



OCTOBER 2021

LINEDATA GLOBAL ASSET MANAGEMENT SURVEY REPORT – 10TH EDITION

BUILDING OPERATIONAL
RESILIENCE AND LASTING VALUE
IN AN UNCERTAIN WORLD



PREPARED FOR:



Linedata

TABLE OF CONTENTS

REPORT HIGHLIGHTS	2
INTRODUCTION.....	4
METHODOLOGY	4
INVESTMENT MANAGERS INNOVATE IN THE WAKE OF THE COVID-19 PANDEMIC.....	6
CLOUD ADOPTION ACCELERATES.....	6
CLOUD ADOPTION IS SHOWING UP IN MORE FUNCTIONAL AREAS	8
LOOKING AHEAD, CONCERNS AND IMPEDIMENTS REMAIN	9
ADVANCED TECH ENHANCES HUMAN JUDGMENT	11
BCP AND PROVIDER OVERSIGHT—A GREATER PRIORITY	13
ACTIVE MANAGEMENT REVIVAL?	14
TRANSPARENCY AND WIDER IMPACT: ESG INTEGRATION MATURES	16
ESG CAPABILITIES CENTRALIZE AT BUY-SIDE FIRMS ...	16
TECHNOLOGY AND OUTSOURCING CONSOLIDATION.....	18
AMALGAMATION OF TECHNOLOGY AND SERVICES.....	18
FRONT-TO-BACK TECHNOLOGY DEPLOYMENTS GAIN MOMENTUM.....	20
DATA MANAGEMENT: THE NEW GOLD RUSH.....	21
NEW CHALLENGES AND OPPORTUNITIES.....	24
THE RISING IMPORTANCE OF CYBERSECURITY.....	24
COMPLIANCE AND RISK MANAGEMENT LEAD ENTERPRISE SPENDING	26
DIFFERENTIATION HINGES ON INVESTMENT PERFORMANCE, RISK MANAGEMENT, AND TRANSPARENCY.....	27
THE FUTURE OF ASSET MANAGEMENT	29
ABOUT AITE-NOVARICA GROUP	31

OCTOBER 2021

LINEDATA GLOBAL ASSET MANAGEMENT SURVEY REPORT – 10TH EDITION

Building operational
resilience and lasting value
in an uncertain world

REPORT HIGHLIGHTS

The COVID-19 pandemic has caused the technological and operational practices of the investment management community to evolve. Two distinct themes have emerged during 2021's "new normal": asset managers are taking new steps that will build operational resilience and also create lasting value. To those ends, they have prioritized delivering the best service possible for their clients in areas such as performance; the introduction of new products; environmental, social, and governance (ESG) integration; and transparency. To create strong, flexible operational models, as well as reduce complexity, managers are looking to outsource technology and functions where possible, employ cloud capabilities, and use advanced technology such as artificial intelligence (AI) and machine learning (ML) to support fast and well-informed decision-making.

While investment firms were forced to focus on the transition to remote working environments and dealing with a spate of market volatility, particularly early in the pandemic, managers have since refocused attention on long-term structural opportunities. This report discusses a number of these themes, including the following:

- **Cloud strategies continue to accelerate:** In 2019, more than half of firms said they had no plans to adopt the cloud. By 2021, attitudes had shifted, as only 5% of respondents now feel this way—a significant change motivated by new goals anchored on digital transformation and the appeal of remote access, the technical advantages of cloud hosting, and lower long-term total cost of ownership (TCO).
- **ESG integration and risk management become top priorities:** Opportunities grew for active managers as sustainability factors and climate concerns have become paramount for investors and regulators. The inclusion of these factors and management of these risks is seen as a boon to active managers to demonstrate their value. Managers are investing in people, ESG data, and analytics to support new strategies to meet growing demand in the market, with European firms leading the way.
- **Transparency is a key differentiator:** Managers are looking to demonstrate greater transparency to improve both their brand and standing with regulators and investors. This change in mindset impacts investment and client data, has improved

client reporting, and has encouraged the adoption of business intelligence tools to support these efforts.

- **Future outsourcing is expected to grow in the middle office:** Outsourcing has come in waves over the last decade. However, roughly one-third of surveyed firms are positioned to closely examine middle-office operations in the next 12 months to decide what specific functions can be effectively outsourced compared to only 17% of respondents in 2019.
- **Consolidation of vendors and partners has risen in importance:** Managers are starting to prefer a single-provider approach to technology while also seeking value from firms that can provide outsourced services when needed. The industry is likely to consolidate around providers that can offer a suite of solutions and services.
- **More outsourcing means more attention on business continuity planning (BCP) and vendor oversight:** BCP due diligence has increased for internal and external processes. More oversight of third-party service providers will also be needed as operations teams transition to oversight businesses.
- **AI and ML see growth in deployment for operations and compliance use cases:** Firms have long deployed advanced technology methods for investment strategy and risk and are now using AI and ML to help optimize processes, improve outcomes, and perform oversight of key processes. These include operational loss, improved trade operations, and post-trade compliance.

INTRODUCTION

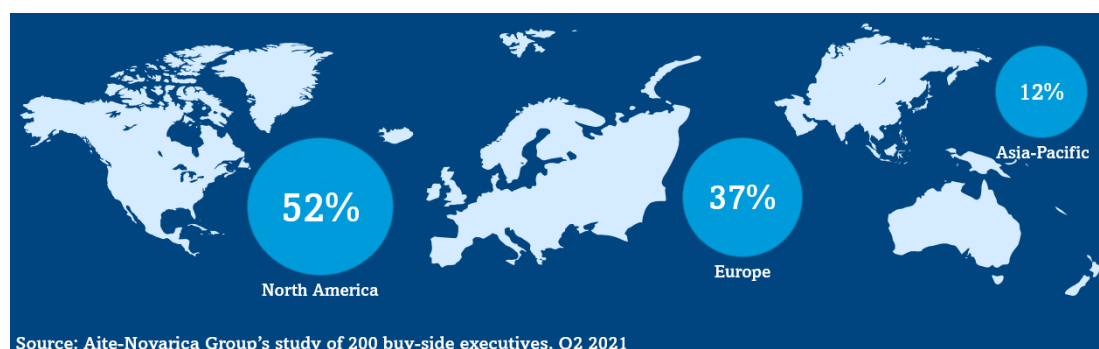
This year's Global Asset Management (GAM) Survey marks the 10th edition of Linedata's engagement with the investment management industry to capture the pulse of firms and reveal key decisions being made by managers. 2020 and 2021 represented a unique time for all industries, with unforeseen challenges across the global economy. The COVID-19 pandemic had a significant impact on investment institutions with the dust finally starting to settle in late 2021, revealing what the future might hold for this community.

While many unknowns still abound and the pandemic's lasting legacy has only started to take shape, the analysis of survey data points to an acceleration of several phenomena that were already in motion, such as cloud adoption, outsourcing along the investment life cycle, and investment in technology innovation—key components enabling firms to continue to deliver value while working toward building operational resilience. This Report evaluates these evolving trends and forecasts what is to come for technology and operating models for buy-side institutions.

METHODOLOGY

The survey, conducted between May and June 2021, engaged 200 executives at buy-side firms across North America, Europe, and Asia (Figure 1).¹

FIGURE 1: PARTICIPANT HEADQUARTER BREAKDOWN BY REGION

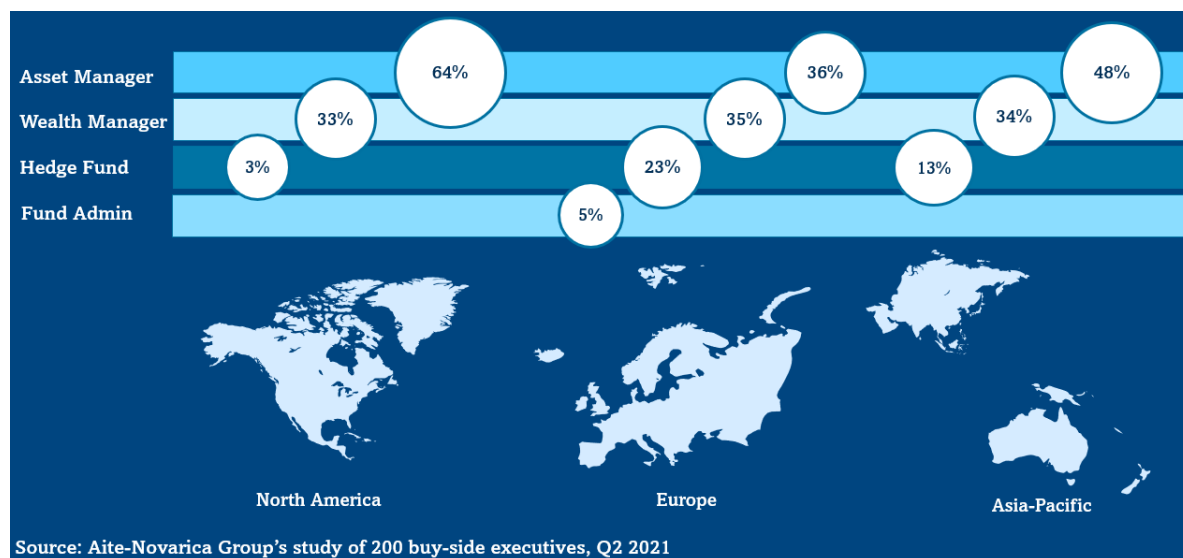


¹ The data for the full sample has a margin of error of 7 points at the 95% level of confidence; statistical tests of significance were conducted at the 90% level of confidence.

Participant firms hailed from countries throughout North America, Europe, and the Asia-Pacific. U.S. firms accounted for the majority (83%) of North American opinions. In Europe, U.K. respondents made up 61% of responses while French and Swiss survey participants represented another 18% per nation. Hong Kong firms accounted for over half (57%) of the survey data points in the region, while Singapore participant responses represented the remaining regional portion.²

The survey included a range of different types of institutions including asset managers, wealth managers, hedge funds, and fund administrators across the three regions (Figure 2).

FIGURE 2: PARTICIPANT FIRM TYPE BY REGION



² The number of survey participants from the following regions responded when asked which country their firm was headquartered in: North America, 100, Europe, 74, and the Asia Pacific, 23.

INVESTMENT MANAGERS INNOVATE IN THE WAKE OF THE COVID-19 PANDEMIC

The COVID-19 pandemic is the most significant event to impact global markets since the 2008 financial crisis. The events that began to unfold in late 2019 have pushed ahead changes to business strategies, operational goals, and technology trends.

Despite a turbulent first few weeks of transition, a majority (59%) of respondents agree or strongly agree that their organization has the necessary IT infrastructure to support a work-from-home environment—a sentiment that aligns closely with qualitative research conducted by Aite-Novarica Group. This is possible due to remote access capabilities or a cloud-enabled technology stack that allows firms to swiftly resolve issues. Only a small group (13%) appears to have struggled with the transition.

CLOUD ADOPTION ACCELERATES

The majority of survey respondents feel the pandemic helped accelerate digital transformation plans, particularly when it comes to investment in the cloud and data management as a core foundation.

“Fifty-eight percent of buy-side firms agree that the COVID-19 pandemic spurred cloud adoption.”

Over half of buy-side respondents (58%) agree that even though they didn’t suffer operational impact from the pandemic, the global health crisis spurred cloud adoption plans (Figure 3). As a result, a large portion of buy-side firms are looking at alternatives to on-premises technology applications as preferences shift to vendor-hosted solutions, Software-as-a-Service (SaaS), and private/public cloud models.

FIGURE 3: MORE CLOUD ADOPTION



Investment management firms are more often looking to vendors for technology maintenance and infrastructure management to enhance their own offerings. The ease of scalability and access to computing power of a cloud-based deployment improves the speed and accuracy of many complex calculations while reducing operational risk and turnaround time for reporting and other tasks. Outsourcing cybersecurity management has been on the rise and is also often powered by off-premises deployments.

Compared to the 2019 Linedata GAM report, which projected that only 46% of managers would adopt the cloud by 2021,³ about two-thirds of buy-side firms (66%) indicate they are deploying at least some of their technology stack on the public cloud this year (Figure 4). Meanwhile, the future of cloud adoption looks bright, as over a quarter (28%) of firms are not currently using cloud deployments but expect to adopt the cloud within the next three years.

FIGURE 4: MORE INVESTORS ARE READY TO TRANSITION TO THE CLOUD



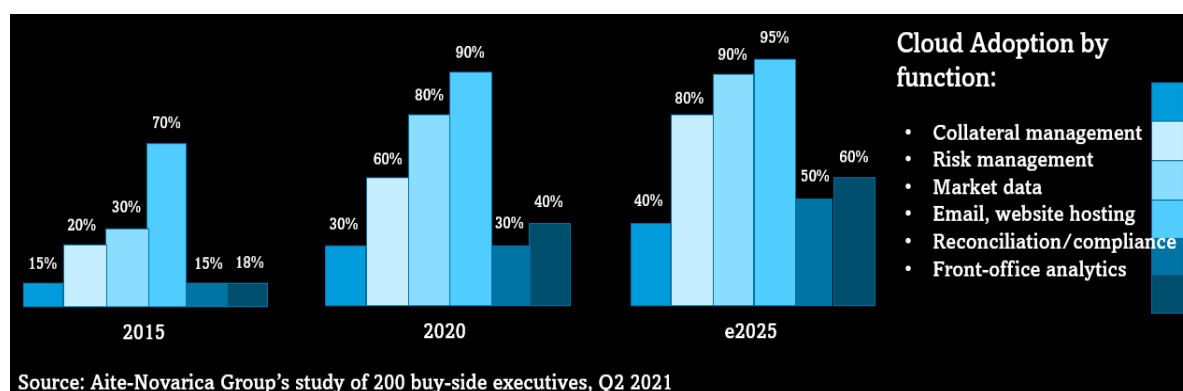
³ "2019 Global Asset Management Report," Linedata, April 11, 2019, accessed [date], <https://www.linedata.com/newsroom/thought-leadership/2019-global-asset-management-report>.

Perhaps most significantly, only 5% of this year's respondents expect no transition to the cloud at all—a significant drop from 2019 predictions, when a whopping 53% of firms had suggested no plans for this change. This is a real shift in mentality, and implementation over the next one to three years will mean most firms will have at least some presence in the cloud by 2024.

CLOUD ADOPTION IS SHOWING UP IN MORE FUNCTIONAL AREAS

Some of this shift is driven by firms deploying first-step cloud applications, such as email, Microsoft Office tools, and customer relationship management systems, as highlighted in Linedata's 2019 GAM report. This is also confirmed by Aite-Novarica Group's research forecast for cloud adoption.⁴ However, Figure 5 shows survey respondents believe newer areas, such as collateral management, and reconciliation and compliance, which were once dominated by on-premises installations, are expected to shift from a cloud adoption rate of 15% in 2015 to 40% and 50%, respectively, in 2025. The use of the cloud in risk management and in front-office analytics is also expected to experience significant upswings in adoption.

FIGURE 5: CLOUD SPREADS ACROSS MORE FUNCTIONAL AREAS



Based on Aite-Novarica Group's interviews with buy-side firms, many managers will choose cloud-based deployments if they are available during their next software upgrade cycle. Commonly stated benefits of the cloud include the desire to outsource

⁴ See Aite Group's report [Innovation in Capital Markets: The New Normal](#), July 2020.

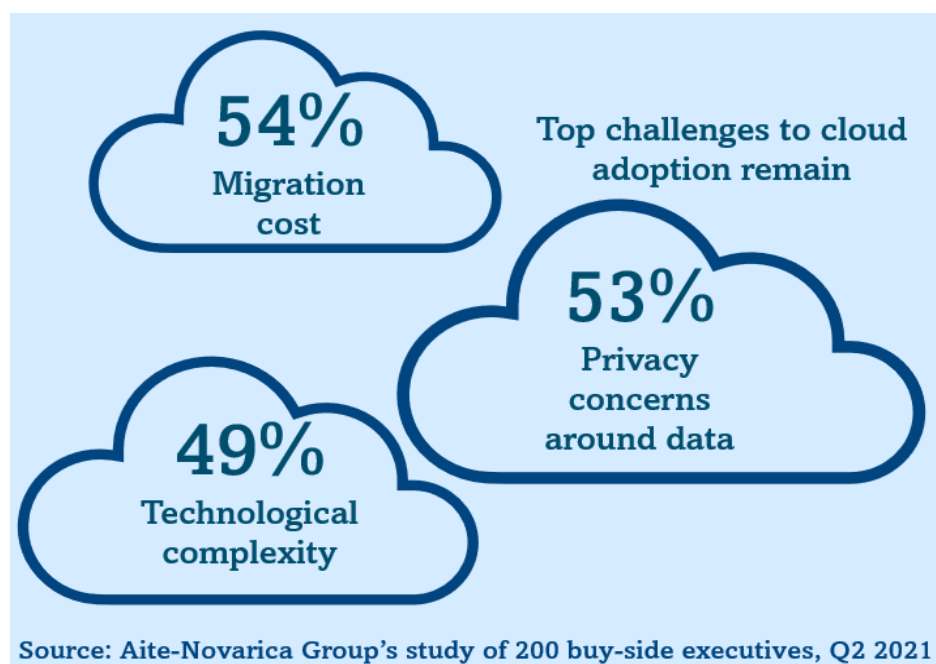
the infrastructure and software management, access to scalable data storage and computing resources, and a cost model that toggles with usage.

Past concerns about the cloud are abating. Firms are less challenged by increasing regulatory guidance, and broader acceptance of cloud technology is growing. Despite the progress and acknowledgment of the benefits of cloud-enabled and native applications to current and future state operational models, further barriers remain for firms to go all in on the cloud, as highlighted in the next section.

LOOKING AHEAD, CONCERNS AND IMPEDIMENTS REMAIN

Cloud concerns persist despite wider adoption within the buy-side. Respondents believe the cost of migration (54%) is most impactful. According to Aite-Novarica Group research, these large one-off costs are a deterrent for some firms, even if TCO is thought to be reduced over the long term.⁵ Additionally, privacy concerns around data (53%) and technology complexity (49%) are also top of mind (Figure 6).

FIGURE 6: TOP CLOUD CONCERNS



⁵ See Aite Group's report [Cloud Adoption in Capital Markets: A Far From Fluffy Subject](#), May 2019.

Moreover, privacy issues are linked to security concerns about how investment firms catalog and store the personal details of investors. Cloud providers have worked diligently to achieve full compliance with laws such as the EU's General Data Protection Regulation, which requires asset managers to catalog and know where client data is located, even if it is hosted by a cloud provider, along with increased requirements to protect that data from undue processing. Additionally, cloud providers have received various certifications, such as the ISO cloud security standards. Industry participants appear still burdened by past perceptions of this issue.

Despite the advances of cloud providers, cloud adoption is a far-from-simple task and is not a short-term project. The decision to be cloud-first tends to be easier for a new investment firm that has no existing technology footprint because it can select providers that have hosted models or cloud-native solutions. Perhaps it comes as no surprise that 60% of investment firms that have adopted the cloud estimate that less than half of their firm's tech stack is deployed in the cloud. (Figure 7). Only 1% of respondents suggest they are putting most, if not all, of their eggs in the cloud basket (Figure 8).

FIGURE 7: A MINORITY OF THE TECH STACK IS CLOUD DEPLOYED

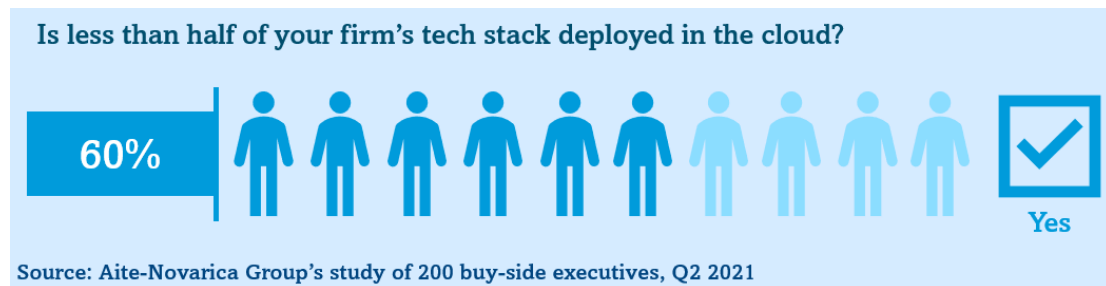
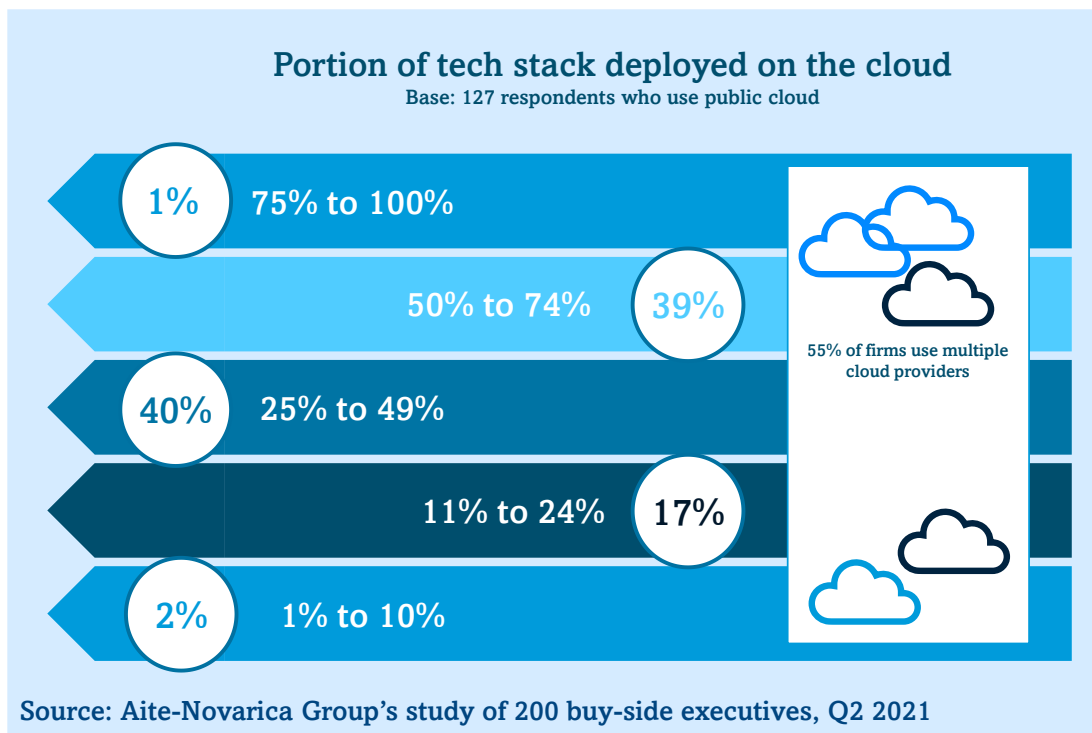


FIGURE 8: FIRMS CONTINUE TO DIVERSIFY THE TECH STACK

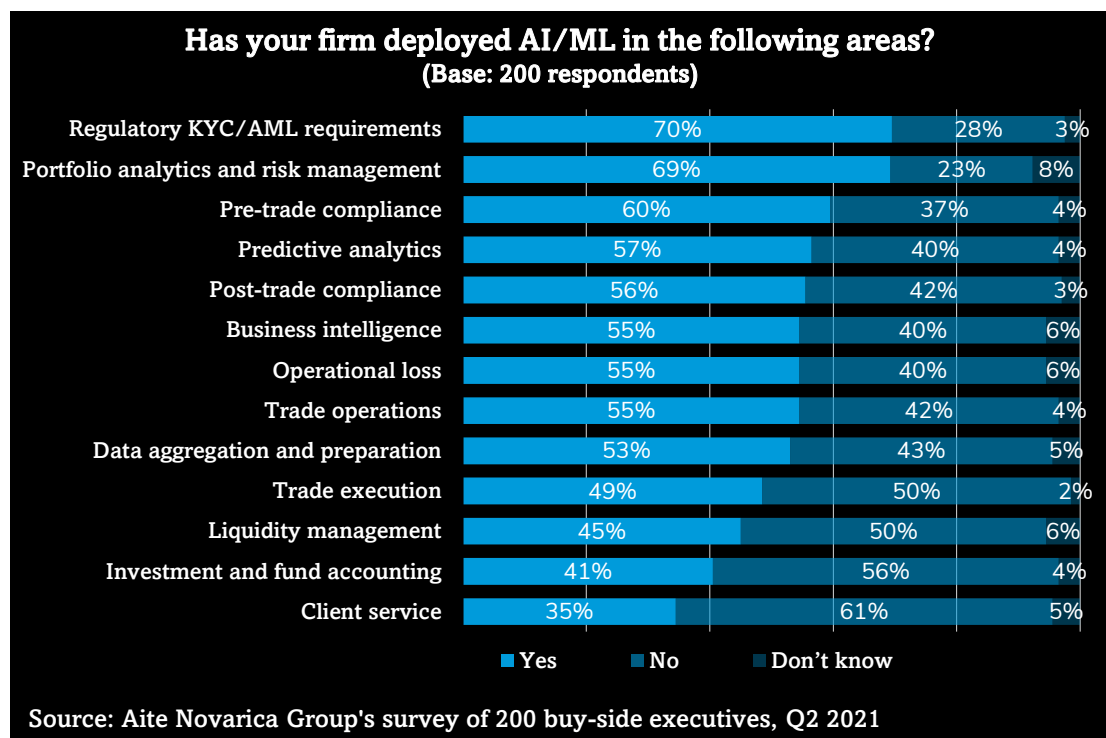


ADVANCED TECH ENHANCES HUMAN JUDGMENT

The utilization of AI and ML as part of the digitization journey is helping firms improve business and investment performance outcomes. Traditionally, the industry has thrown people at operational issues or outsourced the function without solving the associated problems. Survey results suggest that managers have moved well beyond using AI and ML for just portfolio decision-making and are now using it across the investment and operation life cycle, albeit with differences in adoption rates across functions.

Over 62% of respondents agree or strongly agree that use cases for AI and ML have increased over this past year (Figure 9), with the highest adoption focused on regulatory Know Your Customer (KYC)/anti-money laundering requirements (70%), and portfolio and risk analytics (69%). Traditionally, statistical analysis has been used to interpret data patterns and increase the predictability of data outcomes. The explosion of data sets and data types has increased the demand for advanced data methods.

FIGURE 9: AI AND ML USE IS EXPANDING



For predictive analysis, AI and ML are highly useful across multiple use cases, including threat management and operations. Protecting against cybersecurity attacks is one such area. If unsuccessful, advanced technology can also reduce damage by identifying and helping to fix breaches where they occur. Meanwhile, more than half of firms have explored—at least on a proof-of-concept basis—the use of AI and ML for operational outcomes, including operational loss, improved trade operations, and post-trade compliance.

Deployment of AI and ML helps scale investment businesses without the need to hire additional staff and also facilitates the optimization of resource allocation, provides the ability to derive new business insights, and improves daily staff decisions for better outcomes. However, utilization rates among different segments of the buy-side vary significantly:

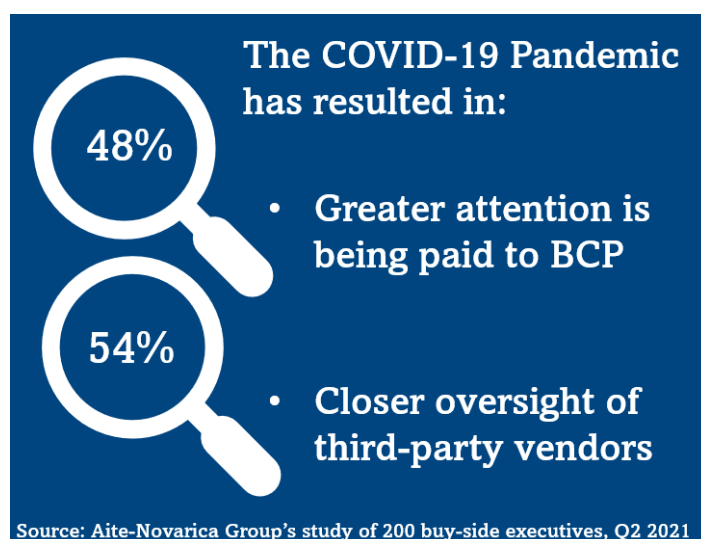
- The adoption of AI and ML in pre-trade compliance is highest for hedge funds and alternative managers at 88%.

- For liquidity management, the use of AI and ML is highest in North America (53%) than in Western Europe (38%) and the Asia-Pacific (30%).

BCP AND PROVIDER OVERSIGHT—A GREATER PRIORITY

The COVID-19 pandemic also refocused the industry's attention on BCP (Figure 10). Oversight of internal operations and third-party providers is being prioritized. Over half (54%) of respondents agree that the pandemic put greater attention on BCP, and 48% say the pandemic had made their organization look more closely at oversight governing its third-party outsourced providers.

FIGURE 10: THE PANDEMIC'S IMPACT ON BCP



This focus on BCP is vital, as global investment firms operate in a 24/7 environment and system or process failures can have significant cost implications. Many firms and technology vendors have turned to cloud-based backup services to provide continual replication of critical applications and data. These firms can benefit from rapid recovery after an outage, which is vital to support hybrid IT environments.

BCP considerations are also increasingly important as outsourcing continues to grow across technology and operational functions. This means the asset managers and providers will need to collaborate further to help mitigate these event risks. Service

providers can expect greater scrutiny about their own BCP as buy-side clients look more closely into backup plans in place at key suppliers.

Financial institutions will also look at their own internal processes in the event of a loss in service and seek to perform greater oversight of key vendors when possible. The latter would entail further investment in technology and staff focused on oversight on outsourced functions. For example, the industry has ramped up its desire to perform oversight on fund administrators, either through rules-based controls on net asset values (NAV) produced by administrators or by deploying more comprehensive contingent NAV technology to support oversight efforts.⁶

ACTIVE MANAGEMENT REVIVAL?

While total assets under management (AUM) in passive funds outpaces actively managed funds, the latter has experienced greater growth as of late in certain areas of the market. According to Morningstar data, ESG exchange-traded funds (ETFs), which accounted for 27 billion euros in the first quarter of 2021, have quadrupled in a year's time. Total AUM by ESG funds—the majority of which are actively managed—has swelled to US\$1.7 trillion at the end of March 2021, doubling in two years.⁷

“According to 56% of surveyed firms, the COVID-19 pandemic has created opportunities for active managers to demonstrate their value.”

Fifty-six percent of surveyed firms agree or strongly agree that COVID-19 pandemic has created opportunities for active managers to demonstrate their value. However, these opportunities are not equal across strategies and geographies. Multi-asset funds and complex investment strategies have seen growth of inflows with a larger spotlight on stewardship and ESG integration. Consequently, the increased scope and breadth of strategies is reflected in a firm's technology choices around systems that support multi-asset capabilities across the public and private investable universe, along with the need

⁶ See Aite Group's Report [Contingent and Oversight Net Asset Value: Who Watches the Watchmen?](#), July 2021.

⁷ Saikat Chatterjee, “ESG Fever: Share of Sustainable Fund Trading Soaring in 2021,” Reuters, July 14, 2021, accessed September 9, 2021, <https://www.reuters.com/business/sustainable-business/esg-fever-share-sustainable-fund-trading-soaring-2021-2021-07-14/>.

for integrated ESG data and analytics in portfolio management systems, as discussed in the next section.

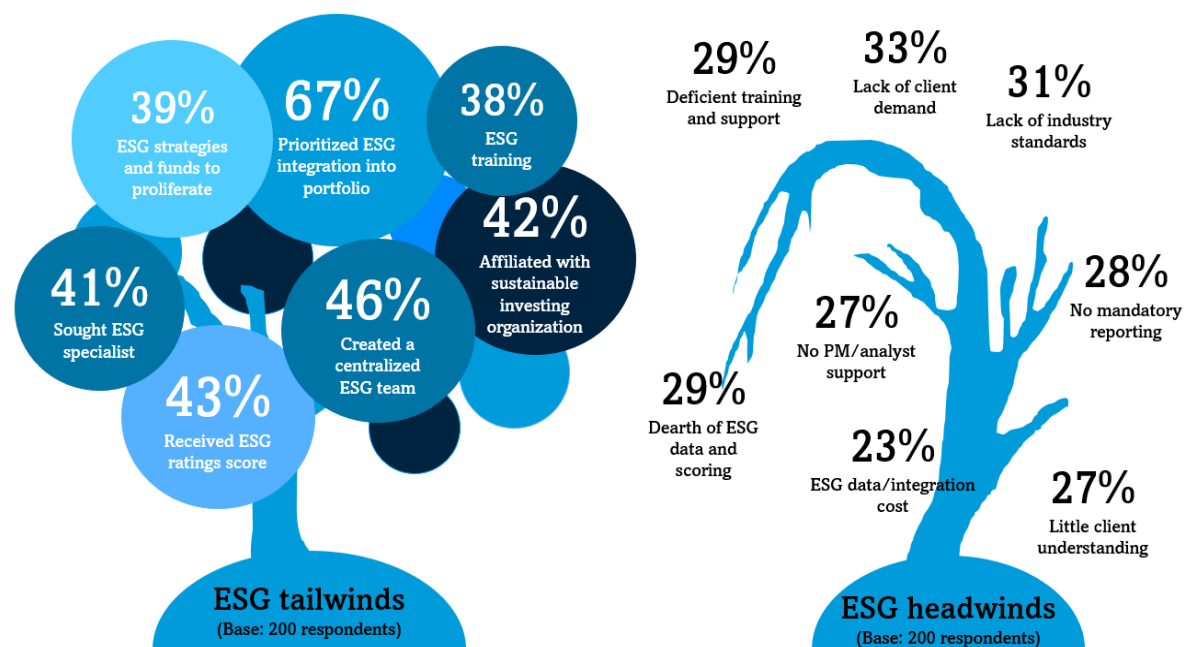
TRANSPARENCY AND WIDER IMPACT: ESG INTEGRATION MATURES

Over the past few years, attention on ESG and sustainable considerations in investment product design, data and scoring, risk management, and disclosure to clients and prospects has significantly shifted to center stage and will play a vital role in many jurisdictions' regulatory attention moving forward. For example, the EU taxonomy looks to define sustainable practices and has implemented a number of regulations to improve transparency of ESG metrics and risk for both corporations and asset managers.

ESG CAPABILITIES CENTRALIZE AT BUY-SIDE FIRMS

Sixty-seven percent of respondents have prioritized the integration of ESG factors into their investment framework to some degree (Figure 11). These institutions seek to integrate ESG into the investment process and have approached this in multiple ways, including adopting a centralized ESG team (46%), receiving a score from an ESG rating company (43%), and participating in global/regional organizations that promote sustainable investing (42%).

FIGURE 11: ESG ADOPTION CONTINUES WHILE BARRIERS REMAIN



Source: Aite-Novarica Group's study of 200 buy-side executives, Q2 2021

Tied to this is the need for integrating ESG data and analytics within a centralized resource that can benefit the investment-oriented staff members. This can be an internal platform or one that is provided by a third-party vendor. Firms may also seek ESG specialists (41%) that are part of a centralized team or that sit within the specific investment teams across asset classes. ESG training is also supplied to all employees for nearly two-fifths of firms (38%), regardless of their role's impact on the investment process—showing how high a priority is it for many firms. Finally, 39% of respondents indicate a proliferation of ESG strategies and funds in the marketplace.

Some barriers to ESG adoption remain. Thirty percent of surveyed firms believe the integration of ESG factors into their portfolios is a low priority, and for 3% of managers it wasn't even on the radar. One of the key holdups is the lack of clarity on agreed standards and definitions necessary to attract fund investment. Additionally, a number of investment firms have also launched ESG-labeled funds or relabeled funds in an effort to capture client assets, when in fact, these funds are not managed as marketed. The European Securities and Markets Authority (ESMA) and the U.S. Securities and Exchange Commission (SEC) have warned firms of “greenwashing” activities in an effort to align investment practices with marketing initiatives and steer firms toward legitimate ESG investing.

The challenges of integrating ESG as a core investment strategy provide fuel to the contrarians and include the contention by some firms that demand for these types of products and strategies is not universal. A third of firms cite the lack of client demand as a major reason for delay of ESG integration (33%). In particular, midsize asset managers with AUM of between US\$50 billion and US\$249.9 billion are most likely to cite this issue (45%), in contrast with larger managers with US\$250 billion or more in AUM (21%). Only 2% of managers indicate they do not have any resistance or barriers.

Regulatory action globally, led by the EU, is working to alleviate these concerns and clear up ambiguity. For example, the EU taxonomy's regulatory technical standards that define sustainable activities will be published to the public in January 2022 with the application date of July 2022. Firms will need to ensure fund compliance ahead of these dates and ensure they have a solution in place if relying on a third party. Other jurisdictions, such as the U.K. and China, indicate they will implement some form of taxonomy, but clarity is still to come.

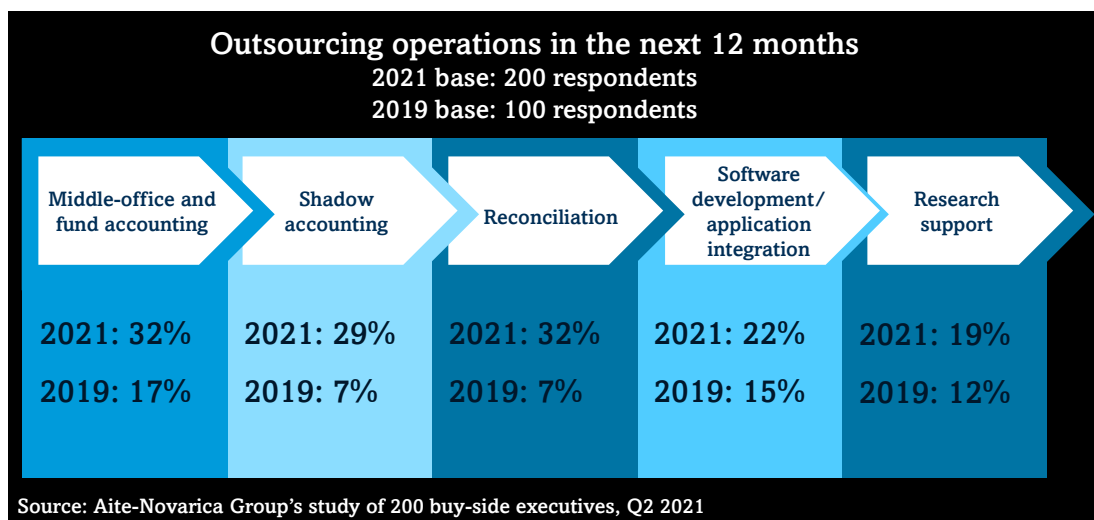
TECHNOLOGY AND OUTSOURCING CONSOLIDATION

With firms evaluating their business and operating models in the wake of the pandemic, key decisions include whether to update legacy technology infrastructure, whether to continue with in-house development of technology versus outsourcing to a third-party, and, finally, whether it is more optimal to outsource a function all together. These choices are changing the footprint of investment firms for the future.

AMALGAMATION OF TECHNOLOGY AND SERVICES

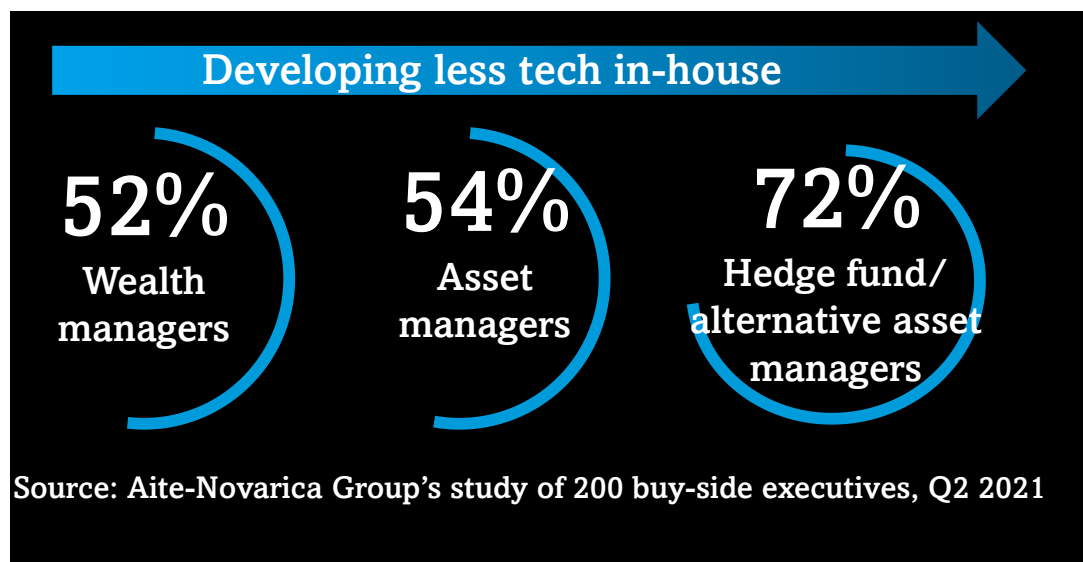
The majority of survey respondents (58%) are developing less technology in-house compared to five years ago (Figure 12).

FIGURE 12: OUTSOURCING CONTINUES TO EVOLVE



Investment firms more commonly prefer third-party technology rather than in-house-built tools as the outsourcing of IT staff, expertise, technology, and data continues (Figure 13).

FIGURE 13: INVESTMENT FIRMS PREFER THIRD-PARTY TECH

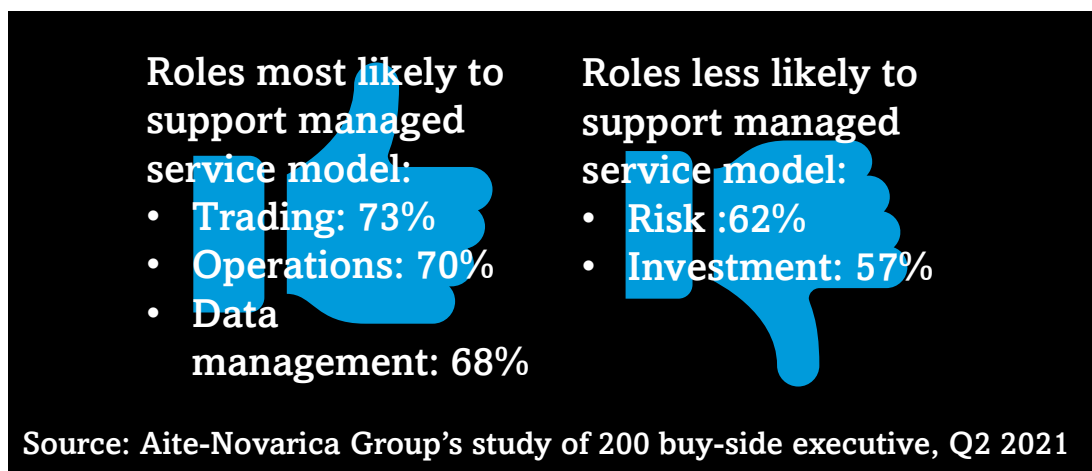


The desire to use well-regarded systems is driving this transition by institutional investors—allowing them to pass due diligence questions with ease and reduce spending on development required to maintain platforms with increasing requirements (e.g., multi-asset classes support). Moreover, a key decision is whether third parties have the appropriate software deployment model, with many firms now looking at cloud deployments and cloud-native solutions as part of their digital transformation journey.

“Over 60% of firms are eager to work with vendors that provide both technology and outsourced services.”

As investment managers refocus on the core business of portfolio management of client assets and client service, buy-side firms are looking beyond tech development from their vendors. The popularity of services such as the hosting, management, and maintenance of technology has risen in various spots (Figure 15). Nearly two-thirds of respondents (63%) agree that their organizations prefer managed service models in which both technology development and management are outsourced to a third-party. This aligns with the growth in interest of hosted, SaaS, and fully managed service models discussed earlier.

FIGURE 14: MANAGED SERVICES MORE WELCOME IN SOME AREAS THAN OTHERS



Outsourcing comes in phases, with the first outsourcing deals witnessed in the 1980s and peaking at specific points over the last few decades, such as the push to outsource following the 2008 financial crisis to lower TCO and survive recession. The industry is seeing a new round of outsourcing driven by cost constraints and a desire to streamline internal operations. Moreover, technology trends such as cloud adoption and AI and ML make it easier to outsource not just the technology but also the function itself, and to have oversight over quality when doing so.

Sixty-one percent of firms are eager to work with vendors that provide both technology and outsourced services, allowing managers to remain focused on delivering value to their clients while lowering operating costs and scaling their business models. A patchwork of software applications that do specific jobs within an organization, along with various outsourced partners, often requires more IT hacks to make it all work together, thus increasing TCO over the long run. Firms are looking for vendors offering the optimal combination with the aim of reducing operational overhead, the need for significant vendor management, and reconciliation across providers.

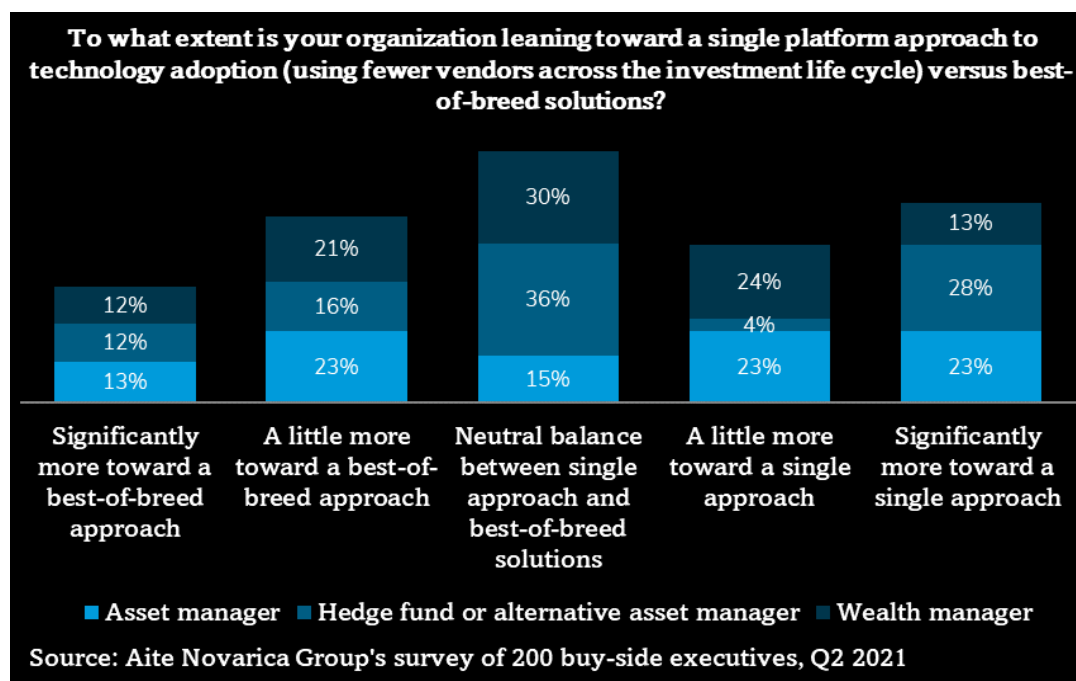
FRONT-TO-BACK TECHNOLOGY DEPLOYMENTS GAIN MOMENTUM

An increased reliance on third-party technology and outsourcing has pushed investment firms to look toward front-to-back solutions. Vendor partner choice is becoming more critical as managers become entrenched with their partners. Some important considerations in the selection process include ensuring the vendor has invested in cloud

technologies, is showing innovation with AI and ML development, and is providing tools to help clients oversee any outsourced processes in real time.

This shift to front-to-back adoption is more common in asset managers (Figure 15). Nearly half of asset managers are leaning toward a single provider approach (46%), compared to 37% of wealth managers and 32% of hedge fund/alternative asset managers. One possible explanation for this trend is the dominance of asset managers across the vendor client base given their size and influence in the market. Product enhancements, data, and services often target this segment. As a result, many of the mergers and acquisitions seen in the past few years have added points along the value chain and made vendors more front-to-back oriented. These shifting trends will likely impact the third-party partners investment firms will choose in the years to come, with front-to-back providers set to win more market share.

FIGURE 15: FRONT-TO-BACK TECHNOLOGY ADOPTION

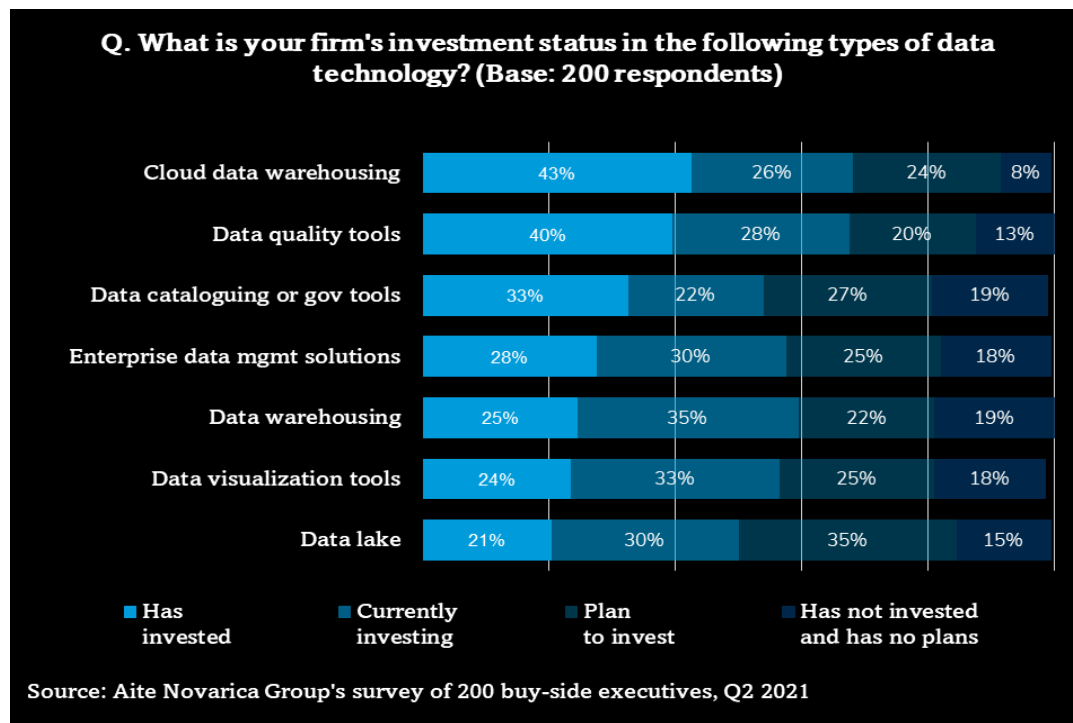


DATA MANAGEMENT: THE NEW GOLD RUSH

Investment firms are prioritizing data management technology as part of their digital transformation journeys (Figure 16). Data silos are still a significant concern, but it is

clear from the survey results that many firms are becoming more data centric. For example, a larger number of firms are currently investing or have already invested in cloud data warehousing (68%) and data quality tools (68%). The former is to aid the firm in centralizing data from multiple silos and to ensure firms have direct visibility and ownership over their data. The latter is to give users confidence in the quality of data that is used internally or externally, such as for client and regulatory reporting.

FIGURE 16: DATA MANAGEMENT TECHNOLOGY INVESTMENT



It comes as no surprise that data cataloging and governance tools have seen significant investment due to data privacy and security concerns. By contrast, data lakes that are intended to help store unstructured and structured data sets have suffered a bad rap and are being underutilized by businesses when data quality and consistency are low, thus making it difficult for firms to realize value.

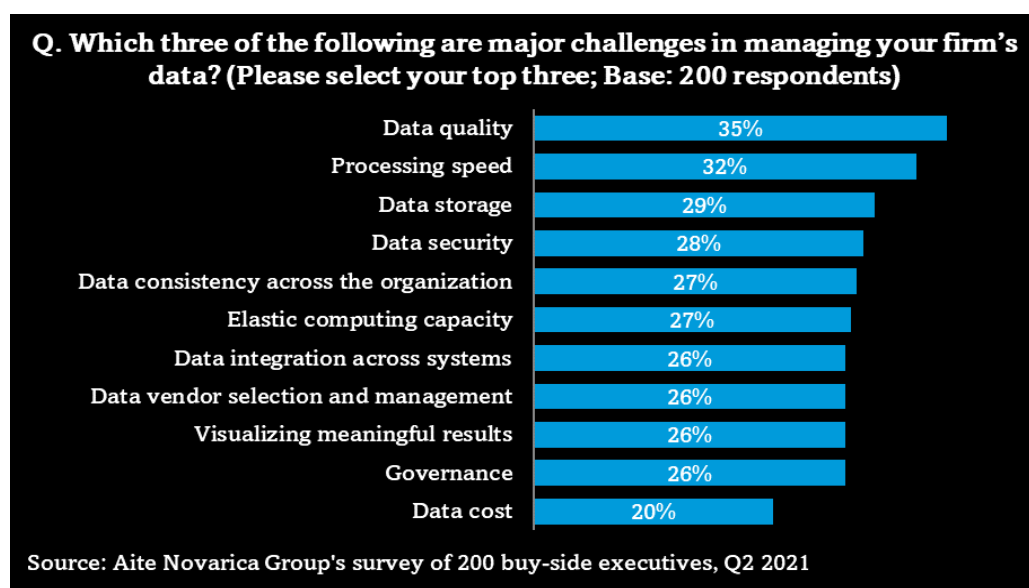
Investment in data management since 2019 has been significant, but firms are still hampered by a number of issues (Figure 17). Problems around data quality were found

to be the most important concern in Aite-Novarica Group's qualitative research.⁸ Concerns of data quality can arise from the existence of very siloed data architectures, poor validation workflows, operational issues, or human error.

To address these concerns, firms are investing in not only data technologies but also the right leadership and data governance structure. According to Aite-Novarica Group's research, the percentage of buy-side firms in the top 100 (as ranked by AUM) with a chief data officer has increased from 25% in 2019 to 43% in 2021.

Regional-level differences point to North American firms struggling most with governance (32%, compared with Western Europe at 18%). Significant investment from General Data Protection (GDPR) regulations in Europe in 2019 likely spurred this change. However, European asset managers tend to have the most difficulty when it comes to visualizing meaningful results from data (35%, compared with North America at 19%). Finally, data security concerns give 52% of Asia-Pacific respondents reason to be concerned.

FIGURE 17: DATA MANAGEMENT CHALLENGES



⁸ See Aite Group's report [Data Management Trends in Capital Markets](#), April 2021.

NEW CHALLENGES AND OPPORTUNITIES

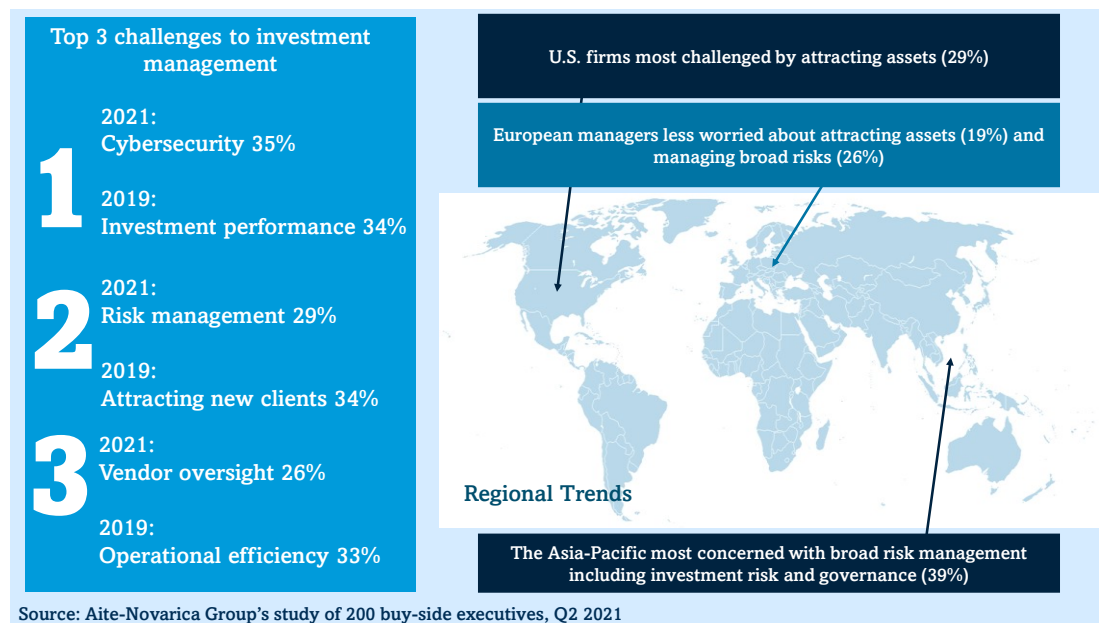
Looking toward 2022, new challenges and opportunities exist for investment firms that are prioritizing investment in technology and decisions around operating models. This includes the infrastructure to support hybrid work environments, management of portfolios, and the need to integrate ESG, as well as the continued drive to product innovation that delivers investment returns. This section explores which of these factors will impact the roadmap for technology adoption and resource allocation budget in the coming years.

THE RISING IMPORTANCE OF CYBERSECURITY

Compared to the 2019 GAM survey, firms' top challenges have shifted away from achieving investment performance and attracting client assets to broad risk management concerns. More than a third of firms (35%) are most worried about how cybersecurity will impact their business (Figure 18). This aligns with the rapid rise of global ransomware attacks, including the March 2021 East Coast U.S. pipeline hacking. Global lawmakers are taking notice, with the European Union planning to set up a new Joint Cyber Unit to tackle the rise in EU ransomware incidents deemed to pose national security threats. These incidents have alarmingly increased from 432 in 2019 to 756 in 2020.⁹

⁹ Joe Tidy, "EU Wants Emergency Team for 'Nightmare' Cyber-Attacks," BBC, June 23, 2021, accessed August 19, 2021, <https://www.bbc.co.uk/news/technology-57583158>.

FIGURE 18: NEW CHALLENGES ABOUND FOR ASSET MANAGERS



Managing risk (29%) is the second-greatest challenge this year and includes traditional investment risk as well as broader risks such as regulatory risks. Vendor oversight (26%) also ranks highly on this list. This result is influenced by the larger sample of risk and compliance respondents this year, compared with the previous survey. Using third parties for both technology and operational outsourcing also means that additional resources have had to be put toward risk management and oversight. Furthermore, interesting segment differences include the following:

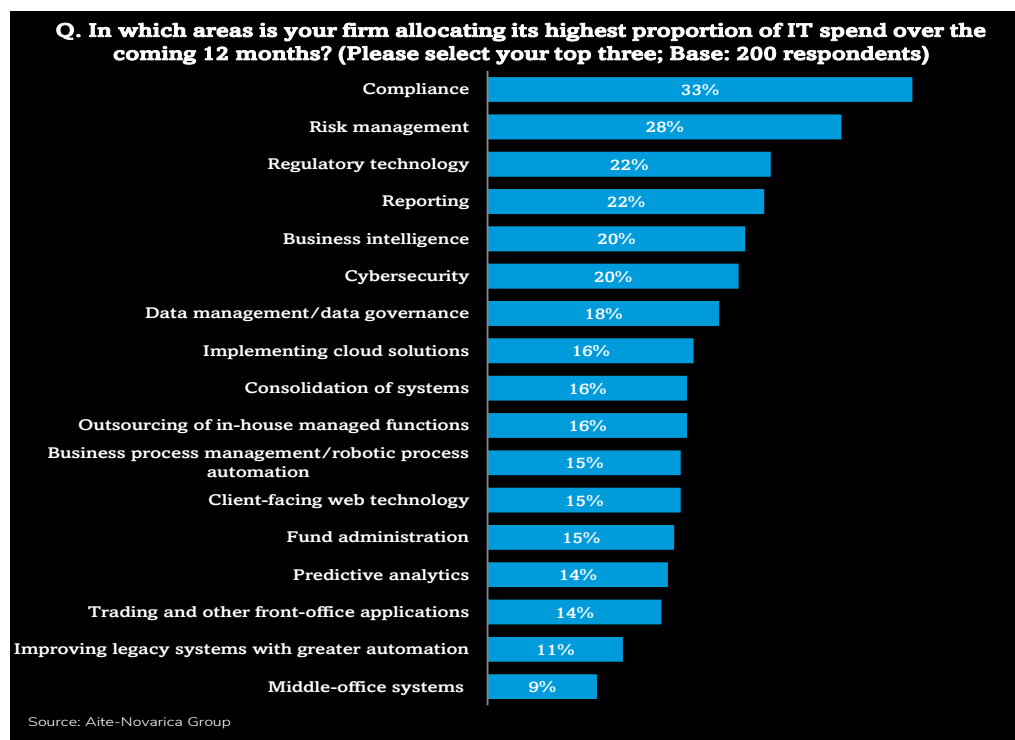
- **North American firms find attracting client assets more difficult:** Buy-side firms in the U.S. (29%) are most challenged by attracting new client assets, much more so than in Western Europe (19%) and the Asia-Pacific (4%). Some U.S. and Western Europe firms have expanded in the Asia-Pacific in search of asset inflows that have significantly bolstered AUM growth.
- **Asia-Pacific-based respondents cite broad risk management that encompasses investment risk and related governance, risk, and compliance concerns as the most significant challenge:** More Asia-Pacific-based respondents cite risk management as a top challenge (39%) than do respondents from North America (28%) and Western Europe (26%).

- **Wealth management firms are most challenged by data management:** A third of wealth management firms (33%) identified data management as their biggest difficulty among those listed—a significant difference when compared with asset managers (19%) and hedge funds/alternative managers (8%). This is linked to requirements around KYC, management and handling of client data, investment data for reporting, and rollout of client portals.

COMPLIANCE AND RISK MANAGEMENT LEAD ENTERPRISE SPENDING

Compliance, risk management, and regulatory technology are shaping the top three areas of technology spend. (Figure 19). New regulations have been a key driver of tech development and spend in the years that followed the global financial crisis of 2008. Most recently, the EU's Sustainable Finance Disclosure Regulation (SFDR), the SEC's framework for modernization of fund valuation, and the latest phases of the Uncleared Margin Rules have continued to push managers to prioritize compliance (33%) and regulatory reporting (22%). The significance of risk management and governance are also evident for more than a quarter (28%) of firms against the current backdrop.

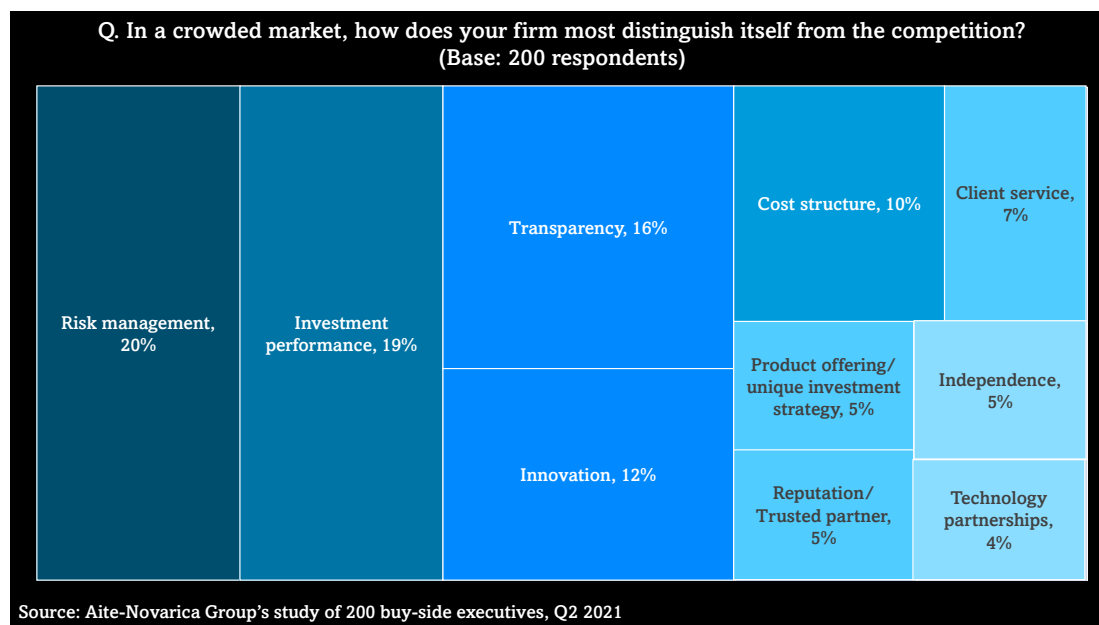
FIGURE 19: IT TECHNOLOGY PRIORITIZATION



DIFFERENTIATION HINGES ON INVESTMENT PERFORMANCE, RISK MANAGEMENT, AND TRANSPARENCY

Greater transparency is driving brand recognition and differentiation across asset managers (Figure 20). Expected ways surveyed firms say they most often distinguish themselves against competitors are through risk management practices (20%) and investment performance (19%). However, the influence of greater transparency (16%) now ranks third in terms of forming a critical part of a firm's identity. Firms that are highly transparent in terms of internal operations and practices build investor confidence through stronger engagement. Transparent fee structures, ESG and corporate social responsibility, communication, and disclosures for the benefit of the investor are seen as more important today than they were in the past.

FIGURE 20: THE PATH TO DIFFERENTIATION

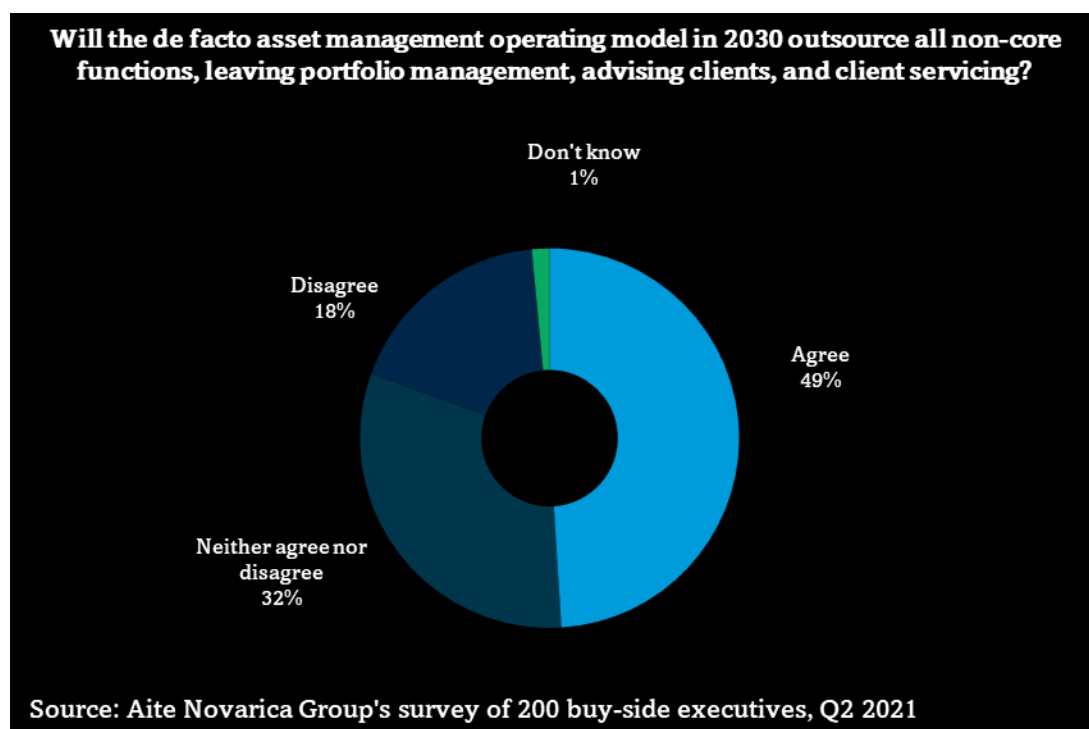


Innovation across unique strategies or services (12%) is viewed as a way for firms to separate themselves from the competition. For example, in 2021, many firms have developed and launched active ETF strategies in an attempt to take advantage of ETF popularity and increasing calls for transparency.

THE FUTURE OF ASSET MANAGEMENT

When asked directly to predict what the footprint of asset management firms will be in 2030, just under half of buy-side firms (49%) agree or strongly agree that the future operating model will include outsourcing all noncore functions except for portfolio management, advising clients, and client service (Figure 21). This aligns with the trend toward operational simplicity, exemplified by the cloud adoption trajectory, use of third-party technology, functional outsourcing, and the desire for managed services.

FIGURE 21: ASSET MANAGERS MINIMIZE INTERNAL OPERATIONS



Looking ahead, what will the preferred operating model and technology requirements look like? As outsourcing grows across the investment life cycle, concerns around BCP and the growing need for oversight will mean that staff within functions that are outsourced will be prime candidates to be repurposed into oversight teams. These individuals have the experience and capabilities to understand operational processes and evaluate optimal or suboptimal activities by third parties, and can step in during loss-of-service events.

AI and ML will also aid the transition to operational simplicity to support oversight and exception management. Firms will look for both investment and operational alpha and will no doubt rely on advanced technology across multiple functions not only to automate and optimize processes but also to help improve outcomes and perform oversight of key processes that are outsourced.

“Buy-side institutions will seek providers that have front-to-back technology platforms or multiple applications that can support the entire investment process.”

Buy-side firms will also converge on providers that can support both technology and service. In the quest to find the right partner, buy-side institutions will seek providers that have front-to-back technology platforms or multiple applications that can support the entire investment process.

As firms accelerate their digital transformations, many are taking a data-centric approach to their operating model. As a consequence, managers are considering investment in data accuracy in the cloud and are relying on third parties to help alleviate pains caused by data silos. Multi-cloud and hybrid environments will become ubiquitous as internal and external environments will need to coexist much more seamlessly across cloud and on-premises infrastructure, as well as across internal and externally developed applications.

Finally, decisions to integrate ESG have led firms to more actively choose portfolio companies that adhere to sustainability requirements. This trend will continue to foster the resurgence of active strategies and realign the focus of global policymakers and regulators toward ensuring sound investing practices. These developments create a need to effectively access and integrate data to develop products and meet reporting demanded by investors and regulators.

ABOUT LINEDATA

Linedata offers a robust, configurable platform of software, data and services that enable our 700 wealth, institutional and alternative clients to grow, operate efficiently, manage change and provide excellent service to their own clients and stakeholders. With over 20 years' experience, Linedata delivers humanized technology that empowers leading asset management and credit industry firms worldwide to evolve and operate at the highest levels.

[Linedata.com/AMP](https://linedata.com/AMP) | getinfo@linedata.com

ABOUT AITE-NOVARICA GROUP

Aite-Novarica Group is an advisory firm providing mission-critical insights on technology, regulations, markets, and operations to hundreds of banks, payments providers, insurers, and securities firms as well as the technology and service providers supporting them. Our core values are independence, objectivity, curiosity, and a desire to help all participants in financial services create better, more effective strategies based on data, well-researched opinions, and proven best practices. Our experts provide actionable advice and prescriptive business guidance to our global client base.

CONTACT

Research and consulting services:

Aite-Novarica Group Sales
+1.617.338.6050
sales@aite-novarica.com

Press and conference inquiries:

Aite-Novarica Group PR
+1.617.398.5048
pr@aite-novarica.com

For all other inquiries, contact:

info@aite-novarica.com

Global headquarters:

280 Summer Street, 6th Floor
Boston, MA 02210
www.aite-novarica.com

AUTHOR INFORMATION

Paul Sinthunont
+44 20 3743 8917
psinthunont@aite-novarica.com

Research design and data:

Judy Fishman
jfishman@aite-novarica.com