2022 Data Strategy & Operating Models Survey

Participant Report &
Full results
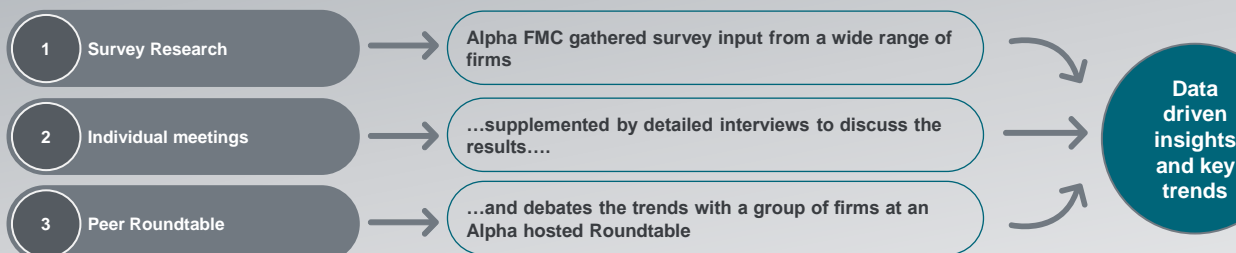
Survey approach and overview

Our data operating models research measures how far asset managers have come on the journey to establish foundations for data; cloud and the tools to leverage data and provide users across the business with advanced analytics to support decision making

Background

→ Other industry sectors are advancing using data; having invested in the maturity of their data operations and data innovation while the asset management industry has lagged behind on this journey

→ The costs of data are increasing and demand rising; market data, alternative data, data management and storage

→ Ownership of data within the organisation is still opaque and there is a lack of data skills and talent

→ The complexity of data is increasing, particularly with demand for new datasets including ESG

→ In the future, firms face opportunity cost resulting from lost revenues if they are not able to harness the power of data

Approach & Next Steps

1. **Survey Research** → Alpha FMC gathered survey input from a wide range of firms

2. **Individual meetings** → …supplemented by detailed interviews to discuss the results….

3. **Peer Roundtable** → …and debates the trends with a group of firms at an Alpha hosted Roundtable

→ **Data driven insights and key trends**

Structure of this Pack

1. Research intro and demographics

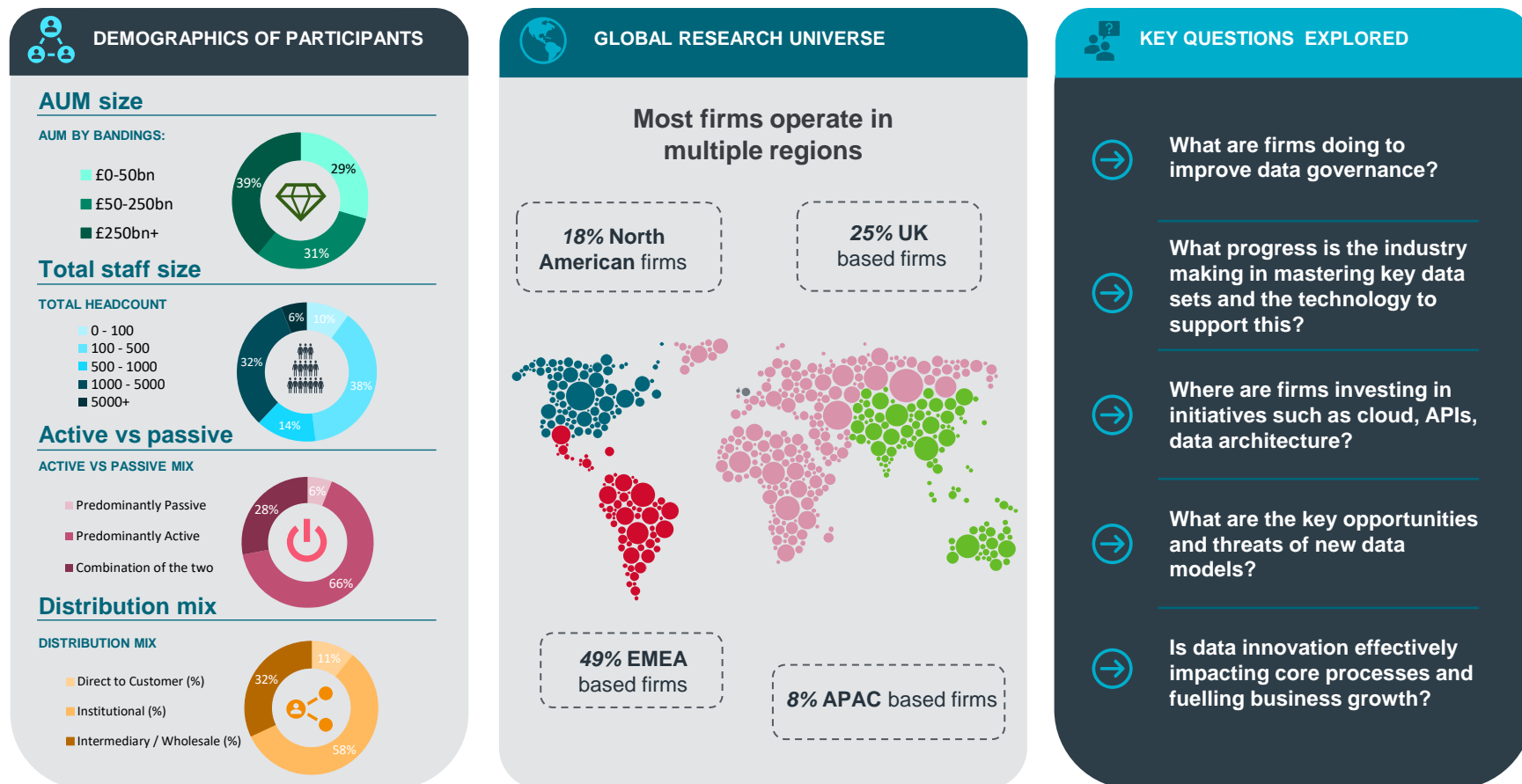2. Summary Findings and Key Insights

3. Detailed Findings (Analysis underpinning Summary Findings)

Research Objectives and Participant Demographics

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To understand the **maturity of data operating models** across the business our research addressed a broad range of topics through all aspects of investment management **across Investments, Distribution, Operations and Compliance**

Over 50 asset managers representing ~$15 trillion AUM

DEMOGRAPHICS OF PARTICIPANTS

AUM size

AUM BY BANDINGS:
- ■ £0-50bn
- ■ £50-250bn
- ■ £250bn+

29% / 39% / 31%

Total staff size

TOTAL HEADCOUNT
- 0 - 100
- 100 - 500
- 500 - 1000
- 1000 - 5000
- 5000+

6% / 10% / 38% / 14% / 32%

Active vs passive

ACTIVE VS PASSIVE MIX
- ■ Predominantly Passive
- ■ Predominantly Active
- ■ Combination of the two

6% / 28% / 66%

Distribution mix

DISTRIBUTION MIX
- ■ Direct to Customer (%)
- ■ Institutional (%)
- ■ Intermediary / Wholesale (%)

11% / 32% / 58%

GLOBAL RESEARCH UNIVERSE

Most firms operate in multiple regions

18% **North American** firms

25% **UK** based firms

49% **EMEA** based firms

8% **APAC** based firms

KEY QUESTIONS EXPLORED

→ **What are firms doing to improve data governance?**

→ **What progress is the industry making in mastering key data sets and the technology to support this?**

→ **Where are firms investing in initiatives such as cloud, APIs, data architecture?**

→ **What are the key opportunities and threats of new data models?**

→ **Is data innovation effectively impacting core processes and fuelling business growth?**

EXECUTIVE SUMMARY:

MARKET CONTEXT, KEY THEMES, DATA MATURITY

Alpha

What are the key themes from the Alpha Data Operating Model survey?

The topic of data is now a foundational topic within every function of an asset manager, with demand increasing rapidly and technology becoming increasingly sophisticated

Data Platforms

Investment is moving away from upgrading individual application upgrades to the build out of end-to-end data platforms

Data Aggregation

The challenge of data integration is proliferating, and firms are striving to move away from point-to-point integrations

Data Analytics

There is a growing demand for analytics across all teams – but firms are still struggling to build reliable, accurate data pipelines

Data Cloud

Focus remains on migrating to cloud infrastructure to improve data pipelines and native storage & compute capabilities

Data as a Service

There are a growing number and sophistication of outsourced data services and increased drive to 'self-serve'
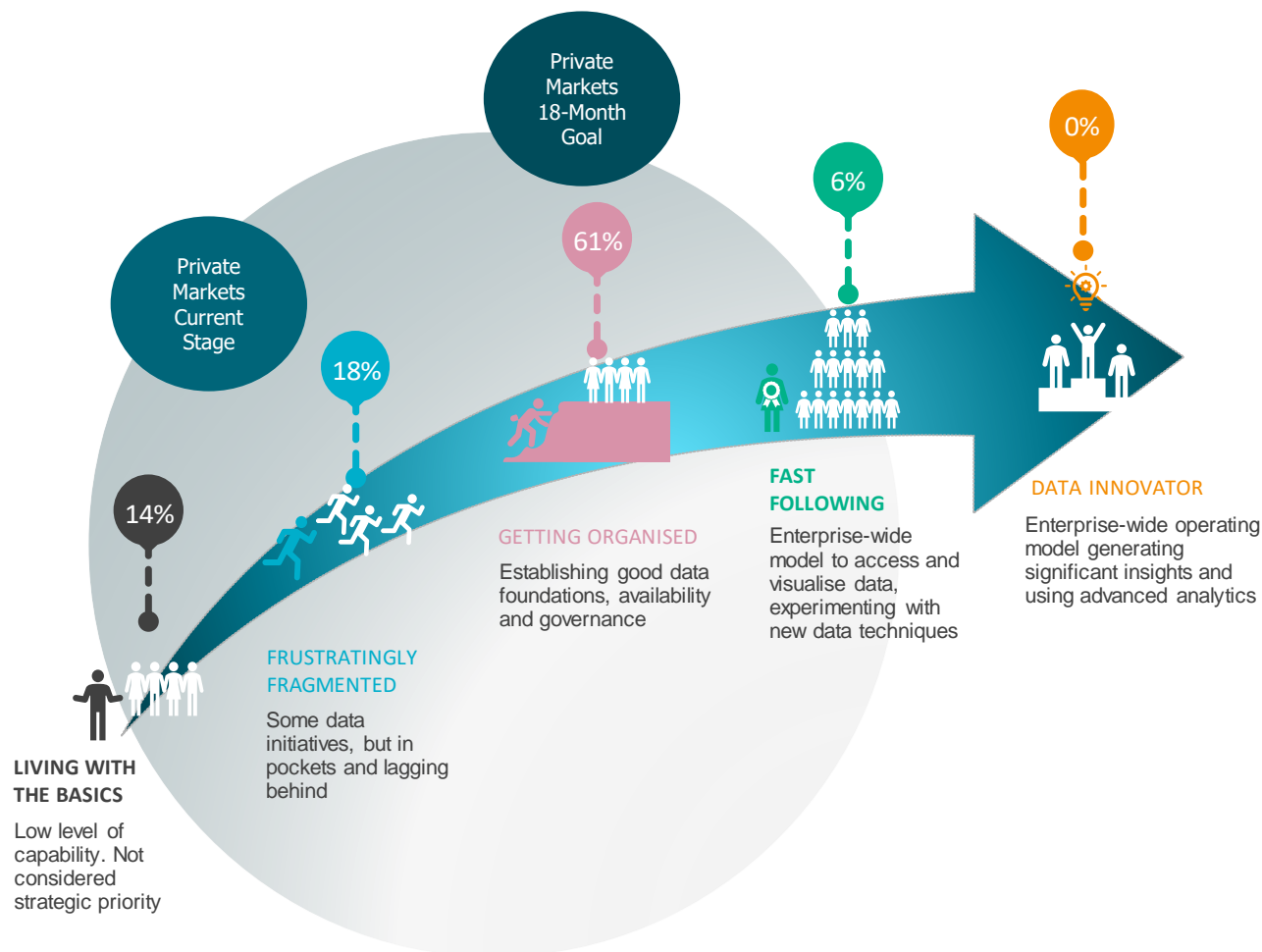
ESG & RI

Growing demands to integrate new datasets to support ESG & RI products are putting pressure on Data teams

Current levels of maturity still lag significant data ambitions

Whilst the industry **has increased levels of investment and focus**, we have yet to observe any firm **describing itself as a 'data innovator'**
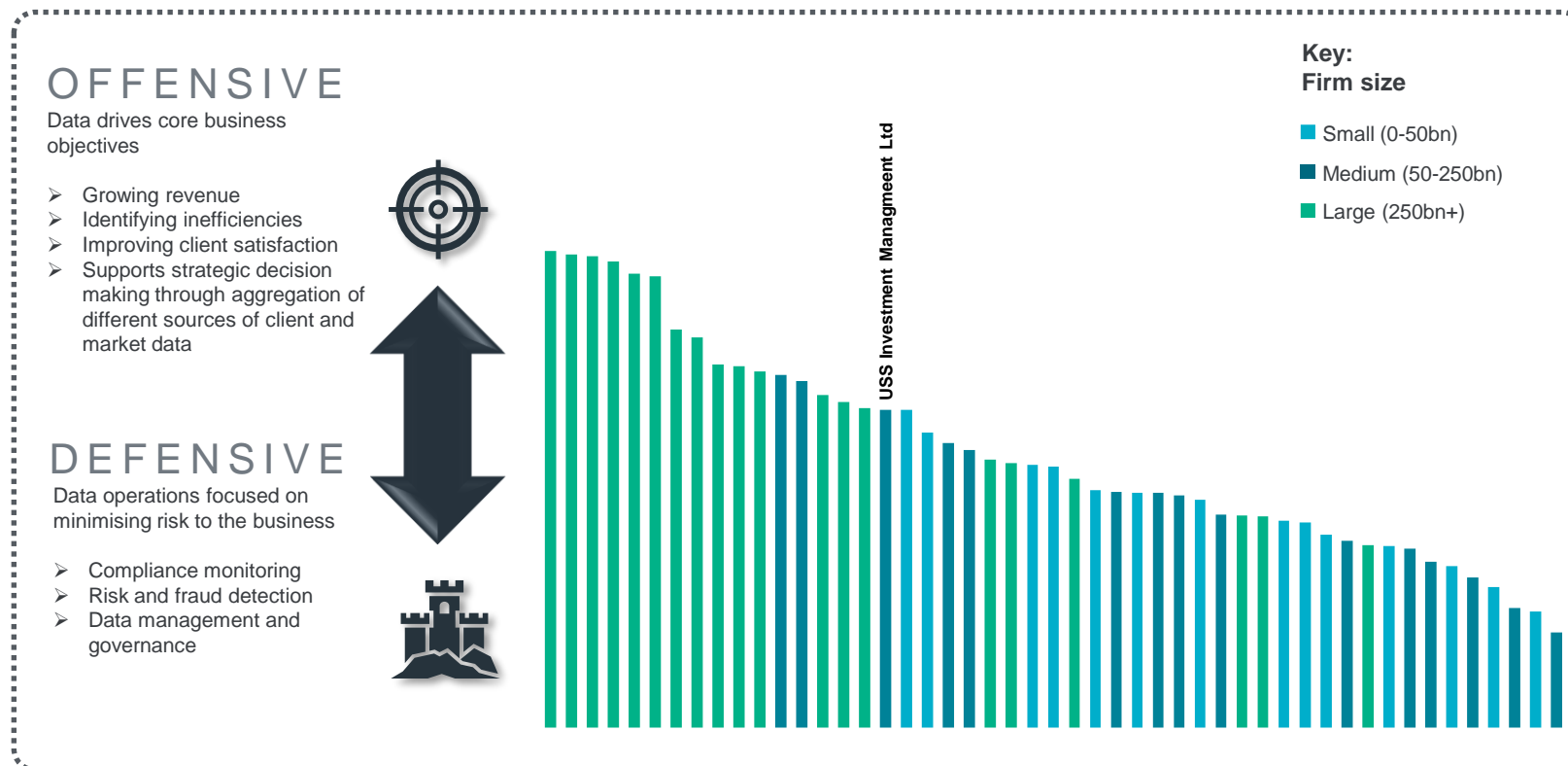

Private Markets 18-Month Goal

Private Markets Current Stage

0%

6%

61%

18%

14%

LIVING WITH THE BASICS

Low level of capability. Not considered strategic priority

FRUSTRATINGLY FRAGMENTED

Some data initiatives, but in pockets and lagging behind

GETTING ORGANISED

Establishing good data foundations, availability and governance

FAST FOLLOWING

Enterprise-wide model to access and visualise data, experimenting with new data techniques

DATA INNOVATOR

Enterprise-wide operating model generating significant insights and using advanced analytics

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Alpha's Data Strategy Index:
Where USS ranked compared to survey participant group

Against a **backdrop of market uncertainty**, the industry **is bracing itself with defensive investment strategies**. Our research indicates a **significant shift is taking place** as firms recognize that an **offensive data strategy is needed to capture growth in competitive times**

ALPHA'S DATA STRATEGY INDEX
Proprietary measure of data ambition

OFFENSIVE

Data drives core business objectives

➢ Growing revenue
➢ Identifying inefficiencies
➢ Improving client satisfaction
➢ Supports strategic decision making through aggregation of different sources of client and market data

DEFENSIVE

Data operations focused on minimising risk to the business

➢ Compliance monitoring
➢ Risk and fraud detection
➢ Data management and governance

USS Investment Managmeent Ltd

Key:
Firm size

■ Small (0-50bn)
■ Medium (50-250bn)
■ Large (250bn+)

Alpha's Data Strategy Index:
How firms are scored, ranked and modelled within the index

To better understand and contextualise the approach taken by the firms in our study, we scored how each firm's current activity and aspiration signifies their commitment to turning data into advanced intelligence

Topic	Example response
Data intelligence skills & culture	# Data Scientist FTEs (current and increasing)
	"It is our explicit goal for the whole organisation to operate with an analytics-focused mindset"
Data ambition	Use of portals, mobile apps to share data with clients
	High self-assessment of maturity e.g. "Fast Follower"
Client & Investments focused Analytics and AI capabilities	Use of dynamic/interactive dashboards in Distribution and Investments
	Experimentation with, and formal application of predictive/advanced analytics in Distribution and Investments
	Most promising use of AI identified in alpha generation, trading and client engagement/sentiment
Alternative Data and Advanced Analytics	Use of APIs, FTP to share data with clients
	Use of dynamic/interactive dashboards in Risk, Compliance, Performance & Operations
	Experimentation with advanced / predictive analytics and alternative data
Data skills	# Data engineers (current and increasing)
	Defined enterprise data model
Use of the Cloud	Majority of business applications are hosted in the cloud across multiple functions
Data Leadership & Governance	Benefits sought from data transformation: MI/Decision making insights, Increased revenue/AUM, Improved retention and reduced outflows, Competing against new entrants
	Senior Management concern about data governance and focused on integration
Foundational Data infrastructure	At least some use of public Cloud platforms such as AWS, Azure, also private cloud and established SaaS products (e.g. Salesforce)
Data integration and tooling	Use of data tooling such as Hadoop, MongoDB, Matlab, R, Python, Alteryx

Findings vs. Four Components of Data Transformation

Minds remain focused on the importance of **data as a cornerstone of the operating model**, and firms need data capabilities adapted to new ways of working (such as an increase in hybrid remote working). Firms are experimenting less, but spending much more on firm-wide data initiatives. **In 2022, integration comes out more clearly as firms' biggest data challenge**

1 — DATA GOVERNANCE

- **24% plan to hire a Chief Data Officer** and 22% of firms already have one

- **39% of firms** plan to implement an Enterprise Data Model, whilst **45% already have one**

- **38% of firms** say that data governance remains **siloed by function**

- 39% of firms plan to improve KPIs and **only 6% of firms are happy with KPIs today**

- **Data mastering remains a major issue** with the majority of firms having 'no', 'basic' or 'poorly disseminated' core data sets

2 — DATA CAPTURE & STORAGE

- **36% of firms** are still relying on **disparate** core applications with **legacy** point to point integrations and **fragmented analytics**

- **Market Data demand and costs continue to rise**, with some frustration from firms

- **Azure (55%) remains the preferred choice for public cloud provision** in our industry, followed by AWS (35%)

- The main problems firms face or expect to face when moving to the cloud are **the complexity and skills required as well as cyber security**

- **86% of firms** are finding that the ESG data available **does not cover all of their desired portfolios**

- Almost all firms are externally sourcing ESG data on **Proprietary vendor ESG scoring, Impact metrics, Governance metrics and Controversies**

3 — DATA TRANSFORMATION

- Firms are **struggling to integrate disparate datasets** and keep up with the amount of **new data requirements**

- **Investments is the only function to show meaningful usage** in advanced analytics and experimentation in AI

- AI is currently most commonly used for **Research and Quantitative strategies**, with roughly one third of firms doing so

- **Alternative dataset usage remains low** with social media/web being the only source used often

- Firms hope to see more **multi-source aggregation** and **normalisation** of ESG data

4 — DATA OUTPUT AND CHANGE

- **Mobile apps, portals and APIs** all rank highly in terms of spending this year

- **Generating insights** from data remains both the goal and the challenge

- **12%-30% of firms** plan to invest in **dynamic dashboards** (depending on function)

- **90% of firms are focussing on making data 'self-serve'** within the organisation, potentially as a result of increased remote working

- Firms which have dashboards in place receive lots of **business value** from them, implying that they are a **worthy investment**

- **35% of large firms** have an explicit goal to become an **analytics-focussed organisation**, whilst only 7% and 13% of small and medium firms do

⊙ Alpha

Survey Headline:
There is still disparity around where Data sits and who ultimately owns it

Giving responsibility of data sets to **those who regularly use and understand them allows for improved quality**, **integrity and timeliness of data** if the correct governance structure is employed. A central data management function (in place at two thirds of firms), should act as **a single party owning data strategy and governance** to help **avoid data silos and help drive enterprise wide value from data initiatives**

Data Responsibility

Centralised Data Management Function
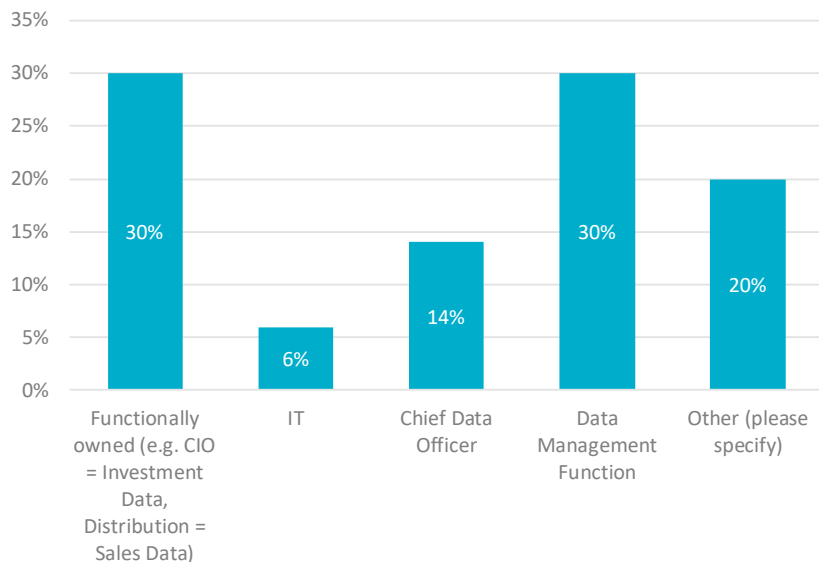
Q6.0 Who is responsible for data in your organisation?

Q9.0 Do you have a centralised data management function?

*Other includes: COO, CTO, Head of Data, A mix, No formal ownership

○ Alpha

Survey Headline:
Data aggregation continues to be a major challenge, blocking use cases

Whilst Technology teams are grappling with integrating disparate datasets, the business demands for **seamlessly integrated data are evolving and use cases are changing**. Ability to **self-serve data remains a top priority for many firms**, with integration of 3rd party datasets, data provisioning and enablement of cloud based managed services also becoming a high priority

Data Integration Challenges

Keeping up with the volume of new data requirements and datasets: TRUE 73%, FALSE 27%
Integrating disparate datasets: TRUE 82%, FALSE 18%
Issues with data quality and duplication of data: TRUE 59%, FALSE 41%
Speed of data availability / batch processing: TRUE 45%, FALSE 55%
Maintenance of legacy architecture and high volume of ETL jobs: TRUE 59%, FALSE 41%
Rising infrastructure costs: TRUE 18%, FALSE 82%
Lack of common integration tooling or API use: TRUE 55%, FALSE 45%

■ TRUE ■ FALSE

Use Cases for Data Integration

	Priority 1	Priority 2	Priority 3
Creating a self-service data environment	24%	24%	42%
Data pipelines for Machine Learning platform(s) or analytics engine		5%	21%
Integrating 3rd party datasets	14%	24%	5%
More efficient data storage & warehousing	24%	5%	5%
Internal and external data provisioning (e.g. Client Reporting)	14%	19%	5%
Enabling cloud based managed services	19%	14%	16%
Event streaming / real time data availability			
Scaling current ETL processes	5%	10%	5%

Q29.0 What are the current challenges your firm faces when it comes to data integration?

Q30.0 What are your top 3 investment priorities in relation to data integration?

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Survey Headline:
Attitudes towards analytics are changing and investment is increasing

Attitudes towards **data and insight generation remain broadly the same** with firms 'starting small' or recognizing that the approach is inconsistent. There has been **an increase in firms using insights to drive strategic decisions across all or some functional business areas**

Attitude and Approach to Analytics	Using Analytical Methods to Generate Insights

It is our explicit goal for the whole organisation to operate with an analytics-focused mindset — 20%

We aim to employ analytic methods to specific problems and initiatives within the organisation — 45%

We do not have a consistent approach to analytics & data insights across the organisation — 35%

We leverage insights generated from data for strategic decisions across most / all funtional areas — 10%

We leverage insights created from data for strategic decisions in some functional areas — 62%

Insights generated from data do not regularly play into our decision making beyond the Investments process. — 28%
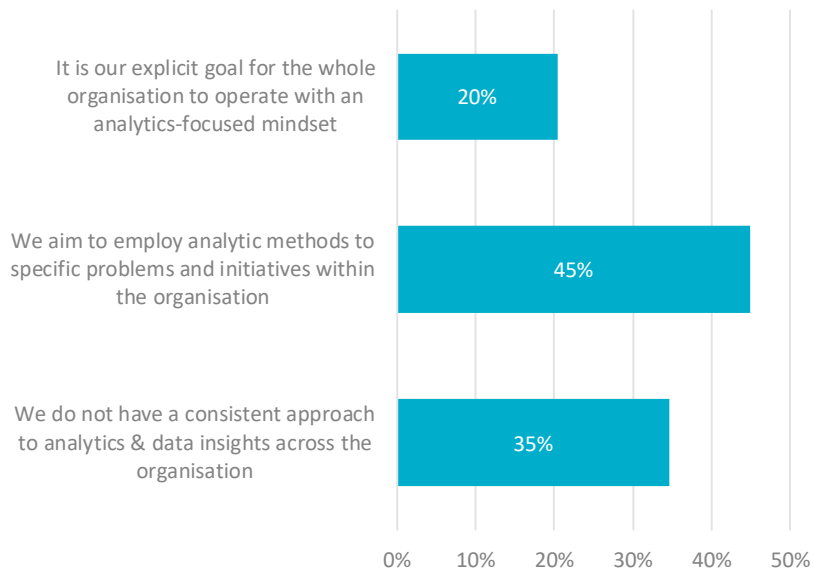
Q32.0 What is your organisation's attitude and approach to analytics / insight generation from data?
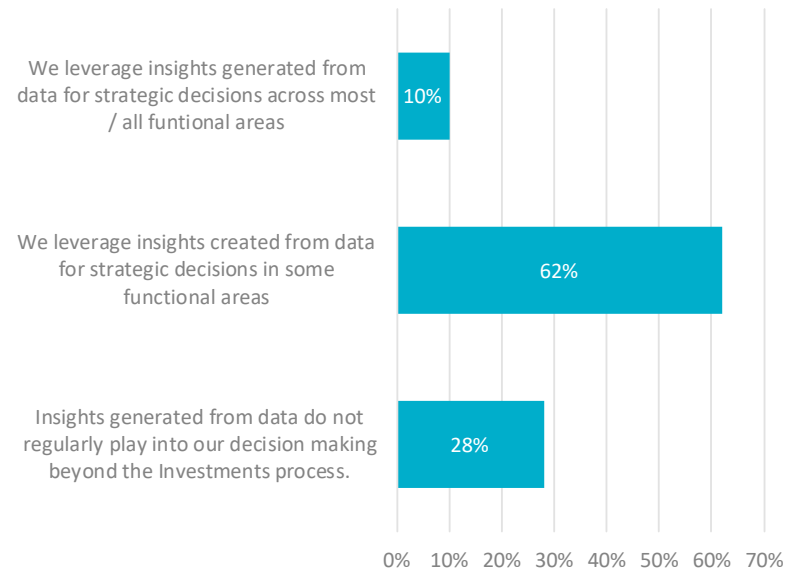
Q33.0 For functional areas other than Investments (Operations, Distribution, Compliance, Risk), which statement best describes your experience with generating insights from data through analytic methods?

DATA GOVERNANCE

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The CDO role drives the data and analytics agenda, establishing the operating model for data governance and data exploitation

Hiring a Chief Data Officer is not a top priority for firms who don't already have one. The CDO appointment is generally linked to the size of the asset manager and the scope of data responsibility in the central function. Where they do exist CDOs are hired predominately from Data Governance / Architecture backgrounds.

Chief Data Officer

Bar chart showing:
- No – we don't need one: 53%
- No – but we plan to hire one: 24%
- Yes: 22%
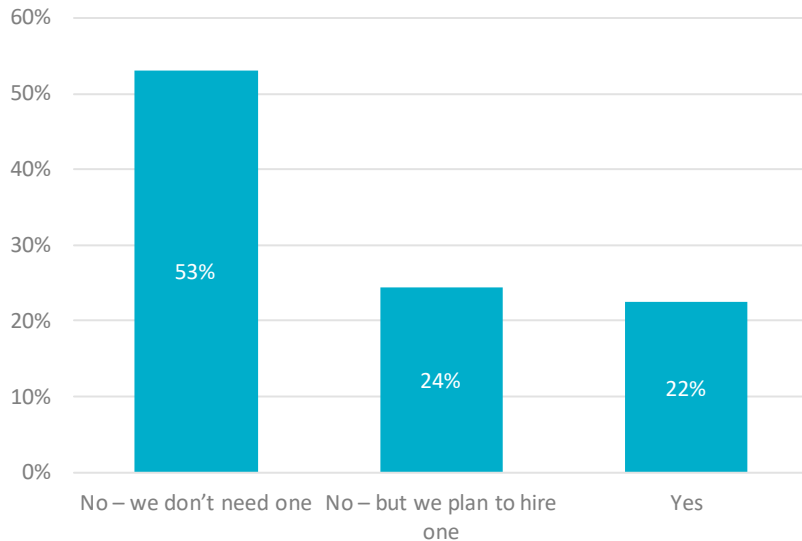
Q7.0 Does your organisation have a Chief Data Officer?

Centralised Data Management Function

Bar chart showing:
- Data Governance: 43%
- Data Architecture: 14%
- Data Science: (no value)
- Other (please specify): 43%

Q8.0 If yes, what is their background/focus:

Other includes: Change, IT, All or some of the options above

Alpha

Senior Management at nearly half of firms are very concerned about improving Data Governance. Some progress with EDM's

A full **conceptual EDM defines conceptual entities and the relationships between them**, adding a valuable layer of detail beyond that available in a domain/attribute model. **This better supports standardised, agile creation and consumption of data sources**

Attitude towards Data Governance

- Not really considered: 2%
- Somewhat focussed in more areas than others: 58%
- Very concerned about the topic across the business: 40%
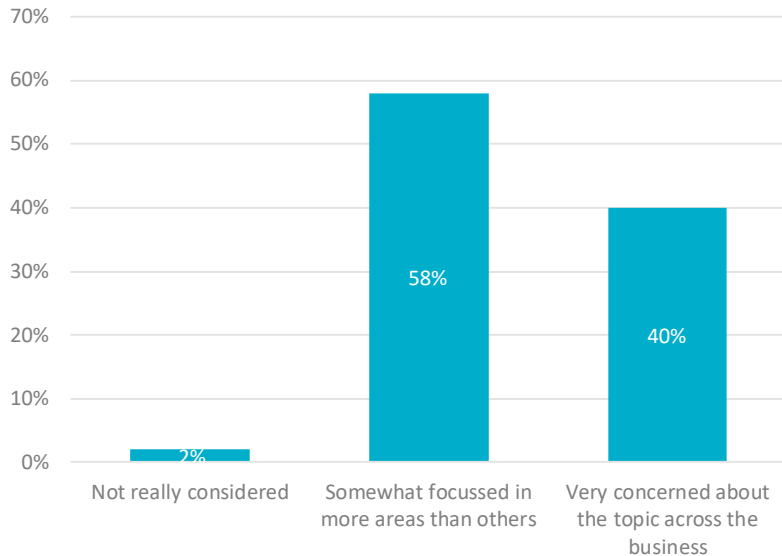
Q10.0 What is the Senior Management attitude towards Data Governance?

Enterprise Data Model

- No and we have no plans to: 16%
- No but we plan to: 39%
- Yes, as a conceptual model: 12%
- Yes, as a set of data domains with data attributes: 33%
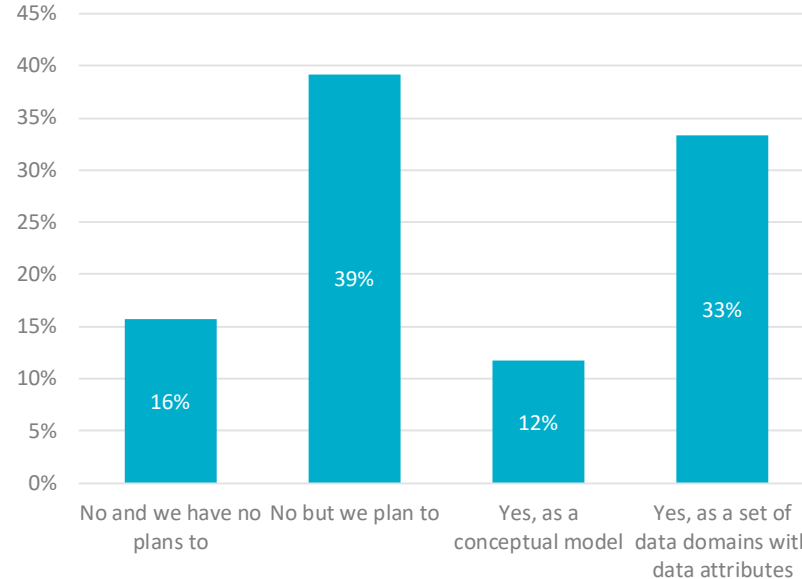
Q11.0 Has your organisation defined an Enterprise Data Model?

Alpha

Most firms lack a robust set of KPIs to manage and track their data quality, integrity and timeliness

Almost half of firms have only implemented limited data quality KPIs with a further 39% having none in place but plan to. As firms **AUM increases, use of KPIs to track data trends upward**, with the **largest firms advancing the furthest**

KPI Data Quality

- No and we have no plans to: 14%
- No but we plan to: 39%
- Yes, we currently have limited KPIs in place to measure Data Quality: 41%
- Yes, we currently have a robust set of KPIs in place to measure Data Quality: 6%

KPI Data Quality by size

	Small	Medium	Large
Yes, we currently have a robust set of KPIs in place to measure Data Quality		6%	10%
Yes, we currently have limited KPIs in place to measure Data Quality	33%	25%	60%
No but we plan to	40%	56%	25%
No and we have no plans to	27%	13%	5%

Q12.0 Have you implemented Data Quality KPIs across the business?

Firm size by AUM:
Small (0-50bn)
Medium (50-250bn)
Large (250bn+)

Large firms have 2-3x more data FTE than medium firms and there is no common operating model for roles and alignment

Although **data skillsets are present withing centralised data teams**, there is **no industry standard operating model**, with technical and data knowledge often spread across business functions. The **largest firms have the largest data teams**, partly due to the **increased volume and complexity of data as AUM increases**

Average Team size and alignment

Aligned to a central Data Team:
- Small: 0.8
- Medium: 4.0
- Large: 13.0

Elsewhere within the business:
- Small: 1.9
- Medium: 7.2
- Large: 14.4

■ Small ■ Medium ■ Large
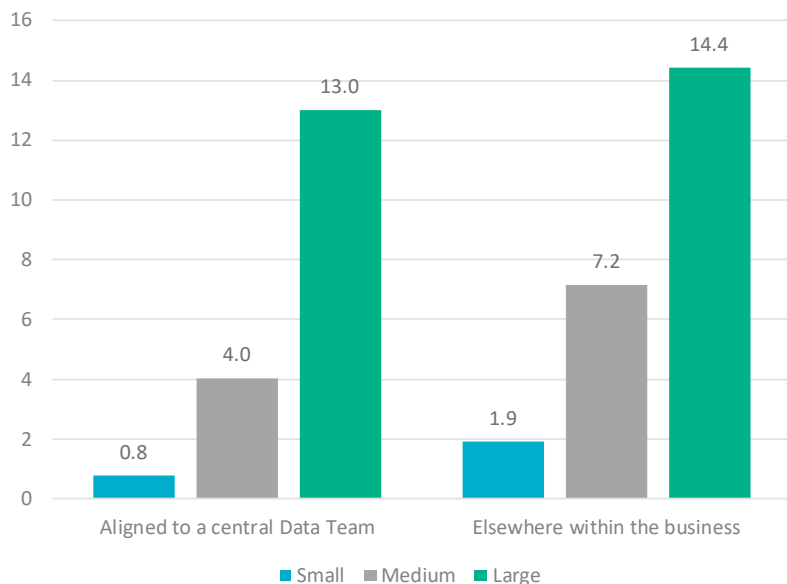
Average Number of FTEs with Specific Data Skills

Aligned to a central Data Team:
- Cloud / Data Architects: 3.8
- Data governance experts: 3.8
- Data science experts: 5.0
- Data engineers: 5.6
- Other: 8.3

Elsewhere within the business:
- Cloud / Data Architects: 2.8
- Data governance experts: 1.6
- Data science experts: 7.5
- Data engineers: 7.5
- Other: 15.0

■ Cloud / Data Architects ■ Data governance experts ■ Data science experts
■ Data engineers ■ Other
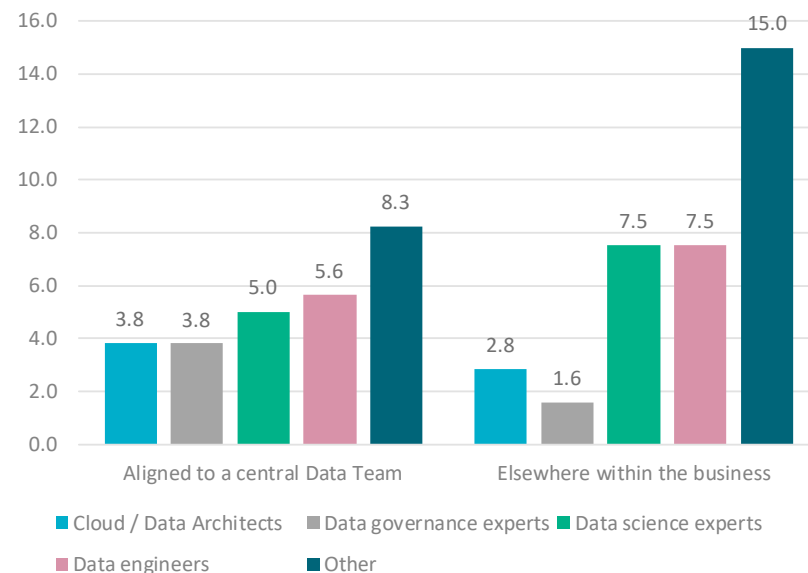
Q13.0 How many FTE approximately do you have with the following skills internally and elsewhere within the business?

Firm size by AUM:
Small (0-50bn)
Medium (50-250bn)
Large (250bn+)

*Other includes: Data Quality Experts, Data Managers, Data Analysts, Data Operations Experts, Investment Analysts

Alpha

Although budget constraints is the main hiring barrier, insufficient architecture and data skills shortages are increasing

For **almost half of firms, internal budget constraints are the primary barrier for data recruitment**. Less than **a third of firms are planning to hire data scientists** – possibly representing an **acceptance that more work needs to be done on the data foundations before prioritising data innovation**

Hiring Increases

	Yes	No
Cloud / Data Architects	35%	65%
Data governance experts	33%	67%
Data science experts	27%	73%
Data engineers	45%	55%

■ Yes ■ No
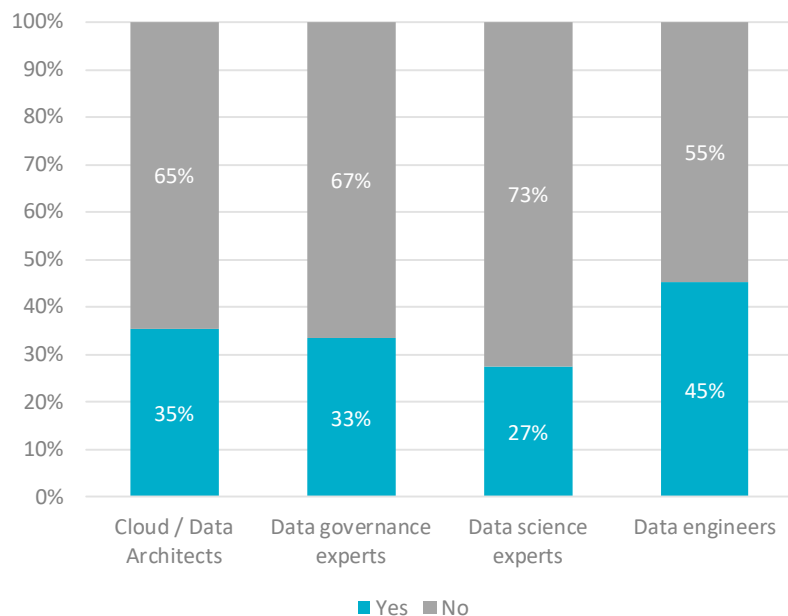
Q14.0 Will you be looking to increase the hiring of any of the following in the next 12 months?

Barriers to Hiring

Insufficient data architecture / technology to justify them	17%
Skills shortage in the market	15%
Budget constraints internally	46%
Other (please specify)	22%
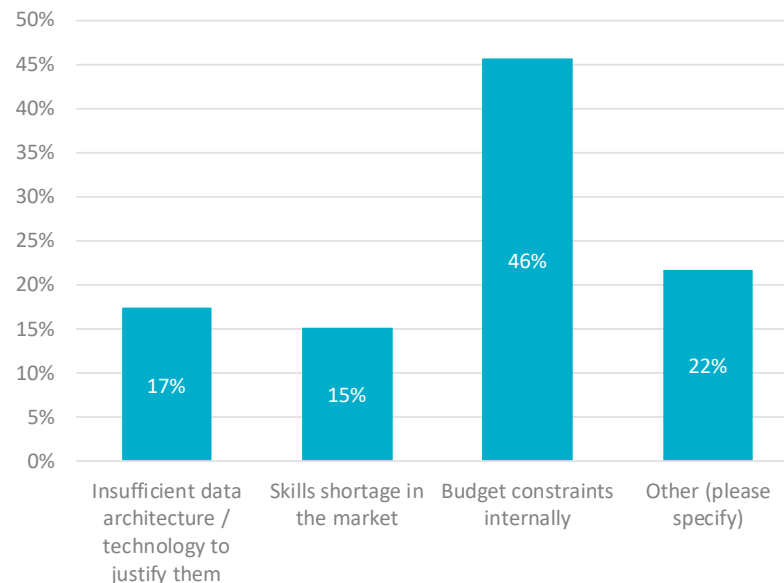
Q15.0 What is the primary barrier to hiring?

*Other includes: Lack of strategy, incomplete data framework, unspecified activities, too small to justify dedicated resource, lack of internal demand, All or some of the options above

DATA CAPTURE

Most firms have a centralized enterprise platform and traditional data warehouses, or still operate legacy, fragmented data architectures

A **small but notable** group of firms are going **further to embrace 'next generation' data strategies** built around federated architectures **with discrete domain ownership**

Enterprise Data Architecture

Architecture	Yes	No
Federated architecture with discrete domain ownership and platforms - e.g data mesh	14%	86%
Centralised Enterprise platform with data lake and consuming analytics tools	36%	64%
Centralised Enterprise platform with traditional data warehouse(s)	50%	50%
Disparate core applications with legacy point to point integrations and fragmented analytics	36%	64%

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

■ Yes ■ No

Q16.0 Which of the following best describes your organisation's current enterprise data architecture?

Except for exchange and terminal data, most firms are seeing increases in data demand and prices

Data to support research and analytics is a notable hotspot, with **a fifth of firms experiencing significantly higher demand from their organization**. General increased demand has been coupled with a proportional increase in the cost of data; Market data costs remain an area of frustration for many managers and the types of data needed (e.g. ESG/alt data) are expected to continue to grow

Change in Demand

	Significantly up (+20% or more)	Up (+10% to 20%)	Slightly up (+5% to 10%)	Fairly Flat (within 5% change)	Slightly down (-5% to 10%)
Terminal data	9%	7%	26%	52%	7%
Indices	11%	20%	37%	30%	2%
Pricing and Reference	11%	13%	33%	42%	
Research and Analytics	20%	27%	18%	33%	2%
Exchange	2% 2%	11%	75%		9%
Portfolio Analytics	9%	27%	34%	30%	
Other (ratings, compliance, news, other data feeds)	10%	25%	20%	43%	3%

Price Changes

	Significantly up (+20% or more)	Up (+10% to 20%)	Slightly up (+5% to 10%)	Fairly Flat (within 5% change)	Slightly down (-5% to 10%)
Terminal data	5%	10%	34%	44%	7%
Indices	14%	17%	43%	21%	2% 2%
Pricing and Reference	10%	10%	26%	48%	7%
Research and Analytics	15%	20%	22%	41%	2%
Exchange	5% 3%	10%	79%		3%
Portfolio Analytics	10%	23%	30%	38%	
Other (ratings, compliance, news, other data feeds)	15%	21%	23%	36%	5%

Legend:
- ■ Significantly up (+20% or more)
- ■ Up (+ 10% to 20%)
- ■ Slightly up (+ 5% to 10%)
- Fairly Flat (within 5% change)
- Slightly down (- 5% to 10%)
- ■ Down (- 10% to 20%)
- ■ Significantly down (-20% or more)

Q17.0 What is the organisation's demand for different types of data, and how is the price of data changing? (note ESG related data is included in multiple types: research, pricing, ratings, exchange etc)

Consumption of ESG data sets is based around the 'core data' necessary for ESG integration and regulatory reporting

Alpha

Most firms are sourcing data to support net-zero / climate and related commitments, whilst a **significant number are leveraging outsourced engagement services** which can help more **efficient coverage of** active ownership responsibilities

ESG Datasets

Dataset	Yes	No
Governance Metrics (e.g. board composition, voting)	82%	18%
Controversies (e.g. toxic waste spills, human rights violations, corruption)	77%	23%
Outsourced engagements with investee firms	32%	68%
Net-zero related (e.g. climate scenario analysis, temperate pathways)	59%	41%
Impact Metrics (e.g. GHG emissions, water, waste)	86%	14%
Proprietary Vendor ESG Scoring	91%	9%

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

■ Yes ■ No

Q18.0 What types of ESG data sets are you sourcing externally from vendors?

ESG data standardisation is needed: data aggregation and normalisation would be the most useful future development

ESG data needs to be used **across the organisation**, incorporated into the firm's operating model and aligned to the **enterprise data strategy**. At half of firms the central ESG team is ultimately responsible for ESG data. Whilst a **concentration of expertise in ESG data** can help to **'incubate' the capability it can also silo it** – leaving investment-aligned ESG teams to not only be experts in the data, but also responsible for its governance, quality management and in some cases processing

ESG Data Development

Legend: ■ Yes ■ No

ESG Data Responsibility
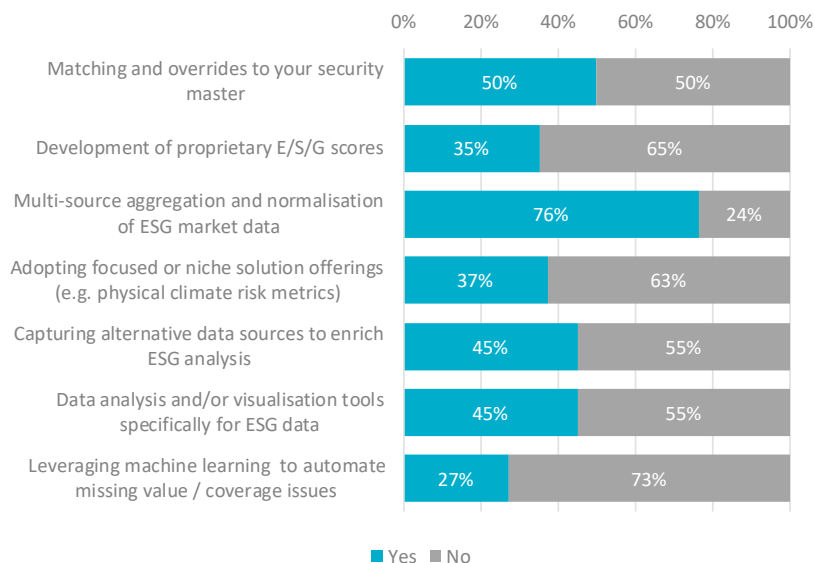
Q21.0 What potential development around ESG data would be most useful for your business?
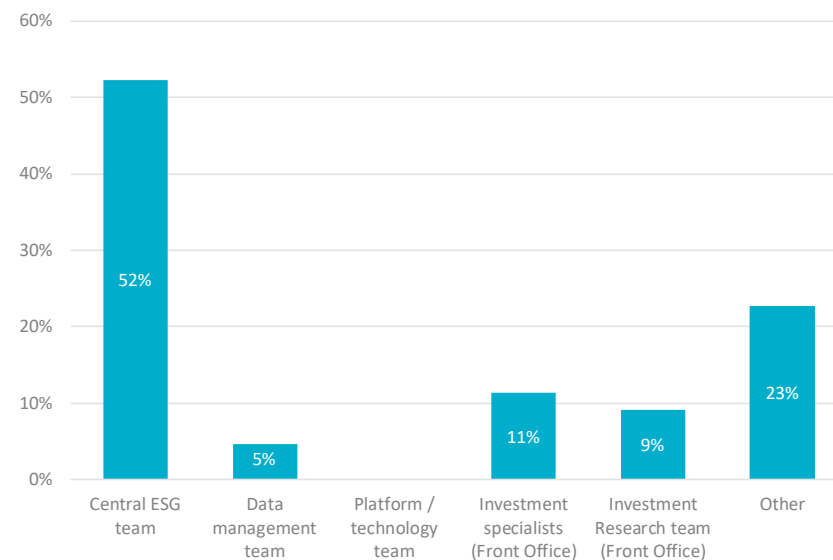
Q22.0 Who is ultimately responsible for ESG data in your organisation?

*Other includes: No defined team, Group ESG Committee, Research team, Sustainability team, Combination of teams

Alpha

Azure is the most popular public cloud platform and general progress has been made to host more business apps in the cloud

Public cloud platforms are in widespread use from straightforward 'infrastructure-as-a-service' for containerized applications and storage, through to platform-as-a-service offerings providing data transformation and analytics. **The number of applications hosted in the cloud has increased** – distribution continues to be a **standout function in terms of cloud adoption,** likely due to extensive Salesforce adoption

Public Cloud Platform

Category	Yes	No
AWS	35%	65%
Azure	55%	45%
Google Cloud Platform	8%	92%
We do not currently use a public cloud platform, but are planning to	8%	92%
We do not currently use a public cloud platform and are not planning to	10%	90%

■ Yes ■ No

Business Applications Hosted in the Cloud

Function	0-25%	25-50%	50-75%	75-100%
Risk	50%	14%	10%	26%
Compliance	55%	14%	7%	24%
Distribution	41%	21%	15%	23%
Investments	55%	10%	12%	24%
Operations	57%	7%	12%	24%

■ 0-25% ■ 25-50% ■ 50-75% ■ 75-100%
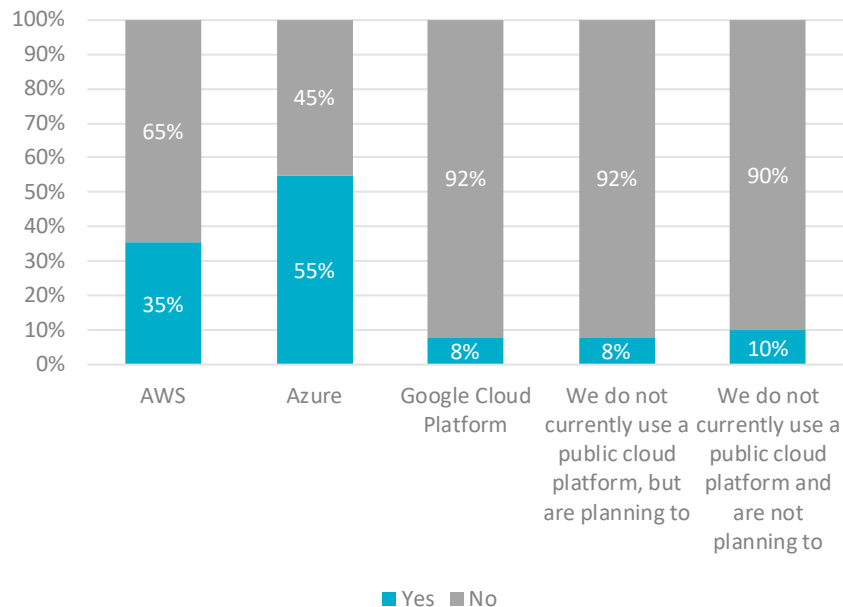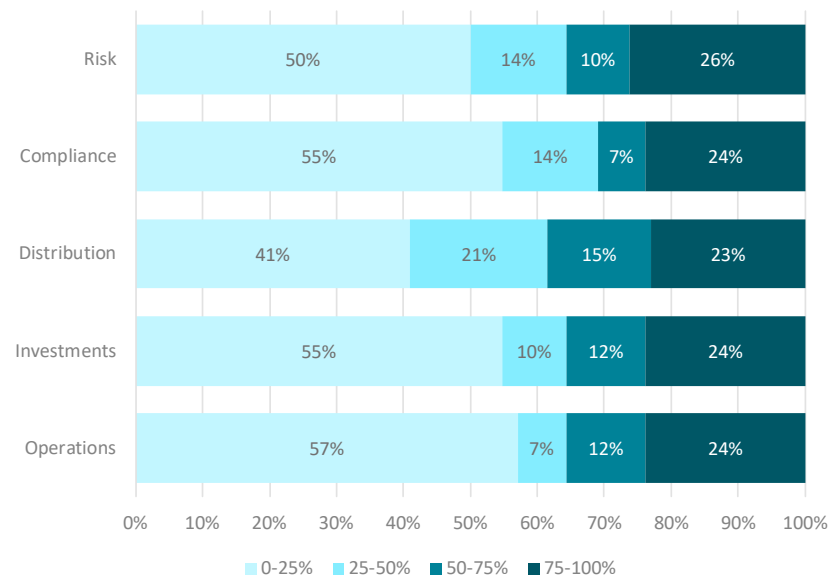
Q23.0 If you use a public Cloud platform, which of these providers do you use?

Q24.0 For each of the following functions, what is the approximate proportion of business applications hosted in the Cloud?

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24

Flexibility is the biggest motivation for moving to the cloud. Firms need to tackle the complexity, skillsets needed and cyber concerns

Leveraging the cloud **does require new skills to be introduced to a firm** with options including engaging partners to deliver the capability (e.g. via outsourcing), hiring in their own talent or implementing cloud-based vendor solutions. Some firms initially 'replant' their internally hosted applications to cloud infrastructure, but then **take advantage of platform-as-a-service and even serverless offerings to deliver data capabilities once there**

Decisions for Moving to the Cloud

Bar chart showing:
- Don't have to run servers: 7%
- Flexibility: 43%
- Speed: 7%
- Costs: 9%
- Storage / Scalability: 10%
- Other (please specify): 30%
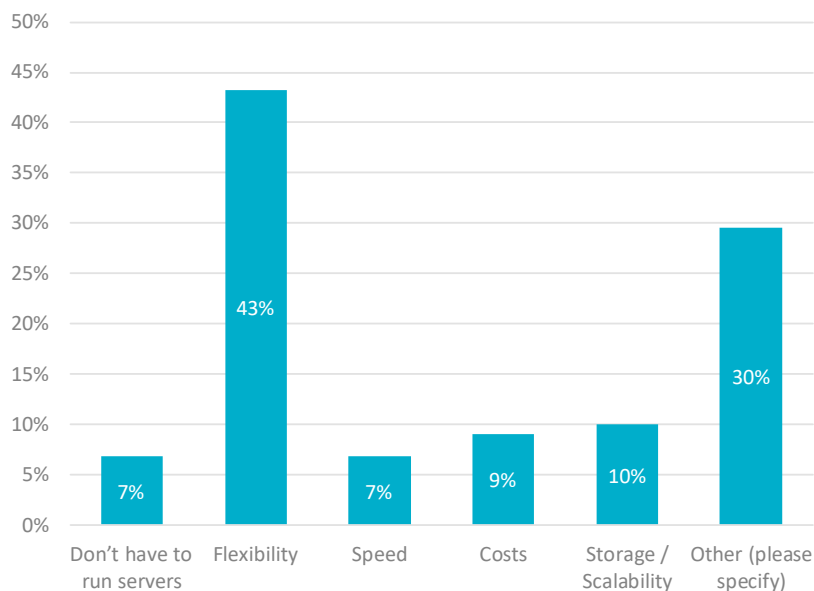
Q25.0 What was / is the primary driver for your decision to move to Cloud?

Other includes: All of the above, as well as better time to market, ability to offer new services to clients, data fluidity, availability, efficiency

Challenges of Moving to the Cloud

Bar chart showing:
- Internal stakeholder buy-in: 16%
- Privacy: 4%
- Implementation cost: 16%
- Cyber security: 22%
- Complexity & required skillsets: 36%
- Other (please specify): 24%
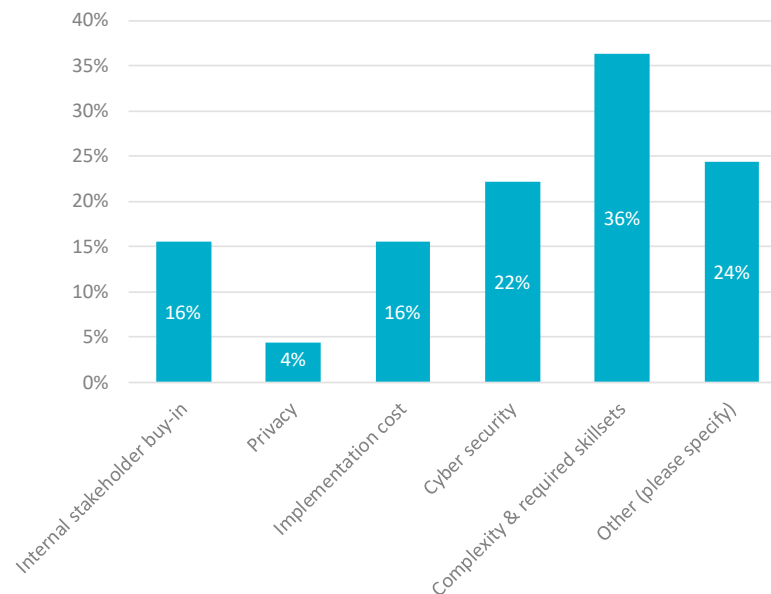
Q26.0 What was / what do you expect to be the biggest challenge you will face in moving to the Cloud?

Other includes: All or combination of above, as well as running costs, privacy, lack of relevant skills, cultural barriers.

⟲ Alpha

Despite rising industry demand for cloud data products, many datasets remain on internal servers via in-house or vendor systems

Cloud-based vendor systems account for a quarter of data storage solutions on average, rising to a third for Investment Risk data. In a market of increasing cloud adoption and strategic partnerships between providers in their cloud offerings, we expect a continuing trend towards firms **leveraging industry cloud data platforms** across all key datasets

Storage of Data Sets

Legend: Internal Data Store, Vendor System (on your servers), Vendor System (cloud server), TPA, Other (please specify)

System / Tool Used

Legend: SimCorp Dimension, TPA, Salesforce, Multiple, FactSet, Markit EDM
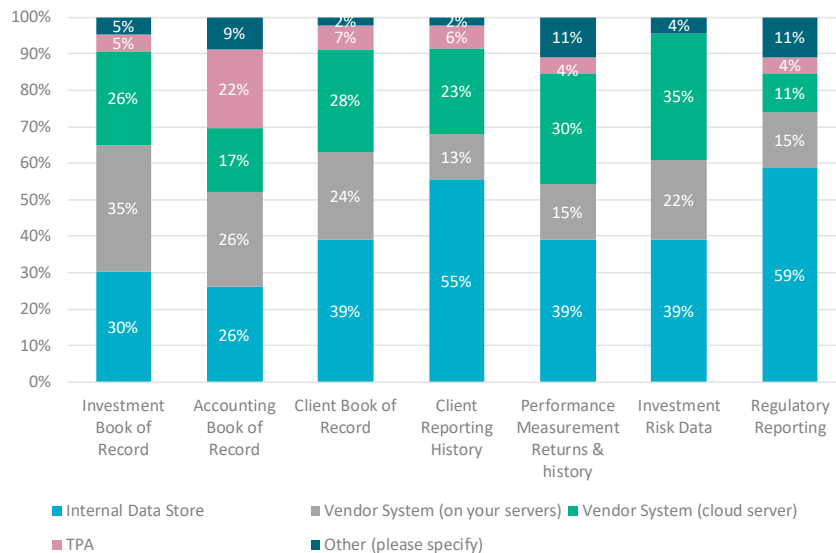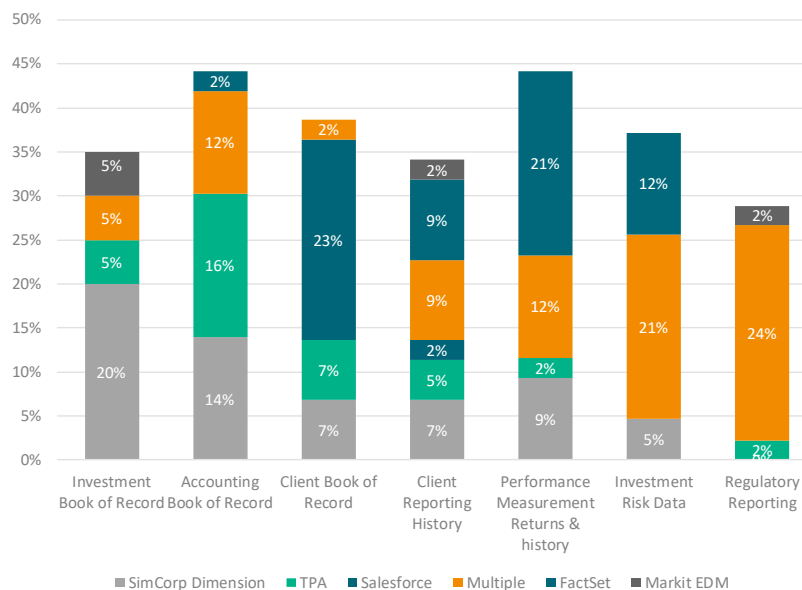
Q27.0 Where are the following data sets stored, and what system / tool are they stored in?

Note: the remaining proportions of bars include internal systems, data warehouses and one off instances of other vendors (e.g. Snowflake, BBG)

There is little consensus across the industry around the leading providers of data solutions

There is a **lack of clear market leaders in the data technology space**, with firms using a variety of solutions. Use of new solutions in **EDM, ETL, DWH and DQM** is likely to increase, **accelerated by strategic vendor partnerships and collaboration**
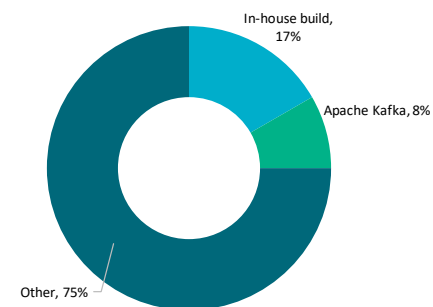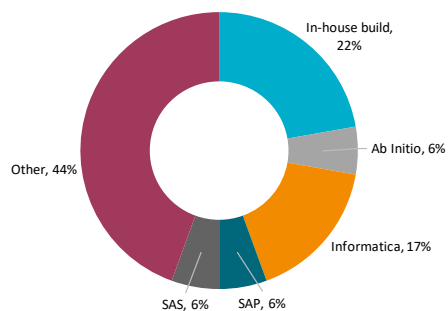
ETL Layer

- Ab Initio 6%
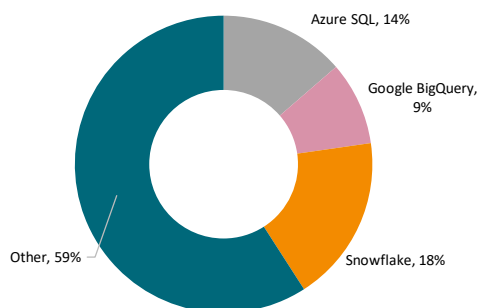- Azure Data Factory 6%
- Informatica 17%
- Other 72%
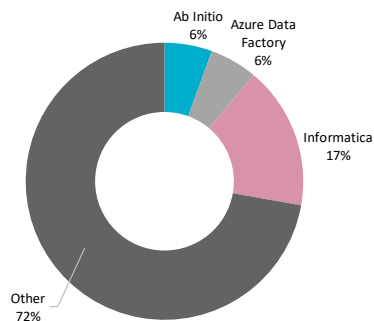
Enterprise Data Management

- In-house build, 15%
- Curium, 5%
- IHS Markit, 20%
- Neoxam, 10%
- Simcorp, 10%
- Other, 40%
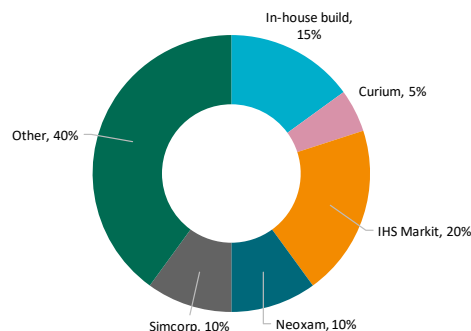
Real Time / Event Streaming

- In-house build, 17%
- Apache Kafka, 8%
- Other, 75%

Data Quality Management

- In-house build, 22%
- Ab Initio, 6%
- Informatica, 17%
- SAP, 6%
- SAS, 6%
- Other, 44%

Data Warehouse

- Azure SQL, 14%
- Google BigQuery, 9%
- Snowflake, 18%
- Other, 59%

NoSQL Database

- Azure Cosmos, 22%
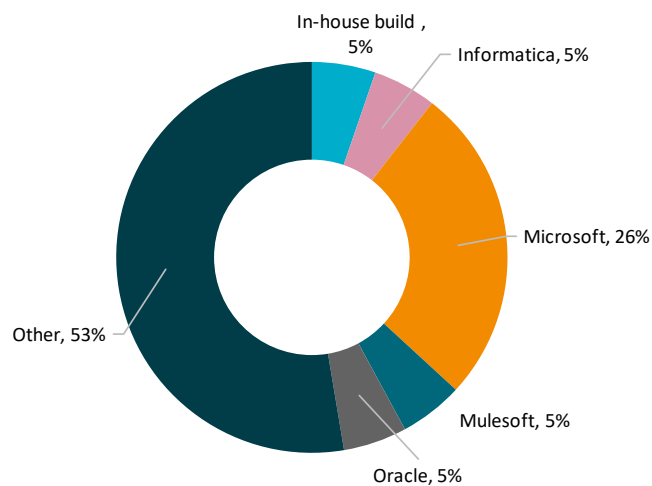- Google Cloud Datastore, 11%
- Mongo DB, 11%
- Other, 56%

Q28.0 What is the main tool or system used for the following?
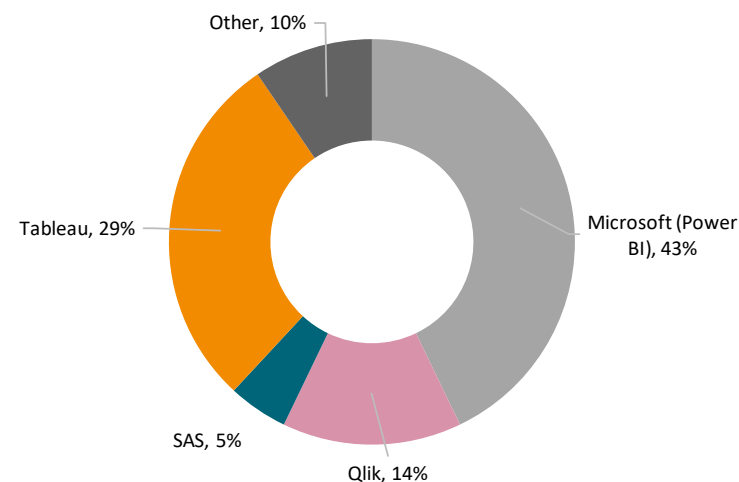
Alpha
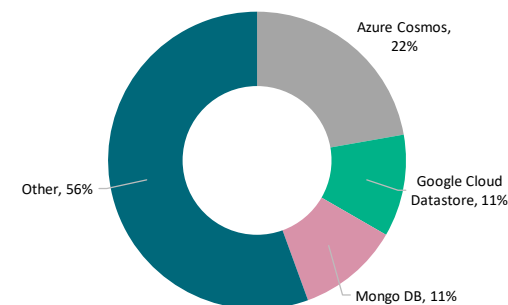
Microsoft is most commonly used for Workflow and BI

The **workflow and data visualization** offerings of Microsoft **(Power Automate and PowerBI)** are most used. This could be indicative that firms are selecting their incumbent enterprise applications provider for specific applications as well

Workflow

In-house build, 5%

Informatica, 5%

Microsoft, 26%

Other, 53%

Mulesoft, 5%

Oracle, 5%

BI / Data Visualization

Other, 10%

Tableau, 29%

Microsoft (Power BI), 43%

SAS, 5%

Qlik, 14%

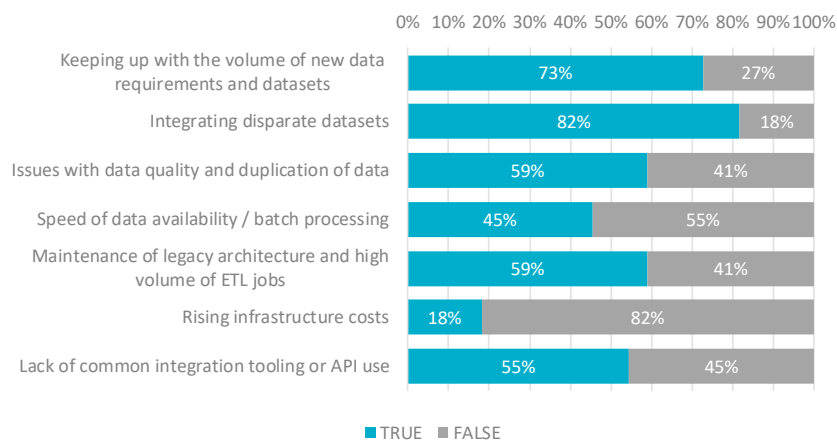*Q28.0 What is the main tool or system used for the following?*
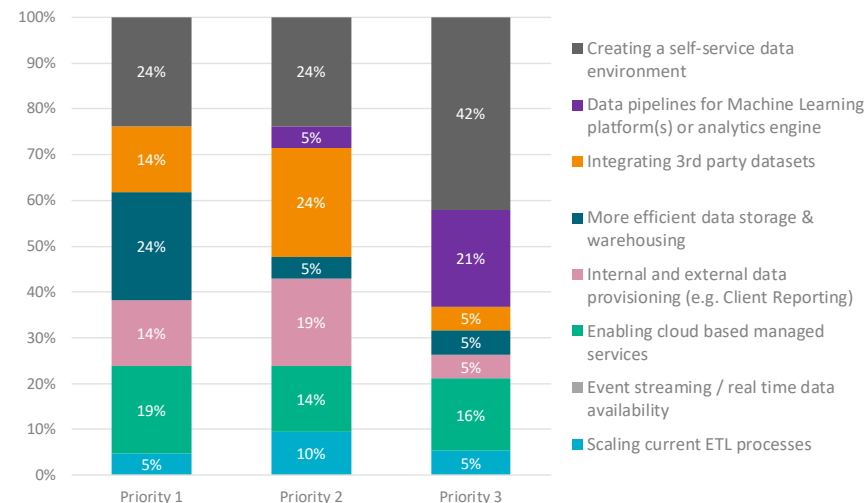
DATA TRANSFORMATION

Top data integration priorities are to help unlock value from ML/Analytics, enable self-service and facilitate more cloud services

Whilst Technology teams are grappling with integrating disparate datasets, the business demands for **seamlessly integrated data are evolving and use cases are changing**. Ability to **self-serve data remains a top priority for many firms**, with integration of 3rd party datasets, data provisioning and enablement of cloud based managed services also becoming a high priority

Data Integration Challenges

Challenge	TRUE	FALSE
Keeping up with the volume of new data requirements and datasets	73%	27%
Integrating disparate datasets	82%	18%
Issues with data quality and duplication of data	59%	41%
Speed of data availability / batch processing	45%	55%
Maintenance of legacy architecture and high volume of ETL jobs	59%	41%
Rising infrastructure costs	18%	82%
Lack of common integration tooling or API use	55%	45%

Use Cases for Data Integration

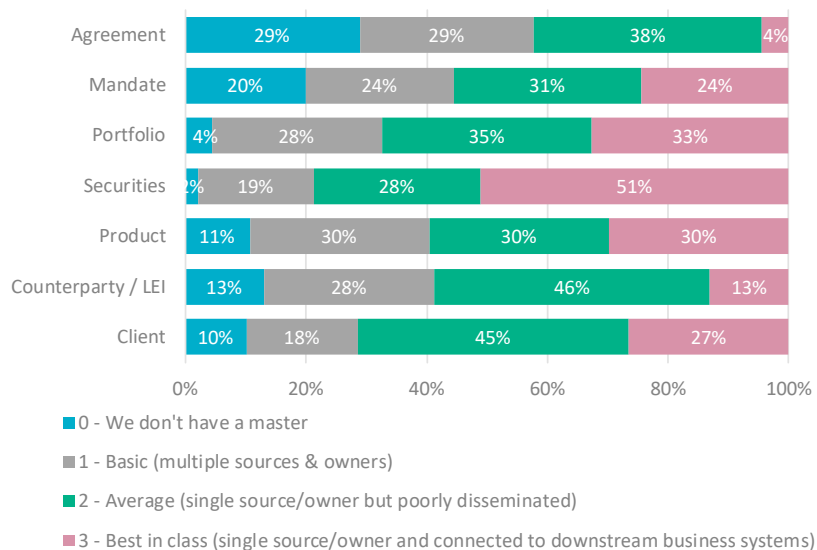|	Priority 1	Priority 2	Priority 3
Creating a self-service data environment	24%	24%	42%
Data pipelines for ML		5%	21%
Integrating 3rd party datasets	14%	24%	5%
More efficient data storage & warehousing	24%	5%	5%
Internal and external data provisioning	14%	19%	5%
Enabling cloud based managed services	19%	14%	16%
Scaling current ETL processes	5%	10%	5%

Q29.0 What are the current challenges your firm faces when it comes to data integration?

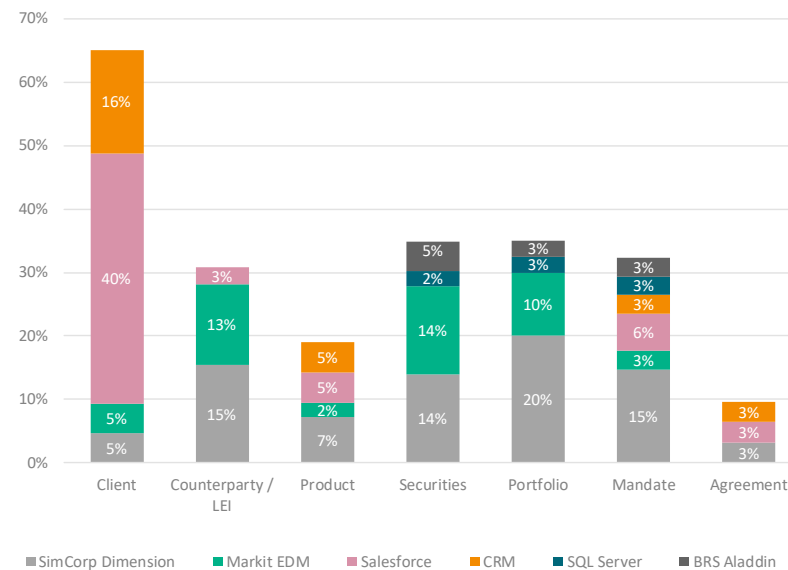*Q30.0 What are your top 3 investment priorities in relation to data integration?*

Maturity in the use of Data Masters is growing with more firms having best in class masters across core operational datasets

Alpha

Maturity of Securities and Portfolio mastering remains high given the operational significance of these data domains. **Growth in the maturity and use of Client Masters** is indicative of investment as **Sales & Marketing teams seek to build a single 360° view** of their customers

Maturity of Data Masters

	0 - We don't have a master
	1 - Basic (multiple sources & owners)
	2 - Average (single source/owner but poorly disseminated)
	3 - Best in class (single source/owner and connected to downstream business systems)

System / Tool Used

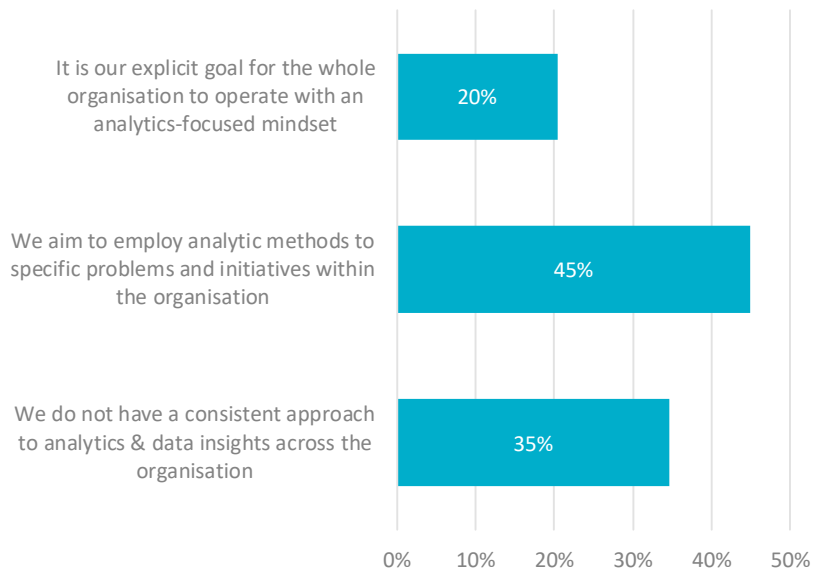Legend: SimCorp Dimension, Markit EDM, Salesforce, CRM, SQL Server, BRS Aladdin

Q31.0 For each of the following areas, what is the maturity of the Data Masters used and in what system / tool are they stored / managed?

Note: the remaining proportions of bars include internal systems, multiple systems and other unlisted vendors

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Insight generation from data is siloed for one third of firms, but most are using analytics for decision support (beyond Investments)
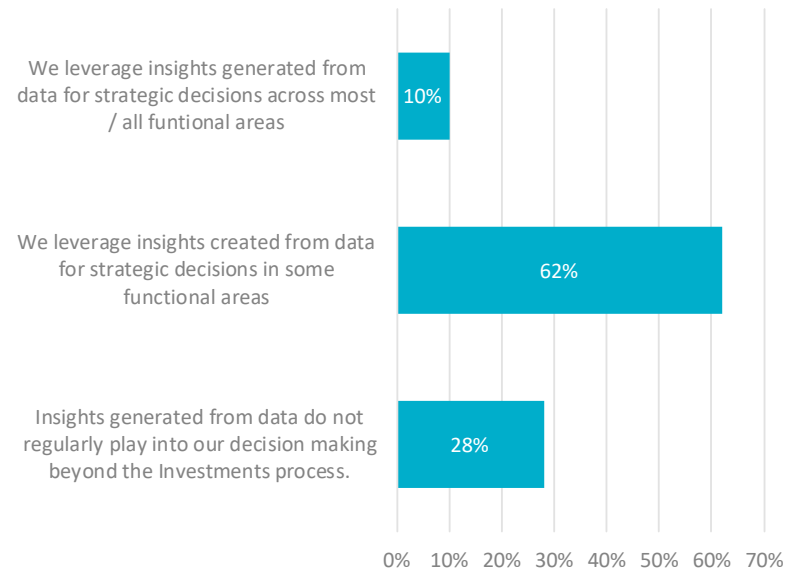
Attitudes towards **data and insight generation remain broadly the same** with firms 'starting small' or recognizing that the approach is inconsistent. There has been **a slight increase in firms using insights to drive strategic decisions across all or some functional business areas**

Attitude and Approach to Analytics

It is our explicit goal for the whole organisation to operate with an analytics-focused mindset — **20%**

We aim to employ analytic methods to specific problems and initiatives within the organisation — **45%**

We do not have a consistent approach to analytics & data insights across the organisation — **35%**

0% 10% 20% 30% 40% 50%

Q32.0 What is your organisation's attitude and approach to analytics / insight generation from data?

Using Analytical Methods to Generate Insights

We leverage insights generated from data for strategic decisions across most / all funtional areas — **10%**

We leverage insights created from data for strategic decisions in some functional areas — **62%**

Insights generated from data do not regularly play into our decision making beyond the Investments process. — **28%**

0% 10% 20% 30% 40% 50% 60% 70%

Q33.0 For functional areas other than Investments (Operations, Distribution, Compliance, Risk), which statement best describes your experience with generating insights from data through analytic methods?

Alpha

Distribution analytics is gaining ground as firms seek to exploit data for revenue growth and client retention

Investments and Risk are the most mature functions for data analytics. **Experimentation and use of advanced analytics has grown across Distribution and Compliance**; focus and even appetite to experiment **remains low in Operations** – with fewer business value drivers and use cases for analytics across this domain

Currently Experimenting with Predictive / Advanced Analytic Methods
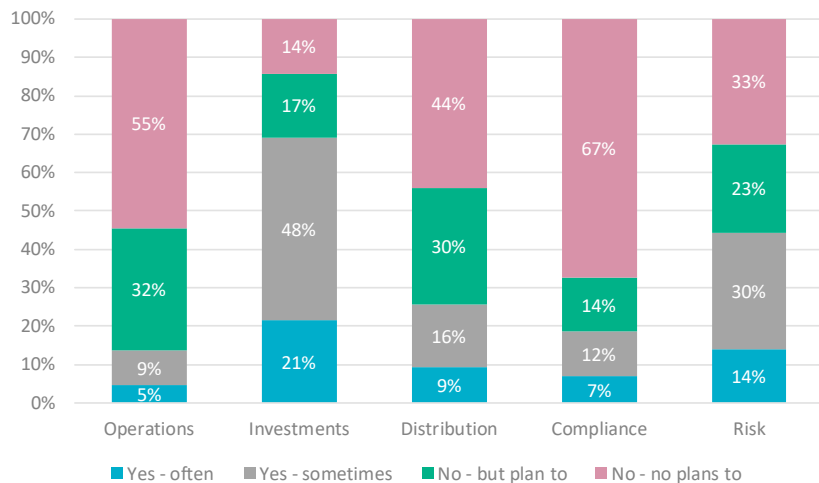
**Formally / Consistently applying Predictive / Advanced Analytic Methods**
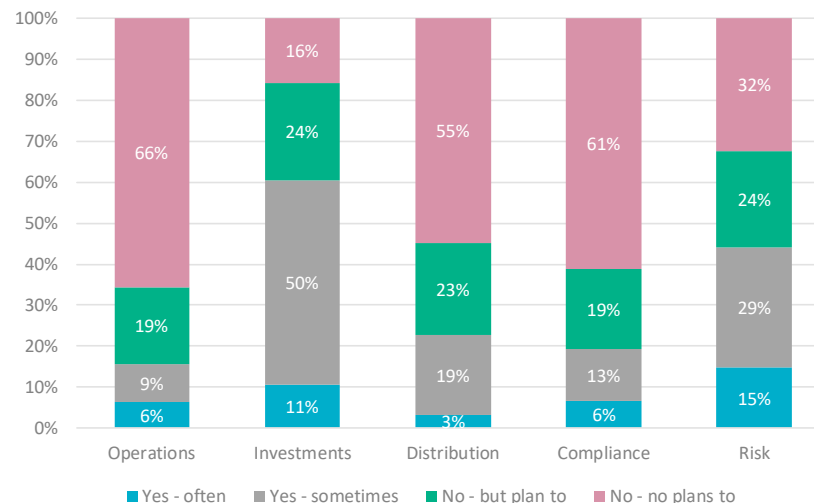
Q34.0 Are you currently experimenting with or formally / consistently applying predictive / advanced analytic methods in any of the following areas?

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# The perceived benefits of AI and Machine Learning are focused on the Investments & Distribution domains

Investments and Distribution are where the effective use of insights from data will have the **most direct impact on investment outcomes or client interactions/sales**. Multiple types of anticipated benefit are expected from investment in AI/ML

Functions which Benefit from AI / Machine Learning
(Weighted Score out of 5)

Benefits of AI / Machine Learning
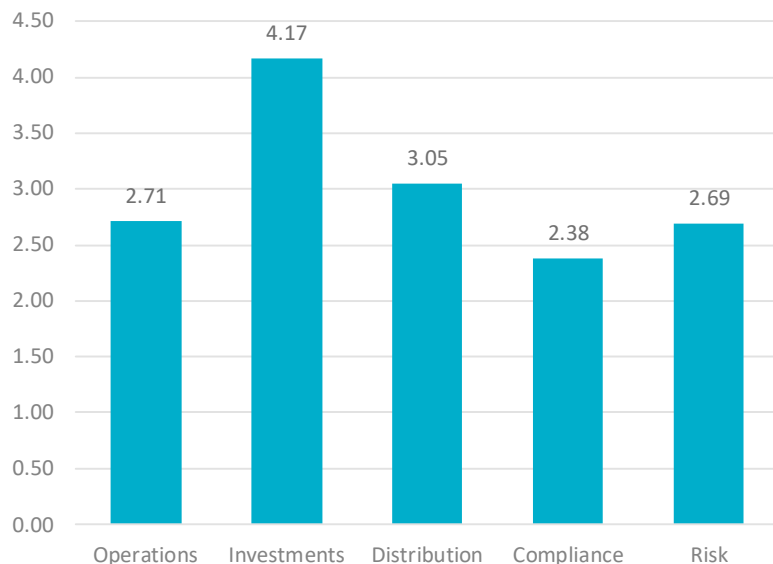
Q35.0 Where do you think AI / machine learning methods can bring the largest potential advantage over other methods?
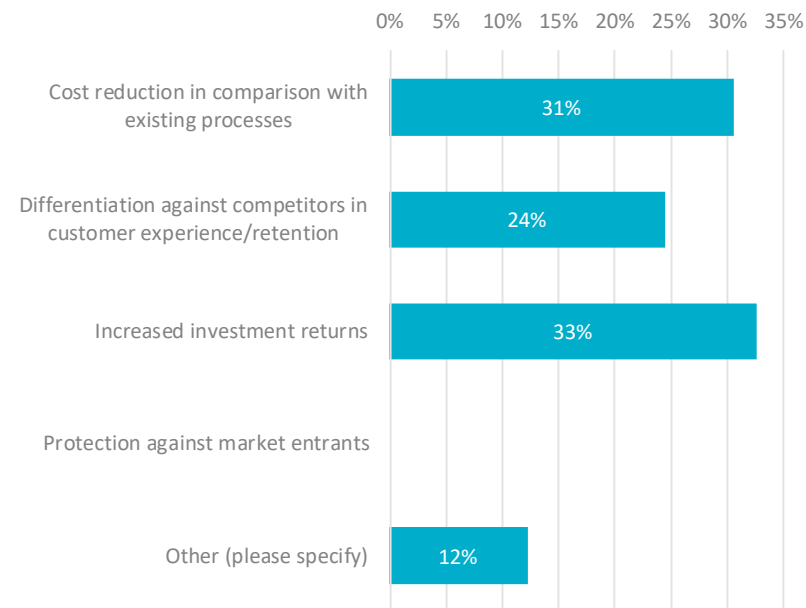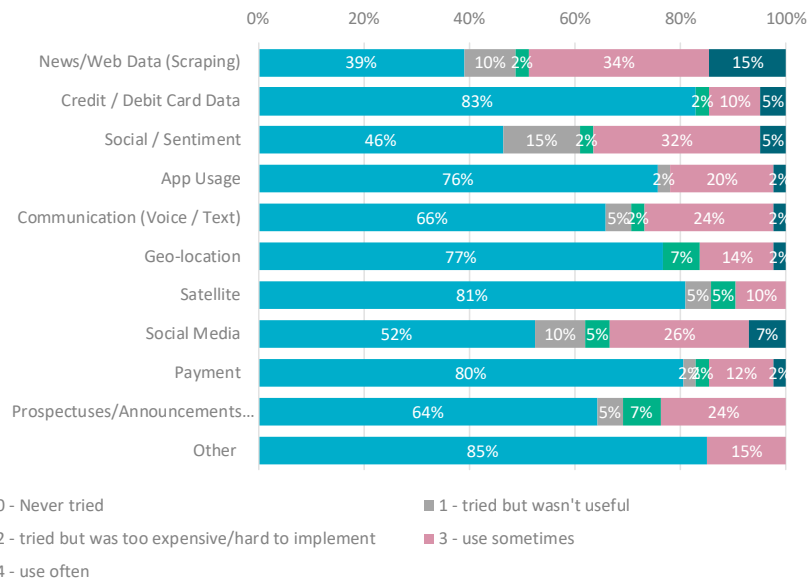
Q36.0 What do you believe are the main benefits that AI / machine learning methods can bring to an asset manager over more traditional methods?

*Other includes: All of the above as well as system automation, richer analytics, reduced risk, improved efficiencies, best use of talent
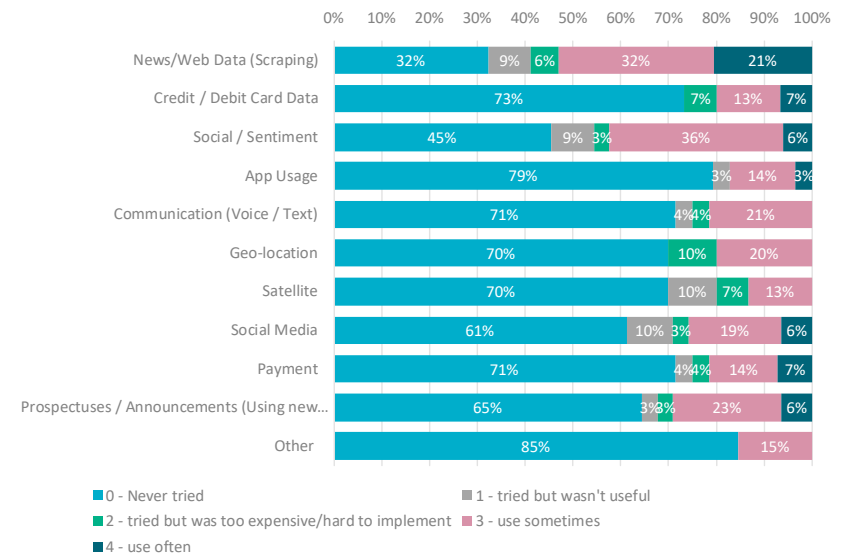
Alternative dataset usage remains fairly limited, with 'News / Web' continuing to be those datasets most leveraged

There has been a **minor uplift in use of alternative datasets across most areas**, with the **biggest rise in use of Social Media** data. There has also been a **rise in communication data (voice / text) and app usage,** potentially as a result of more 'remote' interactions

In General

	0%	20%	40%	60%	80%	100%
News/Web Data (Scraping)	39%	10% 2%	34%		15%	
Credit / Debit Card Data	83%			2% 10% 5%		
Social / Sentiment	46%	15% 2%	32%		5%	
App Usage	76%		2% 20%	2%		
Communication (Voice / Text)	66%	5% 2%	24%	2%		
Geo-location	77%		7% 14%	2%		
Satellite	81%		5% 5% 10%			
Social Media	52%	10% 5%	26%	7%		
Payment	80%		2% 2% 12% 2%			
Prospectuses/Announcements...	64%	5% 7%	24%			
Other	85%			15%		

To Support Investment Decisions

	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
News/Web Data (Scraping)	32%		9% 6%		32%			21%			
Credit / Debit Card Data	73%					7% 13% 7%					
Social / Sentiment	45%		9% 3%		36%			6%			
App Usage	79%					3% 14% 3%					
Communication (Voice / Text)	71%				4% 4%	21%					
Geo-location	70%				10%	20%					
Satellite	70%				10% 7%	13%					
Social Media	61%			10% 3%	19%	6%					
Payment	71%				4% 4%	14% 7%					
Prospectuses / Announcements (Using new...	65%			3% 3%	23%	6%					
Other	85%						15%				

Legend:
- 0 - Never tried
- 1 - tried but wasn't useful
- 2 - tried but was too expensive/hard to implement
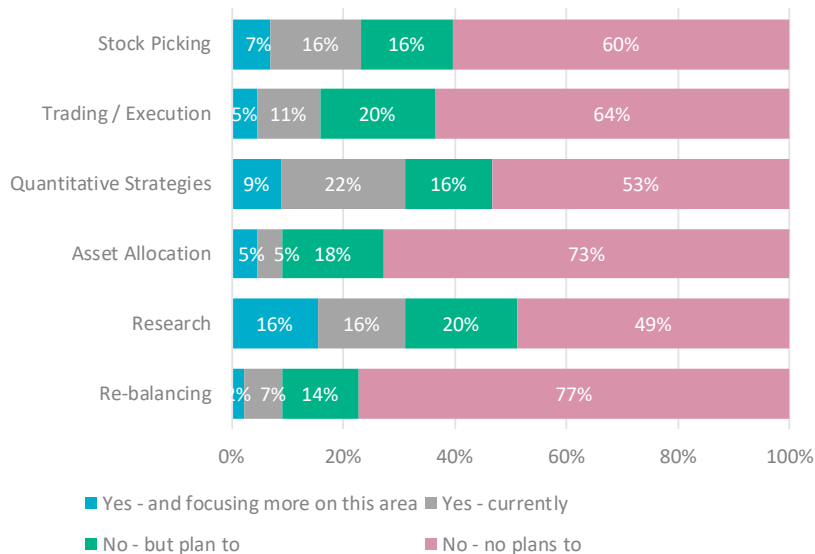- 3 - use sometimes
- 4 - use often

Q37.0 Have you tried any of the following types of alternative data?

Most firms use or plan AI within Investment Research. CRM and Client Engagement are the most popular within Distribution
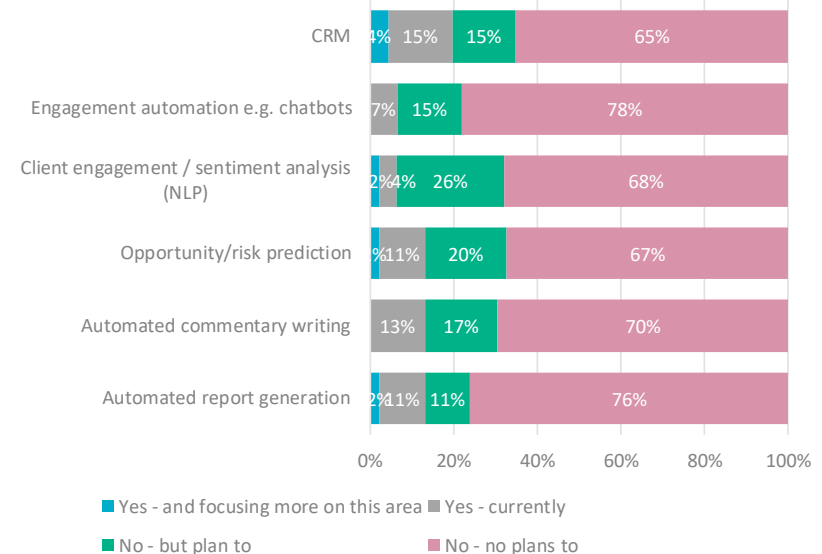
Alpha

The **use of AI in Investments and Distribution is more significant in certain areas** – **Quant and Research in Investments and CRM in Distribution** – perhaps indicating that **use cases for data are better known and actionable insights are being more sought after in specific areas** by business teams

AI in Investments

Category	Yes - and focusing more	Yes - currently	No - but plan to	No - no plans to
Stock Picking	7%	16%	16%	60%
Trading / Execution	5%	11%	20%	64%
Quantitative Strategies	9%	22%	16%	53%
Asset Allocation	5%	5%	18%	73%
Research	16%	16%	20%	49%
Re-balancing	2%	7%	14%	77%

- Yes - and focusing more on this area
- Yes - currently
- No - but plan to
- No - no plans to

Q38.0 Investments: are you currently using AI for any the following?

AI in Distribution

Category	Yes - and focusing more	Yes - currently	No - but plan to	No - no plans to
CRM	4%	15%	15%	65%
Engagement automation e.g. chatbots		7%	15%	78%
Client engagement / sentiment analysis (NLP)	2%	4%	26%	68%
Opportunity/risk prediction	2%	11%	20%	67%
Automated commentary writing		13%	17%	70%
Automated report generation	2%	11%	11%	76%

- Yes - and focusing more on this area
- Yes - currently
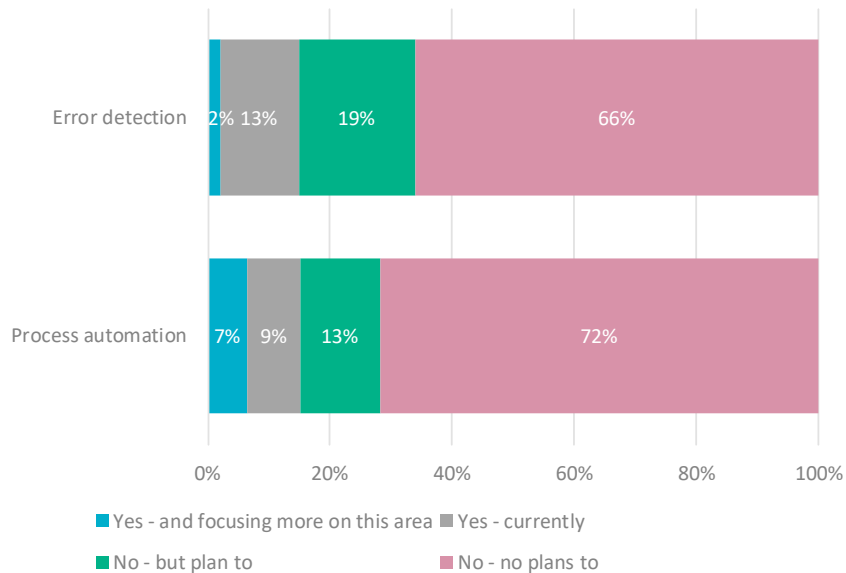- No - but plan to
- No - no plans to

Q39.0 Distribution: are you currently using AI for any the following?

Alpha

Although fewer use cases, AI in Operations is focused on error detection and employee surveillance in Risk / Compliance
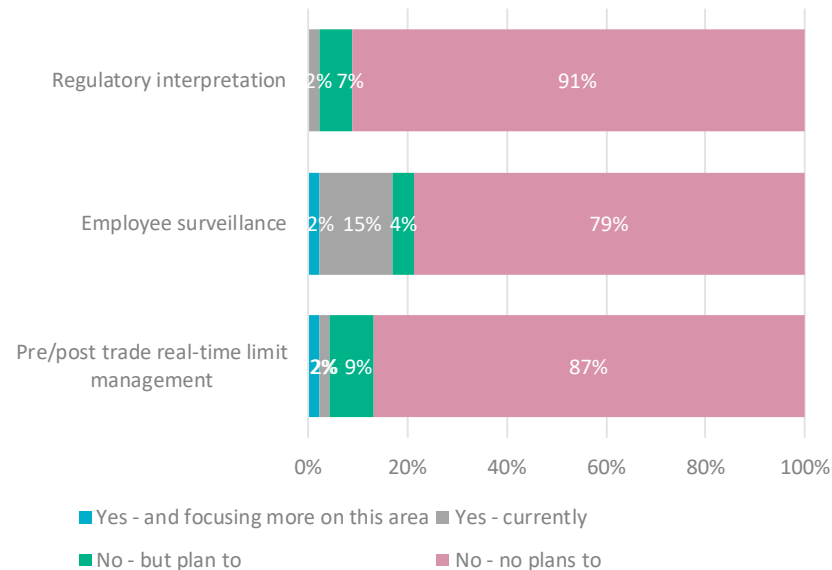
The **biggest anticipated growth area** in AI in Operations is for **enhanced Error Detection**; with **a fifth of firms planning more use in this area** over coming years. Within **Compliance & Risk**, **planned focus on AI is lower**, with pre/post trade real-time limit management being the primary new area where firms plan to use AI in the future

AI in Operations

- Error detection: 2% / 13% / 19% / 66%
- Process automation: 7% / 9% / 13% / 72%

Legend:
- ■ Yes - and focusing more on this area
- ■ Yes - currently
- ■ No - but plan to
- ■ No - no plans to

Q40.0 Operations: are you currently using AI for any the following?

AI in Compliance / Risk

- Regulatory interpretation: 2% / 7% / 91%
- Employee surveillance: 2% / 15% / 4% / 79%
- Pre/post trade real-time limit management: 2% / 9% / 87%

Legend:
- ■ Yes - and focusing more on this area
- ■ Yes - currently
- ■ No - but plan to
- ■ No - no plans to

Q41.0 Compliance / Risk: are you currently using AI for any the following?
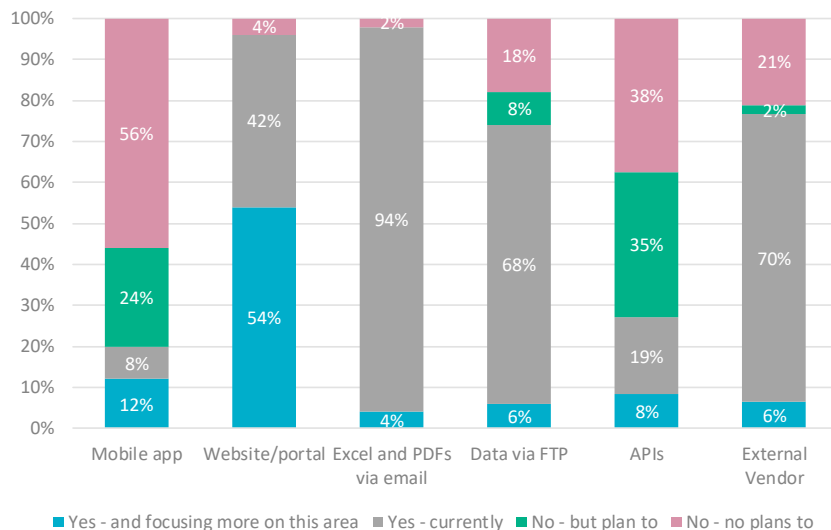
DATA OUTPUT & CHANGE

The increasing complexity of client data requests continues to drive investment into new interfaces and capabilities

Alpha's Distribution benchmarking has highlighted rising investment into client facing technologies. While there is a **trend to greater digital client engagement** and data sharing **through portals and mobile applications**, the **shift from the status quo will take time**; firms can still benefit from **simplifying existing systems and processes** in a bid to reduce operating costs
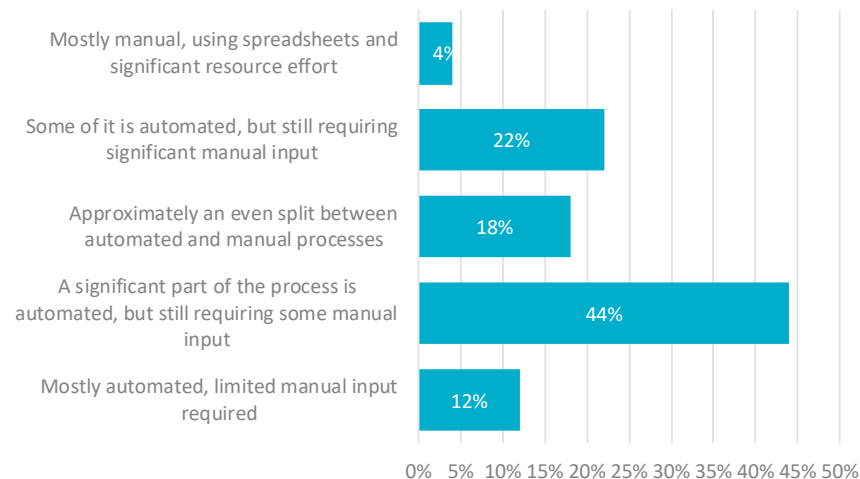
Sharing Data with Clients

	Mobile app	Website/portal	Excel and PDFs via email	Data via FTP	APIs	External Vendor
No - no plans to	56%	4%	2%	18%	38%	21%
Yes - currently	8%	42%	94%			2%
No - but plan to	24%			8%	35%	70%
Yes - and focusing more on this area	12%	54%	4%	68% / 6%	19% / 8%	6%

Legend:
- ■ Yes - and focusing more on this area
- ■ Yes - currently
- ■ No - but plan to
- ■ No - no plans to

Q42.0 Do you use any of the following to share data with clients?

Core Regulatory Reporting tends to be automated, with manual or semi-manual controls to ensure the accuracy and completeness of reporting

In addition, **remedial activity (eg back-reporting of erroneous reports) is typically undertaken manually**. The highest levels of automation are likely to be those firms with proprietary reporting solutions and/or controls that allow for **'real-time' identification of errors** and allow for remediation activities to be undertaken via changes in the reporting logic of the in-house tool

Regulatory Reporting Capabilities

Mostly manual, using spreadsheets and significant resource effort — 4%

Some of it is automated, but still requiring significant manual input — 22%

Approximately an even split between automated and manual processes — 18%

A significant part of the process is automated, but still requiring some manual input — 44%

Mostly automated, limited manual input required — 12%

0% 5% 10% 15% 20% 25% 30% 35% 40% 45% 50%

Q44.0 Which statement best describes your regulatory reporting capabilities?

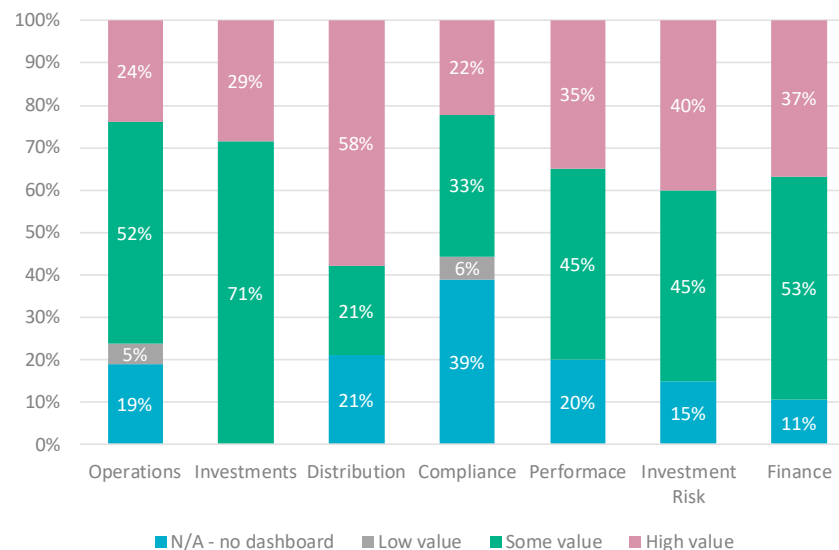# Valuable insights generated by 'live' data has made dynamic reporting more common across all functions, however, many firms are still behind

Alpha

The use of dashboards leveraging dynamic / automated data inputs continues to be a key focus for a number of firms, with half of firms using **dashboarding across business domains** on average; and less than half suggesting **dashboards deliver some or high value**. The **automation of quality controlled data inputs** is key to maximising the potential of dynamic dashboarding, reducing risk and enabling firms to rapidly scale

Dynamic / Interactive Dashboards

Legend:
- No - no plans to
- No - but plan to
- Yes - based on manual data inputs
- Yes - based on dynamic / automated data inputs
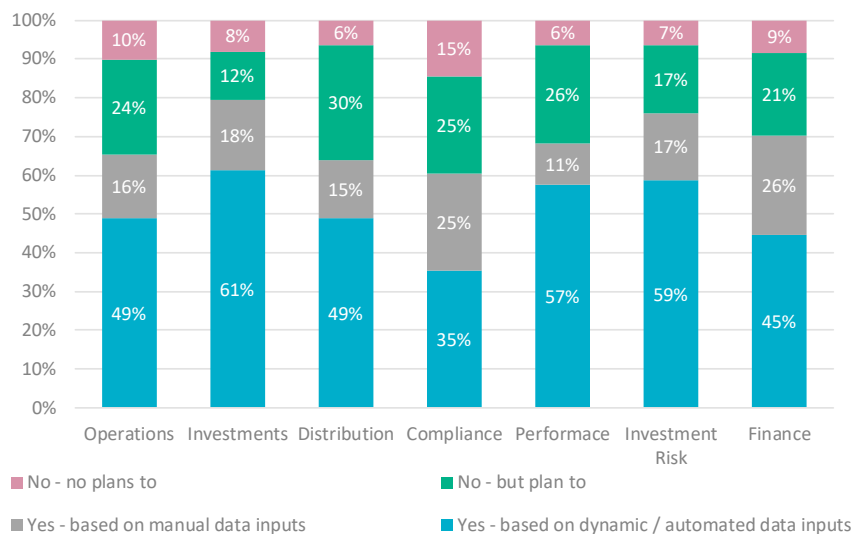
Business value of Dashboards / MI

Legend:
- N/A - no dashboard
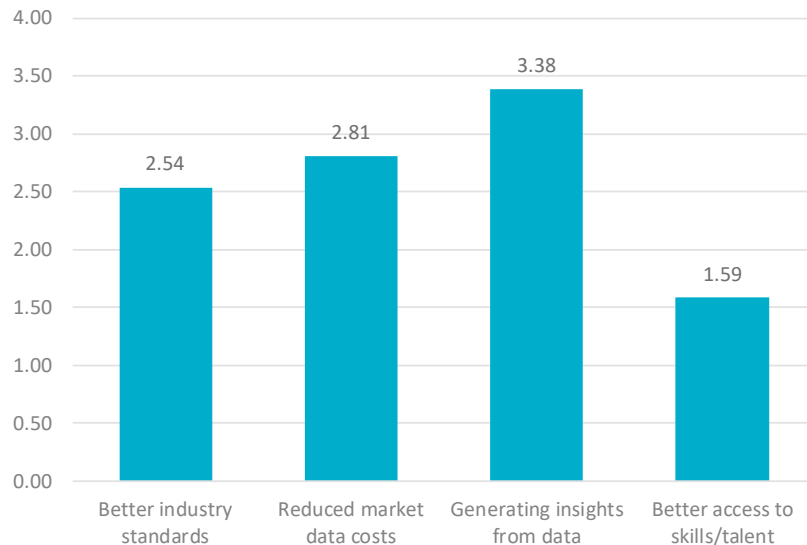- Low value
- Some value
- High value

Q43.0 Do you have dynamic / interactive dashboards to assist management in any of the following key functions? How much value are they currently delivering?

Alpha

Firms have improved their ability to collect, report and store data; the biggest challenge is to integrate it

With the need to derive insights from existing data sets a prominent 'wish' amongst firms, **data integration** is clearly both a pre-requisite and challenge to doing so.
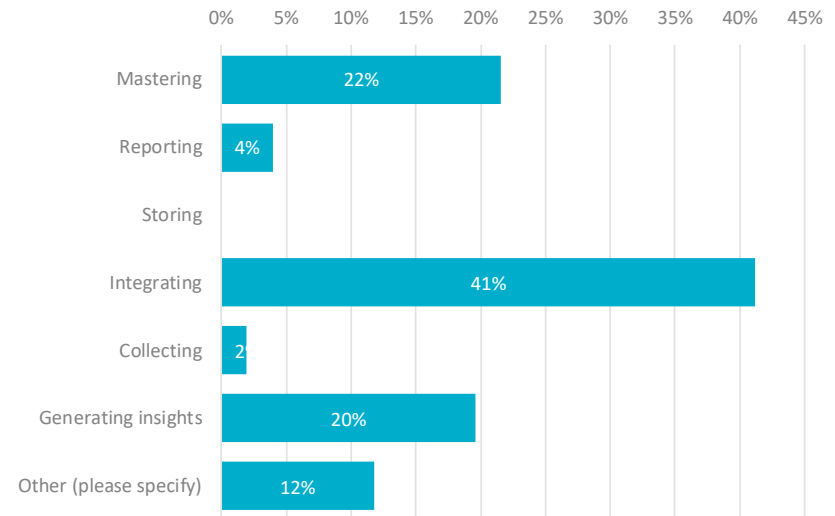
As data volumes rise across the industry to support increasingly complex client, regulatory and investment demands, **firms need to be more selective in what data is mastered**, **integrated and utilised** in analysis to maximise the value of insights

Data Model 'Wish List' (weighted score out of 4)

Category	Score
Better industry standards	2.54
Reduced market data costs	2.81
Generating insights from data	3.38
Better access to skills/talent	1.59

Biggest Data Challenge

Challenge	Percentage
Mastering	22%
Reporting	4%
Storing	
Integrating	41%
Collecting	2
Generating insights	20%
Other (please specify)	12%

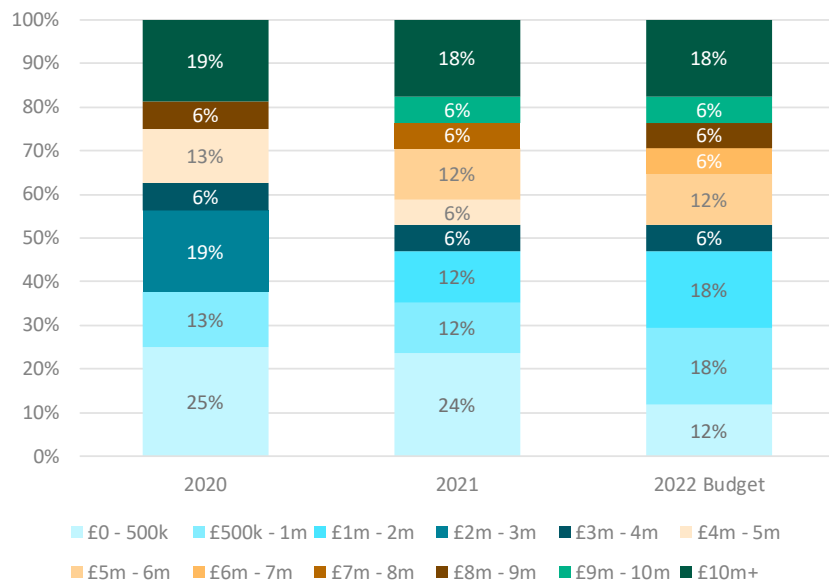*Q45.0 Are any of the following on your data model 'wish list'?*

Q46.0 If you were to choose, what is your single biggest challenge regarding data?

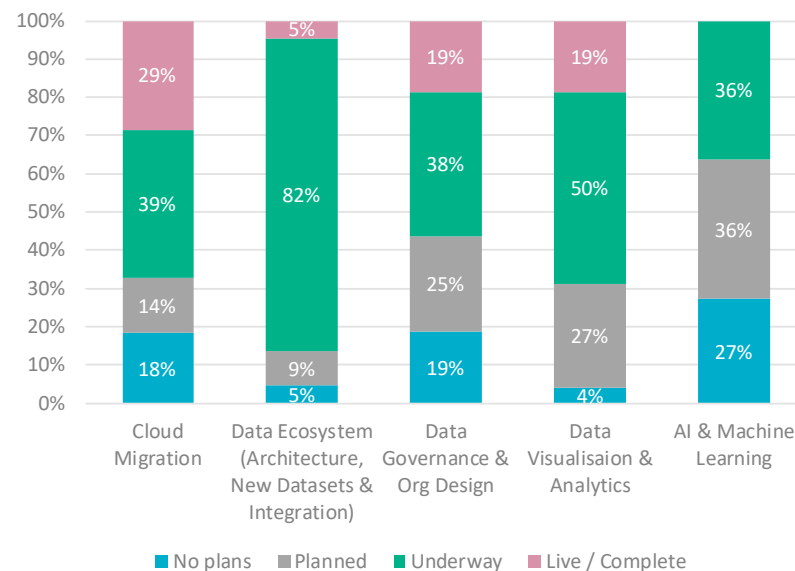*Other includes: Consistency, ownership, quality, cost, governance

Data change projects are increasing in 2022, with most spending between £1-10million

As firms continue to **increase their emphasis on data change, the scale of spend on data projects continues to rise. Over 80%** of firms have **live initiatives with a focus on evolving their data ecosystem**, with over **a third of firms planning initiatives** in AI & Machine learning.

Change Spend on Data Projects

Legend:
■ £0 - 500k   ■ £500k - 1m   ■ £1m - 2m   ■ £2m - 3m   ■ £3m - 4m   ■ £4m - 5m
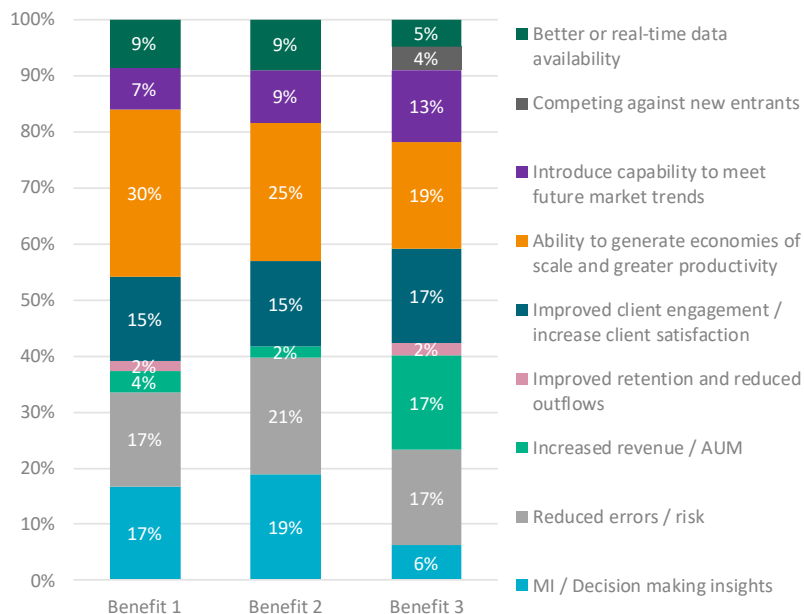■ £5m - 6m   ■ £6m - 7m   ■ £7m - 8m   ■ £8m - 9m   ■ £9m - 10m   ■ £10m+

Q47.0 What is the level of change spend on Data projects (include all related initiatives e.g. data governance, transformation, infrastructure and analytics)

Data Initiative Status

Legend:
■ No plans   ■ Planned   ■ Underway   ■ Live / Complete
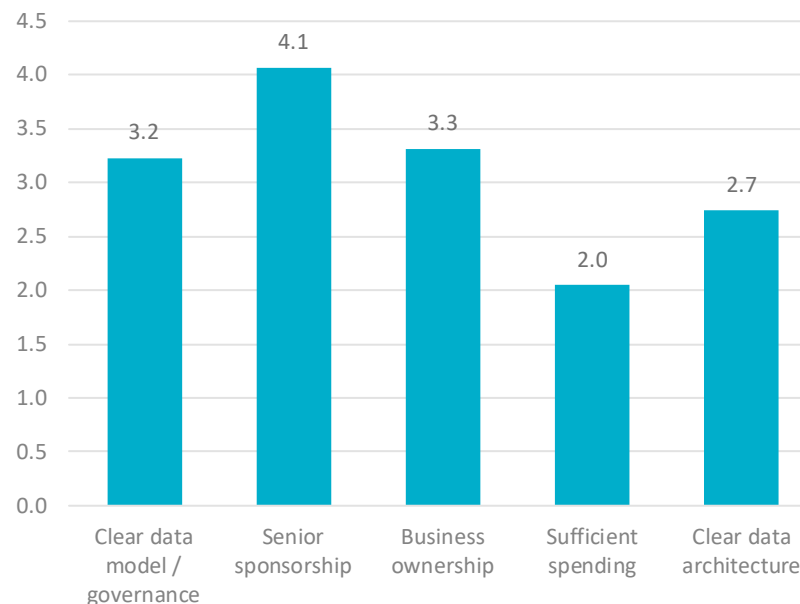
Q48.0 What is the status of the following data initiatives?

Senior sponsorship remains the greatest predictor of success in data initiatives. Scalability and productivity benefits are key goals

Alpha

Senior sponsorship is **core** to the **success of a data transformation programme**; alongside business ownership and a clear data model / governance, these were identified as **the top three ingredients** for a successful data initiative. **A third** of firms identified the **ability to generate economies of scale** as the **top benefit of data transformation**, with only a small percentage seeing **increased revenue / AUM** as a direct benefit / objective of data change

Data Transformation Benefits

Legend:
- ■ Better or real-time data availability
- ■ Competing against new entrants
- ■ Introduce capability to meet future market trends
- ■ Ability to generate economies of scale and greater productivity
- ■ Improved client engagement / increase client satisfaction
- ■ Improved retention and reduced outflows
- ■ Increased revenue / AUM
- ■ Reduced errors / risk
- ■ MI / Decision making insights

Q49.0 What are the top three benefits you look for from any data transformation undertakings?

Data Initiative Status (weighted score out of 5)

Q50.0 What primarily makes data initiatives succeed?

ABOUT ALPHA Group

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Introduction to the Alpha Group

The leading global implementation partner for Financial Services technology

The leading global consultancy to the Asset Management and Wealth Management industry

The leading global consultancy to the Alternatives industry

The leading global consultancy to the Insurance industry

The leading data and cloud solutions to the global Asset & Wealth Management industries
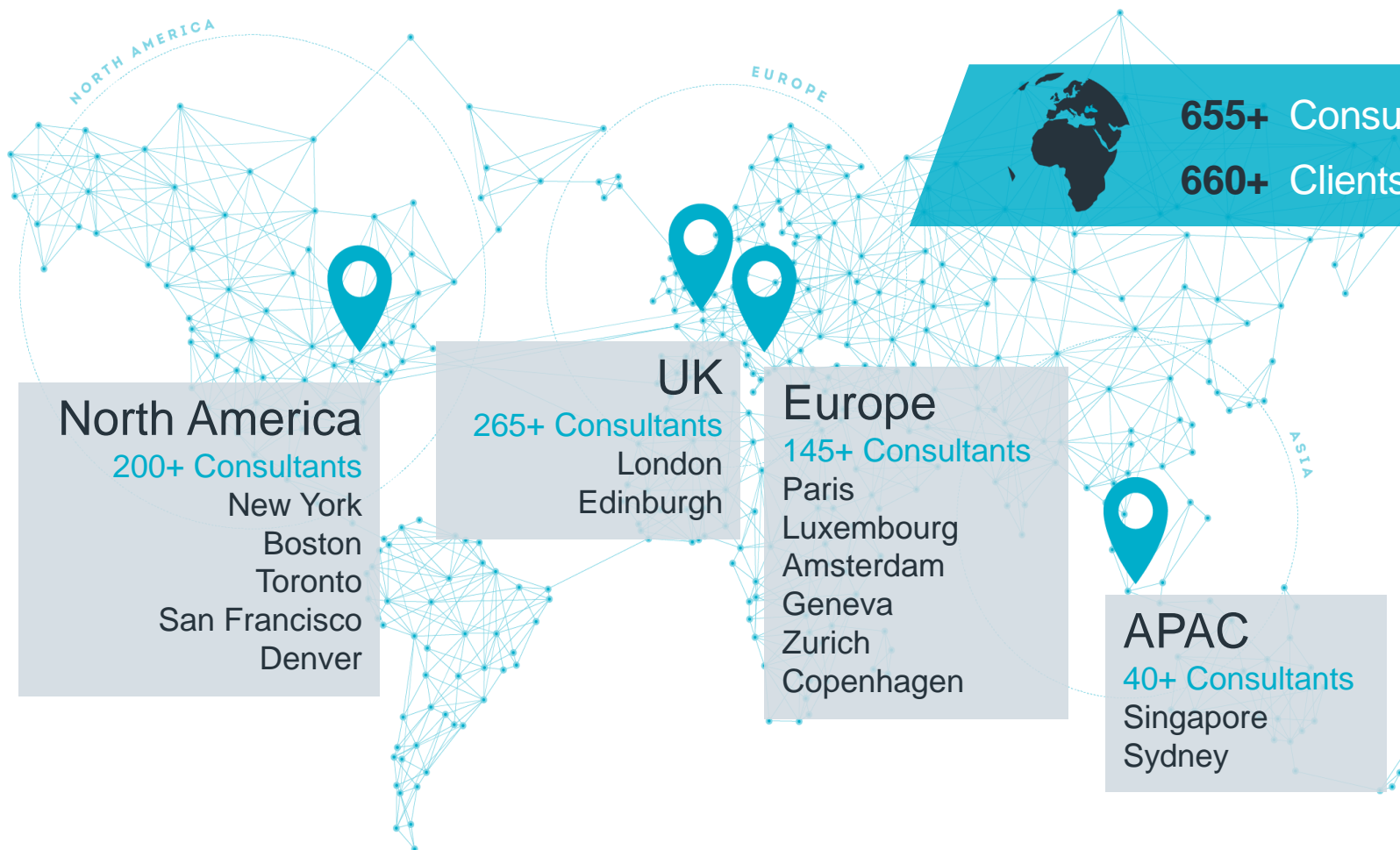
Alpha & Lionpoint's Combined Value Proposition

Alpha's End-to-End Delivery Model

Alpha's proven ability to deliver across the project spectrum, combined with Lionpoint's private asset expertise, creates a premium global partner platform for transformative asset management consulting and change delivery

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Should you have any further questions on the information contained within this pack or wish to speak to a Data SME, please contact:

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A leading
consultancy to the
asset management,
wealth management
and insurance
industries

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