

# Vidrio

## Artificial Intelligence and the Future of Institutional Investing

A look into how investors are navigating the impact of AI and adapting their operations.

2024



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# Welcome to Vidrio's Artificial Intelligence and the Future of Institutional Investing Report

Artificial intelligence (AI) is advancing rapidly, with institutional investors exploring Large Language Models (LLMs) and neural networks to gain efficiencies in data management, portfolio transparency, asset allocation, and more.

How are investors adapting to AI's impact? Are they evaluating operational techniques, tackling ethical issues, and identifying limitations in AI execution, LLMs, and deep neural networks effectively?

Vidrio Financial analyzed the demographics of survey participants, including their industry focus, allocation to external funds, and total assets under management. We hope you find these insights valuable as you weigh the benefits and challenges of future AI innovations.

## Key Trends

Grasping the complexities of data is critical when incorporating artificial intelligence into asset allocation strategies. Misunderstanding this fundamental concept can result in erroneous interpretations of investment data during AI implementation.

Vidrio believes that AI will transform every aspect of the asset allocation field, especially in managing expansive information across various alternative asset classes. When considering AI's potential to improve allocators' experiences, the following areas are likely priorities:

- **Speed and efficiency** – How quickly and accurately can hedge funds, private markets, and equity allocations be processed?
- **Decision making** – How will AI refine and optimize decision-making processes, and will it significantly influence allocation decisions compared to those made without AI?
- **Risk management** – Can AI models preemptively identify risks by analyzing portfolio gaps that could diminish alpha opportunities?
- **Personalization** – Will Chief Investment Officers or Portfolio Managers have individualized portfolios rather than commingled ones due to cost implications, providing deeper insights into alternative investments recognized as unstructured and lacking transparency?

Implementing AI requires a structured methodology with defined milestones and triggers to enhance time efficiency and reduce costs. This initiative should be viewed not merely as an IT expense but as a strategic effort to improve operational efficiency. Finally, and perhaps most important is given the current state of AI, human intervention should only occur when AI encounters barriers in its learning process. With these key trends identified let's get into the report.

**ARTIFICIAL INTELLIGENCE**  
A program that can sense, reason, act, and adapt

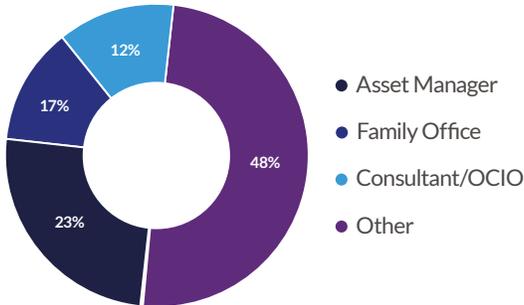
**MACHINE LEARNING**  
Algorithms whose performance improve as they are exposed to more data over time

**DEEP LEARNING**  
Subset of machine learning in which multilayered neural networks learn from vast amounts of data

To learn more on how Vidrio is adapting best practices in AI to improve an allocators journey in volatile markets please check out [our blog](#) where we dive into deeper AI execution and operational efficiencies.

## Preliminary demographics of Vidrio respondents

What is your industry?



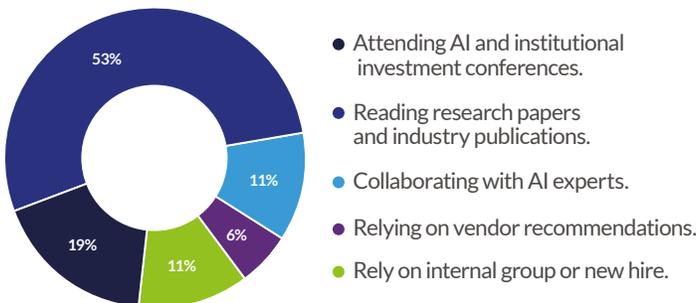
What percentage do you allocate to external funds?



What is your AUM?



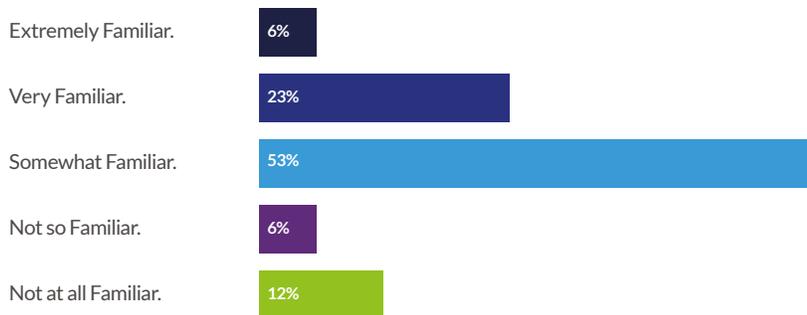
How do you stay updated about the advancements in artificial intelligence that could impact your investment strategies?



Artificial intelligence has long been a topic of interest across industries, but it wasn't until the 1980s that Renaissance Technologies made significant strides in developing AI systems for specific financial challenges. You can read more about [AI's history in a 2019 report on Artificial Intelligence in Finance from the Turing Institute](#).

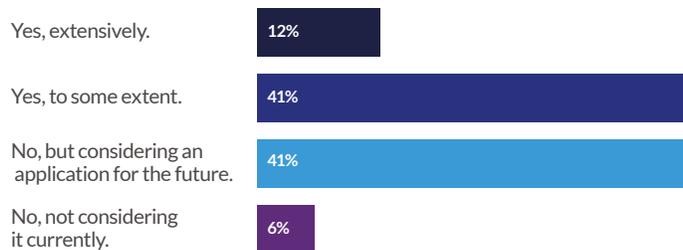
Recently, with ChatGPT and similar advancements, it's safe to say that we're in an AI boom. We asked survey respondents about their familiarity with AI regarding institutional investment strategies. Over half the respondents stated that they were somewhat familiar with AI, while 18% believed that they still didn't have the full picture into the application of AI on investment operations.

### What is your level of familiarity with Artificial Intelligence (AI) in institutional investment strategies?



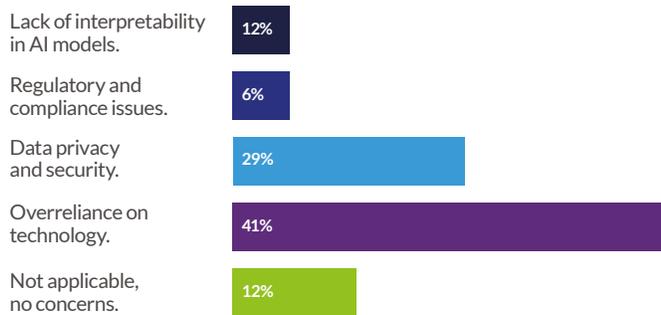
Expanding on the familiarity with AI-based tools and technologies, we wanted to understand the extent of AI's influence on the daily decision-making of allocators. The responses were intriguing, with opinions split between a mild positive impact, and no current impact, but plans are in place to consider an option for the future. Surprisingly, there was minimal feedback indicating no consideration for AI at this time.

### Have you incorporated AI-based tools or technologies into your investment decision-making process today?



When exploring the possibilities of AI implementation by allocators, concerns naturally arise across all areas of their business operations. Questions often revolve around the governance and the implementation process. Can AI effectively handle unstructured private market data and streamline manual processing to drive significant cost savings? How can AI assist our portfolio teams in navigating regulatory and compliance challenges? Below is what survey respondents put forth regarding these crucial issues.

### What concerns you the most about integrating AI into your investment strategies?



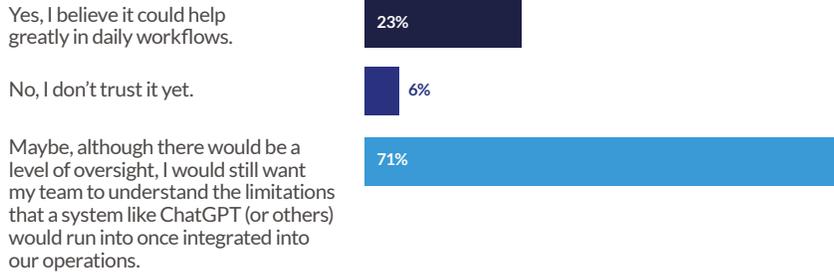
Data privacy and security, as well as extensive technology use, preoccupied 70% of the survey respondents' thoughts. This perspective highlights key factors for successfully addressing and incorporating AI in alternative investment analysis.

At Vidrio, we believe combining human expertise with AI is essential for achieving dependable results. In cases where AI algorithms encounter obstacles or veer off course, having human experts on standby to intervene and recalibrate AI models is essential for enhancing the AI system's learning capabilities.

On the security and data privacy side, Vidrio posted a [blog](#) late last year that detailed some of the leading thoughts around security, especially as AI continued its rising adoption. The blog pointed to a McKinsey & Company study that showed as cybersecurity threats continue to escalate security spending will also rise, leading to the New York Department of Financial Services to roll out updated standards as it relates to these types of threats. Vidrio also weighed in on how we address our framework and the protections we believe institutional investors need for the future.

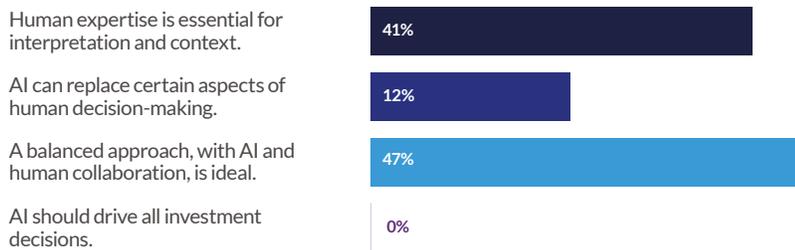
When respondents were asked about the usage of the current AI players like ChatGPT, Google Bard, and others to help monitor allocation decisions the answers showed that oversight and understanding limitations would be a priority.

### Do you believe a ChatGPT, Google Bard, Claude AI, Bing AI Chat, or other bot could ever be used in institutional investing to help manage, monitor, and optimize allocation decisions?



The feedback we received regarding the role of human expertise in AI investment decisions was somewhat unexpected. We believed that an approach blending both aspects would be predominant, but this was (almost) not what we found.

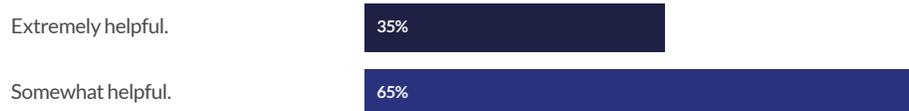
### How do you view the role of human expertise in AI-drive investment decisions?



In summary, the key point from these responses is that AI and institutional investors are not yet prepared to fully rely on artificial intelligence. Investors may consider allowing AI to handle more manual tasks under adequate supervision.

To conclude this section, we aimed to understand allocators' perspectives on the role of artificial intelligence in streamlining operations and cutting costs. The encouraging outcome is that every investor response showed a favorable opinion of AI, recognizing its capability to provide varying degrees of operational support. The breakdown is below:

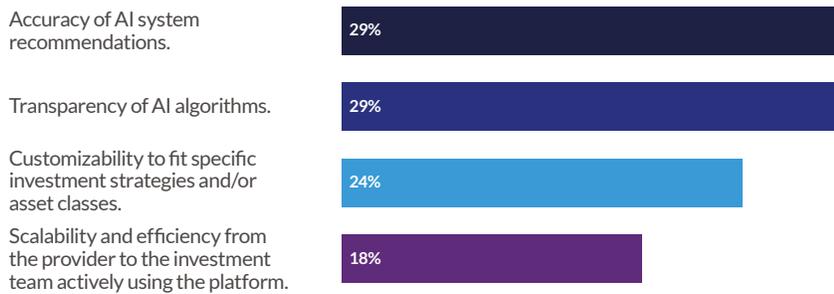
### How impactful do you believe artificial intelligence will be in helping automate operations and reduce costs for institutional investors?



The evaluation phase is crucial when it comes to artificial intelligence integration, and how the use of LLMs and deep neural networks will impact outcomes in allocator models.

Teams must understand the challenges these technologies aim to solve, how the final solutions can target specific pain points, the cost implications, and much more. Our next question was aimed at gaining a deeper insight into the key factors to consider when assessing AI solutions for investment decisions.

### Which factor is most important when evaluating artificial intelligence solutions for investment decisions?



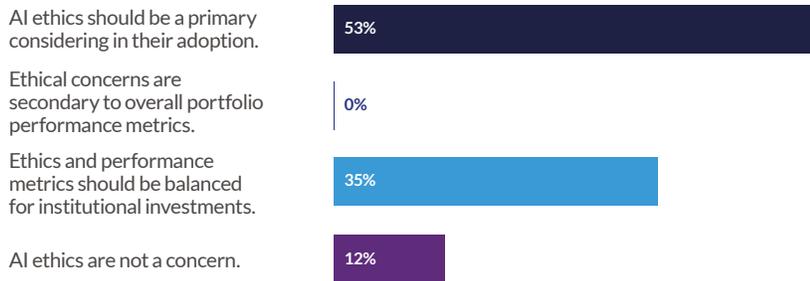
As you might observe, the responses were evenly distributed, with a slight preference for the accuracy of the AI system’s recommendations and the transparency of its algorithms. It comes as no surprise to those in institutional investing roles that changes in accuracy and transparency can greatly influence portfolio performance.

This summer, Institutional Investor carried an [article](#) that highlighted opinions from Goldman Sachs, MIT, and others that went further into cautionary tales around AI. One highlight of the article stated that AI LLMS are only as good as their training set and are simply set up to BS you.

At Vidrio, we believe that without oversight, AI algorithms may overly depend on training data, leading to more negative results. However, CIOs and portfolio managers can mitigate this risk by complimenting the AI algorithms with a level of human expertise to help drive greater accuracy and transparency of results.

Ethical concerns about artificial intelligence are growing as new algorithms and data sets are revealed. With innovation moving quickly, many AI experts stress the need to incorporate ethics into every executable method or LLM. From the initial brainstorming session for this report, Vidrio identified this crucial issue and decided to formulate the following question and response to gauge the state of ethics in AI development:

### How do you perceive the potential ethical challenges related to AI in institutional investing?



The respondents who stated that AI ethics are not a concern are simply not looking at AI for their operations currently, especially since most respondents either believed that it was a primary consideration or at least gave equal weight to overall portfolio performance. Based on our research, ethical concerns in AI can be classified through the following examples:



#### Biases in the data

Think about the data these training sets are built on. Do they favor findings from one asset class or another? What about a given period of lower volatility? Could those training sets be missing something that the models wouldn't be able to replicate?



#### Privacy

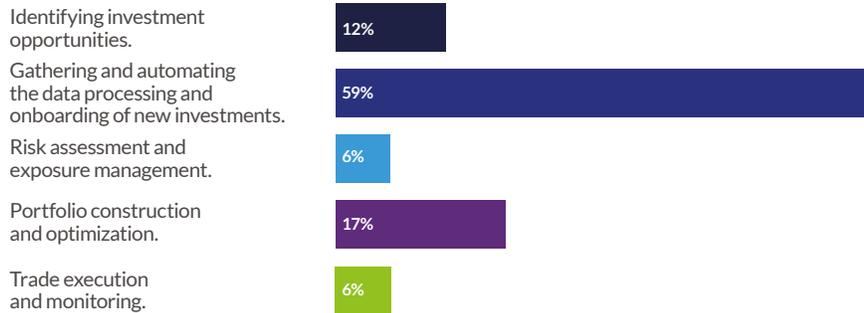
A lot of AI data execution begins through chatbots like ChatGPT or Claude. How secure are those questions being asked, and can they be hacked and leveraged for insider knowledge? This goes back to Vidrio's question 4 findings, where privacy and security were ranked as high concerns for those looking to roll out an AI foundation.



#### Oversight

As stated in other areas of our analysis, LLMs can have errors in their processing. Vidrio believes that the only way to be ethically responsible is to combine AI processing with human expertise so that when the machine hits a roadblock or issue, a human can be held accountable and correct these mistakes in near real-time.

## Given the current state of artificial intelligence, which stage of the investment cycle do you think AI would be most effective in improving?



Institutional portfolio construction is a constant battle against market forces, environmental factors, manager selection, data transparency, new asset class verticals, and more. These battles can play out on a regular occurrence which led Vidrio to create this question on where AI would be most effective in improving a CIOs daily journey.

Results showed that in its current form, AI would be most effective in improving data processing and the onboarding of new investments, totaling ~60% of the respondents. ~17% of the respondents said that they would like to see AI impacting portfolio construction and optimization in the future.

In our discussions with investors on our Improving Alpha and Thematic Investor [podcasts](#), many credit an early mentor in their career for imparting a deep understanding of institutional market portfolios. Current AI methods struggle to replicate this knowledge transition for detailed risk mitigation, portfolio construction, or spotting opportunities. This is likely why many investors begin their AI approach in data gathering and cleansing.

### Listen to the latest episodes of our podcasts:

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INNOVATION IN INVESTING, ESG & TECHNOLOGY

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- Will Homan-Russell**  
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Portfolio Manager, Horizon Kinetics

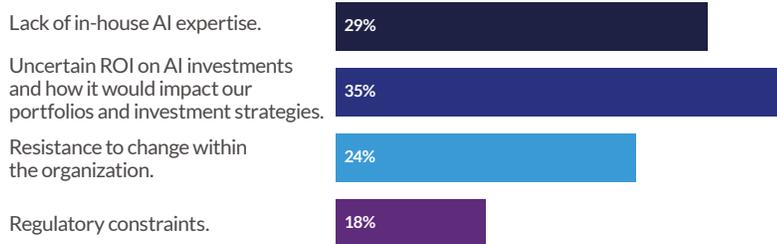
Hosted by **Kieran Cavanna**  
Co-founder Thematic Investors Podcast & Chief Investment Officer and Co-founder of Old Farm Partners

Afterward, teams can shift to improving allocation gaps, reviewing cash flows, and other strategies.

Moving from the ethics and AI implementation discussion, we wanted to uncover insights on the obstacles hindering broader AI adoption and the potential constraints AI may pose in institutional investing.

In this next set of questions, Vidrio encouraged respondents to elaborate on their views about AI's limitations. Below are the response percentages, followed by our perspective.

### What do you consider the biggest barrier to wider AI adoption among institutional investors?



### Do you believe there are any limitations to AI when it comes to institutional investing?



First, let's address the obstacles to greater AI adoption, and discuss common concerns regarding AI initiatives. Approximately 88% of respondents indicated that a shortage of skilled professionals, internal resistance to change, or doubts about the return on AI investments could hinder substantial portfolio growth.

We believe that the expertise required to oversee AI applications should match the quality of data they use. If the data is flawed or starts from incorrect inputs, the algorithms will be unstable. Similarly, without human oversight to verify results, these applications risk failure.

For the limitations, respondents were more positive leaning into more innovations on the horizon for artificial intelligence. Still, concerns did exist when asked to highlight the limitations that would derail artificial intelligence programs. The top responses from this part two are as follows:

- 1 AI algorithms are purely computational; they don't possess genuine intelligence. Humans need to oversee and authorize the actions suggested by these machines.
- 2 AI is built to follow trends. Successful institutional investing comes from an understanding and choosing to break trends with a certain amount of risk. AI is not yet that advanced or nuanced enough for that. In its current form, it's a short-term gainer with long-term trash.
- 3 Need better regulatory framework and data privacy to utilize AI tools to their full potential.
- 4 Questions still exist in my mind about the accuracy or reliability of the outputs.
- 5 AI needs to understand the context of the data sets that are being used to drive the LLM responses.



The following questions explored the survey participants' views on AI implementation, significant warning signs, and the debate around cybersecurity.

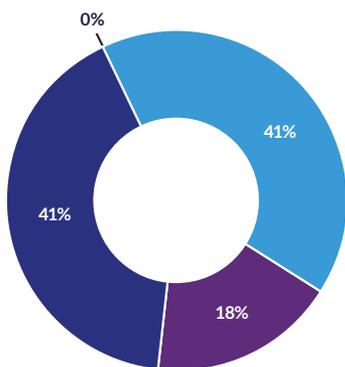
The majority of respondents are open to integrating some level of AI into their investment activities. These choices seem to be balanced against the potential benefits AI could bring in terms of enhancing internal efficiencies, lowering costs, and minimizing manual tasks.

However, most respondents believe that data issues and security will still be a top roadblock for implementation concerns. Given this type of response, Vidrio sees additional cybersecurity spending occurring to help support artificial intelligence planning and execution projects. **According to Chief Investment Officer**, last year, gaps need to be checked to ensure a good cybersecurity policy is implemented before integrating AI.

Data could be put into jeopardy by:

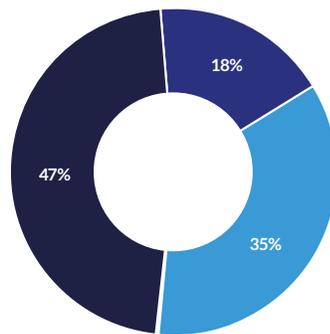
- Smart prompts which can leverage some of the LLMs that the data was initially trained on.
- Risk controls that may be able to be circumvented by asking a different question or query.
- Phishing emails trying to break into an organization using AI.

### How receptive are you when it comes to implement AI in your investment operations?



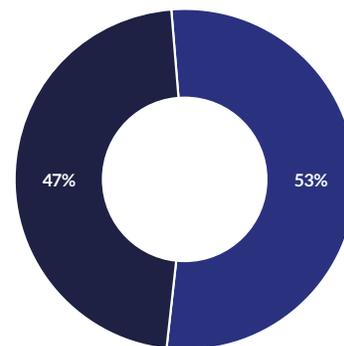
- 0-25%
- 26-50%
- 51-75%
- 76-100%

### What is the biggest red flag in institutional investing when it comes to AI?



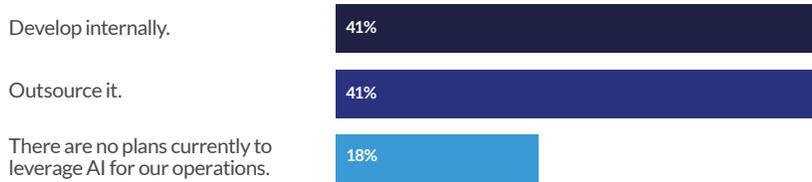
- Cybersecurity - risks of personal data getting outside of the system.
- Data reconciliation errors.
- Can't be relied upon to make allocation decisions.

### Do you believe that AI will open your investment operations to increased cyberthreats?



- Yes
- No

**When researching artificial intelligence solutions do you believe that you are better off undertaking AI innovations internally or leaving it as an outsourced expense?**

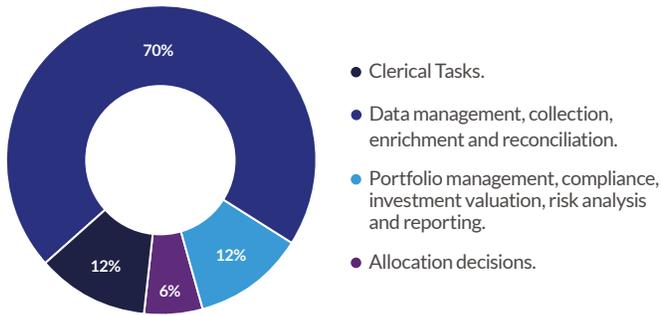


Do you have the internal teams to not only develop an AI infrastructure but also maintain and constantly enhance its growth? Do you have specific business challenges that an external LLM or generative AI platform might miss? Is your data prepared to be ingested by an AI platform, and does that platform have human oversight to correct mistakes?

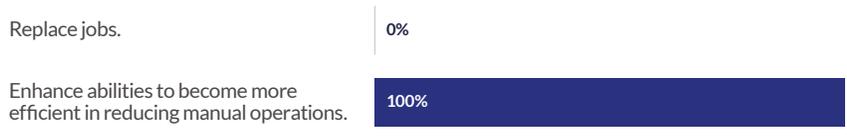
These are some questions allocators consider before starting an AI program, which ties into the insourcing vs. outsourcing debate. Most importantly, institutional investors should avoid a one-size-fits-all approach, even when comparing similar allocators' experiences.

As you can observe from the results above, respondents were equally split on whether to build AI innovations internally or explore more through an outsourced partner. From Vidrio's perspective, outsourcing liberates internal resources and enhances the efficiency and precision of allocator operations. Best-in-class AI systems may include a learning engine that helps allocators scale and reduce mistakes from past roadblocks.

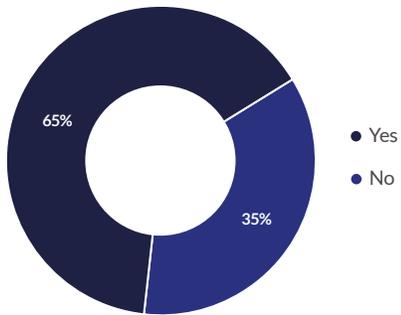
### Where are you most interested in expanding your use of artificial intelligence?



### Do you believe that artificial intelligence will replace investor jobs or simply enhance their ability to become more efficient in reducing manual operations?



### Is your organization making any specific hires to better understand the use of artificial intelligence relating to your business operations?



To what degree can LLMs and deep learning networks improve the journey of institutional investors?

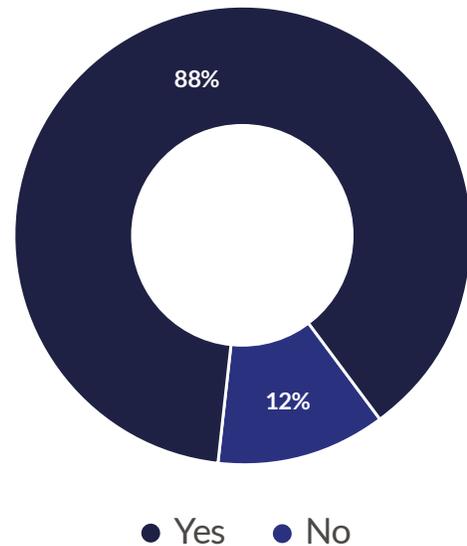
From what we're hearing, allocators are still on the fence about fully leveraging AI in strategic asset allocations (SAA) and rebalancing decisions to help generate alpha. Risk mitigation is critically important to allocators today and many wonder how LLMs will define a portfolio, based on region, asset class, or market environment.

The next questions examined AI's role in an allocators' daily tasks, and whether AI might replace their jobs. Over 70% of respondents were positive about using AI for data management, collection, enrichment, and reconciliation. This backs up recent findings from a Deloitte survey which found that leaders across industry sectors are making investments in a "constellation" of areas for greater AI impact. These areas would be data management, cloud consumption, and cybersecurity. All three of these points have been represented throughout our own discovery. You can see more of these findings [here](#) from Deloitte.

Clerical tasks and portfolio management, which consisted of compliance, investment valuation, risk analysis, and reporting came in second with a combined 23.52% of the vote. Allocation decisions using AI came in last with just under 6%.

There was less of a debate on the topic of whether AI will replace jobs or simply enhance abilities to become more efficient in reducing manual operations. Once the votes were analyzed, Vidrio saw 100% of the respondents favoring an enhancement to current abilities and reducing manual operations. When asked about hiring for AI to better understand how to apply methodologies and more, respondents were favorable to increasing internal talent to give them an advantage on business operations. These findings back some of what Citigroup recently revealed in their own AI Impact report in banking. Although the initial reaction may be the elimination of some roles due to AI, these innovations may lead to new jobs being created to handle AI oversight. We think this method will greatly enhance allocator confidence in AI models and minimize any potential AI hallucinations arising from the training data.

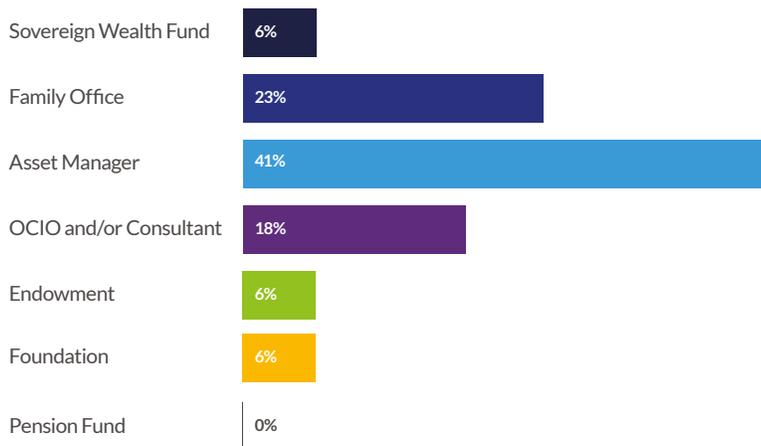
**Do you believe that AI can improve data transparency by eliminating data anomalies that could occur in a human-only operations?**



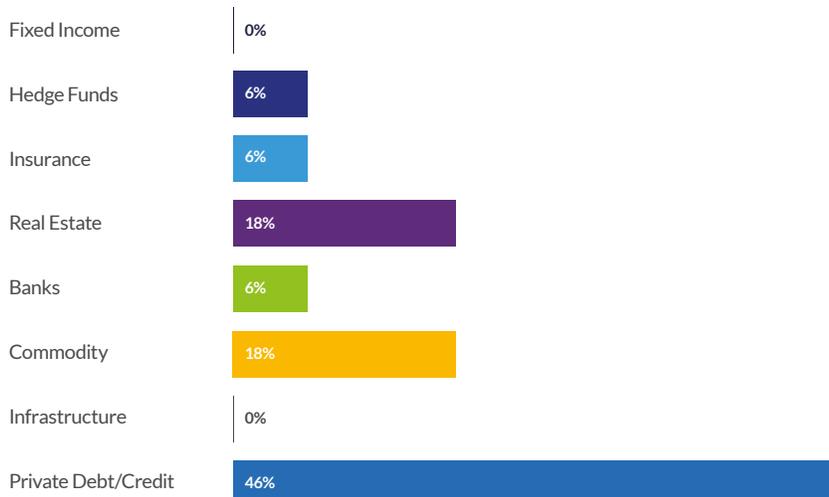
Transparency in artificial intelligence is a necessity and as these results have shown, respondents favor greater AI insights when AI models are executed correctly. Transparency should not only be present at the final output stage, but also through the design, deployment, and monitoring stages of any AI model.

Earlier this summer the European Union, (EU) set forth some regulations around AI and what will be the necessary balance between AI datasets and regulations, which are asking for detailed summaries of these models. Numerous AI providers are somewhat wary about the level of transparency required to comply with regulatory requirements. You can read more from the Reuters coverage [here](#).

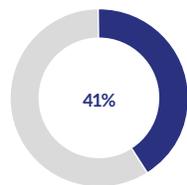
**In your opinion, which institutional investor would be most open to implementing artificial intelligence to support either their front, middle, or back-office operations?**



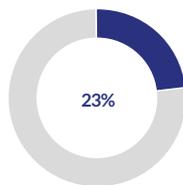
**What is the one asset class that you wish artificial intelligence could provide you with more support in helping to make investment decisions today?**



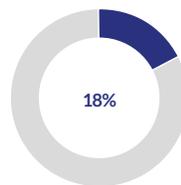
Allocators are a diverse group, and their allocation needs differ based on factors like risk, return, transparency, market environments, and more. They approach these institutional investments through common models like the **Norway model, the Endowment model, the Canada model, and the Liability Driven Investing (LDI) model**. We won't go into the specifics of each model but when asked about which type of investor would be most open to implementing artificial intelligence, respondents spotlighted the top 3:



**Asset Managers**



**Family Offices**



**OCIO and/or  
Consultants**

In our experience, these investors seem to be the most nimble, and open to AI innovation. There's also a level of regulation that larger players (sovereign wealth funds, endowments, foundations, and pensions) may have to contend with regarding how AI could help build a portfolio and how accurate is the data that is being ingested. Given this level of regulation and security concerns (as mentioned earlier), larger players seem to be waiting for the AI boom to level out.

Vidrio also wanted to learn about asset class perspectives and where allocators believe the greatest benefit in leveraging AI will exist for portfolio construction.

Almost 50% of the respondents believed that private credit/debt was the area that required the greatest support. This isn't a surprise as interest in the \$1.6 trillion private credit market has continued to grow with allocators wanting more exposure to private credit through direct investment/co-investments or external manager allocations. Right now there's an attractive risk/reward profile with diversification in alternatives. You can see more of our alternative research through our Investor Compendium series with Alternatives Watch by downloading the report [here](#).

# Final Thoughts

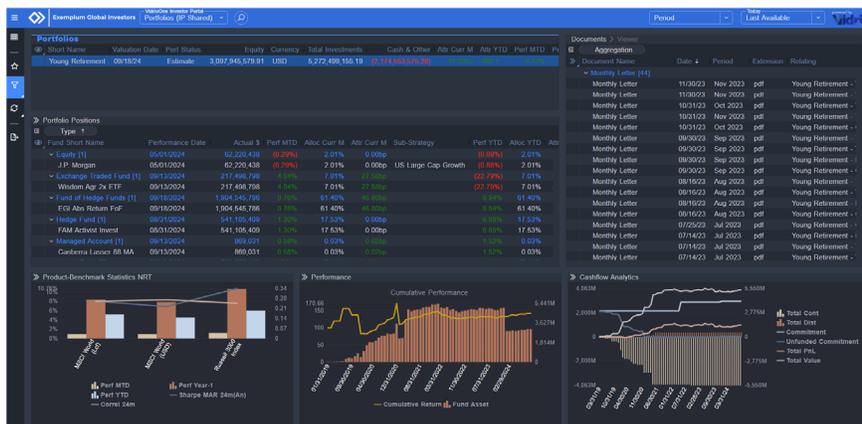
We trust that Vidrio Financials' survey on artificial intelligence and the future of institutional investing provided valuable insights to your organization. The key findings underscore ongoing concerns among allocators regarding excessive reliance on AI without human oversight.

In our opinion, human intervention is crucial to verifying data management processes, implementing control measures, and continually ensuring that the machine does not falter or produce incorrect responses when handling atypical queries beyond its training scope.

Vidrio notes a trend where family offices and asset managers are progressively integrating AI, with substantial investors investing significant time to meticulously assess AI models and their application for new investments, as well as data collection and processing. Although the adoption of AI is slowly gaining traction, many allocators we interviewed maintain that AI will not replace traditional techniques for boosting alpha generation in portfolios.

Grasping the application of AI, whether handled internally or through an external provider, fundamentally relies on Vidrio's key principle of transparency. Vidrio believes in the outsourced model and has created a helpful guide for institutional investors looking at all the options for innovating their technology. That resource guide can be found [here](#) and helps to outline both the positives and negatives (+/-) for evaluating new technology which could be built internally, outsourced across multiple vendors, or through a single technology-enabled solution like Vidrio.

If you would like to learn more about how Vidrio Financial is using the power of AI to improve the allocation journey for leading asset owners and managers across the institutional space please [reach out and book a demo](#) with our team today.





## About Vidrio

**Vidrio Financial** is the first technology-enabled service for allocators —providing managed data services and portfolio management software to institutional investors globally. Vidrio's multi-asset class data services, analytics, and workflow applications empower allocators to take control of their complex investments and external manager relationships while helping to reduce costs, optimize resources, and mitigate operational risk. Vidrio's success is based on our capacity to efficiently collect and extract layers of external fund manager data across multiple asset classes, enrich that data with dynamic investment analytics, and then deliver the information together with rich analytical tools seamlessly across your critical investment management and stakeholder business reporting processes.

[vidrio.com](https://vidrio.com)