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**9 September 2026**

# The AI Act and Traditional Actuarial Models: A Fundamental Rights Perspective

AAE Artificial Intelligence and Data Science Working Group

## Purpose

This note responds to concerns that excluding generalised linear models (GLMs) and generalised additive models (GAMs) from the high-risk classification of the AI Act[1] would leave a gap in the protection of fundamental rights in life and health insurance.[2] We share the objective of protecting fundamental rights. Our message is that this objective is already achieved, and enforced, through a dense body of EU law and supervision that governs insurance pricing today, and that the most productive path forward is cooperation between the AI Office, EIOPA and the actuarial profession. This note does not restate the case already made in EIOPA's letter and technical annex; it adds the practitioner perspective that a supervisory opinion cannot provide, and sets out how the profession can help.

## The core message

Insurance pricing is arguably the most fundamental-rights-regulated quantitative activity in the EU economy. Equal treatment law, data protection law, prudential law and conduct-of-business law each constrain what data insurers may use, how models must be governed, and how outcomes must be justified. Following the Test-Achats judgment, the industry redesigned its entire pricing approach to comply with equal treatment requirements; few other sectors have undergone an equivalent transformation. Beyond compliance, actuarial techniques have long enabled inclusion in practice: risk pooling and sound statistical rating extend affordable cover to individuals and groups who would otherwise be uninsurable, and standardised mortality and morbidity tables have supported broad access to protection on consistent terms, well before these questions entered the current regulatory debate.

Against this baseline, the marginal protection added by classifying human-supervised GLMs and GAMs as high-risk AI is close to zero, while the compliance cost is real and would fall on mature, transparent and professionally overseen techniques. We would therefore welcome a joint review of the evidence with the AI Office: where genuine gaps in protection can be identified, we are ready to help address them; where they cannot, duplicative obligations divert supervisory and industry resources away from genuinely novel, opaque or adaptive AI systems that warrant closer scrutiny. Equally, where artificial intelligence introduces genuinely new risks, we recognise that the sectoral framework can and should evolve to address them; the section on genuine AI risk below sets out where such risks can arise.

[1] Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence (Artificial Intelligence Act). AI systems intended to be used for risk assessment and pricing in relation to natural persons in the case of life and health insurance are listed in Annex III, point 5(c). The amendment sought by EIOPA would proceed by delegated act under Article 7(3), assessed against the criteria in Article 7(2).

[2] This note does not revisit whether GLMs and GAMs fall within the definition of an AI system in Article 3(1) of that Regulation. The AAE addressed the autonomy and adaptiveness criteria in its press release of 15 April 2026 supporting EIOPA's call to clarify the application of the AI Act in insurance, which endorsed EIOPA's April 2026 letter to the co-legislators and the Commission and observed that such models are not autonomous systems and that, consistent with the European Commission's February 2025 guidelines on the definition of an AI system, they do not transcend basic data processing. That remains the position of the profession on the question.

### Mapping fundamental rights concerns to safeguards already in force

The table below pairs each fundamental rights concern typically raised in relation to insurance pricing with the safeguard already in force under EU law and supervision.

| Fundamental rights concern | Safeguard already in force |
|---|---|
| Unequal treatment on grounds of gender | Directive 2004/113/EC and the Test-Achats judgment (Case C-236/09). Gender-neutral pricing is mandatory and the industry redesigned its entire pricing approach to comply with equal treatment law.[3] |
| Discrimination on grounds of racial or ethnic origin | Racial Equality Directive 2000/43/EC. Protected characteristics are already off-limits in underwriting and pricing.[4] |
| Profiling and automated decision-making | GDPR Articles 21 and 22 already regulate profiling and automated decisions, with individual rights to object and to human intervention, supported by the data protection principles of Articles 5, 6 and 9.[5] |
| Unaccountable or opaque model design | Solvency II Article 48 establishes a legally mandated actuarial function with professional accountability. Its remit centres on technical provisions, but it extends to an opinion on underwriting and to the actuarial and statistical methods used, supported by independent model validation and documented variable selection. Proxy discrimination testing is standard actuarial practice and variable selection is subject to independent review.[6] |
| Unfair product design and distribution | IDD product oversight and governance rules, complemented by EIOPA's 2021 AI governance principles and its 2025 Opinion on AI governance and risk management: fairness and non-discrimination guidance specific to insurance, pre-dating the AI Act.[7] |

These frameworks provide prevention, supervision and redress. They are moreover a floor rather than a ceiling: actuarial professional standards and codes of conduct are designed to go further than the legal minimum, requiring transparency, accountability and the ability to explain model workings to a wide range of stakeholders. EIOPA's technical assessment of 10 July 2026[8] against the criteria of

[3] Council Directive 2004/113/EC of 13 December 2004 implementing the principle of equal treatment between men and women in the access to and supply of goods and services, OJ L 373, 21.12.2004, p. 37. Article 5(2), which had permitted proportionate sex-differentiated premiums, was declared invalid with effect from 21 December 2012 by the Court of Justice in Case C-236/09 Association belge des Consommateurs Test-Achats ASBL and Others, judgment of 1 March 2011, ECLI:EU:C:2011:100.

[4] Council Directive 2000/43/EC of 29 June 2000 implementing the principle of equal treatment between persons irrespective of racial or ethnic origin, OJ L 180, 19.7.2000, p. 22.

[5] Regulation (EU) 2016/679 (General Data Protection Regulation), OJ L 119, 4.5.2016, p. 1. Article 22 governs decisions based solely on automated processing, including profiling; Article 21 confers the right to object; Articles 5, 6 and 9 set out the processing principles, the lawful bases and the regime for special categories of personal data, including data concerning health.

[6] Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II), OJ L 335, 17.12.2009, p. 1. Article 48 establishes the actuarial function and its tasks, and requires that it be carried out by persons with knowledge of actuarial and financial mathematics commensurate with the nature, scale and complexity of the risks.

[7] Directive (EU) 2016/97 of the European Parliament and of the Council of 20 January 2016 on insurance distribution (recast), OJ L 26, 2.2.2016, p. 19; the product oversight and governance requirements are set out in Article 25. See also EIOPA, Artificial Intelligence Governance Principles: Towards Ethical and Trustworthy Artificial Intelligence in the European Insurance Sector, report of the Consultative Expert Group on Digital Ethics in Insurance, 17 June 2021, and EIOPA, Opinion on Artificial Intelligence Governance and Risk Management, EIOPA-BoS-25-360, 6 August 2025.

[8] EIOPA, Exclusion of GLMs and GAMs from the AI Act high-risk classification: EIOPA's further input, letter of 10 July 2026 from Petra Hielkema, Chairperson, to John Berrigan, Director-General, DG FISMA, and Roberto Viola, Director-General, DG CNECT, ref. 2026-590, together with the accompanying Technical Annex of the same title, EIOPA-BoS-26-348, 30 April 2026.

Article 7(2) of the AI Act reaches the same conclusion: human-supervised GLMs and GAMs do not pose the type of significant AI-specific risk that justifies high-risk classification, and their residual risks are already addressed through existing Union law and insurance-sector supervision.

## Where genuine AI risk can arise

Transparency about model architecture should not obscure where risk can genuinely enter the process. As EIOPA's assessment notes, the relevant risks arise primarily from data selection, data governance, feature engineering and underwriting or pricing policy, rather than from the GLM or GAM architecture as such. Where inputs are heavily engineered before a GLM is applied, or where machine learning components materially determine the outcome, closer attention to the formation of datasets and the role of AI upstream is justified. The exclusion sought by EIOPA is deliberately narrow for this reason: hybrid models combining GLMs or GAMs with machine learning components remain within scope of the AI Act. We would welcome alignment between this boundary and the Commission's treatment of data preparation and manipulation, so that scrutiny is directed where it adds protection. The same reasoning extends beyond pricing to underwriting and benefit determination, which the AI Act likewise captures: the case for proportionate treatment turns on whether a genuinely novel or adaptive AI component is present, not on the insurance function in which a transparent GLM or GAM is used. Supervisory effort under the AI Act is best concentrated on those genuinely novel or adaptive systems.

## A constructive way forward

We see a valuable role for the AI Office in insurance, and we propose to channel its fundamental-rights perspective where it complements, rather than duplicates, sectoral supervision. Concretely, we propose: first, close cooperation between the AI Office and EIOPA-led work on AI fairness in insurance, in a form the AI Office would help shape, so that its fundamental-rights expertise is brought into the sectoral framework; second, a short common reference document on fundamental rights safeguards in insurance pricing, around which Member States, EIOPA, the ECB and DG FISMA could align, with the AAE providing the technical and legal backbone; and third, an open dialogue on the evidence base, including how often models are updated and how discrimination risk is tested in practice, questions the actuarial profession is well placed to answer. On the determination of model coefficients we can be concrete: the model structure and the candidate rating factors are specified in advance by the actuary rather than selected or created by the model. The effect of each factor is individually inspectable, open to challenge and, where appropriate, capable of being overridden, and the fitted model changes only when a person refits it and signs it off.

As an immediate first step, we would welcome a working-level exchange with the AI Office, at which we would be pleased to walk through the fairness and governance safeguards described in this note.

The AAE represents around 30,000 actuaries through 38 member associations in 37 European countries. Our advice is independent of industry interests, and we offer it to the AI Office in that spirit.

*The Actuarial Association of Europe (AAE) was established in 1978 under the name Groupe Consultatif to represent actuarial associations in Europe. Its primary purpose is to provide advice and opinions to the various organisations of the European Union - the Commission, the Council of Ministers, the European Parliament, the European Supervisors and their committees – on actuarial issues in European legislation. The AAE currently has 38 member associations in 37 European countries, representing nearly 30,000 actuaries. Advice and comments provided by the AAE on behalf of the European actuarial profession are totally independent of industry interests.*

*The Actuarial Association of Europe is registered in the EU Transparency Register under number 550855911144-54*

*This note reflects views from the AAE Artificial Intelligence and Data Science Working Group. Any views expressed are intended to stimulate and inform further discussion and should not be read as a representative or agreed position of the Actuarial Association of Europe.*

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The annex provides a point-by-point assessment of the criteria in Article 7(2) of the AI Act with a view to the conditions in Article 7(3), and follows EIOPA's earlier letter of 14 April 2026 to the co-legislators and the Commission. Both documents are available at https://www.eiopa.europa.eu/publications/letter-and-technical-annex-exclusion-glms-and-gams-ai-act-high-risk-classification_en.