDF due to its ability to cope with heavy pressures on data processing and its capability of ingesting large quantities of streaming data.

Through the platform, Rabobank was able to create a new data lake that would allow its employees to run faster queries across a single SQL interface including both historical and real-time data. From customers’ loan repayment patterns to up-to-the-minute transaction records, Rabobank and its customers could now immediately access the valuable data needed to help them understand the status of their financial situation.

“Cloudera helped our organisation get to the next level by providing us with a streaming data platform, which provides us with real-time data,” Groen continued. “Rabobank is aiming for a self-service environment for our data, and we want our customers to be able to access the data at a click of the button in a secure and controlled manner. Within a financial institution it’s very important to be in control of your data, and Cloudera is helping us to support that,” he added.

Rabobank also leveraged Cloudera Professional Services, allowing the business to learn how to optimise the security of its data environment and manage data access in a trusted, governed manner. Cloudera Professional Services also helped train Rabobank’s IT staff to quickly process large amounts of data. Thanks to HDP’s ability to support Graphic Processing Units (GPUs) in Apache Hadoop clusters, Rabobank’s IT staff was able to improve the performance of data processing and accelerate the time to insight.

Spotting financial disasters before they happen

Prior to working with Cloudera, it was more time-consuming for Rabobank’s data managers to access accurate customer information in their warning system due to its outdated infrastructure. This impaired them from gaining deep and timely insights into which customers were at risk of defaulting on loans. Having established the foundation of a modern data architecture, Rabobank is now able to run sophisticated machine learning algorithms and financial models to help customers manage their financial obligations, including loan repayments.

By implementing the platform and gaining the ability to stream real-time data, Rabobank can now detect warning signals in extremely early stages of where clients may go into default. Through their new, governed data lake, Rabobank’s account managers are also able to access an in-depth overview of customer data, enabling them to generate liquidity overviews and advise customers on how to avoid defaulting. With HDP and CDF’s rapid data processing, Rabobank could create better models and more accurately predict warning signals, as they now had immediate access to advanced data analytics results.

“We need to make sure that we bring our ideas and support to the market faster and make the data more accessible for our customers, so that they comprehend what we are presenting to them. Data is at the heart of our mission, and we are looking forward to continue working with Cloudera to help us achieve our goal of facilitating financial independence” Groen concluded.