



Informatica®



Operationalizing Data Governance for Enterprise Risk Management in Financial Services

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Rising Uncertainty Demands Leaders Recalibrate Risk

The world's most ambitious financial service providers are facing unprecedented new challenges, which can be defined as existential threats. They will overcome and thrive—or they won't survive. Every year brings new uncertainties to quantify. Going forward, the industry as a whole will face increasing risk fueled by market volatility, rapidly emerging technologies, global interconnectedness, changing economic and jurisdictional factors, competition, and consumer demands.



Key Historical Enterprise Risk Management Inflection Points

Modern day events are providing the industry with important lessons regarding the recent global COVID-19 pandemic, rising unemployment rates, fears of a global recession, or worse—forcing risk professionals across financial services to recalibrate how to model risk and reassess their capital reserves to cover future losses from underestimated exposures.

Industry regulators can issue rules and guidelines as deemed necessary to ensure the safety and soundness of the banks under their jurisdiction. According to an alert covering the supervisory developments and 2019 supervisory priorities highlighted by the US Federal Reserve for large

financial institutions (LFIs), 40 percent of LFIs are rated as “less-than-satisfactory” due to risk management weaknesses in one or more of the following areas: compliance, internal controls, model risk management, reputational risk, operational risk management (including requirements for addressing specific types of risks), IT infrastructure, and Bank Secrecy Act (BSA)/Anti-Money Laundering (AML). This renders 40 percent of LFIs unable to meet the controls to satisfy Securities and Exchange Commission (SEC) regulations, [Dodd Frank Act](#), [BCBS 239](#), [CCAR](#), [CECL](#), [KYC](#), EU GDPR, and [Customer Due Diligence](#) regulations.¹

1929

The Great Depression

4

1973-74

World oil prices quadrupled, putting an end to decades of cheap oil and exacerbating the economic difficulties facing many industrialized nations.

1987

US savings-and-loan (S&L) crisis triggered by global stock market crash, which negatively impacted American households and precipitated a large government bailout.

1990-92

US recession and slow recovery, with unemployment reaching almost 8% as late as June 1992.

2008

The Global Financial Crisis. The credit crisis introduced new regulations allowing regulators to monitor systemic risk across global financial markets. The regulations following this crisis led directly to the awareness of data governance as a concept.

2010

The Dodd Frank Act was enacted, which makes data governance programs in financial services a decade-long exercise in implementing, scaling, and refining best practices.

2020

Bear market with COVID-19 global pandemic and world oil price crash. Banks' capital reserve goes up 8% in preparation for massive loan defaults and widespread unemployment.



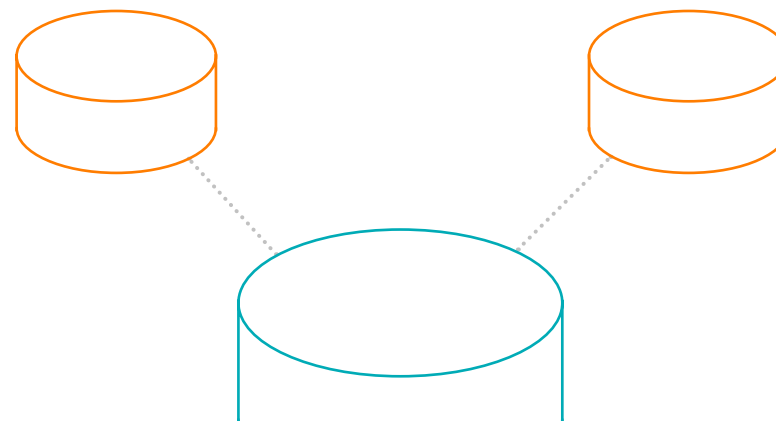
Mandatory Compliance Requirements Drive Data Management Prioritization

Risk, uncertainty, and rising demand for compliance require that firms adopt, foster, and implement effective data management strategies.

Banks worldwide must comply with more than 100 different regulations at any given time, and newer mandates continually emerge. Across the U.S. insurance industry, firms must comply with ongoing solvency requirements set forth by federal and state insurance regulators. These growing regulatory pressures are forcing banks, insurance, and financial services firms to disclose more diverse—and more granular—data to regulators than ever before. The cost of failure to comply can add up quickly, including legal, litigation, and settlement fees for each case. The financial services industry as a whole is being forced to collect much more data in a controlled manner so that the necessary regulatory reporting can be generated automatically, in less time, and with less cost.

Decision makers must have policy-based data governance capabilities and controls within their risk management frameworks for sustainability, resiliency, and efficiency. We have reached an inflection point where improperly managing data is much more than just an inconvenience; it will have severe business ramifications, curtailing the ability to innovate, sustain customer trust, and build brand loyalty. Regulators will assess how these companies adapt to rising market pressures—and how they manage the associated regulatory risks—by focusing most on their operational resilience, governance, and controls.

In response, financial institutions are modernizing their data management and governance processes by adopting and automating fundamental data quality processes, improving end-to-end data transparency with enterprise data catalogs, scaling adoption with self-service data governance, ensuring data privacy with data masking and test data management, and centralizing common business master data. Let's explore more as to why, how, and what's important for the future of managing risk and complying with industry regulations in the new world.



Top Data Management Challenges and Impacts on Enterprise Risk and Regulatory Compliance

By getting timely access to reliable, accurate, and trusted data—and the resulting insights delivered—financial services decision-makers could boost productivity and transform the efficiency and quality of their enterprise risk management activities. We believe it's time to transform financial services by using intelligent data to overcome these common challenges:

- **Lack of data quality automation.** According to IDC, 60% of organizations are challenged by data quality;² and in financial services, poor quality data can lead to miscalculated risk scores, underfunded capital reserves, and regulator reporting errors, resulting in unwanted audits and fines. Financial services firms urgently need to scale and automate fundamental data quality processes, from profiling to remediating discovered issues, and provide data that is fit for use to manage the increasing risks they face and to address the quickly evolving regulations that are coming.

- **Lack of end-to-end data lineage and transparency** are the Achilles heel for many financial organizations, limiting their ability to respond to regulatory matters requiring board attention (MRAs). IDC also identified that only 25% of useful data is tagged;³ this lack of effective documentation of where sensitive data originates, resides, and proliferates within the enterprise (and outside of it) leads directly to increased exposure to non-compliance with new and existing regulations.

- **Too many versions of limited truth.** Decades of traditional business silos, stand-alone systems, and legacy systems—and a lack of a central source of common legal-entity master data, with limited insights into legal-entity hierarchy relationships—are causing many firms to manage risk and report to regulators with blindfolds on.

- **Bottlenecks to get business users answers to their data questions.** Organizations lack self-service data access and management by the business users who need it to manage risk or to comply with industry regulations. Instead, IT organizations face the burden and responsibility to answer business user questions about their data, which limits productivity and increases operational costs.

Addressing the above data management challenges will mitigate many of the fundamental barriers to risk management that hinder many organizations. This eBook is intended to help both business and IT leaders in the financial services industry understand the modern data and analytics competencies required to successfully master these challenges.

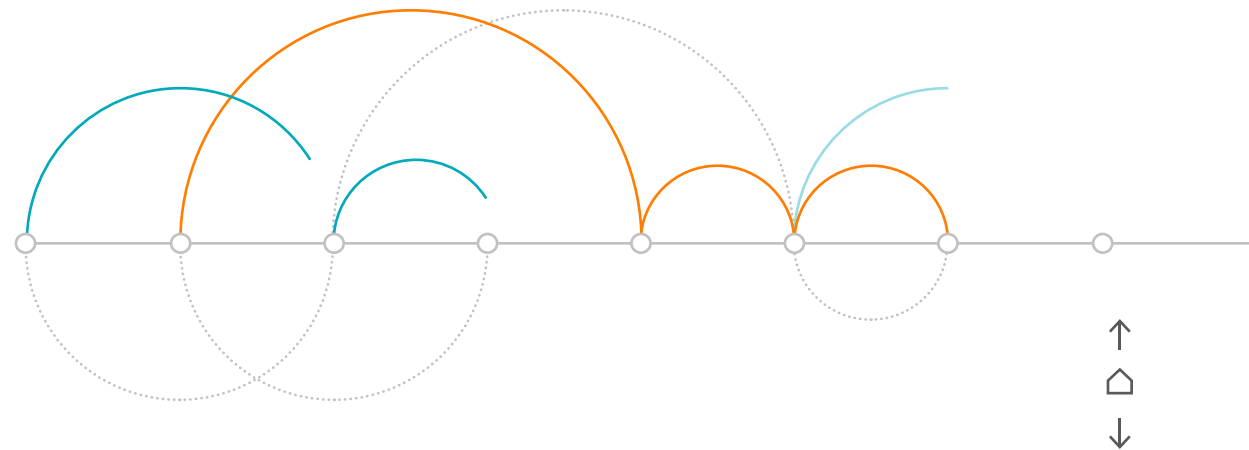
Managing Risk is More Challenging Than Ever—Data Management and Governance Must Scale to Succeed

Data governance must be more than just another siloed compliance project.

In today's world, financial services firms of all sizes are managing complex digital technology infrastructures, modular platforms, and multi-cloud and hybrid architectures, all moving vast volumes of data at unbelievable speeds around the world. Couple this with the rising regulatory mandates demanding consumer privacy and protection, and you can see that there is no easy way to gain visibility into a financial enterprise's volumes of data and make them accessible, usable, secure, and trusted. This is why all organizations must implement an enterprise data governance program and solution that works at the speed of these new technologies. Intelligent data governance has become a high-priority strategic imperative to tackle these challenges.

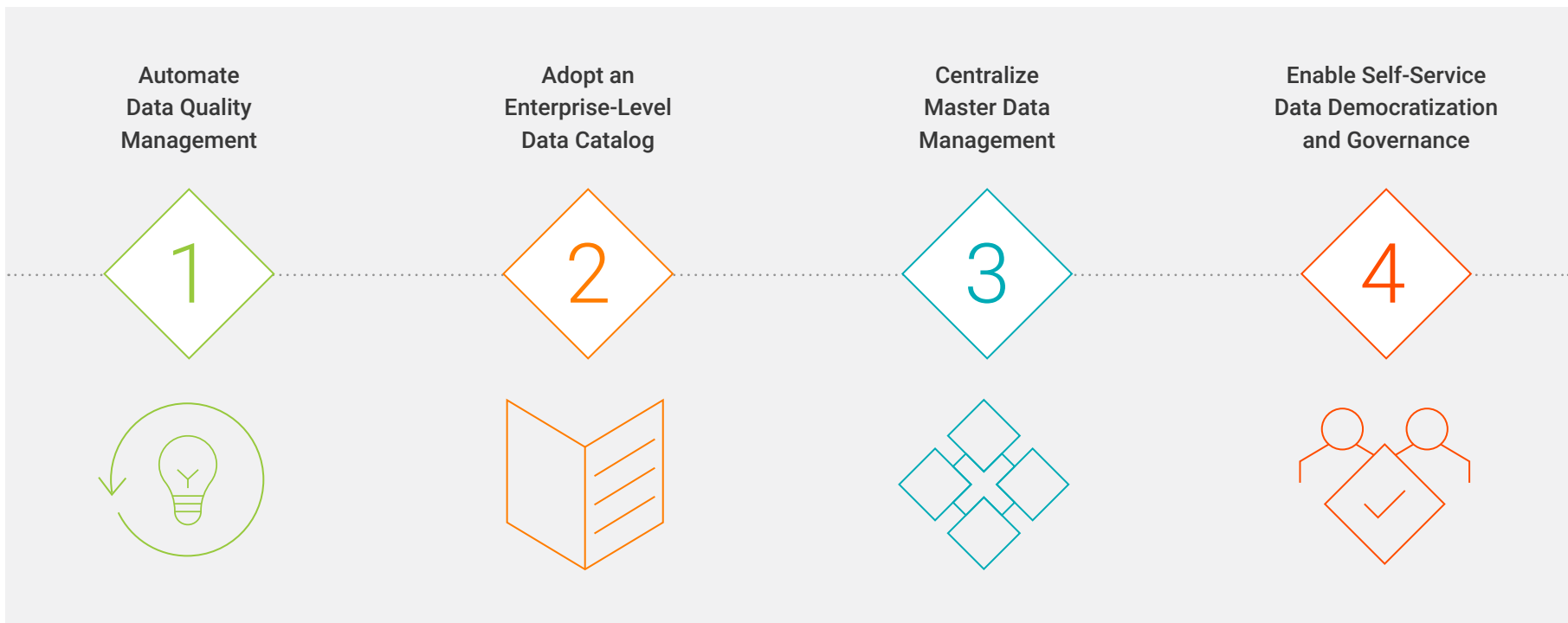
It's time to manage data in financial services as an enterprise asset (no more rhetoric—reality!), by making sure that data from across the enterprise is easy to access, easy to understand, and easy to use—by all teams who need it, and not only for compliance. Financial services firms require holistic, end-to-end data governance solutions that bring their business users, enterprise processes, and data governance policies together across the organization to ensure that everyone can access trusted, secure, and well governed data.

In order to succeed with data governance, an enterprise must put data-centric behaviors in place so that trusted, governed data can deliver value for the entire organization, well into the future. Business and IT leaders must provide clarity of purpose, defined roles, collaborative policies, consistent communication, data literacy, and tools to support data governance initiatives.



4 Core Capabilities For Modern Data Management and Governance in Financial Services

A transformed financial system must exhibit four core capabilities for governing data more effectively:



Automate Data Quality Management

Financial services firms need to automate the complex tasks to manage quality data for risk management and regulatory compliance, and replace manual processes that limit scale and increase costs. Today's enterprises should have capabilities that allow them to accurately identify errors, build and execute data quality rules to fix those errors, monitor exceptions, and deliver data quality reports and scorecards to improve business confidence in their data. Achieving this level of maturity can be challenging for financial services firms, but it is extremely important to ensure success with data quality improvement efforts.

One technique that can assist you is to begin by identifying what critical data elements (CDEs) are used and required to manage the various categories of risk. Once you identify the CDEs, then document and assign rules and responsibilities, which must be aligned to your overall enterprise data governance strategy. A resource that can help you decide which CDE identifiers to focus on is illustrated in Table 1.

Data Element/ Data Quality Dimension	Accuracy	Completeness	Consistency	Integrity	Timeliness	Freshness	Validity	Uniqueness
Obligor Identifier	100%	99%	100%	95%	80%	65%	100%	100%
Obligor Description	90%	55%	78%	90%	80%	65%	74%	35%
Agreement Identifier	100%	97%	100%	98%	80%	75%	100%	100%
Facility Default Grade	85%	79%	92%	83%	70%	35%	87%	76%
Obligor Default Grade	90%	89%	95%	73%	70%	45%	90%	68%
Probability of Default	87%	93%	99%	58%	90%	55%	45%	56%
Loss Given Default	78%	92%	87%	80%	84%	65%	78%	48%
Total Exposure Amount	82%	98%	94%	86%	78%	85%	80%	27%
Expected Loss Amount	78%	96%	89%	78%	70%	65%	88%	32%
Maturity Date	89%	100%	92%	80%	85%	93%	94%	45%
Collateralized Exposure Amount	75%	98%	85%	94%	45%	30%	55%	48%
Collateral Acquire Date	85%	100%	90%	78%	83%	95%	89%	52%

■ 0-75% Requires immediate mitigation/review; ■ 75-90% Assess and monitor; ■ 90%+ - Minimal concern

Table 1: This illustrates a structured way to organize data quality dimensions along with identifiers and produces a percentage higher or lower, depending on the importance of the identifier.



Case Study

Here is an example of holistic and automated data quality in action:



AI-driven Data Quality Accelerates Compliance Reporting, Improves Accuracy

The Union Bank of the Philippines (UnionBank) is one of the largest banks in the Philippines, ranking seventh in terms of assets after its successful merger with smaller competitor International Exchange Bank.

Challenge:

UnionBank wanted to improve data quality for know-your-customer (KYC) initiatives to promote financial inclusion, increase sales opportunities, and provide the right services. It also wanted to accelerate covered and suspicious transaction reporting for Anti-Money Laundering Act (AMLA) compliance while improving accuracy.

Solution:

Uses a Master Data Management (MDM) solution to build a single golden customer record and display a trusted view of each customer, automating data cleansing and the standardization of customer information.

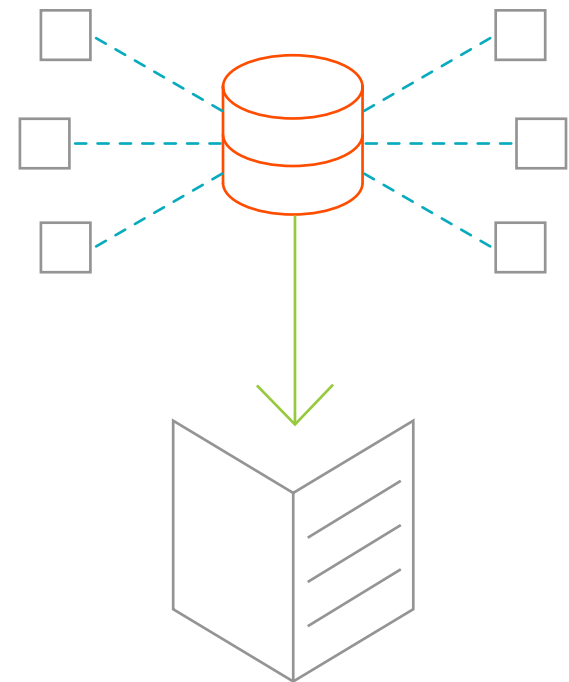
Results:

Improved data quality for the bank's KYC initiatives from 35% to 100% in one year, accelerating faster and cleaner compliance reporting. Reduced the time required to conduct covered (large) and suspicious transaction reporting for AMLA compliance by a factor of five, going from five days to one day.

Adopt an Enterprise-Level Data Catalog

Discovering and understanding the data that a financial services firm has across the enterprise are the first steps on any data-driven initiative. While metadata catalogs are not new, the need for an enterprise-level data catalog is in demand to help provide transparency, lineage, and visibility of an organization's data processes for enterprise risk management. Metadata catalogs have evolved. Modern solutions leverage AI/ML to intelligently scan and catalog metadata from across the enterprise—across multi-cloud, on-premises, and hybrid environments. This can help find and recommend the data that business users need for assessing risk and significantly reduce the time spent in data discovery and preparation.

It is mission critical for financial services firms to establish a common metadata framework that includes all of the data at an enterprise level that is used for risk management and regulatory compliance, and then to leverage the power of that metadata to better identify, utilize, protect, and control the structured and unstructured business data streaming into the enterprise. An enterprise-level data catalog will enable data stewards and business users to easily access and identify the end-to-end lineage of their data across the entire enterprise. It will also provide transparency and definitions to explain how risk is measured to the industry regulators who are auditing the organization. This will directly result in lower risk management, remediation, and compliance costs for the firm.



Case Study

Here is an example of an enterprise-level data catalog for data governance in action:



Data-Driven Insurance Streamlines Customer Product Offering

AXA XL Insurance: Global insurance and reinsurance company AXA completed the acquisition of Bermuda based XL Group Ltd., a leading global property and casualty commercial lines insurer and reinsurer, for \$15.3 billion. AXA XL is now a subsidiary of AXA.

Challenge:

Due to M&A-fueled growth, using data to drive strategy was complex, time consuming, and expensive, with many hours spent collecting, cleansing, and reconciling data across the firm. AXA XL needed an effective way to support advanced analytics and identify cross-sell and upsell opportunities for brokers and partners to sell more insurance products. The company also wanted to democratize data discovery and preparation to allow data analysts and actuaries to operationalize data themselves for faster, trusted insights into sales opportunities and risk.

Solution:

AXA XL scans and catalogs insured and policy data across the entire enterprise using Informatica Enterprise Data Catalog, making data actionable and easy to find and also uses Informatica Data Engineering Quality to integrate, govern, and cleanse data from on-premises and cloud sources; the company enables data scientists, actuaries, and analysts to prepare data for analysis via self-service using Informatica Enterprise Data Preparation.

Results:

Informatica solutions help increase AXA XL's shareholder value by enabling complex activities such as cross-selling and upselling of insurance policies through brokers and managing general agents and allows for faster, deeper insights to support new policy introductions while improving investment returns and lowering expense ratios.

“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.”

— John Mulvaney, Senior CoE Lead – Data Analytics Workbench, AXA XL



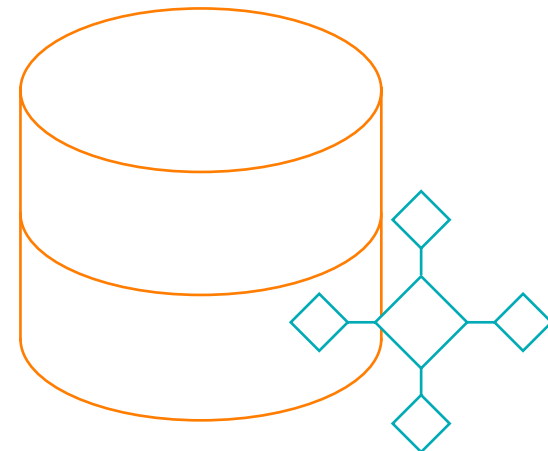
Centralize Master Data Management

Improve risk measurements and regulatory reporting accuracy with reliable and comprehensive master data.

Financial institutions can no longer afford the cost and impacts of invalid, incomplete, and inaccurate master data used to manage risk and comply with industry regulations. Financial institutions suffer from duplicate sources of legal-entity data that are often incomplete, inaccurate, and not related to each other. Legal-entity master data originate and change across various front-, mid-, and back-office systems, each operating in its own environment, and without the responsibility to coordinate and share changes to common records with each other. As a result, business users will get different answers depending on which system they use, miscalculate their overall risk exposure, underfund capital reserves, and incur higher compliance costs.

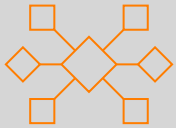
Financial institutions should consider managing their legal-entity master data separately from the applications that originate that data by investing in a master data management hub that:

- **Identifies unique entities** by leveraging AI-driven matching algorithms
- **Allows business users to define** what data is required into the golden record from existing systems across the enterprise
- **Defines business rules** to determine how entities are related to one another
- **Documents changes** to an existing record over time for audit purposes
- **Monitors any changes** to the golden record or relationship definition and publishes those changes to downstream and upstream systems
- **Integrates other categories** or “domains” of data into the hub for additional insights and information



Case Study

Here is an example of how centralized master data management enables an organization to derive the greatest business value from financial services data assets:



Improving Customer Experience While Reducing Risks and Costs

Global Specialty Insurer and Reinsurer: A global specialty insurer and reinsurer headquartered in the US that offers insurance for equipment breakdown, cyber risk, data breach, identity recovery, and employment practices liability.

Challenge:

The organization wanted to improve customer experiences by accurately matching the location of insured equipment to claims and policies in order to mitigate losses and process claims faster. It also wanted to enable more effective, data-driven business decision-making by feeding accurate data to risk management and pricing models, as well as provide a consistent source of business context to identify trends.

Solution:

Uses Informatica Multidomain MDM to master carriers, customers, equipment locations, and policies while cleansing data with Informatica Data Quality; manages reference data with Informatica Reference Data Management; and uses Axon Data Governance to develop a common data dictionary and collaborative business glossary.

Results:

Enables faster claims processing by matching locations to claims within 24 hours at over 90 percent accuracy, improving customer service and the accuracy of risk exposure analysis and risk-based pricing. This enables more confident, consistent, and profitable underwriting decisions and helps business decision-makers prioritize and automate data governance with improved business context.

Enable Self-Service Data Democratization and Governance

Getting the most value out of any data governance program helps ensure that business users can get answers to their data questions, such as:

- What data do we have?
- Can I trust the quality of it?
- What does it mean?
- What do we/should we use it for?
- Where does it come from?
- How was it produced?
- Who can I ask if I have questions?
- Is our data protected?



Self-service represents the ability for business users to search for and access data sets that the governance team has already curated, enriched, and published for their use. Having this ability ensures that business users can avoid having to go to someone in IT to get these answers and democratizes data access for non-technical users when trust assurance is provided. With self-service support, business users can:

- More accurately and quickly comply with regulations by delivering trusted, timely, and relevant data for self-service analytics to people who need it to make decisions
- Easily find and understand enterprise-wide data for analytics, collaborate, and drive value

- Automatically and quickly integrate data for analytics across multi-cloud and hybrid environments, as well as leverage the monetary benefits of cloud and subscription elasticity and OpEx vs. CapEx savings
- Leverage business understanding and knowledge with data and context to innovate products and services more rapidly

“Companies that empower employees to consistently use data as a basis for their decision-making are nearly twice as likely as others to report reaching their data and analytics objectives.”⁴

– McKinsey & Company

Case Study

Here is an example of self-service data democratization and governance in action:



Improving Confidence with Regulators with End to End Data Lineage and Insights

Rabobank: A multinational banking and financial services company that is the second-largest bank in the Netherlands—a global leader in food and agricultural financing and sustainability-oriented banking with a mission to grow a better world. Rabobank embarked upon a digital transformation to make customer interactions more convenient and now delivers its retail banking services in a digital, self-service environment.

Challenge:

The company sought to automate manual, spreadsheet-based processes around risk data aggregation and reporting as defined by the Basel Committee on Banking Supervision regulation 239 (BCBS 239) and other regulators. The company also needed to better understand data lineage across the bank to create business value and growth opportunities while driving digital transformation.

Solution:

Uses Informatica Enterprise Data Catalog to inventory and catalog data for end-to-end data lineage and complete tracking of data movement, giving employees an easy-to-use interface and simple search to quickly discover data and its lineage for auditors or internal projects.

Results:

Strengthens compliance with BCBS 239, as well as with an array of rules—ranging from Know Your Customer (KYC) to due diligence and beneficial ownership regulations to anti-money laundering and anti-bribery legislation and other regulatory reporting—by making it easier to give auditors the transparency they require. It also creates a better understanding of what data means, where it came from, how it has been transformed, and how it can be used safely and strategically.



Reimagined Data Governance For Enterprise Risk Management

An agile, transparent, collaborative, and AI-driven data governance program as outlined in this eBook and illustrated by the real-world examples included herein can help you achieve your enterprise risk management goals. Firms must unlearn what they thought they knew about governing data and instead create a more transparent, agile, and ultimately more valuable AI-driven approach to data that makes it easier to collaborate, experiment, and innovate.

Informatica's Intelligent Data Management Cloud™

Informatica's intelligent data governance solution offers the full extensibility of the Informatica Intelligent Data Management Cloud, allowing you to start small and add capabilities over time as your needs change—without massive and costly custom integration efforts. The data governance solution includes not just robust data governance, but also data quality, data privacy, data cataloging, and stewardship capabilities. It also includes automation capabilities that reduce the number of review and management tasks assigned to data stewards. Combined with Informatica's Master Data Management solution, financial institutions can leverage the power of Informatica's platform for their enterprise risk management and regulatory compliance needs.

The Informatica Intelligent Data Management Cloud delivers an integrated, end-to-end data management platform for maximum productivity. By providing unified connectivity, metadata, and operations management, the unified platform accelerates the development and deployment of new data management projects. The platform provides a powerful and consistent set of capabilities for managing data across on-premises, cloud, and big data sources.

About Informatica

Digital transformation changes expectations: better service, faster delivery, with less cost. Businesses must transform to stay relevant and data holds the answers.

As the world's leader in enterprise cloud data management, we're prepared to help you intelligently lead—in any sector, category or niche. Informatica provides you with the foresight to become more agile, realize new growth opportunities or create new inventions. With 100% focus on everything data, we offer the versatility needed to succeed.

We invite you to explore all that Informatica has to offer—and unleash the power of data to drive your next intelligent disruption.

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