

## Xenomorph Case Study

# Rabobank

Rabobank controls data risk with Xenomorph TimeScope

---

*“Over the last 2 years, the number of instruments we are managing has risen fivefold from 32,000 to over 150,000. TimeScope’s data and analytics management capability mean that we have dealt with this growth successfully and are confident that the platform will support our future plans and needs.”*

**Toon Leijtens, Market Risk, Rabobank International.**

## EXECUTIVE SUMMARY

**Country/Region:** The Netherlands

**Industry:** Sell side – Investment bank

### Customer Profile:

Rabobank International is the wholesale banking business of the AAA rated Rabobank Group, and offers a range of financial services covering global financial markets, corporate banking and mergers & acquisitions.

### Situation:

Rabobank's success in the derivatives market was increasing its need for market and instrument reference data. As a result, the bank needed a consolidated approach to data management.

### Solution:

By implementing Xenomorph's data and analytics management solution, TimeScape, Rabobank has centralised data used across its risk management engines and, in the process, has reduced data costs, improved data quality and consistency and built a data and analytics capability that will scale with the needs of the business.

## BENEFITS

- **Higher quality data** for highest quality risk management
- **Increased efficiency** in data processing and validation
- **Reduced data vendor costs** through consolidation
- **Consistency of data** across asset classes, systems and departments
- **A data and analytics capability** that will scale with the business

---

*"The flexibility of the TimeScape data model combined with the instinctive GUIs enable us to quickly customise the system to our exact requirements.*

*It means that we can add new fields and instrument types in a timeframe that keeps up with the changing demands of our internal clients."*

**Edo van Bruggen, Market data team,  
Rabobank International**

## INTRODUCTION

The success of Rabobank's Global Financial Markets Division created an ever-growing appetite for data and analytics to support its work. To meet this need in the short timescales required by the business, many departments built their data analysis and reporting tools using a combination of spreadsheets, databases, and VB code. As each group had different emphases and requirements, the systems developed organically to satisfy these specific needs. This came, however, with a number of costs:

- **Higher Data Costs** – Duplication of data purchases with multiple departments requesting their own specific subset/universes from data vendors.
- **Duplication of Effort** – Data cleansing, validation and processing being developed and applied separately across multiple systems and departments.
- **Reduced Business Focus** – Data validation and processing by end-users taking time away from core business activities such as trading and risk management.
- **Data Inconsistency** – Different rules and processes across departments leading to inconsistency in data and inefficiency in reconciling reports.
- **Fragmented Systems** – A mixture of tactical approaches across a variety of development environments leading to a data management architecture that was not easily manageable and that could not scale with the business.
- **Operational Risk** – Data inconsistency, reduced data quality and a dependence upon a collage of departmental systems increasing the operational risk and the number of individual points of failure across the business.

In the long term, a consolidated approach to data management was required in order to support future business plans and maintain the risk management approach that had underpinned the success of the AAA-rated bank.

## SITUATION

Rabobank's Control Risk Information Services (CRIS) performs reporting and advisory services for the Rabobank Group and its wholesale banking arm, Rabobank International. Within CRIS a market data team was created that was charged with supplying market data to risk management and various other internal clients.

In order to deliver accurate and consistent data in a timely fashion, the Market Data Team needed a single system that could integrate and normalise multiple sources of data, cleanse and validate the data and provide it promptly to the risk engines in the volumes that were anticipated. The business required a mechanism for quickly adding new OTC instruments and associated reporting, whilst the Market Risk Team wanted reliable and timely delivery of high quality data – historical series, correlations and volatility surfaces.

The challenge was therefore threefold:

1. A single integrated system that could make use of existing data sources;
2. A mechanism that could facilitate the quick addition of new instruments and support the subsequent reporting requirements;
3. Timely delivery of a single set of consistent, quality data of all types.

## SOLUTION

TimeScape was implemented as part of the strategy to scale the firm's OTC business and provides the requisite speed, flexibility and consistency. It enables responsibility for the daily delivery of cleansed and validated data to lie with a single team, resulting in increased efficiency and expertise.

With the automated validation tasks on 150,000+ instruments taking only 1.5 hours, delivery to downstream systems in an appropriate timeframe is ensured. This "Golden Copy" data is stored centrally in TimeScape which, through its easy-to-understand architecture, provides transparency on that data, its source and any subsequent change to it. The combination of openness, performance and flexibility provided by TimeScape greatly assists the Market Risk team and any other groups who rely on that data.

Data comes in many shapes – prices, rates, yield curves, spread curves and derived data such as correlation matrices and volatility surfaces. All these data types (and more) can be cleansed, stored and then easily used to create both new instruments and the reporting on them required by market risk. This simply adds to TimeScape's role as the single consolidated market data source for Rabobank's risk engines, providing a consistent and comparable data set for scenario testing and VaR calculation.

Using QL+, TimeScape's financially oriented query language, its programming API's (.NET, Excel and COM) and TimeScape Spreadsheet Inside technology, the Market Data Team have been able to develop their own reports, pulling the required data from the Golden Copy and delivering them into the risk engines. The speed of the reporting solution enables data to be passed to downstream systems quickly, ensuring that risk reporting is always performed on up-to-date data.

*"As Market Risk, we are very happy with the performance we get from TimeScape; we can pull reports that extract scenarios for over 1000 curves, with correlations, on a time scale that really works for us"*

**Anja Polfliet, Market Risk, Rabobank International.**

---

## BENEFITS

Rabobank based its decision to select TimeScape on the following criteria:

- **Consolidated data set** – a single system that can accept data from all the various sources already in existence at Rabobank, cleanse it by the same rules and supply a consistent data set to risk engines and to anyone else that requires the data.
- **Flexibility** – the system can store any kind of data and with TimeScape QL+ the data can be extracted to create any kind of report that any of the Market Data Team's internal clients could want. Reports can even be used to validate curves.
- **Performance** – TimeScape is specifically designed to deal with financial time series data and so calculates correlations and performs validation tasks quickly; validating 150,000 instruments takes 1.5 hours, so good data can be delivered to risk engines faster.
- **Agility** – Intuitive interfaces make the system quick to customise and provide the ability to add reports and new instruments on demand. Users can therefore develop complex proprietary reporting in-house – without the aid of external consultants.

## ABOUT XENOMORPH

Xenomorph provides trusted data management solutions to many of the world's leading financial institutions.

The company has more than two decades' experience managing large volumes of complex data and analytics.

Over that time, we have consistently reinvested in our technology, culminating in our latest generation enterprise data management platform TimeScape EDM+.

Our software is built to be future-proof. With our rules-based single-stack architecture, flexible data model, easily configurable workflow engine and integrated feature updates, TimeScape EDM+ empowers you to address any future requirements. It can be operated by business users without any prior programming expertise, which means it offers a truly agile and cost effective solution to address evolving business, regulatory and technology trends.

The platform also excels at managing and validating model-derived data, thereby enabling firms to address their model risk management challenges by making sure inputs and outputs of business critical models are always validated and kept in sync.

For more information on Xenomorph, our clients, services and solutions, please see [www.xenomorph.com](http://www.xenomorph.com).