

# AI Adoption in Institutional Investing: Strategies for Today, Tomorrow, and Beyond

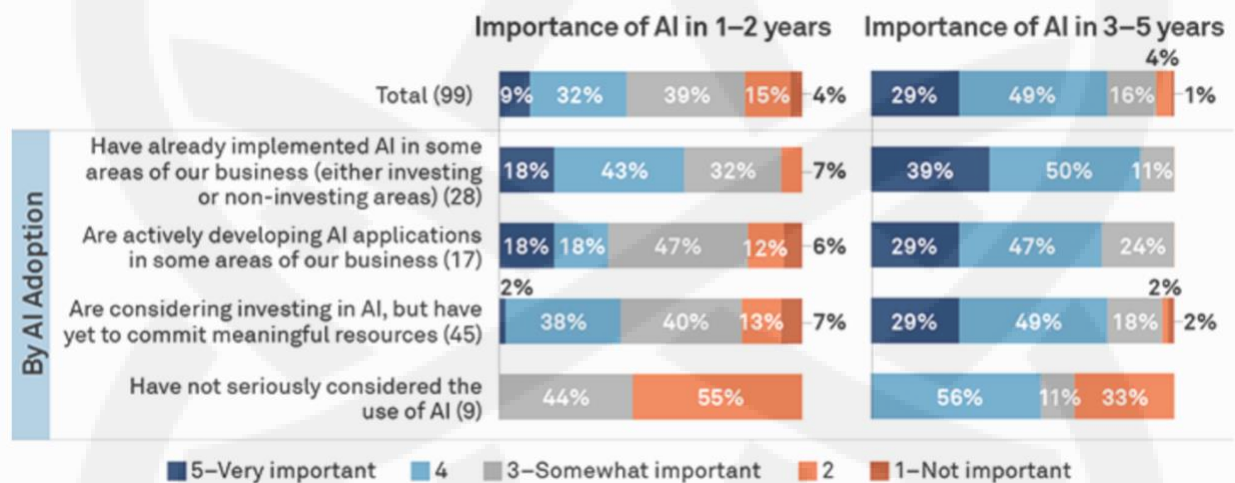
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## Introduction

Institutional investors – from venture capital and private equity firms to family offices and commercial real estate investors and beyond – are grappling with an explosion of data and a rapidly evolving competitive landscape. Artificial intelligence (AI) is increasingly seen as a key to gaining an edge. In fact, effective deployment of AI and other technologies could yield a tenfold ROI across investment returns, operational efficiency, and risk management for institutional investors. Surveys confirm that the AI shift is well underway: the global market for AI in asset management was ~\$2.6 billion in 2022 and is projected to grow ~24.5% annually through 2030. In a poll of top hedge funds, 9 out of 10 traders planned to use AI in 2023 to meet return targets. Yet many investors remain behind the curve – still relying on spreadsheets and email for tasks that AI could automate.

### Importance of AI for Asset Managers



Note: Numbers in parentheses represent number of respondents. May not total 100% due to rounding.  
Source: Coalition Greenwich 2023 Global Asset Manager AI Study

This whitepaper provides a strategic roadmap for North American institutional investors to adopt and deploy AI. It outlines near-term “quick win” automations available today, mid-term integrations over the next 1–3 years, and long-term uses beyond a 3-year horizon. We also discuss how firms should prepare now to capitalize on AI, and how to manage the associated risks. Throughout, we illustrate with real-world examples of investors already leveraging AI, and provide a breakdown of automation opportunities and notable AI tools/vendors in the market. The goal is to balance technical insight with executive-level readability – providing strategic guidance that is informed by the latest developments in AI.

## Near-Term Strategies: Leveraging AI Today

In the near term, institutional investors can adopt AI solutions that are readily available and proven to enhance decision-making and streamline workflows. These tend to be targeted tools that automate specific data processing or analytic tasks, delivering efficiency gains without massive overhauls. Key near-term strategies include:

**Intelligent Data Extraction and Processing:** AI can instantly parse and extract insights from documents that would take analysts hours or days. For example, machine learning models now “read” financial statements, contracts, and reports, pulling out key figures or clauses for analysis. This document intelligence accelerates due diligence and reporting. By automating data extraction from documents like partnership agreements, regulatory filings, and portfolio company reports, firms reduce manual data entry errors and free up analysts for higher value work. In practice, alternative asset managers are using such tools to handle the deluge of information – allowing them to source deals, evaluate opportunities, and conduct due diligence faster than competitors.

**Natural Language Processing (NLP) for Market Insights:** AI-powered NLP systems comb through unstructured text (news articles, earnings call transcripts, social media) to find signals and sentiments that inform investment decisions. For instance, an NLP engine can screen earnings call transcripts for subtle changes in a company’s tone or positioning, which might hint at strategy shifts. Likewise, sentiment analysis of news and social media can predict market reactions to events or gauge public perception of a brand. These techniques expand the range of information investors can efficiently monitor. (E.g. MarketPsych’s AI-driven sentiment analysis that correlates news sentiment with stock price movement.) By tapping these tools, investors gain timely insights from data that would overwhelm human researchers.

**Automation of Routine Analyses and Reports:** AI can streamline many repetitive workflows in the investment process. Portfolio monitoring is one example: machine learning models can continuously scan portfolio data to flag anomalies or compliance breaches, alerting managers only when human intervention is needed. JPMorgan’s CEO highlighted that AI already “added significant value” by reducing retail fraud and improving trading optimization and portfolio construction, e.g. via automated forecasting and analytics that enhance execution strategies. In practice, firms are implementing exception-based processing – automating regular checks and data reconciliations so that staff focus only on the outliers. Mundane tasks like data validation, report generation, and performance tracking can be largely handled by AI, speeding up operations and reducing errors.

**AI-Enhanced Research and Decision Support:** Another quick win is deploying AI “co-pilots” for analysts and investment teams. Large language model (LLM) ask-anything tools/chatbots, fine-tuned on a firm’s internal research and data, can answer analysts’ questions or draft summaries on demand. For example, Morgan Stanley Wealth Management created an AI assistant that lets advisors query the firm’s vast research library in natural language and retrieve relevant insights in seconds. This kind of internal chatbot saves professionals time in finding information and synthesizing knowledge, effectively augmenting their capabilities. AI co-pilots

and knowledge bots are increasingly common in finance—handling tasks from answering IT support questions to generating first drafts of investment memos. These tools are available now and can be deployed with relative ease, often via secure cloud services.

Overall, near-term AI initiatives focus on automation of clearly defined, labor-intensive tasks – extracting data, monitoring streams of information, and assisting humans in research and analysis. Institutional investors can implement these today using off-the-shelf solutions or modest pilot projects. The benefits include immediate efficiency gains, faster and more informed decision-making, and relief for staff from drudge work. As a result, even early steps with AI can help firms cope with increasing data volumes and make better decisions under time pressure.

## **Mid-Term Strategies: AI Integration in 1–3 Years**

Looking one to three years out, institutional investors should plan for deeper AI integration into core investment processes. In this mid-term horizon, AI moves from peripheral helper to a more central role in analysis, predictions, and decision support. Firms will build on early wins to deploy AI in areas like due diligence, risk management, and portfolio optimization – areas that may require more customized solutions, data integration, and change management to realize.

Key mid-term strategies include:

**Predictive Analytics in Due Diligence and Deal Evaluation:** In the coming 1–3 years, AI-driven predictive models will become standard tools to evaluate investment opportunities. Instead of relying solely on spreadsheets and analyst gut feel, investors will use machine learning to forecast performance and uncover risks in potential deals. For example, some private equity firms are already using AI to analyze target companies' financials, customer metrics, and market data to predict growth trajectories or probability of default, dramatically speeding up due diligence (reportedly cutting evaluation time by up to 90%). A case in point: the world's largest pension fund, Japan's GPIF, trialed an AI program to evaluate external fund managers – using deep learning to more thoroughly and accurately assess each manager's style and skill. The AI provided quantitative metrics for factors that were previously qualitative, helping eliminate biases and expand GPIF's view of worthy candidates. In a similar way, mid-term AI solutions will assist VC/PE investors in screening startups or acquisition targets by analyzing vast datasets (financials, online reviews, competitive trends) to highlight which opportunities merit deeper look. AI won't replace human judgment in investment decisions, but it will surface hidden patterns and red flags earlier, allowing deal teams to focus their expertise where it matters most.

**AI-Driven Risk Management and Monitoring:** By the 1–3 year mark, AI will be more firmly embedded in risk and portfolio management functions. This goes beyond basic anomaly alerts – AI systems will perform sophisticated pattern recognition on market and portfolio data to anticipate risks and optimize responses. Studies show that AI techniques (like neural networks and random forests) can identify complex, nonlinear correlations that sometimes precede market volatility or credit events. For fiduciary investors, the ability to know “what's on the

horizon” is invaluable. We expect broader adoption of AI models that predict market drawdowns or recessions by recognizing subtle indicators (e.g. shifts in credit spreads, sentiment or liquidity measures). Similarly, AI can enhance credit risk assessment by finding patterns in borrower or counterparty data that correlate with default risk. In portfolio monitoring, investors will deploy AI to continuously scan portfolio companies’ KPIs, news, and industry metrics – flagging deteriorating performance or emergent risks in real time. For instance, a private markets investor could use AI to analyze real-time cash flow data, customer churn, and social media sentiment for its portfolio companies, getting early warning if a company is likely to miss targets. AI-driven risk management tools in this period will help firms move toward automated exception-based oversight, where routine risk checks are automated and humans focus on the most complex or critical areas. The end result is a more proactive risk posture: catching problems sooner and handling them more efficiently.

**Portfolio Optimization and AI-Augmented Decision Making:** In the next few years, AI will increasingly assist with dynamic portfolio management – helping optimize asset allocation, trade execution, and rebalancing in light of shifting conditions. Traditional portfolio optimization can be enhanced by machine learning that incorporates a wider array of data and can adapt to changing market regimes. We anticipate mid-term adoption of AI tools that run thousands of scenario simulations or optimization trials to recommend portfolio adjustments. Notably, AI can consider non-linear and regime-dependent relationships that classical models miss. For example, AI-driven platforms are emerging that suggest optimal reallocation or hedging strategies when certain market signals (maybe a yield curve change + credit spread widening + negative media sentiment) resemble patterns before a past downturn. Asset managers are also beginning to use reinforcement learning and other AI techniques to fine-tune trading strategies and execution – essentially letting the AI learn how to get best prices or reduce slippage under different market conditions. JPMorgan has noted AI’s contribution in automating forecasting and providing optimal execution strategies for portfolio trading, and Deutsche Bank’s AI partnership is aimed at allowing portfolio managers to run investment scenario analyses at accelerated speed. In the mid-term, these capabilities will be more mature and widely accessible, enabling even mid-sized firms to leverage advanced analytics for portfolio decisions. The human portfolio managers remain in charge, but AI will act as a highly analytical consigliere – crunching enormous data in the background to present evidence-based recommendations for allocation, selection, and timing.

**Generative AI in Strategy and Communications:** Over the next couple of years, generative AI is poised to move from novelty to a practical tool in institutional investing. We expect to see firms using generative models to draft investment theses, research summaries, and even strategy documents. For example, an investor could ask a tailored GPT-based (Generative Pre-trained Transformer) system to “Analyze the competitive landscape and outlook for [insert target company] and draft the key points of a potential investment memo,” saving analysts significant initial drafting time. **Many technologically progressive funds are already experimenting with these uses.** Generative AI can also create bespoke content for investor communications – e.g. automatically generating a first draft of quarterly letters, customized by pulling in each portfolio’s data and notable events (with human-in-the-loop edits/verification). On the operational side, code-generation capabilities of generative AI can help accelerate internal tool

development, such as writing code to pull and clean data or prototype a new risk model. While firms must carefully review AI-generated outputs, the mid-term trend is that generative AI becomes a co-creator in many workflows, boosting productivity.

In summary, the mid-term (1–3 year) strategies involve continuing to embed AI at fund specific levels – making AI an integral part of how deals are evaluated, portfolios are managed, and insights are generated. This phase often requires integrating AI with firm-specific data systems (for example, linking an AI due diligence tool to your CRM and data lake) and adjusting team processes to incorporate AI outputs. The payoff is richer analysis and more responsive decision-making. A CFA Institute report notes that AI can add value up and down the investment value chain, but also cautions that it introduces model biases and variances that firms must supervise and test. Accordingly, as AI's role grows, so too must organizations' ability to validate and trust these advanced tools.

## Long-Term Strategies: Vision for AI in 3+ Years

Looking beyond three years, institutional investors should prepare for transformative, AI-native ways of operating. In the long-term horizon, AI could fundamentally reshape how investment organizations are structured and how decisions are made – moving toward autonomous or AI-first models that sound visionary today. While it is difficult to predict precisely, some likely long-term developments include:

**Autonomous Investing Models and AI-Driven Funds:** In 3+ years, we will see more investment vehicles that are predominantly run by AI algorithms. These “AI-native funds” will leverage AI for the entire investing process – from screening opportunities to executing trades – with minimal human intervention (apart from oversight on risk and ethics). Early examples already exist: for instance, ETF products like the AI Powered Equity ETF (AIEQ) use IBM Watson-derived AI to select stocks, and robo-advisors like Wealthfront have a “Self-Driving Money” feature that completely automates clients' savings allocation and portfolio rebalancing. Over time, such approaches will grow more sophisticated and enter the mainstream of institutional investing. We may see venture funds where an AI system continuously learns which types of startups yield success and autonomously recommends investments, or quant hedge funds where AI agents devise and execute strategies on the fly within risk guardrails. A long-term vision is an “AI portfolio manager” that can ingest macro data, market data, and firm-specific inputs then make allocation decisions in real-time, perhaps even rebalancing a portfolio or selecting private equity deals on its own. While human investment committees will likely remain for ultimate sign-off (especially in private markets), the balance may shift to where AI generates the investment thesis and decisions, and humans primarily handle exceptions, strategy alignment, and investor relations. Firms might even experiment with offering fully AI-managed investment products to their clients as a differentiator. This autonomy promises efficiency and potentially the removal of human biases, but it will require extremely robust governance to be viable. By the mid-2020s, leading global asset managers were already investing in this direction; for example, JPMorgan filed a trademark for “IndexGPT,” an AI-driven



stock selection tool for client portfolios, hinting at future services that rely on AI to generate indexes or strategies autonomously.

**Generative AI for Strategy and Innovation:** In the long term, generative AI could move beyond assisting with content creation to actually brainstorming strategy and designing new financial products or investment approaches. We envision AI systems that, given an investment mandate, can propose novel portfolio strategies or deal structures that humans might not have conceived – akin to having a very creative (if non-human) team member in the strategy room. For example, an AI might suggest a new way of hedging risk or arbitraging an inefficiency by analyzing decades of market patterns and dynamically simulating scenarios. Another forward-looking idea is using large-scale multi-agent simulations for macro strategy – e.g. deploying thousands of AI “agents” in a simulated market to stress-test how certain policies or events could affect an investment portfolio, thereby informing long-term strategy in a way traditional scenario analysis cannot. Over 3+ years, it’s plausible that generative AI could contribute to fund design as well – imagine an AI suggesting the optimal fund structure or fee model to attract investors given their preferences, or customizing products on the fly for different risk/return profiles. These visionary uses remain experimental today, but rapid advances in AI research mean they could be within reach. Firms that lay groundwork in data and experimentation now will be positioned to capitalize on these breakthroughs when they arrive.

**Compound AI and Multi-Modal Insights:** Future AI in investing will likely involve compound AI: multiple AI models/agents working in concert to handle complex tasks. Rather than single monolithic models, firms might employ a collection of specialized AI agents: one set for market forecasting, another for credit analysis, others for operational efficiency, all coordinated to support decision-making. This compound approach could mirror how a team of human specialists works together. For example, one AI agent might continuously scour global news and social data for emerging risks, feeding signals to another agent that adjusts economic scenario assumptions for the portfolio, which in turn informs an AI trader agent to hedge certain exposures. These interacting AI components (potentially overseen by a higher-level supervisory algorithm) could enable a self-correcting, highly adaptive investment system that responds to information instantly. We already see early steps in this direction with agentic AI frameworks and multi-model ensembles in fintech. In 3+ years, such systems will be more mature, giving rise to investment platforms where humans set high-level goals and constraints, and the AI web handles continuous implementation.

**AI-Native Organizational Design:** Finally, the long-term adoption of AI will likely spur changes in how investment firms themselves are organized and operated. As AI takes over more execution work, firms may adopt leaner structures with smaller human teams focusing on strategy, oversight, and client engagement, while AI handles analysis and processing at scale. The traditional hierarchy might give way to an AI-augmented model where even junior staff have powerful AI tools, shifting the skillset needed from less number crunching to more AI enablement and oversight. LP’s are incentivized to invest in funds with less management fees and more efficient processes to deliver outsized value to portfolio companies. This paradigm will also shift to the value creation thesis within portfolio companies; when funds can be seamless in understanding consumer trends, B2B processes, and rollout opportunities to increase the EV of

an asset, they will have a data-driven approach that generates short and long-term returns. AI governance committees and new roles like model or ethical auditors will become standard parts of the org chart to supervise these pervasive systems. Moreover, AI could enable completely new business models – for instance, an “AI-native” asset manager that competes on having superior algorithms rather than superior analysts, or a fund that dynamically restructures itself based on AI forecasts. In commercial real estate, one could imagine AI-driven REITs that automatically adjust property portfolios in response to economic indicators and even negotiate transactions through smart contracts. While these concepts are emerging, they underscore a long-term vision: organizations that are built around AI at their core, not just using AI as a tool. Those institutions willing to embrace such transformations could achieve scale and analytical power far beyond today’s capabilities – essentially operating 24/7 with an army of AI agents in lieu of armies of staff.

It is important to note that these long-term possibilities come with uncertainty and risk. Not every bold idea will pan out (and some may run afoul of regulatory or ethical boundaries).

Nonetheless, institutional investors should track developments at the frontier of AI so they can recognize when the “science fiction” starts to become deployable. Visionary uses of AI promise not only efficiency but potentially entirely new sources of alpha and new ways to serve investors. Preparing for this now by building a culture of innovation and strong AI governance will position firms to safely ride the wave of AI disruption in the coming decade.

## Preparation Steps: Building a Foundation for AI Adoption

To harness AI in the near and long term, institutional investors must start preparing today. Successful AI adoption is not just about technology – it requires groundwork in data infrastructure, culture, risk management, and especially talent. Firms should take the preparation steps laid out in this table now to lay a strong foundation:

Step	Action	Primary Owner	Time Horizon
Align strategy	Map AI goals directly to investment mandate and OKRs.	CIO / Exec Committee	Now – Q2 '26
Modernize data platform	Consolidate all position, CRM & doc data into a cloud “single source of truth.”	CTO / CDO	6–18 m
Upskill & hire	Embed two data scientists in each deal team; launch firm-wide AI literacy training.	HR / Team Leads / Outsource	9–24 m
Model governance	Extend SR 11-7 controls to ML models; set quarterly validation cadence.	CRO / Risk / Outsource	Ongoing



Privacy & cyber	Add AI-specific threat scenarios to incident-response plan; pen-test LLM endpoints.	CISO / Outsource	3–12 m
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## Risks and Safeguards in AI Adoption

Deploying AI in institutional investment brings not only opportunities but also a host of risks. It is critical that firms proactively identify these risks and implement safeguards to ensure AI is used responsibly and does not endanger the business or clients. In the table below we address key risk areas – and ways to mitigate them:

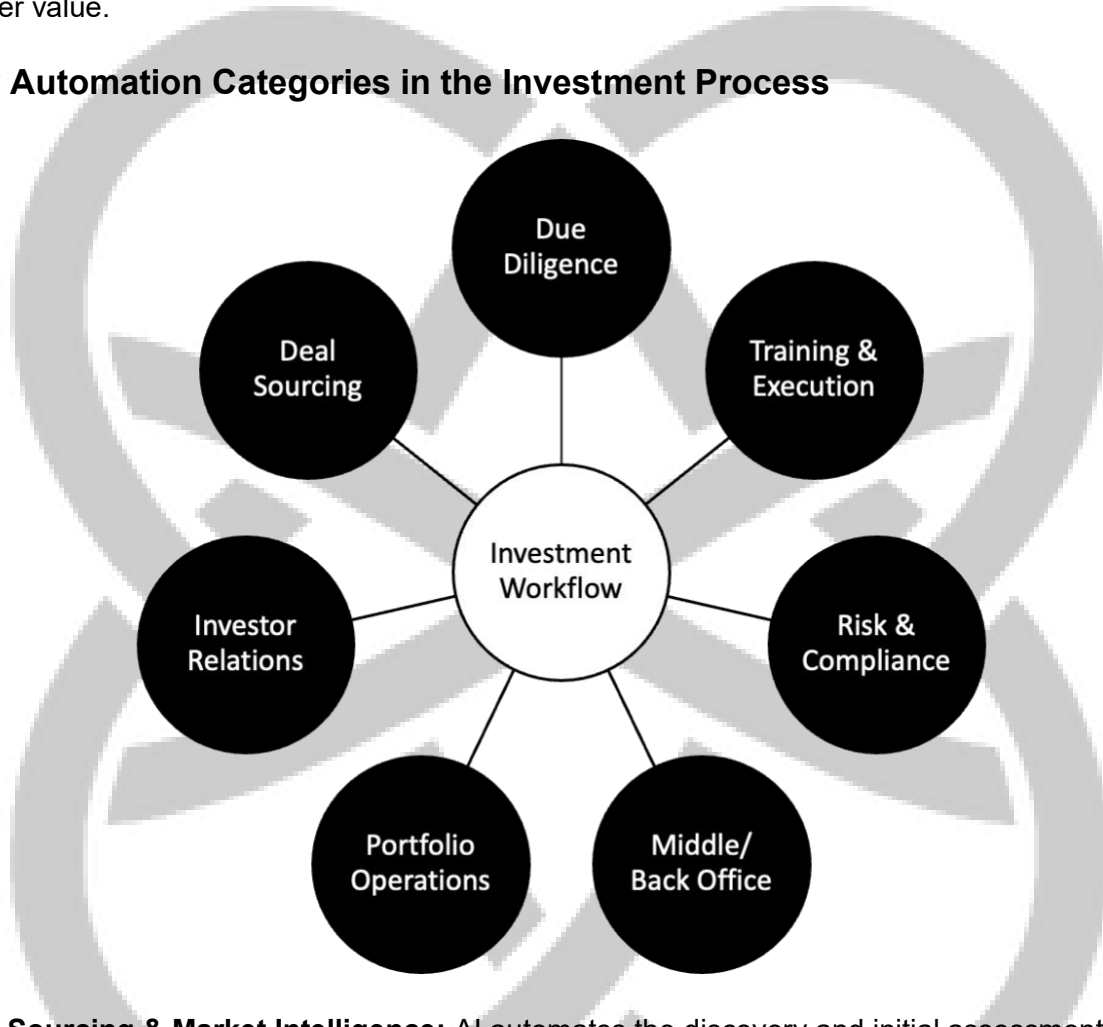
Risk Area	Typical Failure Mode	Mitigation / Control	Owner
Model accuracy / drift	Performance degrades on new regime data	Quarterly re-training; champion–challenger testing	Head of Model Risk Management (or Quant Risk Lead)
Explainability	Black-box decisions can't be defended to IC	SHAP / LIME reports appended to investment memos	Lead Data Scientist (with Model Risk as reviewer)
Bias & fairness	AI under-allocates to certain founder demographics	Dataset bias scan; fairness KPI in scorecards	Chief Diversity & Inclusion Officer + Data Science
Regulation	EU AI-Act “high-risk” classification breach	Compliance review before prod release; EU-only guardrails	Chief Compliance Officer (with Legal)
Cyber / data privacy	Prompt injection exfiltrates PII from LLM (a security breach could leak private data)	Strict role-based access; redact PII pre-inference	Chief Information Security Officer (CISO)

Adopting AI responsibly requires a strong risk-aware mindset. Investors should not shy away from AI due to these risks, nor should they rush in without controls. Model governance, explainability, bias mitigation, compliance checks, privacy protection, and cybersecurity are the pillars of safe AI use. Many of these are extensions of existing best practices in financial risk management and IT governance; the key is to adapt and extend them to the AI context. Firms that implement these safeguards will be able to innovate with AI while maintaining stakeholder trust and meeting their fiduciary and legal obligations. As the World Economic Forum notes, responsible AI adoption can mitigate risks and meet regulatory requirements while driving growth through enhanced trust and reputation. In the long run, those who manage AI's risks most effectively will likely be the biggest winners in harnessing its rewards.

## Automation Opportunities Landscape for Institutional Investors

To ground the discussion in more tangible terms, this section provides a landscape of AI and automation opportunities for institutional investors. We focus on a category-based breakdown of key areas in the investment workflow where automation (especially AI-driven automation) can deliver value.

### Key Automation Categories in the Investment Process



**Deal Sourcing & Market Intelligence:** AI automates the discovery and initial assessment of investments by scanning diverse data sources—startup databases, social media, news, and patents—to spot emerging trends and companies. In VC, AI flags promising startups based on traction, web traffic, or hiring trends. In PE, NLP-powered monitoring detects industry signals for potential deals. Natural language processing (NLP) enhances idea generation by extracting insights from unconventional data, such as consumer reviews or satellite imagery, enabling investors to find opportunities early and efficiently. Keyword extractions, search engine response pages (SERPs), content, customer testimonials, starred reviews, and case studies can be extracted and contacted directly to match an investor's thesis.



**Due Diligence & Document Review:** AI streamlines due diligence using optical character recognition (OCR), deep learning-based named entity recognition (NER), and transformer models to rapidly extract and analyze key data from contracts, financial statements, leases, and other documentation. Tools quickly identify crucial clauses, litigation risks, or anomalies—such as undisclosed liabilities or inconsistent financials—highlighting critical issues for human review. By automating extraction from complex documents (PPMs, LPAs, CIM's, CIP's, financial models, customer cohort data, legal documents, etc.), AI reduces manual effort, accelerates diligence, and frees analysts for strategic evaluation and negotiations. Background searches and customer reviews can help accelerate the process, as well.

**Portfolio Construction & Optimization:** AI aids portfolio construction by applying reinforcement learning, Monte Carlo simulations, and genetic algorithms to extensive historical data to optimize asset combinations based on complex, nonlinear risk/return profiles. It enables dynamic rebalancing by continuously connecting to real-time data sources and suggesting timely portfolio adjustments. In private markets, AI forecasts sector and geographic performance to balance investments effectively. Scenario analysis tools rapidly evaluate market changes (e.g., inflation spikes), leading to disciplined rebalancing, faster decision-making, and improved risk-adjusted returns.

**Trading & Execution Automation:** AI-driven algorithms automate sophisticated trade execution, optimizing order routing and strategy adjustments. Institutional investors employ AI to execute large orders efficiently, minimizing market impact and adapting dynamically to changing market conditions. In fixed income and OTC markets, AI analyzes extensive historical trades for optimal pricing and timing. Benefits include substantial cost reductions and improved trade performance through better pricing and minimized slippage, enhancing overall investment efficiency.

**Risk Management & Compliance Monitoring:** AI continuously monitors risk metrics, compliance rules, DDQ's, and regulatory requirements through automated anomaly detection methods such as isolation forests, autoencoders, and supervised regression models. Applications include fraud detection, AML/KYC checks, market risk analytics, and compliance reviews using NLP to parse communications for potential violations. AI proactively identifies breaches, portfolio risk shifts, or ESG compliance issues, significantly reducing compliance costs and risk exposure. Systems like Fidelity's "Saifr" exemplify AI's capability to automatically flag compliance concerns, enhancing risk management across the board.

**Middle- and Back-Office Operations:** AI, robotic process automation (RPA) and agentic retrieval-augmented generation (RAG) streamline administrative and operational tasks like data entry, reconciliation, report generation, and client onboarding. AI also aids complex asset valuation, automating calculations using benchmarks and market data. By automating these processes, firms significantly reduce errors, operational risks, and headcount dependency, driving cost efficiency. McKinsey highlights technology-driven automation can yield a greater than 10x ROI by optimizing operations and scalability.

**Investor Relations & Reporting:** AI automates investor communication using natural language processing (NLP) and natural language generation (NLG) to produce personalized reports and insights tailored to investor portfolios. NLG converts performance data into narrative commentary, and AI chatbots efficiently handle routine inquiries regarding capital calls, NAV details, and general investor questions. Sentiment analysis ensures communications align with compliance standards. CRM integration (e.g., Salesforce) further enhances client engagement by proactively recommending investor interactions.

## Real-World Examples and Case Studies

Institutional investors across North America are already putting AI into action. These case studies illustrate how various types of investors – including banks, asset managers, venture capital and private equity firms, and others – are leveraging AI to enhance performance and efficiency:

Organization	AI Use-Case Snapshot	Quantified Result / KPI	Source Key
JPMorgan	ML fraud-detection + optimal trade routing	Double-digit % drop in card-fraud and 15 bps lower execution costs; AI now scans ~30 billion events daily, flagging anomalies in < 40 ms—an estimated <b>US \$200 million in annual loss avoidance</b>	JPMorgan “IndexGPT” filing & shareholder letter
Morgan Stanley WM	GPT-4 research co-pilot for 16 k advisors	16,000 advisers query 100 k+ research docs in seconds; pilot teams report ~50 % reduction in client-prep time, with <b>NPS rising six points in the first quarter.</b>	Morgan Stanley GPT-4 adviser assistant
Vanguard	Generative-AI automates “routine cognitive tasks”	Thousands of routine tasks now automated; robo AUM grew 35% YoY to \$289 bn at a 0.20 % fee; <b>projected to free ~100 000 staff-hours per year</b> for higher-value work.	Vanguard CEO interview on generative-AI
OTPP (Ontario Teacher’s Pension Plan)	Gen-AI knowledge platform across 100 m docs	Proprietary ML screens ~50 000 software companies → narrows to ~200 high-fit targets; <b>diligence cycle cut by 40 %</b> on pilot transactions, adding an estimated	McKinsey: Unlocking value from technology and AI for institutional investors

		<b>\$30 million in annual sourcing efficiency.</b>	
KKR	AI screening of software targets	Firm-wide adoption in < 12 months; research-compile time cut 30 % and memos drafted 2X faster, translating to <b>~\$15 million in annual research-cost savings</b>	KKR interview on AI-driven diligence (Aug 2024); Bloomberg Tech article on Thoma Bravo ML screening (Sept 2023)

Each of these examples underscores a common theme: AI is being used by institutional investors in diverse ways to gain speed, scale, and insights that were not possible before. Whether it's a giant asset manager using AI to parse ESG data, a wealth manager deploying an advisor chatbot, or a pension fund accelerating research, the early adopters have demonstrated tangible benefits. They also highlight lessons such as the importance of data preparation (OTPP) and the focus on complementing, not replacing, human expertise. For investors in the early stages of exploring AI, these cases provide inspiration and proof points to help build the internal business case for AI initiatives.

## Practice vs Theory

This section could also be appropriately titled 3rd party vs in-house development. Throughout this paper we have discussed how, in an ideal world, you should spend time cleaning your data, running significant security checks, building internal models and reconstructing each part of your firm with AI in mind. For firms who need to keep day-to-day operations running without any drop in efficiency (excluding megafunds) it doesn't make sense to hire a team of engineers to build a system like this internally. It makes more sense to outsource the work to a 3rd party company who can work well with your existing systems and stay up to speed on your firm's goals with AI. Let's briefly explore what this could look like today.

**Reality Check:** Building out internal AI at scale will require a team specifically focused on the build out—meaning millions of dollars in salary to assemble and maintain the system. Many firms have tried to begin building internally, some whose analysts have experience in coding and some who have reassigned their data analytics team to build. There is always a tipping point that falls under these two categories in most cases.

*Expertise:* while some basic workflows can be built on an individual level and then shared across the organization, these workflows are not organized or consolidated at the end point. These workflows also break down when one piece of the backend changes. This could be the source by which the firm stores data, increases in security across the organization, or even something as small as a terminology change that the automation relies on to find certain metrics. Current investment employees will not have the time to



keep up the workflows that they build because they are busy doing what they were initially hired for—analyzing potential deals.

*Scale and time allotment:* similar to the situation where the investment team will not have time to maintain workflows that they build, if you reassign a data analytics team to build out the internal AI system, the system will eventually grow to encompass their entire day-to-day. Between bug fixes, feature requests, integrations, security checks—the system eventually needs to be operated by its own team. This would require multiple high-level engineers at a minimum of \$200k salary. So, unless the cost of a 3rd party platform is more than hiring out an entire team to build this for you, it makes more sense to rely on a company whose sole focus is securely automating workflows for you and building out progressive automations in line with your firm's goals.

**3rd Party Options:** There are a variety of options to help automate workflows within investing that range in levels of generalization, private data processing, which workflows they automate, and security. Generalized platforms like publicly available GPTs will not be able to connect directly with your file storage due to processing limitations on their end and security limitations on your end. However, these platforms can be helpful to run controlled prototypes to validate effectiveness of initial automations. While slightly more expensive, targeted AI companies are popping up that help with specified industries and workflows. Many that can help automate diligence workflows, some that can help automate portfolio company management and LP engagement, and very few that can help with the gamut of pre and post close functions, but they are out there.

In most cases, it is advisable to explore a third-party solution rather than developing your own system. Building an in-house system typically takes at least a year, during which your firm could lose its competitive edge to those who have already implemented automation solutions. Additionally, internal development is costly and provides no guarantee of sustained effectiveness, especially as organizational data evolves and AI technology advances. However, for firms with 500 or more employees working on deals, it might be beneficial to adopt a third-party platform while concurrently building an internal system. This hybrid approach allows your firm to clearly define automation requirements and determine the necessary expertise for managing such software. For a tailored ROI comparison of both options, schedule a 30-minute consultation with our team.

## Conclusion

Artificial intelligence is no longer a futuristic concept for institutional investors; it's a present reality and a future imperative. As we have detailed, AI can enhance nearly every facet of the investment value chain: from sourcing deals and parsing data, to optimizing portfolios, managing risks, and serving stakeholders. The near-term opportunities allow investors to start small and targeted – automating routine tasks and augmenting human analysis to score quick wins in efficiency. Building on that, the mid-term strategies integrate AI deeper, driving smarter



due diligence, risk forecasting, and operational streamlining that can distinguish a firm's performance. Looking to the long term, visionary investors will transform their organizations with AI at the core, unlocking possibilities like autonomous investing models and continuously adaptive strategies that respond to the world in real time.

Adopting AI is a journey that requires clear vision, foundational preparation, and a strong handle on risks. Institutional investors in North America, with their complex portfolios and fiduciary responsibilities, must approach this journey with both ambition and caution. That means investing in the right infrastructure and talent today, instilling robust governance and ethical guardrails, and fostering a culture that embraces innovation and change management. It also means learning from peers and industry leaders, many of whom, as we saw, have already blazed the trail by piloting AI in their operations.

The competitive and regulatory landscape is evolving quickly. AI capabilities are accelerating by orders of magnitude, and so are expectations from clients (who will demand more customized, faster service) and regulators (who will demand safe and fair use of AI). Institutional investors who move early to intelligently adopt AI will not only reap direct benefits – they will also position themselves as forward-thinking, resilient stewards of capital in an AI-driven world. In contrast, those who delay risk falling behind more agile competitors and potentially missing out on substantial efficiency gains and alpha generation opportunities.

In balancing the technical details with strategic context, we emphasize that AI adoption is not a mere IT project – it is a business transformation. It should be led from the top and anchored in the investor's mission, be it maximizing returns for beneficiaries or delivering superior service to clients. By viewing AI through this strategic lens, institutional investors can cut through the hype and focus on the implementations that truly matter. Start with use cases that align with your pain points (too much data to analyze? Slow operational processes? Difficulty identifying risks early? there's an AI solution for each). Measure the outcomes, communicate successes, and iterate.

Finally, maintain a human-centric perspective. AI is a tool to assist and amplify human decision-makers, not replace the fundamental judgment and creative thinking that investments require. The best outcomes occur when human insight and AI analytic power are combined – the sum far greater than either alone. An investment committee armed with real-time AI insights can debate opportunities more deeply. A risk manager backed by AI early warnings can protect portfolios more effectively. A deal team relieved from grunt work can spend more time crafting value-creation plans. In all these cases, the people are still in charge, but they are empowered by AI.

In conclusion, the message to institutional investors is clear: AI adoption is a strategic imperative for the coming decade. By acting now, adopting near-term AI wins, planning for medium-term integration, and imagining the long-term possibilities, investors can enhance their competitiveness and fulfill their fiduciary duties more robustly. The path requires prudence and preparation, but the destination is a more intelligent, efficient, and responsive investment organization. For those who embrace the journey, AI will be a catalyst for better decisions and better outcomes in serving their stakeholders.



**Sources:** The insights and examples in this paper are supported by a range of industry reports, surveys, and case studies. For further reading, see the Investment Association's 2024 report on AI in asset management, McKinsey's analysis of technology transformation in institutional investing, the World Economic Forum's Responsible AI Playbook for Investors, and numerous press releases and articles highlighting real-world AI applications in firms like JPMorgan, Morgan Stanley, BlackRock, and Fidelity. These and other references provide a foundation for the strategies and recommendations outlined. Contact Billy Nichols at [billy@emblem.pe](mailto:billy@emblem.pe) for a full list of specific sources and/or an overview of 3rd party vendors worth exploring.

