

Targeted consultation on artificial intelligence in the financial sector

Fields marked with * are mandatory.

Introduction

In financial services and beyond, there is a broad technology-driven trend towards greater use of AI. The Commission highlighted the need for a targeted consultation on the use of AI in financial services. The goal is to identify the main use cases and the benefits, barriers and risks related to the development of AI applications in the financial sector.

In general, the development and use of AI in the EU will be regulated by the [AI Act](#), the world's first comprehensive AI law. The AI Act which was voted by the European Parliament on 13 March and expected to enter into force in July, aims to guarantee the safety and fundamental rights of people and businesses, while strengthening AI uptake, investment and innovation across the EU. To support further these objectives, an [AI innovation package](#) has been adopted by the Commission on 24 January 2024. It contains a series of measures to support European startups and SMEs in the development of trustworthy AI that respects EU values and rules. This follows the political agreement reached in December 2023 on the AI Act.

The AI Act is designed to complement the already existing financial services *acquis*, that, while not explicitly targeted at regulating AI, is an important framework to manage the related risks in specific applications and includes several relevant requirements for financial entities when providing financial services. It does so by pursuing objectives to ensure healthy financial markets, such as transparency, market integrity, investor protection and financial stability. For example, when providing investment services, including through reliance on AI such as trading algorithms, investment firms must comply with the [MIFID/R framework](#) and the [market abuse rulebook](#).

The aim of this consultation is not to lead to policy work that would generate new duplicative requirements in relation to the use of AI by the financial sector, or to new requirements that have the potential to stifle AI innovation.

Objective of the consultation

The present targeted consultation will inform the Commission services on the concrete application and impact of AI in financial services, considering the developments in the different financial services use cases.

The views from stakeholders will support the Commission services in their assessment of market developments and risks related to AI and in the implementation of the AI Act and existing financial services legislation in the financial sector. The consultation is focused on the objectives of the financial sector *acquis* and the AI Act and is not intended to focus on other policy objectives such as competition policy. It is intended to improve the effective implementation of these legal frameworks.

This targeted consultation will include questions with multiple choice and open answers. The questionnaire contains three parts:

1. a first part with general questions on the development of AI
2. a second part with questions related to specific use cases in finance
3. and a third part on the AI Act related to the financial sector

For the purpose of this targeted consultation, the concept of AI corresponds to the definition of an AI system established in the AI Act, which covers “*any machine-based system designed to operate with varying levels of autonomy and that may exhibit adaptiveness after deployment and that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments*”.

Target group

The targeted consultation will gather input from all financial services stakeholders including companies and consumer associations. Views are particularly welcome from financial firms that provide or deploy/use AI systems. This consultation is designed for respondents developing or planning to develop or use AI applications in financial services.

Responding to the consultation

Respondents are invited to complete the questionnaire by 13 September 2024. They are invited to elaborate by providing input and additional insights to their answers.

Outcome

Depending on the progress made, the Commission will publish a report on the findings and an analysis of the main trends and issues arising with the use of AI applications in financial services.

Please note that the information collected will not be shared with third parties and if used, it will be anonymised, in such a manner that it does not relate to any identified or identifiable financial institution.

Please note: In order to ensure a fair and transparent consultation process **only responses received through our online questionnaire will be taken into account** and included in the report summarising the responses. Should you have a problem completing this questionnaire or if you require particular assistance, please contact eu-digital-finance-platform@ec.europa.eu.

More information on

- [this consultation](#)
- [the consultation document](#)
- [digital finance](#)
- [the digital finance platform](#)

- [the protection of personal data regime for this consultation](#)

About you

* Language of my contribution

- Bulgarian
- Croatian
- Czech
- Danish
- Dutch
- English
- Estonian
- Finnish
- French
- German
- Greek
- Hungarian
- Irish
- Italian
- Latvian
- Lithuanian
- Maltese
- Polish
- Portuguese
- Romanian
- Slovak
- Slovenian
- Spanish
- Swedish

* I am giving my contribution as

- Academic/research institution
- Business association
- Company/business

- Consumer organisation
- EU citizen
- Environmental organisation
- Non-EU citizen
- Non-governmental organisation (NGO)
- Public authority
- Trade union
- Other

* First name

Martin

* Surname

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* Organisation name

255 character(s) maximum

Dutch Federation of Pension Funds

* Organisation size

- Micro (1 to 9 employees)
- Small (10 to 49 employees)
- Medium (50 to 249 employees)
- Large (250 or more)

Transparency register number

255 character(s) maximum

Check if your organisation is on the [transparency register](#). It's a voluntary database for organisations seeking to influence EU decision-making.

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* Country of origin

Please add your country of origin, or that of your organisation.

- Afghanistan
- Åland Islands
- Albania
- Algeria
- American Samoa
- Andorra
- Angola
- Anguilla
- Antarctica
- Antigua and Barbuda
- Argentina
- Armenia
- Aruba
- Australia
- Austria
- Azerbaijan
- Bahamas
- Bahrain
- Bangladesh
- Barbados
- Belarus
- Belgium
- Belize
- Benin
- Bermuda
- Bhutan
- Djibouti
- Dominica
- Dominican Republic
- Ecuador
- Egypt
- El Salvador
- Equatorial Guinea
- Eritrea
- Estonia
- Eswatini
- Ethiopia
- Falkland Islands
- Faroe Islands
- Fiji
- Finland
- France
- French Guiana
- French Polynesia
- French Southern and Antarctic Lands
- Gabon
- Georgia
- Germany
- Ghana
- Gibraltar
- Greece
- Greenland
- Libya
- Liechtenstein
- Lithuania
- Luxembourg
- Macau
- Madagascar
- Malawi
- Malaysia
- Maldives
- Mali
- Malta
- Marshall Islands
- Martinique
- Mauritania
- Mauritius
- Mayotte
- Mexico
- Micronesia
- Moldova
- Monaco
- Mongolia
- Montenegro
- Montserrat
- Morocco
- Mozambique
- Myanmar/Burma
- Saint Martin
- Saint Pierre and Miquelon
- Saint Vincent and the Grenadines
- Samoa
- San Marino
- São Tomé and Príncipe
- Saudi Arabia
- Senegal
- Serbia
- Seychelles
- Sierra Leone
- Singapore
- Sint Maarten
- Slovakia
- Slovenia
- Solomon Islands
- Somalia
- South Africa
- South Georgia and the South Sandwich Islands
- South Korea
- South Sudan
- Spain
- Sri Lanka
- Sudan
- Suriname
- Svalbard and Jan Mayen

- Bolivia
- Grenada
- Namibia
- Sweden
- Bonaire Saint Eustatius and Saba
- Guadeloupe
- Nauru
- Switzerland
- Bosnia and Herzegovina
- Guam
- Nepal
- Syria
- Botswana
- Guatemala
- Netherlands
- Taiwan
- Bouvet Island
- Guernsey
- New Caledonia
- Tajikistan
- Brazil
- Guinea
- New Zealand
- Tanzania
- British Indian Ocean Territory
- Guinea-Bissau
- Nicaragua
- Thailand
- British Virgin Islands
- Guyana
- Niger
- The Gambia
- Brunei
- Haiti
- Nigeria
- Timor-Leste
- Bulgaria
- Heard Island and McDonald Islands
- Niue
- Togo
- Burkina Faso
- Honduras
- Norfolk Island
- Tokelau
- Burundi
- Hong Kong
- Northern Mariana Islands
- Tonga
- Cambodia
- Hungary
- North Korea
- Trinidad and Tobago
- Cameroon
- Iceland
- North Macedonia
- Tunisia
- Canada
- India
- Norway
- Turkey
- Cape Verde
- Indonesia
- Oman
- Turkmenistan
- Cayman Islands
- Iran
- Pakistan
- Turks and Caicos Islands
- Central African Republic
- Iraq
- Palau
- Tuvalu
- Chad
- Ireland
- Palestine
- Uganda
- Chile
- Isle of Man
- Panama
- Ukraine
- China
- Israel
- Papua New Guinea
- United Arab Emirates
- Christmas Island
- Italy
- Paraguay
- United Kingdom
- Clipperton
- Jamaica
- Peru
- United States

- Cocos (Keeling) Islands
- Colombia
- Comoros
- Congo
- Cook Islands
- Costa Rica
- Côte d'Ivoire
- Croatia
- Cuba
- Curaçao
- Cyprus
- Czechia
- Democratic Republic of the Congo
- Denmark
- Japan
- Jersey
- Jordan
- Kazakhstan
- Kenya
- Kiribati
- Kosovo
- Kuwait
- Kyrgyzstan
- Laos
- Latvia
- Lebanon
- Lesotho
- Liberia
- Philippines
- Pitcairn Islands
- Poland
- Portugal
- Puerto Rico
- Qatar
- Réunion
- Romania
- Russia
- Rwanda
- Saint Barthélemy
- Saint Helena
- Ascension and Tristan da Cunha
- Saint Kitts and Nevis
- Saint Lucia
- United States Minor Outlying Islands
- Uruguay
- US Virgin Islands
- Uzbekistan
- Vanuatu
- Vatican City
- Venezuela
- Vietnam
- Wallis and Futuna
- Western Sahara
- Yemen
- Zambia
- Zimbabwe

* Field of activity or sector (if applicable)

- Accounting
- Auditing
- Banking
- Credit rating agencies
- Insurance
- Pension provision
- Investment management (e.g. hedge funds, private equity funds, venture capital funds, money market funds, securities)
- Market infrastructure operation (e.g. CCPs, CSDs, Stock exchanges)
- Social entrepreneurship
- Other
- Not applicable

The Commission will publish all contributions to this public consultation. You can choose whether you would prefer to have your details published or to remain anonymous when your contribution is published. **For the purpose of transparency, the type of respondent (for example, 'business association', 'consumer association', 'EU citizen') country of origin, organisation name and size, and its transparency register number, are always published. Your e-mail address will never be published.** Opt in to select the privacy option that best suits you. Privacy options default based on the type of respondent selected

* **Contribution publication privacy settings**

The Commission will publish the responses to this public consultation. You can choose whether you would like your details to be made public or to remain anonymous.

Anonymous

Only organisation details are published: The type of respondent that you responded to this consultation as, the name of the organisation on whose behalf you reply as well as its transparency number, its size, its country of origin and your contribution will be published as received. Your name will not be published. Please do not include any personal data in the contribution itself if you want to remain anonymous.

Public

Organisation details and respondent details are published: The type of respondent that you responded to this consultation as, the name of the organisation on whose behalf you reply as well as its transparency number, its size, its country of origin and your contribution will be published. Your name will also be published.

I agree with the [personal data protection provisions](#)

Part 1: General questions on AI applications in financial services

Question 1. Are you using or planning to use AI systems?

- Yes, we are already using AI systems
 - Not yet, but we plan to use AI systems within the next 2 years
 - No, we are not using it and we don't plan to use AI systems within the next 2 years
 - Don't know / no opinion / not applicable
-

Question 2. What are the **positive** things you encounter when using AI?

Please explain and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

The Dutch pension sector recognizes the great potential of artificial intelligence (AI) for improving service provision in the interest of pension fund members and beneficiaries through efficient pension administration, a personal pension and sustainable returns. We foresee an acceleration in technical development.

Question 3. What are the **negative** things you encounter when using AI?

Please explain and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

As the Dutch pension sector, we are developing and applying AI. At the same time, we are aware of the risks of using AI are proponents of using AI in a controlled and responsible manner.

Question 4. Will you be deploying AI for new or additional processes within your organisation?

- Yes
- No
- Don't know / no opinion / not applicable

Question 5. Are you developing or planning to develop in-house

AI applications?

- Yes
- No
- Don't know / no opinion / not applicable

Please explain your answer to question 5:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Various Dutch pension providers are developing codes of conduct for a controlled and responsible application of AI. In general, it can be said that the pension sector is not a frontrunner when it comes to developing AI applications. For the most part, pension providers observe AI developments elsewhere and use them as building blocks to deploy their own AI applications, only developing internally what is needed to complete a functionality.

Question 6. Which tools are you using to develop your AI applications?

Examples: machine learning, neural networks, natural language processing, large language models, etc.

Please explain and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Applications in use mostly apply traditional AI, while applications using Generative AI to analyze unstructured data such as video and audio are mostly still under development.

Benefits of using AI applications in financial services

Question 7. Please score the following benefits from most significant (10) to least significant (1):

	1 -	2	3	4	5	6	7	8	9	10 +	Don't know - No opinion - Not applicable
Fraud detection: AI algorithms can analyse large amounts of data to detect patterns and anomalies that may indicate fraudulent activity, helping to reduce financial losses for businesses and customers.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Risk management: AI can analyse and predict market trends, assess credit risks, and identify potential investment opportunities, helping financial institutions make more informed decisions and manage risks more effectively.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Automation of routine tasks: AI can automate repetitive tasks such as data entry, transaction processing, and document verification, freeing up time for employees to focus on more complex and strategic activities.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Cost savings: by automating processes and improving efficiency, AI can help financial institutions reduce operational costs.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Personalised financial advice: AI can analyse customer data to provide personalised financial advice and recommendations, helping customers make better financial decisions and improve their financial well-being.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					

<p>Compliance and regulatory support: AI can help financial institutions stay compliant with regulations by analysing and interpreting complex regulatory requirements and monitoring transactions for suspicious activities.</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>Enhanced decision-making: AI can analyse large amounts of data and provide insights that can help financial institutions make better investment decisions, assess credit risks, and optimise their operations.</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				
<p>Improved security: AI can enhance security measures by identifying potential security threats, detecting unusual patterns of behaviour, and providing real-time alerts to prevent security breaches.</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>				
<p>Streamlined processes: AI can streamline various financial processes, such as loan underwriting, account opening, and claims processing, leading to faster and more efficient services for customers.</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>Improved customer service: AI can be used to provide personalised and efficient customer service, such as chatbots that can answer customer queries and provide assistance 24/7.</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				

Question 8. What are the main benefits/advantages you see in the development of your AI applications?

Please explain and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Question 9. Please score the following challenges from most significant (10) to least significant (1):

	1	2	3	4	5	6	7	8	9	10	
	-									+	
Lack of access to the required data, in general.	<input type="radio"/>										
Lack of access to the data in an appropriate digital format.	<input type="radio"/>										
Lack of access to appropriate data processing technology, e.g. cloud computing.	<input type="radio"/>										

<p>Data privacy: it is crucial to ensure that sensitive financial information remains confidential.</p>	<input type="radio"/>										
<p>Lack of trust in relation to performance levels/ security aspects/ certified solutions/ reliability of the technology.</p>	<input type="radio"/>										
<p>Regulatory compliance with financial regulation: financial services are heavily regulated and not all types of AI applications are in line with requirements under these regulations.</p>	<input type="radio"/>										
<p>Innovation: the ability to leverage on combining AI with other technologies to enhance its potential and generate new services?</p>	<input type="radio"/>										

<p>Transparency and explainability: AI algorithms can be complex and opaque. It can be difficult for humans to understand how AI arrives at certain conclusions, which can create issues of trust and accountability.</p>	○	○	○	○	○	○	○	○	○	○	
<p>Bias and discrimination: AI models are trained using data, and if the data is biased, the AI model can also be biased, leading to unfair outcomes.</p>	○	○	○	○	○	○	○	○	○	○	
<p>Reputational risk from undesirable AI behavior or output.</p>	○	○	○	○	○	○	○	○	○	○	
<p>Liability risks: legal uncertainty on who bears the liability in case of damages generated by the malfunctioning of the AI applications.</p>	○	○	○	○	○	○	○	○	○	○	

<p>Skills gap: the development of AI requires specific tech skills, and there is a shortage of such skills.</p>	○	○	○	○	○	○	○	○	○	○	
<p>Dependability: as financial institutions rely more and more on AI; the dependability of these systems becomes paramount. Any malfunction or error (e.g. in risk management) can lead to significant financial losses.</p>	○	○	○	○	○	○	○	○	○	○	
<p>Job displacement: the use of AI can potentially automate certain roles in the financial sector leading to job displacement.</p>	○	○	○	○	○	○	○	○	○	○	

<p>Cybersecurity: AI systems could be targeted by cybercriminals, leading to potential data breaches or manipulation of AI systems.</p>	○	○	○	○	○	○	○	○	○	○	
<p>Integration challenges: integrating AI technologies with existing systems and processes can be complex and expensive.</p>	○	○	○	○	○	○	○	○	○	○	
<p>Additional cost: the deployment and use of AI requires up-front investment and ongoing resources (acquiring or developing applications, keeping them up to date, training/skills).</p>	○	○	○	○	○	○	○	○	○	○	

Question 10. What are the main difficulties/obstacles you are facing in the development of your AI applications?

Please explain and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Question 11. Please rank the potential negative impact that widespread use of AI can have on the following risks, 8 being the highest risk:

	1	2	3	4	5	6	7	8
Operational risks	<input type="radio"/>							
Market risks	<input type="radio"/>							
Liquidity risks	<input type="radio"/>							
Financial stability risks	<input type="radio"/>							
Market integrity risks	<input type="radio"/>							
Investor protection risk	<input type="radio"/>							
Consumer protection risk	<input type="radio"/>							
Reputational risk	<input type="radio"/>							

Please explain your answer to question 11 and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Question 12. AI may affect the type and degree of dependencies in financial markets in certain circumstances, especially where a high number of financial entities rely on a relatively small number of third-party providers of AI systems.

Do you see a risk of market concentration and/or herding behavior in AI used for financial services?

- Yes
 - No
 - Don't know / no opinion / not applicable
-

AI and compliance burden

Question 13. Can AI help to reduce the reporting burden?

- Yes
 - No
 - Don't know / no opinion / not applicable
-

Question 14. Do you think AI can facilitate compliance with multiple regulatory standards across the EU and thus facilitate market integration or regulatory compliance?

For example, would you consider it feasible to use AI for converting accounting and financial statements developed under one standard (e.g. local GAAP) to another standard (e.g. IFRS)?

- Yes
- No
- Don't know / no opinion / not applicable

Please explain and elaborate on your answer to question 14 and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Data access

Question 15. In order to develop AI applications, do you need access to external datasets that you currently don't have access to?

- Yes
- No
- Don't know / no opinion / not applicable

Please explain your answer to question 15:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Question 16. Which datasets would you need to develop meaningful AI applications and for which purpose/use case?

Please explain and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Question 17. Do you face hurdles in getting access to the data you need to develop AI applications in financial services?

- Yes
 - No
 - Don't know / no opinion / not applicable
-

Question 18. Are you familiar with the [EU Data Hub](#), a data sharing tool for supervisors and financial companies?

- Yes
 - No
 - Don't know / no opinion / not applicable
-

Question 19. Should public policy measures (e.g. legislative or non-legislative) encourage the exchange of data between market participants, which can be used to train AI systems for use cases in finance?

- Yes
 - No
 - Don't know / no opinion / not applicable
-

Business model

Question 20. Has AI changed your business model?

- Yes
 - No
 - Don't know / no opinion / not applicable
-

Question 21. Which parts of the value chain are being improved with AI?

Please explain and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Various Dutch pension providers are developing codes of conduct for a controlled and responsible application of AI. In general, it can be said that the pension sector is not a frontrunner when it comes to developing AI applications. Applications in use mostly apply traditional AI, while applications using Generative AI to analyze unstructured data such as video and audio are mostly still under development.

AI is used foremost in the field of pension administration, where there are applications in communication with members and beneficiaries, contact with employers that are enrolled in the pension scheme, and in administrative processes.

AI applications in communication help to make pension communication easier to understand, by providing answers to basic questions in the language of choice and personalized to the level of understanding of the member or beneficiary. When it comes to choices and choice guidance within the pension scheme, a human takes over.

There are potential benefits for AI in pension administration. First, automation and optimization of administrative processes lead to operational excellence. Second, advanced data analysis improves data quality and operational risk monitoring more broadly. Third, more advanced insights from available data can help foster more proactive actions, for example to make sure employers enroll their employees in the pension fund and pay pension premiums on time.

The above AI functions are very similar to functions in others sectors within and beyond the financial sector. For the most part, pension providers observe AI developments elsewhere and use them as building blocks to deploy their own AI applications, only developing internally what is needed to complete a functionality.

In asset management, AI applications are being developed to process large amounts of data to produce insights relevant for investment decisions. Generative AI introduces the possibility to learn from unstructured data. Results include insights into risks, returns and ESG impact of investments. It is relevant to note that such systems are not fully autonomous and humans will still make the investment decisions.

With regards to algorithmic trading, the introduction of AI makes risk identification, monitoring and control of model drift and data drift are extra important. Asset managers test models extensively and build in controls to act upon potential drift. Of course, algorithmic trading is already regulated under MiFID2.

Question 22. Are there functions that cannot/would not be improved by AI?

- Yes
- No
- Don't know / no opinion / not applicable

General purpose AI

For the purpose of this targeted consultation, respondents should consider general purpose AI as defined in [the AI Act](#) (article 3(63)), i.e. meaning any “AI model, including where such an AI model is trained with a large amount of data using self-supervision at scale, that displays significant generality and is capable of competently performing a wide

range of distinct tasks regardless of the way the model is placed on the market and that can be integrated into a variety of downstream systems or applications, except AI models that are used for research, development or prototyping activities before they placed on the market”.

Question 23. Do you use general purpose AI models, including generative AI, and their respective reference architectures?

- Yes
- Not yet, but we plan to use general purpose AI models within the next 2 years
- No
- Don't know / no opinion / not applicable

Please explain why you want to opt for these AI models in your organisation:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

GenAI allows to analyse unstructured data in addition to the analysis of structured data. This enhances data analysis capacities and consequently the possibilities for applications on the basis of these analyses.

Question 24. How do you plan to operationalise and adopt general purpose AI at scale?

Please explain and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Question 25. How does the increasing availability of general purpose AI models, including generative AI applications, impact the need to access new datasets?

Please explain and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Question 26. Compared to traditional AI systems such as supervised machine learning systems, what additional opportunities and risks are brought by general purpose AI models?

Please explain and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Question 27. In which areas of the financial services value chain do you think general purpose AI could have a greater potential in the short, medium and long term?

Please explain and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

AI Governance in relation to non-high risk use cases, and which are not subject to specific requirements under the AI Act

Question 28. Have you developed, or are you planning to develop an AI strategy or other relevant guidelines within your organisation for the use of AI systems?

- Yes
- No
- Don't know / no opinion / not applicable

Please explain which AI strategy or other relevant guidelines you have developed, or are planning to develop:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

For a controlled and responsible use of AI, it is important to see the application of AI as a means to an end, not an end in itself. Pension providers are fully committed to and involved in developing internal codes of conduct in which the application of AI is embedded in strategic goals, the risk framework and ethical framework. Codes of conduct of pension providers are based on the (draft) Dutch pension sector code of conduct for the ethical application of AI, as well as guidelines by the Dutch Central Bank (DNB).

DNB has established principles for applying AI in the financial sector: soundness, responsibility, accountability, fairness, ethics, skills and transparency (SAFEST). See: <https://www.dnb.nl/media/voffsrc/general-principles-for-the-use-of-artificial-intelligence-in-the-financial-sector.pdf>. Furthermore, DNB has published an AI risk framework that looks at input risks, throughput risks, output risks and overarching risks. These guidelines provide a good basis for developing codes of conduct. See: https://www.dnb.nl/media/wg1pah15/78342-2400139-dnb-ia-pdf-ai-rapport_tg.pdf. Some important elements are:

- Providing transparency to the user about the application of AI is important because the difference between human action and autonomous actions by AI systems is decreasing.
- In the context of fairness, AI should not inadvertently disadvantage certain groups of people.
- It is necessary to develop board level expertise to oversee the introduction of AI applications.

Question 29. Have you put in place or are you planning to put in place governance and risk management measures to ensure a responsible and trustworthy use of AI within your organisation?

- Yes
- No
- Don't know / no opinion / not applicable

Please explain which governance and risk management measures you have put in place or you are planning to put in place:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

The AI Act provides a good basis for developing codes of conduct for the application of AI. It is positive that applications with 'unacceptable' and 'high' risk are defined and come with specific provisions. We appreciate the risk-based approach that is taken in the AI Act.

The AI Act does not contain high-risk applications that are specific to the pension sector. In the Dutch pension system, risk-assessments and pricing for pension providers toward (prospective) members and beneficiaries is regulated by law. Price discrimination towards individual members or beneficiaries or subgroups is unlawful under Dutch pension law. Therefore, the risks in the application of AI models for risk assessment and pricing by insurers and credit rating assessments by banks do not apply to pension providers. Pension providers must of course nevertheless assess and mitigate the risks of their AI applications.

The AI Act's gives freedom to sectors to establish guidelines for the responsible application of AI. This stakeholder-driven approach is important given the diversity within the financial sector. We note that because of divergent labor, social and tax law, the pension sector is very much organized at the national level. National pension sector codes of conduct contribute to controlled and responsible use of AI in pension provision.

The Dutch Federation of Pension Funds has prepared a draft Code of Conduct on AI and Ethics for the Pension Sector. The code of conduct does not only look at technology, but it also links to the governance of AI applications and the organization culture in which AI applications are used. The code of conduct was drafted in a technology-neutral manner and is principle-based. It outlines WHAT pension providers should do, but does not prescribe HOW they should implement the principles.

The guideline formulates 21 principles for the ethical use of AI. They are in line with the European High-Level Group on AI's Ethics Guidelines for Trustworthy AI as well as DNB guidelines. Some important elements are:

- For risk-based application of AI, the pension fund should make a conscious choice regarding the identified risks and measures compared to the application of more traditional technologies.
- Proportionality is applied to risk management. The assessment of potential impacts of AI should be seen as proportional to the level of risk of the AI systems.
- Auditability of AI systems contributes to reliability and members' and beneficiaries' trust. External accountability must be ensured in AI applications that affect fundamental rights.
- In the context of transparency and explainability, pension funds only use AI applications for which they can provide an adequate explanation of the operation (throughput) and outcomes (output) of the AI system.
- Oversight of AI applications can be exercised through governance mechanisms, such a human-in-the-loop, human-on-the-loop or human-in-command approach.
- Pension funds have a dedicated data environment. Pension funds have access to special categories of personal data. Usage must be in accordance with the GDPR and the Guidelines for Personal Data Processing by the Dutch Federation of Pension Funds. See: <https://www.pensioenfederatie.nl/website/publicaties/gedragslijn/gedragslijn-verwerking-persoonsgegevens-pensioenfondsen>.

Forecasts

Question 30. What are the main evolutions to be expected in AI in finance?

Please explain and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Question 31. Which financial services do you expect to be the most impacted by AI?

Please explain and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Question 32. Do you have any additional information to share?

Please explain and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

On the basis of our experience with the responsible and controlled application of AI in pension provision, we provide the following points of interest for possible further European initiative on the application of AI in the financial sector:

- A principle-based, risk-based and stakeholder-driven approach with attention to proportionality is the best way to get to effective controls that are relevant for pension provision.
- AI applications in the pension sector predominantly pertain to functions similar to those of other sectors, such as contact with members, beneficiaries and employers, and automation of administrative processes. Any legislative initiative on the application of AI in the financial sector should focus on sector-specific functions, such as individual risk assessment, pricing and asset management.
- In recent years, EU financial regulation has often taken a horizontal approach. In this case, the same framework applies to globally systemic banks as a single-sponsor pension fund with a few thousand participants. With such an approach it is difficult to sufficiently pay attention to proportionality and the specificities of pension provision. We warn against the introduction of controls and governance requirements for the entire financial sector that are only relevant for a subsection of the sector. Obligations should be tailored to pension providers as much as possible in order to ensure that additional regulatory burdens are commensurate to the real risk of the use of AI systems by pension providers.

Part 2: Questions related to specific use cases in financial services

Question 34. In which sector(s) are you using AI?

Please select as many answers as you like

- Banking and payments
- Market infrastructure
- Securities markets
- Insurance and pensions
- Asset management
- Other

Questions per sector

Insurance and pensions

In insurance, possible AI use cases range from insurance pricing and underwriting to advice, compliance, fraud detection/AML and customer service. Depending on the specific use cases, relevant legislation would include:

- the [AI Act](#) (for the identified high risk use-cases such as life and health insurance risk assessment and pricing in relation to natural persons)
- the [Insurance Intermediation Directive \(IDD\)](#) (for example robo-advice)
- [Solvency II](#) and [institutions for occupational retirement provisions \(IORPs\)](#) (for example provisions on risk management in relation to insurance risk assessment)

- and the [Anti-Money Laundering Directive \(AMLD\)](#) (for example AML use cases)

Question INSURANCE 1. For which use case(s) are you using/considering using AI?

Examples: risk management, insurance pricing and underwriting, setting capital requirements/technical provisions, robo-advice, regulatory compliance, sustainable finance, fraud detection, AML, customer service, sales and distribution, claims management, etc.

Please explain and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Various Dutch pension providers are developing codes of conduct for a controlled and responsible application of AI. In general, it can be said that the pension sector is not a frontrunner when it comes to developing AI applications. Applications in use mostly apply traditional AI, while applications using Generative AI to analyze unstructured data such as video and audio are mostly still under development.

AI is used foremost in the field of pension administration, where there are applications in communication with members and beneficiaries, contact with employers that are enrolled in the pension scheme, and in administrative processes.

AI applications in communication help to make pension communication easier to understand, by providing answers to basic questions in the language of choice and personalized to the level of understanding of the member or beneficiary. When it comes to choices and choice guidance within the pension scheme, a human takes over.

There are potential benefits for AI in pension administration. First, automation and optimization of administrative processes lead to operational excellence. Second, advanced data analysis improves data quality and operational risk monitoring more broadly. Third, more advanced insights from available data can help foster more proactive actions, for example to make sure employers enroll their employees in the pension fund and pay pension premiums on time.

The above AI functions are very similar to functions in others sectors within and beyond the financial sector. For the most part, pension providers observe AI developments elsewhere and use them as building blocks to deploy their own AI applications, only developing internally what is needed to complete a functionality.

In asset management, AI applications are being developed to process large amounts of data to produce insights relevant for investment decisions. Generative AI introduces the possibility to learn from unstructured data. Results include insights into risks, returns and ESG impact of investments. It is relevant to note that such systems are not fully autonomous and humans will still make the investment decisions.

With regards to algorithmic trading, the introduction of AI makes risk identification, monitoring and control of model drift and data drift are extra important. Asset managers test models extensively and build in controls to act upon potential drift. Of course, algorithmic trading is already regulated under MiFID2.

Question INSURANCE 2. What are the opportunities that AI brings to your use case?

Please explain and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Question INSURANCE 3. What are the main challenges and risks that AI brings to your use case (e.g discrimination, opacity of the AI application developed, difficult to control/supervise it, etc.)?

Please explain and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

The AI Act does not contain high-risk applications that are specific to the pension sector. In the Dutch pension system, risk-assessments and pricing for pension providers toward (prospective) members and beneficiaries is regulated by law. Price discrimination towards individual members or beneficiaries or subgroups is unlawful under Dutch pension law. Therefore, the risks in the application of AI models for risk assessment and pricing by insurers and credit rating assessments by banks do not apply to pension providers. Pension providers must of course nevertheless assess and mitigate the risks of their AI applications.

In recent years, EU financial regulation has often taken a horizontal approach. In this case, the same framework applies to globally systemic banks as a single-sponsor pension fund with a few thousand participants. With such an approach it is difficult to sufficiently pay attention to proportionality and the specificities of pension provision. We warn against the introduction of controls and governance requirements for the entire financial sector that are only relevant for a subsection of the sector. Obligations should be tailored to pension providers as much as possible in order to ensure that additional regulatory burdens are commensurate to the real risk of the use of AI systems by pension providers.

On the basis of our experience with the responsible and controlled application of AI in pension provision, we provide the following points of interest for possible further European initiative on the application of AI in the financial sector:

- A principle-based, risk-based and stakeholder-driven approach with attention to proportionality is the best way to get to effective controls that are relevant for pension provision.
- AI applications in the pension sector predominantly pertain to functions similar to those of other sectors, such as contact with members, beneficiaries and employers, and automation of administrative processes. Any legislative initiative on the application of AI in the financial sector should focus on sector-specific functions, such as individual risk assessment, pricing and asset management.
- In recent years, EU financial regulation has often taken a horizontal approach. In this case, the same framework applies to globally systemic banks as a single-sponsor pension fund with a few thousand participants. With such an approach it is difficult to sufficiently pay attention to proportionality and the specificities of pension provision. We warn against the introduction of controls and governance requirements for the entire financial sector that are only relevant for a subsection of the sector. Obligations should be tailored to pension providers as much as possible in order to ensure that additional regulatory burdens are commensurate to the real risk of the use of AI systems by pension providers.

Question INSURANCE 4. What is the main barrier to developing AI in your use case (e.g. lack of skills and resources, readiness of the technology, high regulatory costs for compliance with the relevant frameworks, etc.)?

Please explain and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Question INSURANCE 5. Does AI reduce or rather increase bias and discrimination in your use case?

- Yes
- No
- Don't know / no opinion / not applicable

Please explain your answer to question INSURANCE 5 and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Question INSURANCE 6. How can insurers ensure that the outcomes of AI systems are not biased?

Please explain and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Question INSURANCE 7. Has general purpose AI opened new possibilities or risks in your use case?

- Yes
- No
- Don't know / no opinion / not applicable

Please explain your answer to question INSURANCE 7 and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

GenAI allows to analyse unstructured data in addition to the analysis of structured data. This enhances data analysis capacities and consequently the possibilities for applications on the basis of these analyses.

Question INSURANCE 8. On whom do you rely for the development of your AI solutions?

- External providers
- In-house applications
- Partial collaboration with external providers
- Don't know / no opinion / not applicable

Please explain your answer to question INSURANCE 8 and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Various Dutch pension providers are developing codes of conduct for a controlled and responsible application of AI. In general, it can be said that the pension sector is not a frontrunner when it comes to developing AI applications. For the most part, pension providers observe AI developments elsewhere and use them as building blocks to deploy their own AI applications, only developing internally what is needed to complete a functionality.

Part 3: AI Act

In December 2023 the European Parliament and the Council reached a provisional political agreement on the [first comprehensive AI framework, put forward by the Commission on 21 April 2021](#). The regulation was adopted by the European Parliament on 13 March 2024 and will enter into force later this spring once it has been published in the Official Journal of the EU. This horizontal *acquis* is applicable across all economic sectors.

The [AI Act](#) defines an AI system as “a machine-based system designed to operate with varying levels of autonomy, that may exhibit adaptiveness after deployment and that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments”. Recital 11 further sets out the reasons for this definition, notably setting out that it is based on key characteristics that distinguish it from simpler traditional software systems of programming approaches.

The AI Act will establish two high risk use cases for the financial sector:

1. AI systems intended to be used to evaluate the creditworthiness of natural persons or establish their credit score, with the exception of those AI systems used for the purpose of detecting financial fraud
2. AI systems intended to be used for risk assessment and pricing in relation to natural persons in the case of life and health insurance.

The aim of this section is to identify which are your specific needs in order for the Commission to be able to adequately assist you with appropriate guidance for the implementation of the upcoming AI framework in your specific market areas, especially in particular to the high-risk use cases identified.

Scope and AI definition

Question 33. Which of the following use cases that could fall into the categorisation of high-risk are potentially relevant to your activity?

- AI systems intended to be used to evaluate the creditworthiness of natural persons or establish their credit score
- AI systems intended to be used for risk assessment and pricing in relation to natural persons in the case of life and health insurance
- Both
- None
- Don't know / no opinion / not applicable

Question 35. Please explain the overall business and/or risk management process in which the high-risk use case would be integrated and what function exactly the AI would carry out:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

The AI Act does not contain high-risk applications that are specific to the pension sector. In the Dutch pension system, risk-assessments and pricing for pension providers toward (prospective) members and beneficiaries is regulated by law. Price discrimination towards individual members or beneficiaries or subgroups is unlawful under Dutch pension law. Therefore, the risks in the application of AI models for risk assessment and pricing by insurers and credit rating assessments by banks do not apply to pension providers. Pension providers must of course nevertheless assess and mitigate the risks of their AI applications.

Question 36. Are there any related functions AI would carry out which you would suggest distinguishing from the intended purpose of the high-risk AI systems in particular to the use cases identified in question 34?

- Yes
- No
- Don't know / no opinion / not applicable

Please explain your answer to question 36 and give examples when possible:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Question 37. Please explain why these functions would/should in your view not be covered by the high-risk use cases set out in the AI act either because they would not be covered by the definition of the use case or by relying on one of the conditions under article 6(3) of the AI Act and explaining your assessment accordingly that the AI system would not pose a significant risk of harm if:

a) the AI system is intended to perform a narrow procedural task:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

b) the AI system is intended to improve the result of a previously completed human activity:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

c) the AI system is intended to detect decision-making patterns or deviations from prior decision-making patterns and is not meant to replace or influence the previously completed human assessment, without proper human review:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

d) the AI system is intended to perform a preparatory task to an assessment relevant for the purpose of the use cases listed in Annex III of the [AI Act](#):

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Question 38. At this stage, do you have examples of specific AI applications /use cases you believe may fall under any of the conditions from article 6(3) listed above?

Please describe the use case(s) in cause and the conditions you believe they may fall under:

5000 character(s) maximum

including spaces and line breaks, i.e. stricter than the MS Word characters counting method.

Question 39. Based on the definition of the AI system, as explained above (and in article 3(1) and accompanying recitals), do you find it clear if your system would fall within the scope of the AI Act?

- Yes
- No, it is not clear/ easy to understand if it falls within the scope of the AI Act
- Don't know / no opinion / not applicable

AI Act requirements

Question 40. Bearing in mind there will be harmonised standards for the requirements for high-risk AI ([Mandates sent to CEN-CENELEC can be monitored here](#)), would you consider helpful further guidance tailored to the financial services sector on specific AI Act requirements, in particular regarding the two high-risk AI use cases?

- Yes
 - No
 - Don't know / no opinion / not applicable
-

Financial legislation requirements

Question 41. Future AI high-risk use cases would also need to comply with existing requirements from the financial legislation.

Would you consider helpful further guidance meant to clarify the supervisory expectations for these use cases?

- Yes
 - No, the supervisory expectations are clear
 - Don't know / no opinion / not applicable
-

Question 42. There are other use cases in relation to the use of AI by the financial services sector which are not considered of high-risk by the AI Act, but which need to comply with the existing requirements from the financial legislation.

Would you consider helpful further guidance meant to clarify the supervisory expectations for these use cases?

- Yes
 - No, the supervisory expectations are clear
 - Don't know / no opinion / not applicable
-

Question 43. Are you aware of any provisions from the financial *acquis* that could impede the development of AI applications (e.g. provisions that prohibit the use of risk management models which are not fully explainable or the use of fully automated services for the interaction with consumers)?

- Yes
- No, I am not aware of any provision(s) of this kind
- Don't know / no opinion / not applicable

Additional information

Should you wish to provide additional information (e.g. a position paper, report) or raise specific points not covered by the questionnaire, you can upload your additional document(s) below. **Please make sure you do not include any personal data in the file you upload if you want to remain anonymous.**

The maximum file size is 1 MB.

You can upload several files.

Only files of the type pdf,txt,doc,docx,odt,rtf are allowed

dfc8e4e3-00bf-4ba7-bc6f-e023d2ace59/AI_position_paper_-_Dutch_pension_funds.pdf

Useful links

[More on this consultation \(https://finance.ec.europa.eu/regulation-and-supervision/consultations-0/targeted-consultation-artificial-intelligence-financial-sector_en\)](https://finance.ec.europa.eu/regulation-and-supervision/consultations-0/targeted-consultation-artificial-intelligence-financial-sector_en)

[Consultation document \(https://finance.ec.europa.eu/document/download/054d25f5-0065-488a-96fb-2bb628c74e6f_en?filename=2024-ai-financial-sector-consultation-document_en.pdf\)](https://finance.ec.europa.eu/document/download/054d25f5-0065-488a-96fb-2bb628c74e6f_en?filename=2024-ai-financial-sector-consultation-document_en.pdf)

[More on digital finance \(https://finance.ec.europa.eu/digital-finance_en\)](https://finance.ec.europa.eu/digital-finance_en)

[More on the digital finance platform \(https://digital-finance-platform.ec.europa.eu/\)](https://digital-finance-platform.ec.europa.eu/)

[Specific privacy statement \(https://finance.ec.europa.eu/document/download/698ef635-9053-43c2-b3a3-709e18c1f88a_en?filename=2024-ai-financial-sector-specific-privacy-statement_en.pdf\)](https://finance.ec.europa.eu/document/download/698ef635-9053-43c2-b3a3-709e18c1f88a_en?filename=2024-ai-financial-sector-specific-privacy-statement_en.pdf)

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