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Building a reinsurance data management program

How reinsurance teams can leverage data for maximum impact

Contents

Reinsurance portfolios are growing in complexity, but many are still administered with a mix of aging technology and manual processing. A lack of data governance, strategy, quality controls, and other challenges makes it difficult to support strategic decision-making, measure success or effectiveness, decide accurate pricing, and identify exposure to risks.

No matter where an organization is on its reinsurance data transformation journey, a process can be followed with the goal of empowering and leveraging reinsurance data to its full potential. This guide will focus on an iterative six-step process designed to build a reinsurance data management program:

Importantly, these steps can cascade from one another or can be revisited later with the intent of strengthening a particular area. These are set up sequentially but should be considered holistically.

The hardest part is getting started

Don't let the following challenges stop the momentum to create a mature and valuable reinsurance data program:

- Unclear reinsurance data strategy, quality, and sourcing plan
- No data management or data governance program
- Sources of data that are external, of insufficient quality, unstructured, in varying formats, etc.
- Too many key stakeholders with varying requirements
- Historical data inconsistent with unfillable gaps
- Data dispersed in many locations
- The reinsurance data capabilities required may not be understood or present
- Trying to do too much at once, such that any tangible benefits are years away

Advancements in technology and business intelligence—powered by data—are transforming the industry. Now reinsurance organizations can take a proactive stance on risk mitigation and capital management strategies.

Why now?

Organizations that have begun the journey are likely at a strategic advantage. The cost of not getting started—or stalling—is a risk in and of itself.

Good (or complete) data can help prevent potential **revenue loss** and **overexposure**.

Consistent and available data may **free up resources** to be more productive and work on more strategic tasks.

Correct reporting can help eliminate **fines**, **penalties**, and **reputational risk**.

Aligned reinsurance data program outcomes and business strategy may allow for **exponential growth**.

Establish a reinsurance data leadership team

The data leadership team is the foundation from which the transformation journey will launch. This group establishes the data standards for reinsurance and sets a charter that (1) describes the overall data strategy, (2) identifies how to source information, (3) outlines roles and responsibilities, and (4) explains the objectives and goals of the transformation.

The success of this team depends on the institutional knowledge and experience of stakeholders from the business, corporate functions, and technology teams.

Core working group	Reinsurance leadership and administration, underwriting, accounting and reporting teams, and financial and management reporting teams
Extended working group	Broader data team including IT stakeholders, underwriting, and compliance

The journey is the destination

The objective of the data leadership team is to reasonably ensure alignment, agreement, and representation, but it doesn't end there. Here are other aspects that should be included in the charter to help ensure the success of the reinsurance data program:

- Provide **ownership** and **accountability** for data by domain and sub-domain (e.g., reinsurance treaties, reinsured claims, cession data, third-party data).
- Set **short- and long-term goals** that define service level agreements and key performance indicators (KPIs) for the reinsurance function (e.g., return on investment on data and analytics initiative, improvement in leakage and profitability metrics, better arbitration results, faster reporting).
- Manage **initiatives** and **opportunities**, and track benefits and costs (e.g., leakage prevented/recovered, value of deals support, balance sheet/capital impact, cost to operate improvement).
- Manage the **demand for services** and **capabilities**.
- Establish and manage **data governance operations**, **data sourcing and quality management**, **tooling**, and **issue and change management**.

Once the leadership team is assigned roles and responsibilities—and goals are established—it's time to get your reinsurance data program off the ground.

Questions to ask

As you work to establish the data leadership team, think through the core components of the team's organizational structure:

- What are the core capabilities required across this team?
- Which stakeholders (e.g., reinsurance leadership and administration, underwriting, accounting and reporting teams, financial and management reporting teams) should be consulted and informed of the team's charter?
- How will this team interact with upstream parties (e.g., underwriting, placement teams) or downstream parties (e.g., financial and management reporting, governance, and compliance)?
- How will we source information?
- How might the data capabilities differ based on business or use of reinsurance (e.g., traditional risk mitigation, capital management, vehicle for acquisition/divestiture)?

STEP 2

Develop data, reporting, and analytics strategies

The data and analytics strategies are different yet synergistic: The data strategy is typically a high-level plan, whereas the analytics strategy usually addresses the specifics.

The 10,000-foot view

The data strategy is intended to be a broad-based set of goals, measurements, and quality requirements. It is established to answer the following questions that will feed into the analytics strategy:

- What are we going to do and how will we accomplish it?
- What are the measures that we can and should establish for both internal and external parties?
- What data can and should we source to meet those demands and measures?

Build consensus and foster alignment

Think of the analytics strategy as a living, breathing document—not something that's written and then put on a shelf to collect dust. It should be frequently updated with the new findings, insights, and discoveries uncovered along the transformation journey, leveraging the input, knowledge, and experience of the team.

The analytics strategy is designed to identify the methods to find, source, and store all the components that make up the "data inventory." This is where the data and analytics vision is clearly defined; it should align to the strategic, operational, and regulatory needs of the business.

The process is different for every organization, but agreeing on the **design principles** and **KPIs** can help align stakeholders across the organization and the wider reinsurance ecosystem.

Set parameters: Agree on design principles

These **three components** will help your team establish a common language, process, and governance strategy in an effort to keep everyone in alignment:

1. **Common data dictionary:** A shared vocabulary for data entities that identifies the golden sources of information and includes data references
2. **Iterative delivery:** Set schedules that provide teams with the ability to provide early value with continuous deployment that bolsters and enhances the strategies
3. **Zero-trust security:** Embedded data security guiding principles across end-to-end processes

Putting words into action

Your data analytics vision statement should clearly communicate the goals and purpose of the strategy. Below is a vision statement that is **relevant**, **specific**, and **attainable**:

Relevant *Create a robust data and systems function designed to effectively serve customers and stakeholders—*

Specific *accounting finance, operations, reinsurance purchasing, underwriting, risk management, capital management, and actuarial reserving and reinsurer—in an efficient and timely way,*

Attainable *resourced with the appropriate reinsurance knowledge and experience as well as underpinned by leading systems.*

Empower truth: Establish specific goals and key measurements

KPIs will help articulate the business value and insights that you expect the new data capabilities to support. To identify the KPIs that are most meaningful to the organization, use a reinsurance scorecard.

This sample scorecard is meant to examine the reinsurance organization across two enabling areas: **(1) strategic** and **(2) efficient and effective**. Leverage it to gauge the maturity of your business and the overall success of your reinsurance function.

It's based on defining a goal, identifying the questions that would help create a path to the goal, deciding on the measures that would answer those questions, and resolving what values for that measure are the targets or may indicate a good or in-range result.

Enabling area	Goal	Question	Measure
Strategic	**Free up capital**	• Do we have available capital to support our goals? • What does it mean to have available capital?	• Current available capital levels • Spending power
	Consolidated view of risk	• Do we have a consolidated understanding of risk? • Are we taking into account all the factors necessary to have an understanding of risk?	• Risk metrics/analytics • Probability vs. profitability
	Early warning system (emerging risk)	• Are we identifying emerging risks and their impacts on business?	• Total money lost based on emerging risks
Efficient & effective	**Sufficiently capable team**	• Do we have the correct team in place? • Is the team appropriately qualified?	• Capabilities and skill set • Quality measures (success rate, error rate, etc.)
	Timely and quality billings	• Are our bills accurate and complete? • Do we hear from reinsurers regarding the bills we sent?	• Number of disputed/ late bills • Number of discrepancies identified by reinsurers
	My contracts are implemented correctly, and activity properly flows	• Do we often adjust/ re-implement contracts? • Do we typically have to research activity errors/ discrepancies?	• Number of contract adjustments • Total time spent/number of times we have to research errors

STEP 3

Draft a business case for change

While not applicable for every organization, this step will help build buy-in and support for any investments that are made as part of a data modernization initiative.

The goal of the business case is to help stakeholders understand the cost/benefit of making a (typically) large investment into the broader data and technology infrastructure. It will be incumbent upon the drafters to provide an honest assessment of the upfront costs weighed against the anticipated or defined benefits.

Consider this

An organization that is just beginning its transformation journey will need to sell the benefits and outcomes of the investment. The business case should—at a minimum—answer two important questions:

- What is the investment required (e.g., size of prize, level/cost of effort, payback, risk of not doing it)?
- Where can data value opportunities be found across the reinsurance process?

The crystal ball process

The business case is an exciting opportunity to get a glimpse at what the future holds. It should be forward-looking and include value creation goals, the investment required, and the high-level plan of approach. Look across the reinsurance process for data value opportunities to:

- Run a **diagnostics check** on the current data and analytics capabilities against the target state business capabilities.
- Identify **key initiatives to bridge the gap**: Assess the suitability of the current initiatives across the reinsurance domain and whether they align with the strategic goals.
- Document the **transition initiatives** and **roadmap**.
- Provide an **indication of the transition cost or investment** aligned to cost of the effort.
- Highlight the payback by outlining the **cost savings aligned to industry benchmarks**.
- Finalize and communicate the executive investment case, including the **risk of not undertaking the journey**.

Be sure to include non-financial requirements, like regulatory impacts and reputational risk.

STEP 4

Create a data management and governance program

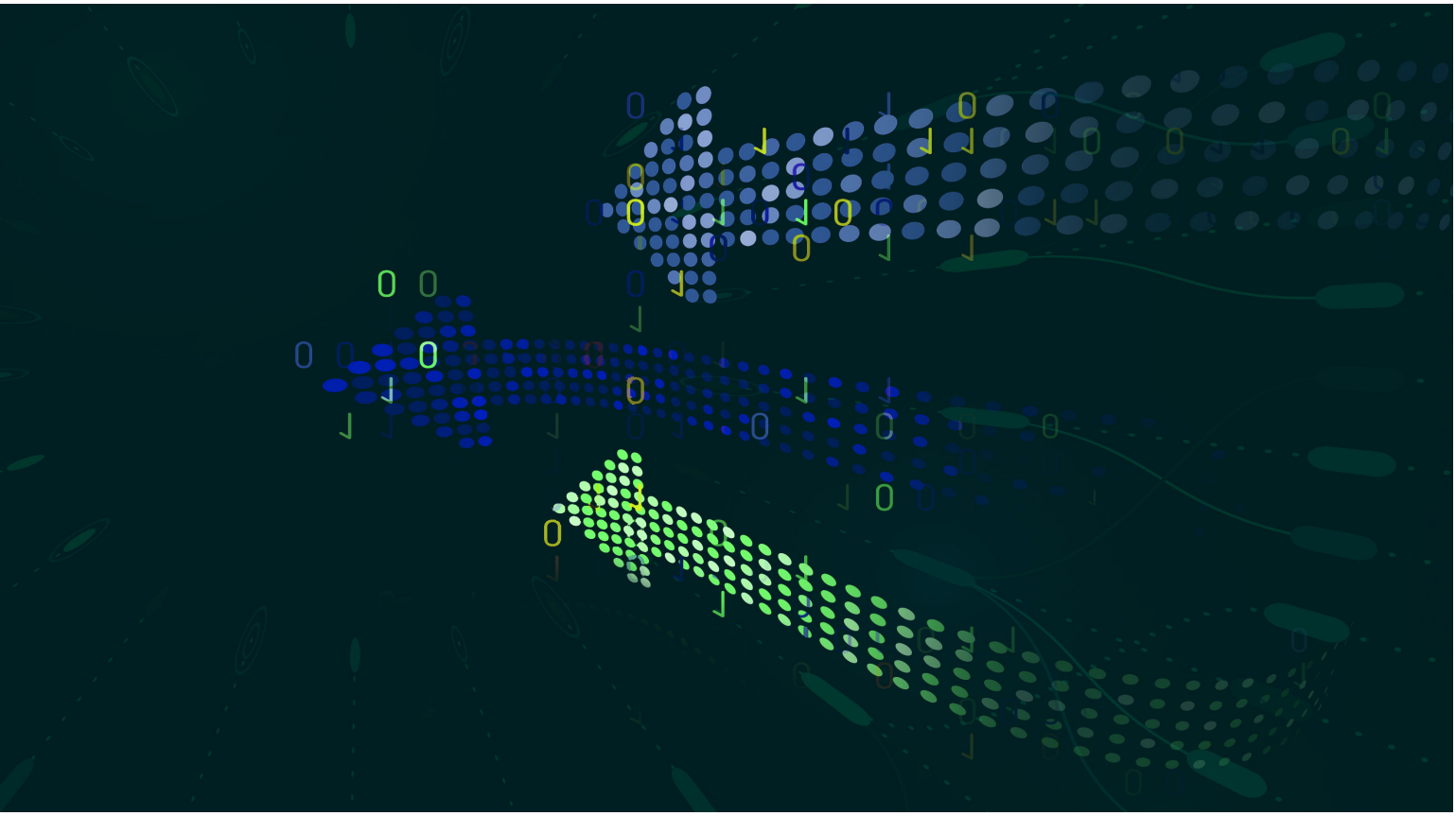
Discipline is often what sets top performers apart. Governance necessitates—above all else—an adherence to discipline to integrate the data across people, processes, and technologies.

A data governance model should unite and align the broader organization's data management and governance practices with the strategies set forth by the chief data officer and/or chief information security officer. **It cannot be overstated how critically important this is for the success of anything done from a data perspective.**

The efforts to be undertaken at this step differ when you have a data governance program defined and need to extend it to the reinsurance domain versus not having a fit-for-use data governance program in place.

Why data governance is important

Data governance helps in the organization and implementation of policies, procedures, structure, roles, and responsibilities, which outline and are designed to enforce (1) the rules of engagement, (2) decision rights, and (3) accountabilities for the effective management of enterprise data.



STEP 5

Focus on data enhancement and continuous improvement

Defining the standards and metrics for measuring data quality are deemed critical components of an enterprise data management program. From a transformation and regulatory perspective, the quality of your organization's data is considered paramount.

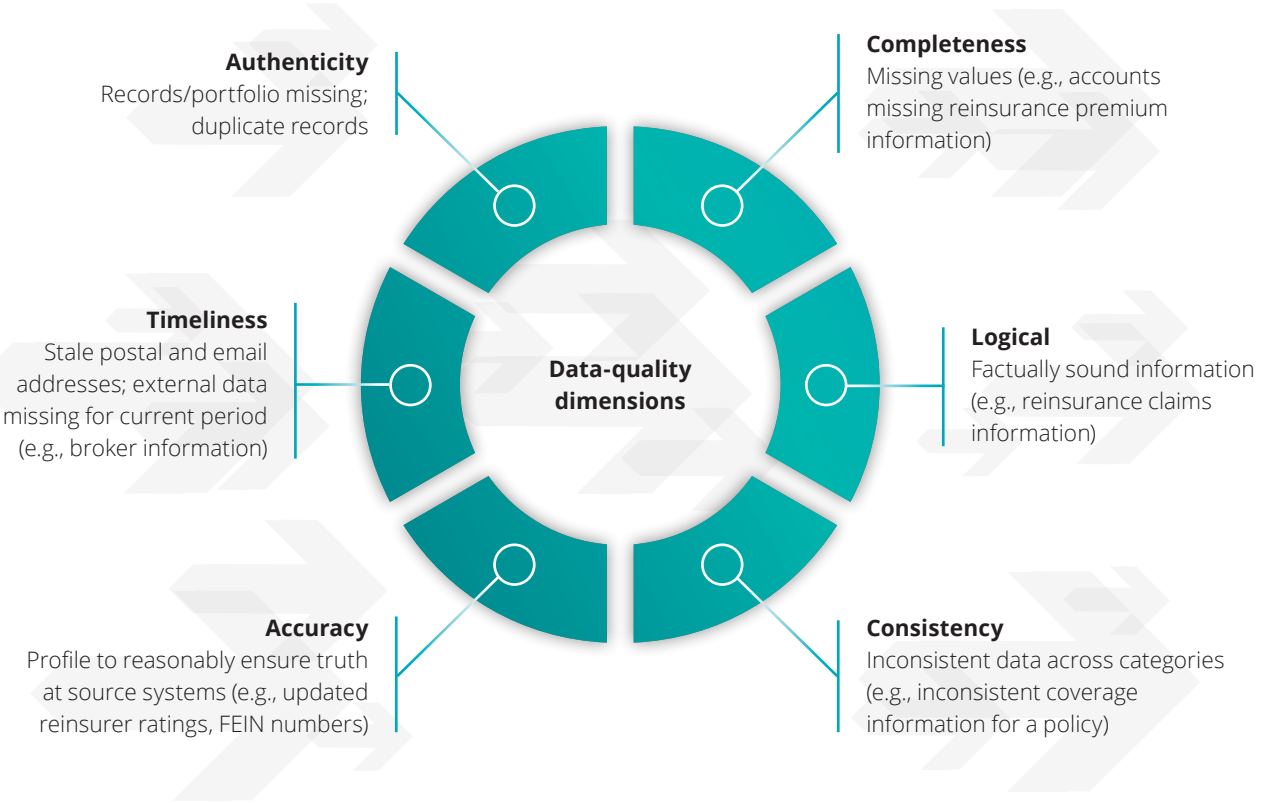
Data quality standards and metrics should be applied to all key data domains and elements. However, keep in mind that standards and metrics can and should vary by domain, element, age of data, or other factors.

Rinse and repeat

Data quality analysis will be ongoing, especially as the organization incorporates historical data elements that were manually managed using spreadsheets or from disparate systems. There will be data inconsistencies and duplications that will limit the ability to leverage historical analytics and complicate reporting.

How to identify data-quality dimensions

Once the gaps and inconsistencies are identified, process changes designed to improve the data in support of your organization's strategic objectives can be put into action. Below is an example of dimensions to evaluate and measure data quality:



How to identify authentic data

To evaluate and measure "authenticity," focus on these data quality dimensions:

- Simplify the specification and measurement of data quality.
- Help establish minimum thresholds for meeting business expectations.
- Enable data governance to define levels of maturity.
- Organize data quality effort around consistent dimensions.

Solving data challenges to improve data quality

Data profiling is a process to identify potential data quality issues (like inconsistencies) and develop solutions for remediation. Here's how a reinsurance team might use data profiling:

1. Identify domains or data sources to be evaluated.
2. Select profiling tools that can execute within the IT stack, such as an enterprise-level tool or an extract, transform, and load solution to perform the analysis.
3. Execute key profiling techniques to identify potential data quality issues:
    a. Blanks, nulls, and missing values: Aids in identification of potential missing critical data that can impact downstream processing or reporting
    b. Distinct counts: Identifies potential duplication or where natural keys are occurring; may identify unnormalized data (e.g., single policy has different insured names across tables as John Doe, John C. Doe, Johnathan Doe, etc.)
    c. Field length comparison: Identifies potential bad data by identifying where populated data is not in line with the expectation or the average data input (e.g., 2% of policy numbers return less than 8-digit standard)
    d. Patterns: Seeks that fields are formatted properly and identifies where irregularities occur (e.g., expected insured address format #### XXXXXXX XXX but profiling returns special characters or missing street #s)
    e. Data relationship: Identifies relationship between data tables and even sources to ensure referential data integrity
4. Evaluate the results: Often returned in count and percentages form, this helps identify areas to deep dive for further analysis. Note: Irregularities do not necessarily point to an issue but rather highlight areas where they are likely to occur.
5. Build a remediation plan: Different methods may be chosen depending on the nature of the issues. Formatting/pattern issues are often easily resolved, whereas missing critical data may require further analysis from unstructured formats to populate.
6. Build ongoing monitoring and controls: Develop a regular cadence to review and make any necessary updates.

STEP 6

Identify reinsurance technologies and tools

Supporting the reinsurance business typically requires a combination of tools, technology, and talent. But this should be considered only after advancements and enhancements are made to the broader data infrastructure.

Developing the roadmap

There are a number of ways for an organization to connect and store its reinsurance data. The data will be designed to meet the organization's goals, strategy, and business model, but it does involve some basic, universal steps:

- **Outline** the target architecture and core components of the reinsurance data program.
- **Identify** key technology choices (including options to optimize the use of existing systems with integrations and additional investment), and understand whether a vendor package reinsurance administration system or a financial data warehouse would create a significant lift for data capability. (See "Jump-starting your reinsurance journey: Selecting and implementing a reinsurance administration system" for additional information on vendor packages.)*
- **Enhance** the data and system capabilities by leveraging industry-leading practices and use cases wherever possible.
- **Refine** the roadmap by aggregating all the key initiatives across the data and analytics strategy, IT architecture, and operating model opportunities.
- **Deliver** initiatives to operationalize the future-state operating model, starting with quick wins designed to demonstrate value and build momentum.

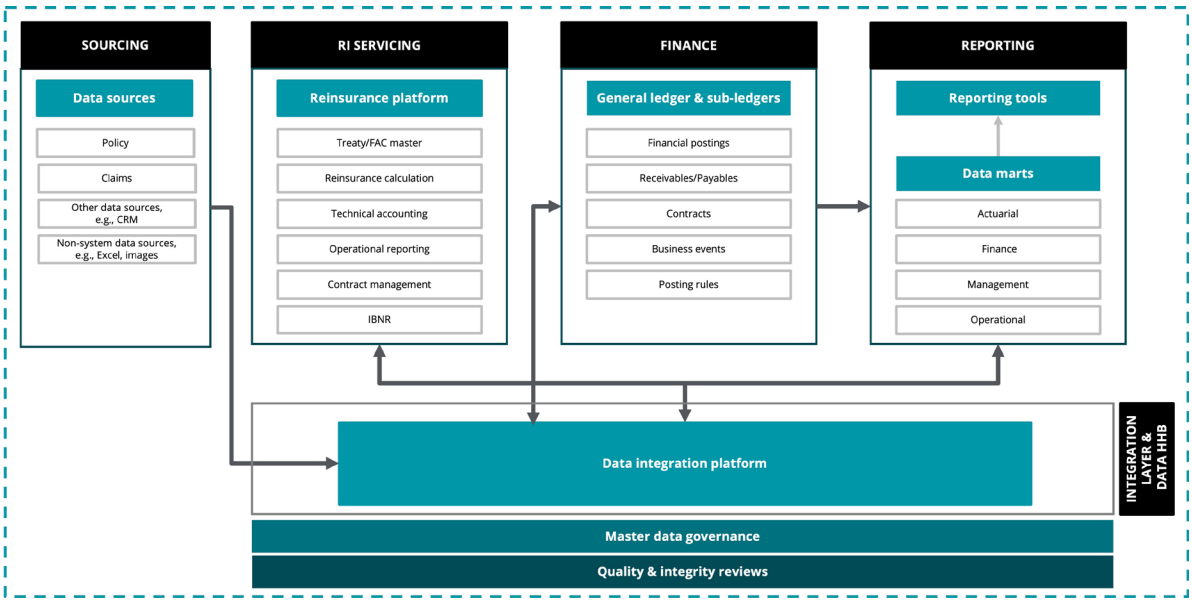
Build, refine, and improve

To create incremental value, the data transformation journey should be iterative. If the scope is increased too fast or without proper resource allocation, it will be extremely difficult to achieve the stated goals.

Each step of the process should be strategically mapped based on the resources available. Take time to reflect on the wins, identify weaknesses, and develop plans to pivot if needed.

Designing the data architecture

Once the team identifies the appropriate target design, then it can begin executing on the road map. Each company's target architecture will be different. The design below is meant to serve as an example of how an organization might structure its reinsurance data architecture.



* https://www2.deloitte.com/us/en/pages/financial-advisory/articles/reinsurance-program-modernization.html

It's never too late to embark on the journey

Data is a powerful asset that should be leveraged to its full potential. Today's tools and technologies will help bolster an organization's reinsurance data management program, but its success and longevity require a strategic plan to guide and support it.

The reinsurance market will only continue to evolve and those who capture the insights from data can translate it into a pricing advantage. Powered by advanced technologies that support a faster response to market swings and shifts, reinsurers that make an investment in data management today may see significant benefits and drive profitable growth in the future.

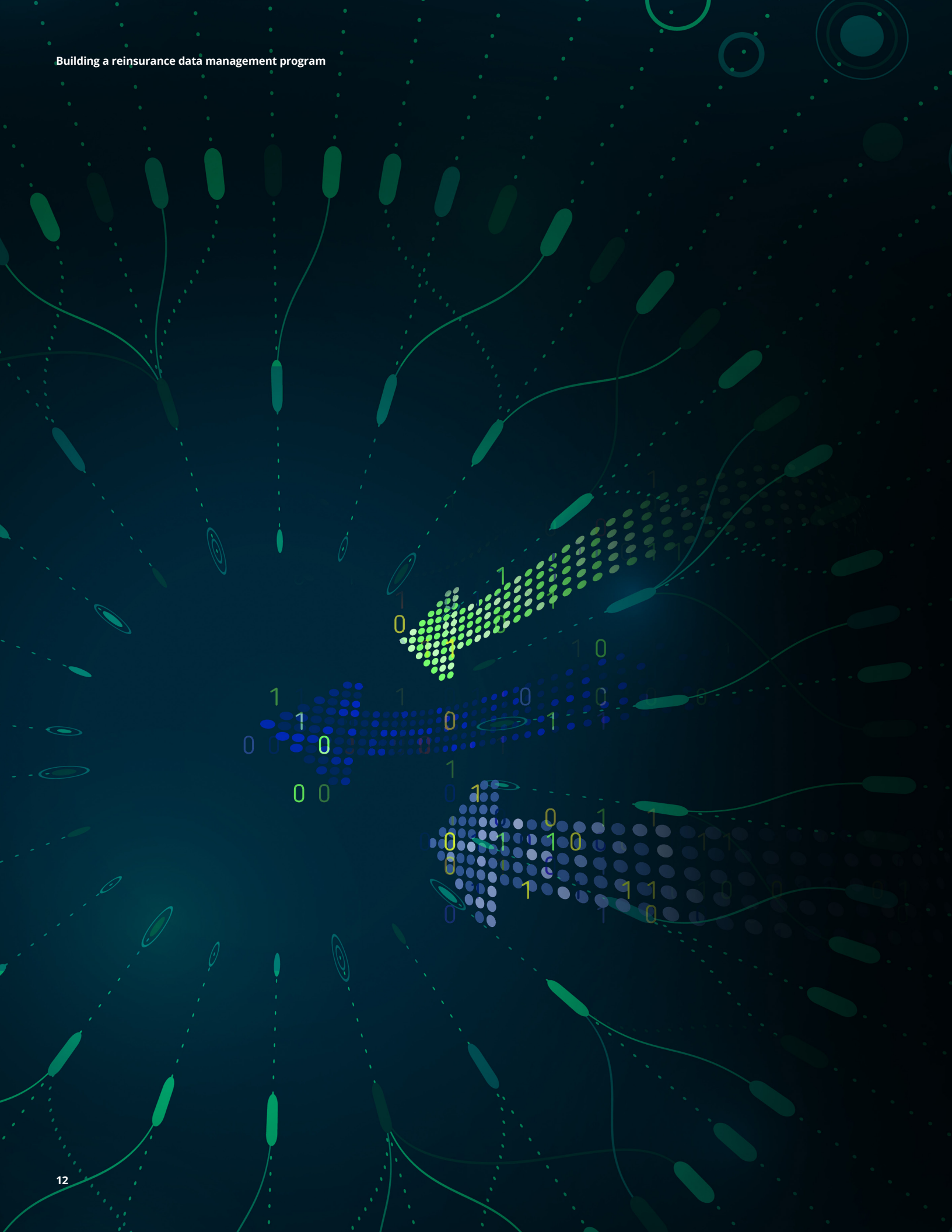
How Deloitte can help

Turning reinsurance data into a business asset requires a solid strategy that can be continuously improved.

Deloitte's reinsurance services bring together reinsurance, analytics, data, and finance to power business intelligence. We work with organizations at any juncture in the data transformation journey.

Whether your organization is just getting started or needs to refine an existing reinsurance data program, Deloitte will work with you to:

- Understand your organization's target state.
- Provide a current-state assessment.
- Identify gaps for areas of improvement.
- Infuse our knowledge of industry-leading practices from our work with insurers, reinsurers, brokers, and technology providers.
- Assist in putting an actionable and strategic reinsurance data project plan in place and work with you to architect and implement the solutions.



Get started

Jordan Kuperschmid
Principal
Deloitte & Touche LLP
jkuperschmid@deloitte.com
+1 973 602 5040

Wallace Nuttycombe
Principal
Deloitte & Touche LLP
wnuttycombe@deloitte.com
+1 973 602 6769

Jeffrey Mullen
Senior Manager
Deloitte & Touche LLP
jefmullen@deloitte.com
+1 973 602 5677

Ryan Potts
Senior Manager
Deloitte & Touche LLP
rypotts@deloitte.com
+1 212 436 6080

Jitu Tahiliani
Senior Manager
Deloitte Consulting (UK)
jtahiliani@deloitte.co.uk
+44 20 7303 3504

Rebecca Shimonov
Manager
Deloitte & Touche LLP
reshimonov@deloitte.com
+1 212 436 4099

Deloitte.