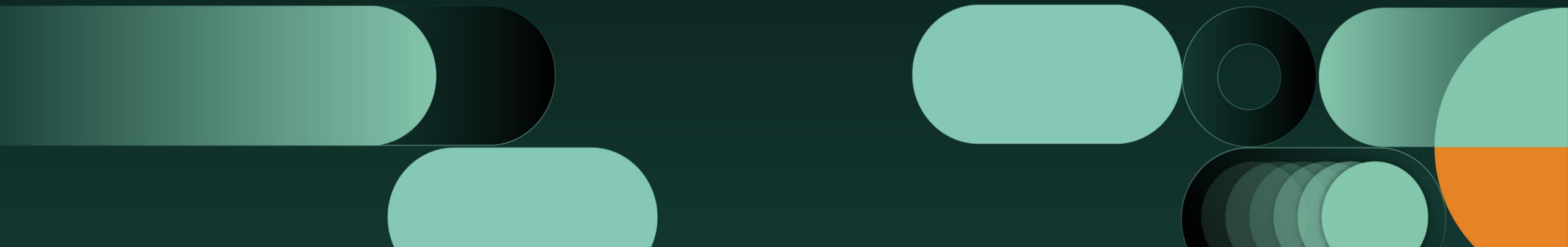


Performance Measurement Trends

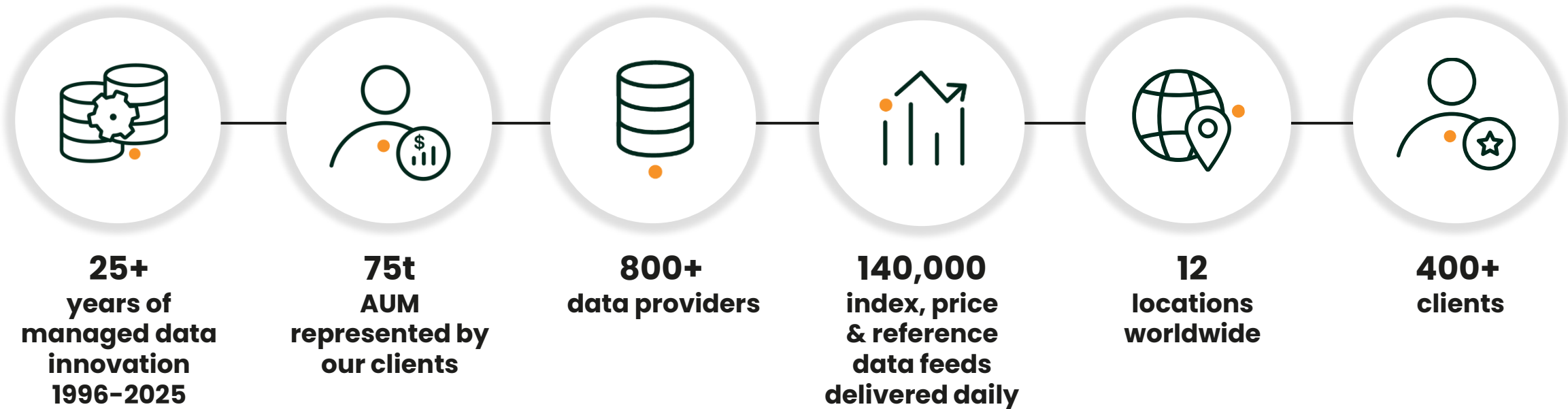
April 24, 2025

Data Quality and Monitoring



Rimes: an established leadership position in data

For more than 25 years, Rimes has been at the forefront of investment data management and expanded our scope to business solutions in recent years. We are continually innovating and finding new solutions on behalf of our clients

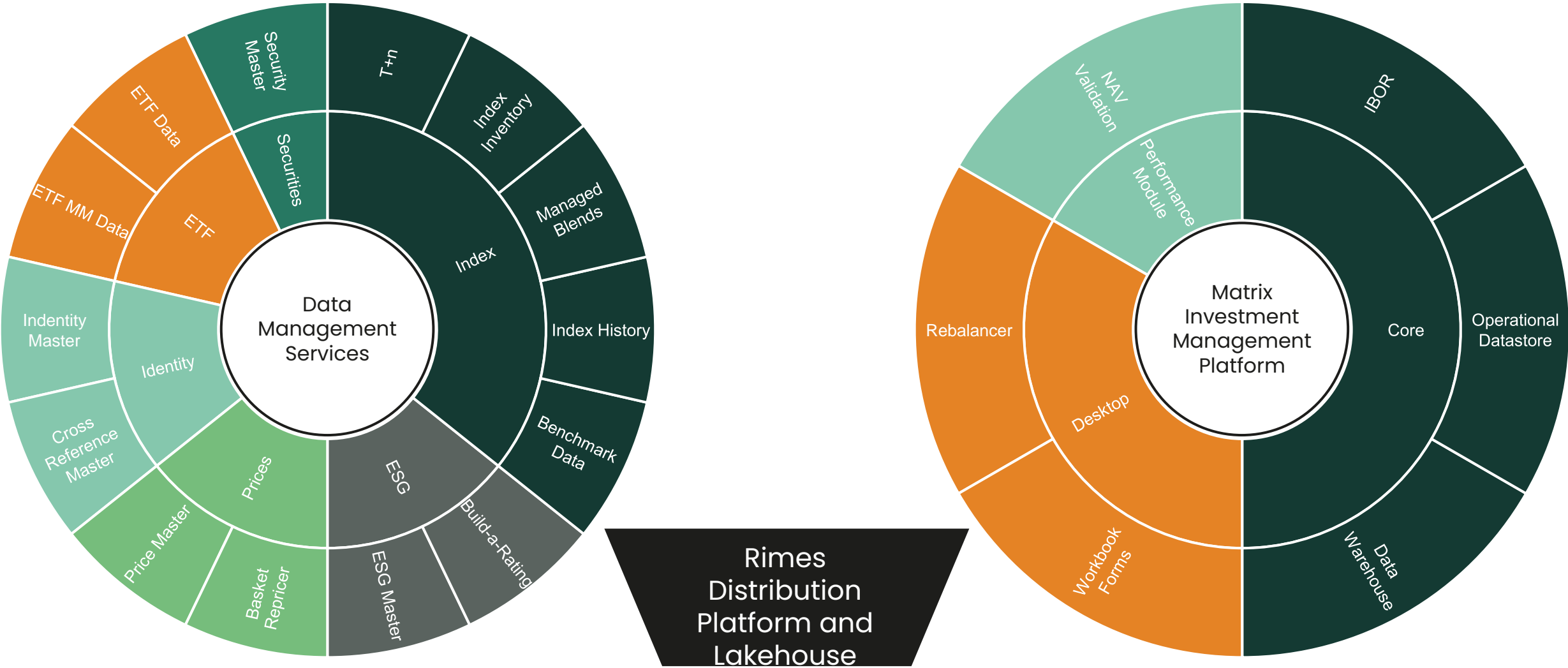


A global, blue-chip client base

We work with the world’s leading investors, asset managers and service providers, who represent more than \$75 trillion USD in AUM globally



Our enterprise data management solutions



Buy-Side Industry Trends

Having emerged from Covid-driven reprioritization of budget spends, firms are playing catch up on platform modernization

The growth of blended benchmarks as firms seek higher rates of return and innovative exposure analysis and performance markers is rising

The demand for private investment data sets and cohesive data management handling is climbing, especially in pension funds

Cohesive and transparent asset allocation and exposure analysis across public and private investments with funds of funds look throughs is sought after by operations, performance, risk, compliance and C-level

Firms are moving away from Excel and other non-corporately supported tools in favour of vendor platforms, agile cloud-based vetted data stores further upstream and to alleviate audit risk, reduce data inconsistencies and better support front office portfolio management

AI is looking for a role in buy-side tasks but none are emerging as front runners yet



Performance Trends & Issues

Analytics demands in general have accelerated in frequency and long gone are the good old days of semi-annual and quarterly reviews will suffice across the board

Performance measurement for private investments is in demand and achieving the same level of data quality and enriched data sets to publics is a challenge, as is agreement on suitable benchmarks for privates

Breadth of data sets and agility to plug n' play new indices and data universes is on the rise as the breadth of data universes covered by analytics professionals continues to explode

'What if' analytics is moving from security level to entire benchmark index and firms are using sandboxes and other non-golden source data copies to substitute indexes to see how performance appearance changes

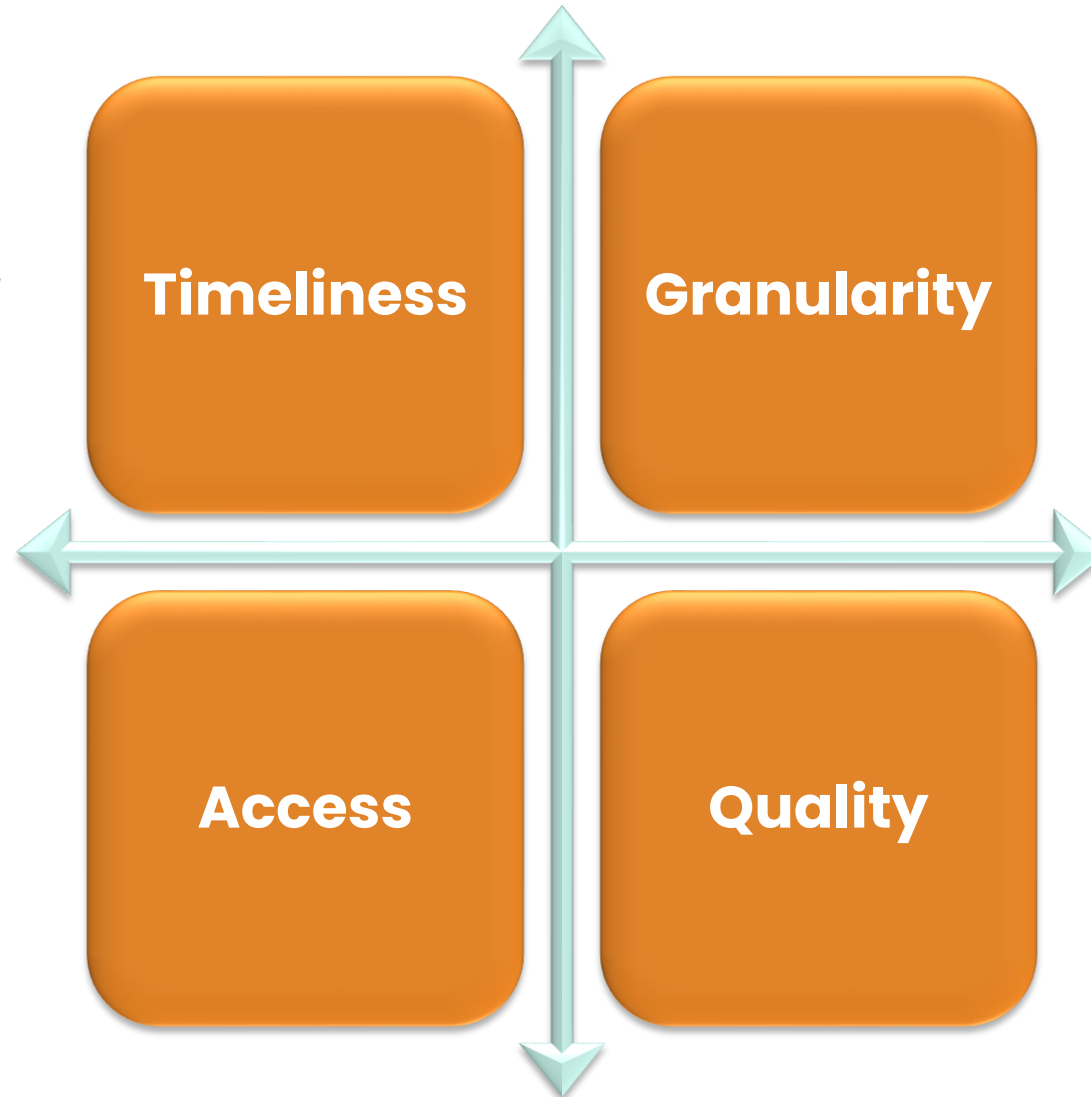
Silos of data and inconsistency in quality issues are not diminishing quickly enough across asset classes and depth of history to service more sophisticated performance demands



Performance Data Quality: Some Things *Don't* Change

The challenge of unsynchronized data/snapshots in time for sets of data in analysis is often unrecognized at the difficulties of creating that view

Plug n' play for data agility and accessibility to new data sources/ access to keep up with business growth such as ESG is a growing essential



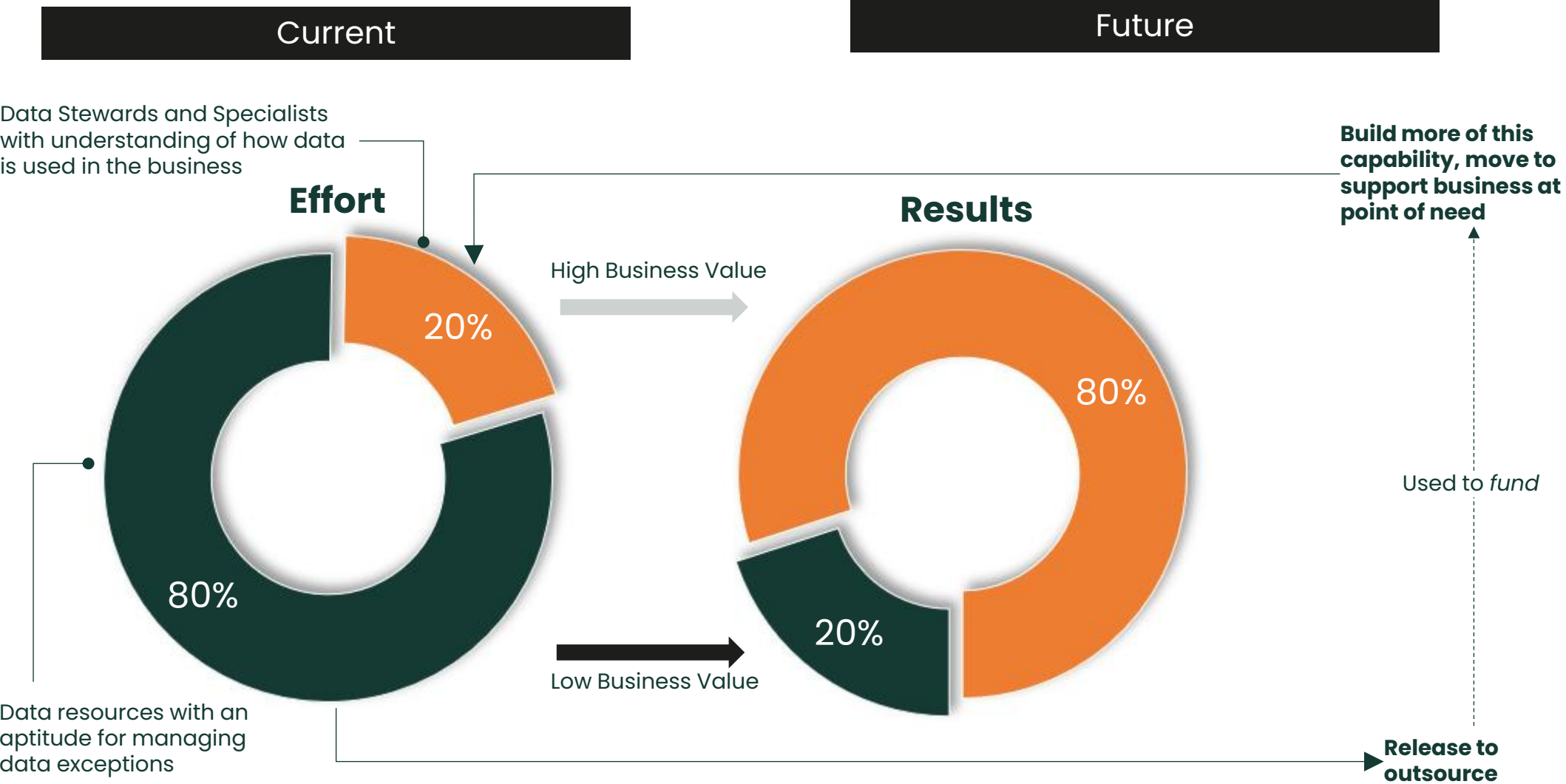
Enriched, detailed, consistent data sets are still elusive for some analysis, especially historical depth/ views, limiting some calculations

Comfort level in data quality is essential for performance for confidence in results, including history stores

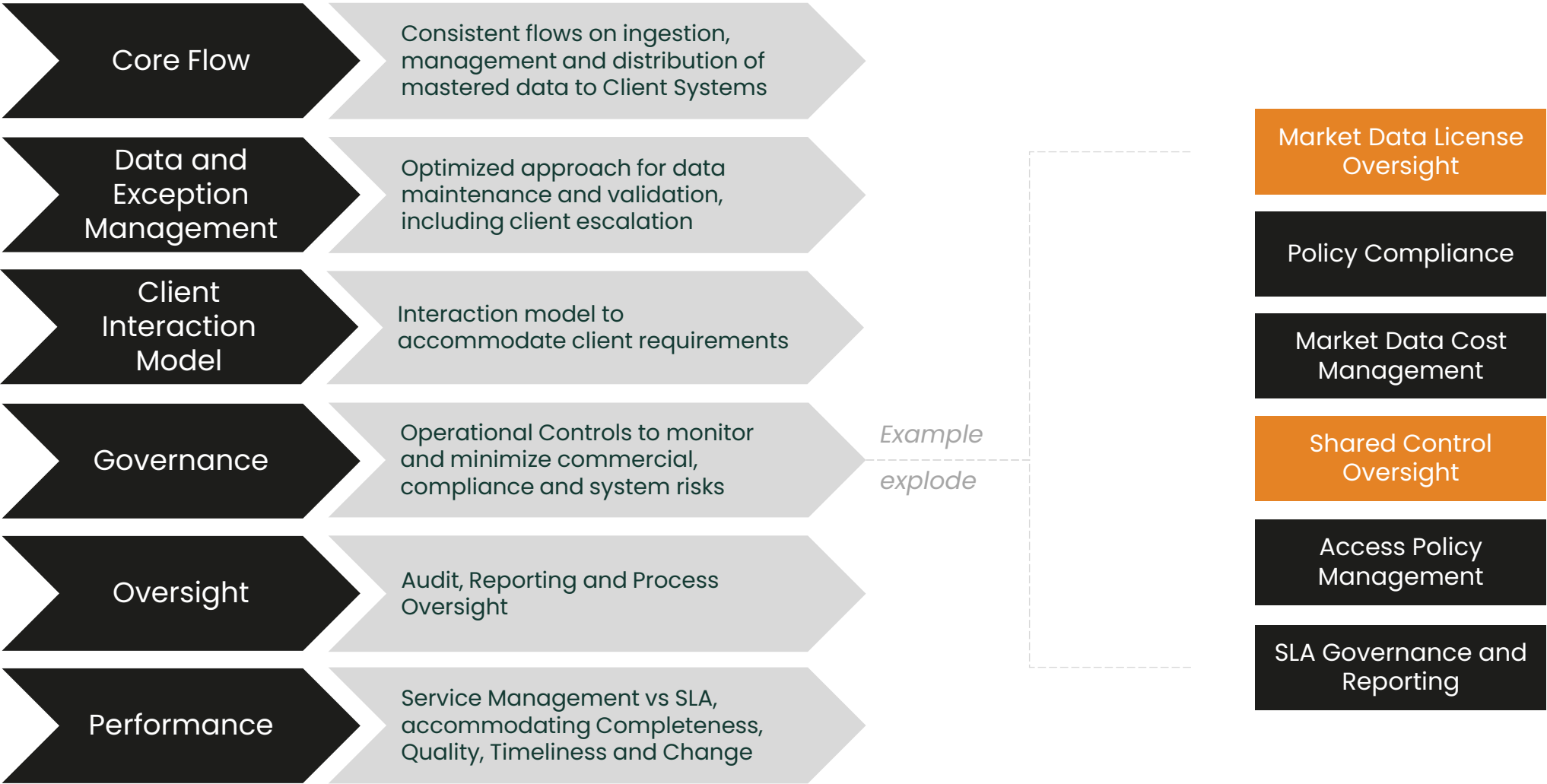
Three actions to improve performance data quality

- **Define for and by the business**
 - Affirm data as a key enterprise asset
 - Formalize business data management governance responsibility
 - I.T./data stewards are enablers to data environment, not owners
- **Invest in data governance and quality**
 - Invest in outsourcing or inhousing consolidated data cleansing and management expertise, including reference data history stores
 - Migrate business effort from looking for/validating the data to analyzing it
 - Focus on reference, pricing, transactional and derived data critical to running performance needs
- **Plan ahead for future data needs success**
 - Ensure new platforms and data stores represent granularity needed going forward
 - Plan for agility to support new data sources for ad hoc/on demand needs cost effectively
 - Build policies and governance for data quality tolerance standards to sustain initial effort

Getting approvals: Realizing value from data management



Sample: a standardized service across data domains



Granular Sample: Data Quality Validation Framework

Adding a validation

The following illustrates how a data point (an “item”) starts being defined in the catalogue and then has the option of being added into the validations, to provide full configuration across the data model.

RTVALIDATE											
#USER	RIMES-MDSMOC										
#MODE	DEFINE										
#CHECKS											
USER	SOURCE	ITEM	SCOPE	NAME	CHECK	EXPR	WHERE	FETCH	IMPACT	PRIORITY	DESC
RIMES-MDSMOC	MASTER	RSHORTNAME	SECURITY_COMMON	RSHORTNAME_AVAILABILITY	Exists	MASTER_RSHORTNAME			FAIL	HIGH	Report Short Name must be populated
RIMES-MDSMOC	MASTER	PRICE	PRICE_E_EXTENSIVE	CHANGE_10PCT	Calc	abs(MASTER_PRICE/FETCH_PREV_PRICE-1)<0.1	MASTER_PRICE==MASTER_PRICE and FETCH_PREV_PRICE==FETCH_PREV_PRICE	FETCH_PREV_PRICE=RMDSMC,(SYMBOL),PRICE,-1D,TRAIL	FAIL	HIGH	Day on day change breaks 10% tolerance

DATA POINT
The “item” that the validation is performed against

GROUPING
Allows validations to be **grouped** under a “scope” to allow easy configuration of what validations to run

OPTION TO PERFORM A CALCULATION
Custom **calculations** can be included within the validation. The calculation can include a comparison to other items

VALIDATION TYPE
Rimes has suite of validation types:
 EXISTS – will trigger a validation if the value is null
 CALC – will perform the calculation in the EXPR.
 CATALOG – checks value format against catalogue
 PATTERN – checks pattern (e.g. length of an item)
 SEDOL - checks if a valid SEDOL*
 ISIN – checks if a valid ISIN*
 CUSIP – checks if a valid CUSIP*
 ISOCTY – checks if a valid ISO Country*
 ISOMIC – checks if a valid ISO MIC*
**against the Rimes databases of valid values*

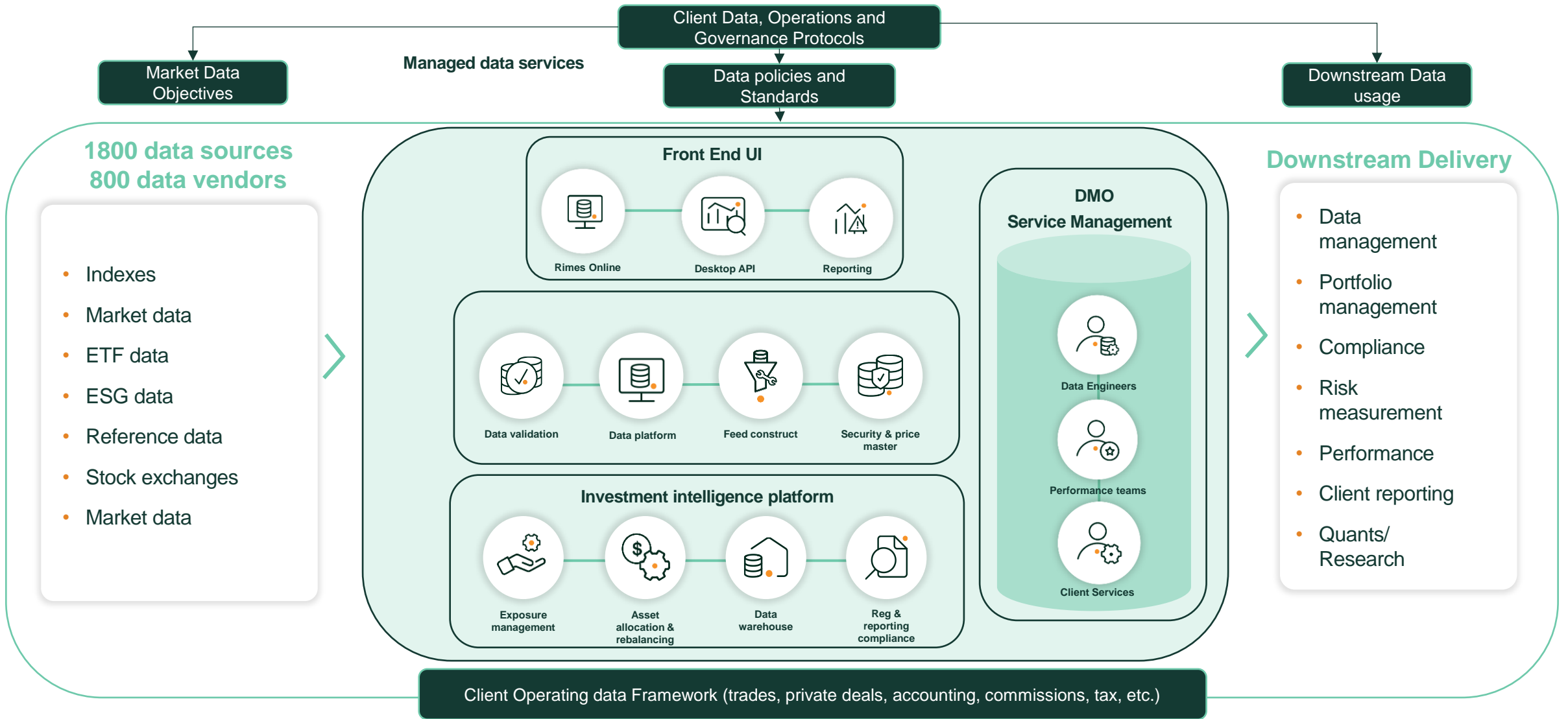
OPTION TO INCLUDE A WHERE CLAUSE
The validation can be limited to only run when the **where clause** criteria is met

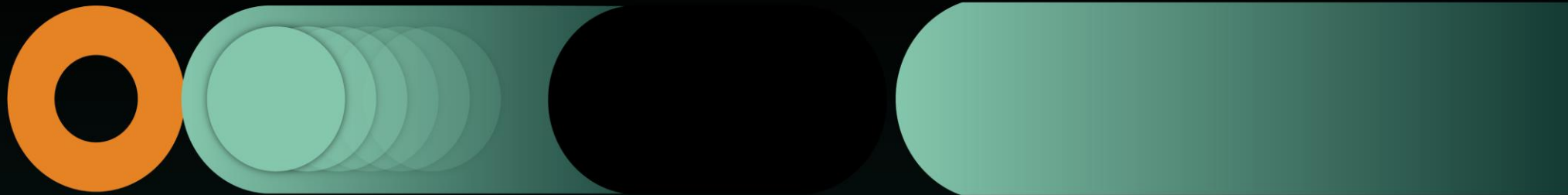
IMPACT and PRIORITY
Allows classification of validations into **client defined priority** and **impact** categories.

FRIENDLY DESCRIPTIONS
The validation description is visible in the **Exception Manager** dashboard + tickets and within **Reporting**. Wording completely configurable

Validations are called during the **mastering** process, and optionally during master record **creation** and **edit**

High-Level Buy-Side Data Environment





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The views and opinions expressed in this presentation are solely those of the presenter and do not necessarily reflect the official policy or position of Rimes Technologies Corporation

