Data-Driven Insurance: How AXA XL Is Using Data Engineering to Streamline Customer Product Offering

"Leveraging Informatica, we’re making changes that are going to transform the company in ways that are not yet even envisioned. All the companies that comprise AXA XL have shared a history of leadership and trailblazing, and Informatica helps keep us at the forefront."

**John Mulvaney**
Senior CoE Lead - Data Analytics Workbench
AXA XL

<table>
<thead>
<tr>
<th>Goals</th>
<th>Solution</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce the complexity and cost of managing and cleansing big data across business units to gain insights into policyholder, broker, and product performance</td>
<td>Use Informatica Data Engineering Integration and Informatica Data Engineering Quality to integrate, govern, and cleanse data from on-premises and cloud sources</td>
<td>Simplifies advanced analytics with a Data Ecosystem &amp; Engagement Platform (DEEP), helping AXA XL build innovative data assets faster and at a lower cost</td>
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<td>Attain profitable growth by identifying cross-sell and upsell opportunities for brokers and partners to sell more insurance products to existing customer base</td>
<td>Scan and catalog insured and policy data across the enterprise using Informatica Enterprise Data Catalog, making data actionable and easy to find</td>
<td>Helps increase shareholder value by enabling complex activities such as cross-selling and upselling of insurance policies through brokers and managing general agents</td>
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<td>Democratize data discovery and preparation to allow data scientists, analysts, and actuaries to prepare and operationalize data for trusted insights</td>
<td>Enable data scientists, actuaries, and analysts to prepare data for analysis via self-service using Informatica Enterprise Data Preparation</td>
<td>Allows for faster, deeper insights to support new policy introductions while improving investment returns and lowering expense ratios</td>
</tr>
</tbody>
</table>
Informatica Success Story: AXA XL

Mergers and acquisitions (M&A) are a way of life in the insurance industry as companies seek opportunities to grow and expand their product lines. For example, when Paris-based AXA Group acquired XL Group Ltd in 2018, it became one of the world’s largest property and casualty (P&C) commercial lines insurers. Three years earlier, XL Group became a leader in the global specialty insurance and reinsurance market with its own acquisition of Catlin Group, forming XL Catlin in 2015.

Today, the combined organization, AXA XL, specializes in commercial P&C and specialty insurance and reinsurance for large, global corporations and specialized businesses that face the greatest risks. To serve clients in more than 200 countries, AXA XL sells its insurance policies through brokers and partners. It also makes increasing use of managing general underwriters: specialized insurance brokers that are vested with underwriting authority.

As the insurance industry becomes increasingly commoditized, AXA XL seeks to differentiate itself with a data-driven strategy, reinventing and redesigning the company through a multi-phase digital transformation. However, due to M&A-fueled growth, AXA XL’s data repositories existed in silos, with limited ability to leverage the data to gain insights into the performance of customers, brokers, and products. Using data to drive strategy was complex, time consuming, and expensive, with many hours spent collecting, cleansing, and reconciling data across the firm.

To drive profitable growth, AXA XL needed a more effective way to support advanced analytics and identify cross-sell and upsell opportunities for brokers and partners to sell more insurance products to its existing customer base. The company also wanted to democratize data discovery and preparation to allow data analysts and actuaries to prepare and operationalize data themselves for faster, trusted insights into sales opportunities and risk.

"We wanted to make better use of data to drive our decision-making process, to lead us to new insurance products, and to improve our top and bottom lines," says John Mulvaney, Senior CoE Lead - Data Analytics Workbench, at AXA XL. "But our data scientists and actuaries were spending an inordinate amount of time gathering and refining the data. We decided to create a data solutions workbench to allow them to spend more time on actual data science, analytics, and risk calculations."

Intelligent, integrated data management

AXA XL completely redesigned and consolidated its data architecture with a cloud-based data warehouse, advanced analytics platform, and business intelligence tools across the insurance value chain. The
enterprise-wide data transformation initiative focused on building a Data Ecosystem Enterprise Platform (DEEP) based on a Microsoft Azure Data Lake to allow data scientists, actuaries, and analysts to easily find and consume internal and external data. However, to be successful, it needed a way to integrate, govern, and cleanse data from various cloud and on-premises sources, as well as make data easy to find and prepare for analysis.

After evaluating various data management and cataloging solutions, AXA XL selected Informatica due to its ability to offer a suite of integrated products with unified support. Mulvaney was on board, having had a positive experience using Informatica PowerCenter and Informatica Data Quality to improve reporting and risk management at XL Catlin.

“Informatica offers an integrated suite of cloud-based data management products with synergy across all of them,” he says. “Informatica and Microsoft Azure, they work well together, they support one another, and we ended up with what we wanted: a single cloud footprint that goes across technologies and functions.”

To scan and catalog data across the enterprise, AXA XL uses Informatica Enterprise Data Catalog (EDC), making data easy to find with a simple, Google-like search. Data scientists, actuaries, and even analysts can prepare data for analysis in a self-service manner using Informatica Enterprise Data Preparation (EDP), allowing them to blend data using an Excel-like interface without waiting for assistance from IT.

“It’s a huge benefit to have Informatica Enterprise Data Catalog and Informatica Enterprise Data Preparation so tightly integrated and in one place,” says Mulvaney. “EDC describes the data and makes it easy to find, and EDP makes it easy for our data scientists and actuaries to manipulate data, create summaries, and blend different parts together.”

**Building stakeholder value**

AXA XL’s DEEP platform simplifies advanced analytics, helping the company build innovative data assets faster and at a lower cost. Ultimately, having trusted data available will help build better digital relationships with customers and enable a more transparent, quantitatively advanced operations model within the firm.

“Informatica helps us establish a single version of the truth by bringing data into one governed repository, cataloging it, and making self-service data prep available,” says Mulvaney. “Everyone gets the same answers, everyone can move forward at the same pace, and they’re making decisions based on the same information. We expect this will have a profound effect on how data is consumed and trusted within the organization.”
The platform is already increasing stakeholder value by enabling complex activities such as cross-selling and upselling of insurance policies through brokers and managing general underwriters. With the ability to quickly perform robust analyses, actuaries can supply business leaders with actionable information, helping them make the right decisions about risk selection and the introduction of new products.

“Using Informatica, we are driving down the amount of time that a sophisticated actuary needs to collect information,” says Mulvaney. “They don’t need to code in SQL anymore, and they don’t need to have access to subject matter experts on a real-time basis because they have self-service. Before, you needed to be a true data scientist in order to pull any insights out of the data. With Informatica, we’re making analytics so much more accessible.”

Continuing a history of innovation

AXA XL is now working to build out more complete views of its customers and brokers, integrate submission and quote data into their DEEP platform, and identify the status of policies to enable transparent resource planning for underwriting, actuarial, data science, and operations teams. Enhanced claims segmentation and risk exposure analysis help the company reduce its expense ratio, while the ability to use risk adjusted measures to evaluate investment performance improves investment returns.

“Leveraging Informatica, we’re making changes that are going to transform the company in ways that are not yet even envisioned,” says Mulvaney. “It’s a critical effort, because if we don’t take the necessary steps to do more with our data, we are going to stagnate and be overtaken. All the companies that comprise AXA XL share a history of leadership and trailblazing, and Informatica helps keep us at the forefront.”