REPORT ANALYSIS

# AI in the Dutch asset management sector: increasing use and growing risks

**In short** – The use of AI applications by asset managers is increasing. AI is currently mainly used for information collection and data analysis. The use of AI (including generative AI) to improve trading strategies, among other things, is expected to increase. The use of AI provides benefits for asset managers, but the increased deployment and complexity of AI models also poses challenges, for example in relation to explainability. Managing these risks remains extremely important for asset managers. Asset managers are also expected to be transparent with their clients about the role of AI in their investment policy or portfolio composition.

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AFM

# Summary

**The use of advanced/self-learning algorithms and other artificial intelligence (AI) applications by asset managers is increasing. This has prompted the AFM to investigate the current use of AI, the developments in the sector and the associated risks.**

**The survey of 323 institutions shows that about half (53%) are already using AI or aim to do so within a year.** In particular, large fund managers and proprietary traders (up to 75%) are at the forefront of AI adoption. AI is now mainly used for data analysis and information processing; proprietary traders also use AI for price predictions and optimising trading strategies.

**Although the use of AI is increasing, the level of investment is still limited. For example, 71% did not have a specific AI budget for 2024.** Where investments are made, they often involve small amounts (less than 1% of turnover), although there is a small group that spends more than €1 million per year. Most asset managers (60%) expect to increase their investments in the coming period.

**The expected impact of AI varies: a majority do not currently see any direct cost savings, but they do see potential revenue growth through more efficient processes, better data processing and more accurate risk assessment.** In the longer term, AI can contribute to improved portfolio allocations and market analysis, although it is unclear whether AI will actually make autonomous investment decisions. It remains important that asset managers are transparent about the role of AI in their investment policy.

**The opportunities also entail risks.** Asset managers run into algorithmic biases, data quality problems, limited explainability of complex models and dependence on a small number of (mainly non-European) technology suppliers.

**The research shows that part of the sector is still insufficiently prepared for this:** a quarter have no policy for AI use, and in the case of generative AI the proportion is as much as two-thirds of the surveyed institutions. There is also still much progress to be made in the field of ethically responsible AI use: more than half do not have an ethics manual or code of conduct that specifically addresses AI.

**Although the use of AI offers a lot of potential, its increasing use requires careful embedding in business operations,** including clear policy frameworks, attention to explainability and data quality, and safeguards for ethical use. The AFM will therefore continue to supervise the controlled and ethical use of AI within the sector.

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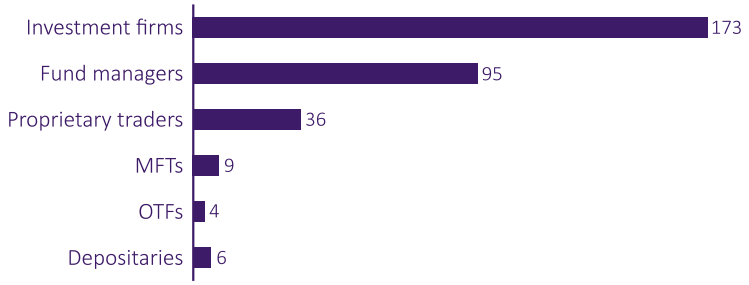
# 1. Introduction

**Technological developments and digitalisation are leading to changes in the business operations of asset managers and the asset management sector.** The overall availability and use of AI (including generative AI) has increased rapidly in recent years. AI systems bring advantages, but from a supervisory perspective there are also attention points such as transparency, risk management and outsourcing.

The AFM supervises asset managers and monitors whether they have their business operations in order. An important requirement is that asset managers manage their risks effectively. This also applies to the risks that arise when using AI applications. In its supervision, the AFM therefore explicitly looks at whether asset managers take these AI risks into account in a careful manner.

**In the first half of 2025, the AFM gained insight into the use of AI[1] by Dutch asset managers by means of an exploratory questionnaire.** The questionnaire was distributed to Dutch investment firms, UCITS and AIF managers (including MiFID top-ups), custodians, proprietary traders, trading venues (MTFs and OTFs) (hereinafter collectively referred to as "**asset managers**"), with the aim of obtaining an up-to-date picture of the current level of AI adoption in the Dutch asset management sector. The questionnaire contained 37 largely closed-ended questions addressing six core themes: the use of AI and details; personnel, policies and controls; AI finances; benefits and challenges; AI agents[2]. A total of 323 asset managers participated in the questionnaire. The number of respondents per licence category is shown in Figure 1.

**Figure 1. Number of respondents per licence category**




[1] In this report, we use IOSCO's definition of AI (2021, page 5, FR06/2021 The use of artificial intelligence and machine learning by market intermediaries and asset managers) and the AI definition used by the OECD (OECD Legal Instruments)

[2] AI agent definition: AI systems that can autonomously perform actions on behalf of a user with minimal or no human intervention (CR/01/2025 Kunstmatige Intelligentie in Kapitaalmarkten: Use Cases, Risks, and Challenges).

# 2. Results

**Half of asset managers use AI or will use AI in the near future.** Of the 323 asset managers who participated in the questionnaire, 170 entities (53%) use AI or have plans to do so in the next 12 months. Within the different licence types, proprietary traders (72%) and OTF operators (75%) showed the highest AI adoption rates. In addition, the study shows that larger asset managers (in terms of assets under management) make more use of AI applications than smaller managers. Table 1 provides an overview of the use of AI among the different licence types.

**Table 1. Number of respondents currently using AI**

| License type/activity | Yes | N | Yes, % |
|---|---|---|---|
| Investment firms | 74 | 99 | 43% |
| Fund managers | 59 | 36 | 62% |
| Proprietary traders | 26 | 10 | 72% |
| MTFs | 5 | 4 | 56% |
| OTFs | 3 | 1 | 75% |
| Depositaries | 3 | 3 | 50% |
| Total | 170 | 153 | 53% |

**The majority of asset managers who participated in the questionnaire did not have an AI budget for 2024 (230 asset managers, 71%). In the case of parties that did have an AI budget at their disposal in 2024, this amounted to less than 1% of their turnover.** Possible explanations are that investments in the use of AI applications fall into a general budget and are not reported separately, or that they mainly use publicly available free services such as ChatGPT and Microsoft Copilot. There is also a small group of asset managers that do invest heavily in AI applications, with a budget of more than EUR 1 million. Most asset managers (60%) expect to increase their investments in AI applications in the next two years.

**Just over half of respondents (172 asset managers, 53%) do not expect any cost savings or efficiency gains from AI adoption over the next two to three years. They do have higher expectations of what AI adoption can do for their expected turnover.** 223 asset managers (69%) expect a small to moderate increase in turnover. 9 asset managers expect a very high increase in turnover.

## 2.1 Use of AI in more detail

**The study looked at what asset managers use AI for, what types of AI applications and models are used and where these AI solutions are hosted.** The information presented is based on the answers of the 170 asset managers who indicated in the survey that they use AI or have plans to do so in the short term.

**At the time of answering the questionnaire, just under half (82 asset managers; 48%) of the 170 asset managers indicated that they use AI applications to obtain information to support analysis and decision-making. In this process, information from various sources is identified, collected and verified to support analysis and decision-making.** In addition to information sources, AI is often used for the

analysis of unstructured alternative 'big data' (44 asset managers, 48%) and the writing of research reports (37 asset managers, 45%).

**Proprietary traders stand out in their use of AI in more complex activities.** In addition to sourcing information (73%), they primarily use AI to optimise trading algorithm parameters (65%), improve trading strategies (62%) and predict price movements or market price (62%). For a detailed breakdown of daily AI usage between activity types, see Figure 2.

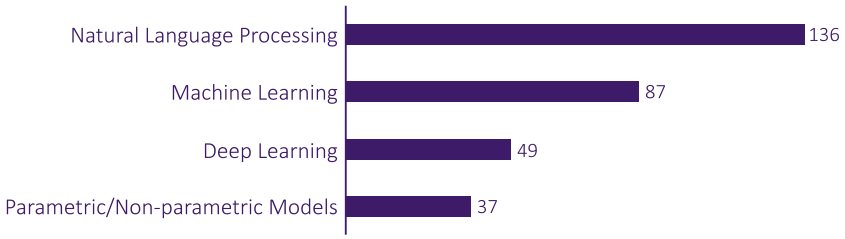
**Figure 2. The number of asset managers who already use AI tools *on a daily basis* in the specified activities**


**Of the different types of AI technologies, asset managers mainly use natural language processing (NLP) applications. In the answers to the questionnaire, 136 respondents (80%) indicate that they use NLP applications.** This type of AI application processes text and spoken words and understands their meaning, so this information can be used as input for a statistical model. NLP may or may not be based on machine learning (ML) – a form of AI in which a system learns/adapts on its own without having received explicit instructions. Deep learning is a specialised form of ML because it can also turn unstructured data (such as images and sound) into data by which it learns. Parametric models, on the other hand, use fixed parameters, in contrast to the flexibility of deep learning.[3]

Given the number of asset managers who use AI applications to obtain information, it is not surprising that NLP tools are used much more than the more complex AI techniques such as deep learning.

[3] ESMA50-164-6247-AI_in_securities_markets.pdf

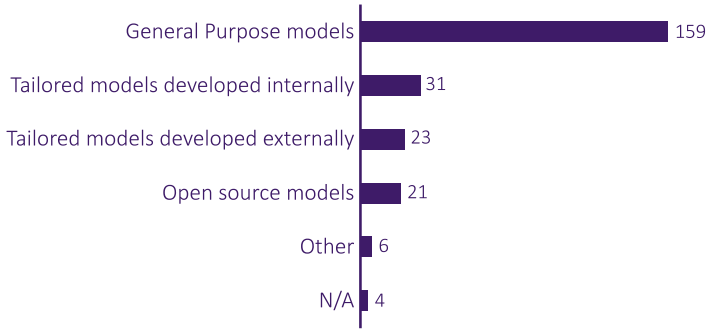
**Figure 3. Most asset managers use natural language processing tools**




**There are also differences between the types of licences. For instance, many proprietary traders prefer to use machine learning (ML) in their daily operations.** With regard to the choice of machine learning techniques – regardless of the licence types – 'supervised learning' is the most commonly used technique, used by 36 of the respondents who use ML (80%). Other ML techniques, such as 'unsupervised learning' (20 asset managers; 44%) and 'reinforcement learning' (13 asset managers, 29%), are used less often. These findings are in line with the observations in the 2023 AFM report on the use of machine learning in trading algorithms[4].

**Almost all asset managers (94%) use general purpose models – artificial intelligence models designed to perform a wide range of tasks across different domains, rather than specialising in one specific function.** Tailored models developed in-house (18%), tailored models from third-party providers (14%) and open-source models (12%) are used much less. Figure 4 below shows the number of asset managers per type of AI model used.

**Figure 4. Most asset managers use general purpose models**

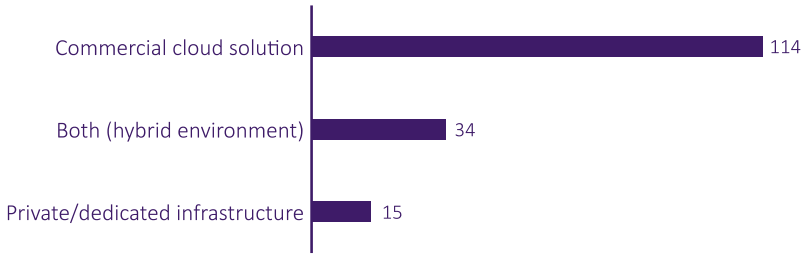



[4] Handelaren voor eigen rekening maken grootschalig gebruik van machine learning in handelsalgoritmen

**In the study, 23 asset managers indicated that they use AI models that were developed by an external provider and are specifically aligned with the characteristics and objectives of the asset manager's own business model.** The advantage of these tailor-made models is that they are more familiar with the organisation and may even be trained with the asset manager's specific data. The research shows that the tailor-made models are developed by a wide range of different financial technology companies. There is no single external developer that is used by many of the asset managers.

**The majority (114 asset managers, 68%) use commercial cloud solutions to host their AI solutions.** The benefits of commercial cloud solutions can be related to scale and ease of use. However, commercial cloud solutions do require extra attention to be paid, among other things, to the handling of data, data privacy and operational dependency/vendor lock-in. A smaller group (15 asset managers, 9%) only use private or dedicated infrastructure, including some proprietary traders. The remainder (34 asset managers, 20%) use a hybrid environment, which combines both cloud and private hosting. This group consists mainly of proprietary traders.

**Figure 5. Most asset managers host their AI solutions on commercial cloud solutions**



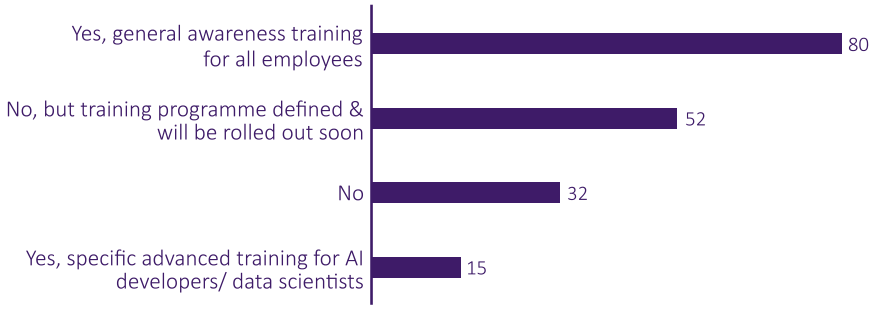
## 2.2 Personnel

**From February 2025, organisations that develop or use AI must ensure that their staff have sufficient knowledge and skills to use AI in a responsible manner. This expectation about 'AI literacy' is included in the European AI Act.**[5] AI literacy means that everyone who works with AI systems within or on behalf of an organisation must have skills, knowledge and understanding not only about the technical operation of the AI systems but also about the social and ethical aspects.[6]

This section discusses the results of the questionnaire on promoting AI knowledge among employees. The results are based on the answers of the 170 asset managers who indicated that they use AI tools.

**Most asset managers (95 asset managers, 56%) are providing training for their employees who are responsible for AI applications (including the use and operation of AI systems) or are in the process of creating a training programme that will be rolled out soon.** Nearly half of the asset managers (80 asset managers, 47%) provide general awareness training for all employees about AI (including the use and operation of AI systems), while 15 asset managers report having set up a specific advanced training course for AI developers/data scientists, including four proprietary traders. There is also some overlap, as 9 asset managers provide both general awareness training and specific advanced training.

**Figure 6. Most asset managers are training the employees responsible for AI or will start doing so soon**




[5] EU Regulation 2024/1689

[6] See also the explanation on the website of the Dutch Data Protection Authority about AI literacy

## 2.3 Policies and controls

**In order to be able to use AI applications responsibly and to manage the risks in an effective way, a clear governance framework is necessary, together with well-defined processes to guide employees.** This means clearly defined responsibilities with regard to the development and use of AI applications, and established policies and controls that are appropriate for the level of AI adoption by the organisation. This section deals with the governance structure of the use of AI applications. The scope of this section includes all 323 respondents to the questionnaire.

**Most asset managers have multiple organisational functions involved in overseeing the use of AI applications.** These are the functions of compliance (254 asset managers, 79%), information security (209 asset managers, 65%), risk management (190 asset managers, 59%) and DPO/data protection officer (94 asset managers, 29%). It is important to note that ultimately the board of directors and/or senior management is responsible for establishing policies and controls and overseeing the management of risks related to AI use by employees within the organisation.

**However, a quarter of asset managers (85 asset managers, 26%) have not adopted (nor started to develop) policies to regulate or restrict the use of AI applications by employees.** In line with this, more than a third of asset managers (112 asset managers, 35%) have not instituted any technical and/or procedural controls regarding the use of AI tools by employees.
It is also striking that only 73 asset managers (23%) have implemented security measures specifically designed to address AI-related vulnerabilities. This includes techniques that detect, address and/or prevent AI-specific threats – such as data or model poisoning[7], adversarial and evasion attacks[8].
The controlled use of AI applications is part of the general obligation under the Financial Supervision Act (Wft) for asset managers to ensure controlled and ethical business operations[9]. Strong governance, policies and controls that align with the complexity of the AI models used and the intensity of the use of AI models within the organisation will support the effective understanding and management of AI (model) risks.

**Risk awareness and corresponding behaviour among employees is also of great importance when using generative AI applications.** Generative AI offers the possibility of making predictions, whereby future developments can be outlined on the basis of data. Generative AI can therefore create its own content that may not be entirely based on actual facts. This greater complexity of generative AI implies greater uncertainty and unexpected behaviour. At 237 asset managers (73%), all employees have free access to public generative AI applications available on the internet. However, the number of asset managers who have a targeted policy in place to address this is much smaller. Only 92 asset managers (28%) indicate that they have implemented special policies for the use of generative AI applications or that they have general policies that cover this topic.

**In addition to operational benefits, the use of AI applications also entails ethical risks, such as prejudice and privacy infringement. An ethics manual or code of conduct supports employees in dealing with AI systems in a responsible manner.** However, the questionnaire shows that more than half of the respondents (175 asset managers, 54%) have not implemented a special ethics manual or a code of conduct that addresses the use of AI in the organisation.

[7] Where data is manipulated before it is used to train the model
[8] Techniques that manipulate the model, for example by adding extra data to a model or manipulating new data
[9] Section 4:14 of the Financial Supervision Act

## 2.4 Benefits and challenges

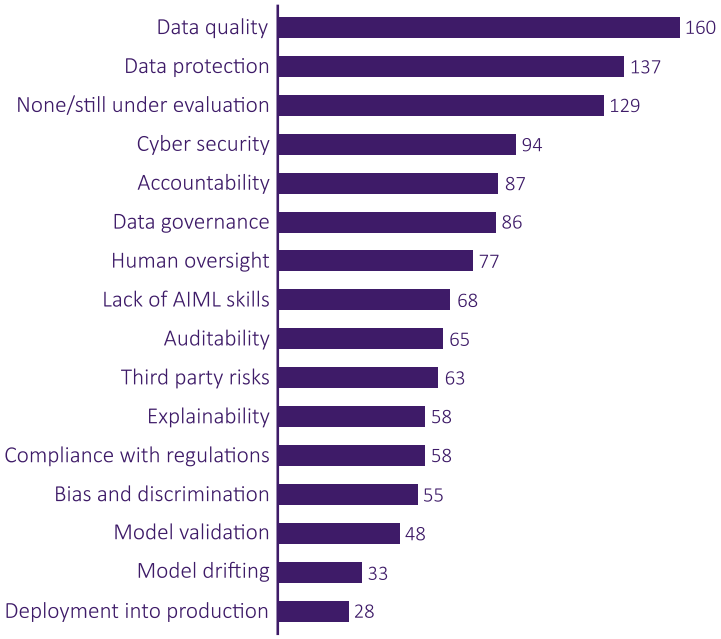
**Of the 323 asset managers who participated in the questionnaire, 226 (70%) experience efficiency gains as a major benefit of using AI applications.** In addition, asset managers also consider the ability to analyse data (144 asset managers; 45%) and the improvement of internal processes (123 asset managers; 38%) to be important advantages, as shown in Figure 7.

**Figure 7. Efficiency is the main benefit mentioned[10]**


[10] Asset managers had the opportunity to give multiple answers

**Data quality seems to be the biggest challenge for asset managers (160 asset managers, 50%).** Another frequently cited challenge is data protection (137 asset managers, 42%). Challenges that few asset managers face are implementation in production (28 asset managers, 9%) and model drifting (33 asset managers, 10%). This seems to indicate that most asset managers are not yet at an advanced stage of AI development and therefore do not yet face the challenges associated with, for example, developing their own AI model.

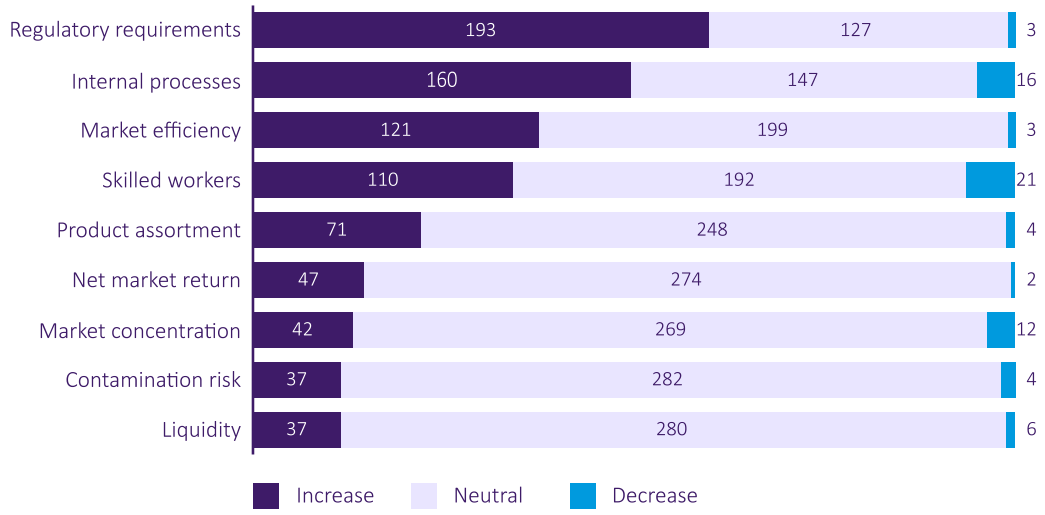
**Figure 8. Data quality is the biggest challenge asset managers face[11]**




[11] Asset managers had the opportunity to give multiple answers

**Although AI offers many opportunities to the financial sector, its possible consequences were also examined. Interestingly, most respondents expect AI to have little impact on specific parts of the asset management industry in the coming years.** They expect AI to make little difference in terms of contamination risk, liquidity, market concentration, net market return and product range, among other things. However, several asset managers expect that in addition to the increase in legal requirements, AI will mainly have an impact on internal processes, market efficiency, regulatory requirements and skilled workers, as Figure 9 shows.

**Figure 9. According to asset managers, what will be the impact of AI in the following areas in the next three years (number of asset managers)?**




## 2.5 AI agents

**AI agents have the ability to improve efficiency, decision-making and scalability across a wide range of tasks and industries. At the same time, they have the advantage of being easily accessible to entities.** This section covers the extent to which asset managers plan to implement AI agents (or multi-agents) and whether the use of AI agents is already embedded in AI policy. The scope of this section includes all 323 respondents to the questionnaire.

**A significant majority of asset managers (253 asset managers, 78%) indicate that they do not plan to implement AI agents or multi-agent systems within the next 12 months.** When the respondents are broken down by licence type, it appears that OTFs (2 asset managers; 50%) and MTFs (4 asset managers; 44%) are more positive about this.

**That said, 287 asset managers (89%) currently lack a formal AI policy that regulates the use of AI agents within their organisations.** Only a small portion (7 asset managers, 2%) have created a dedicated policy specifically for the deployment of AI agents – providing a more explicit framework than general AI policies that include agent use.

# 3. Next steps

Financial institutions have a responsibility to use AI in a careful manner. The existing rules for controlled and ethical business operations also apply to AI applications and their use. The AFM therefore expects asset managers to actively work on recognising and managing the risks associated with the development and use of AI, both in day-to-day business operations and in investment decisions. Such risks have already been described in detail in the joint report of the AFM and DNB from 2024.[12]

The results of this questionnaire provide asset managers with additional insights: where are they now, what steps are they already taking and in which areas can processes, systems and internal controls be strengthened? Examples include establishing clear responsibilities for the development and implementation of AI solutions, documenting decision-making around the AI models and setting up technical or procedural controls.

In the coming period, the AFM will continue to pay attention to risk management by asset managers. It will also look at the way in which AI applications are deployed and monitored. A reliable, transparent and well-functioning financial sector is paramount in this regard.

[12] AFM and DNB publish report on the impact of AI on the financial sector and supervision