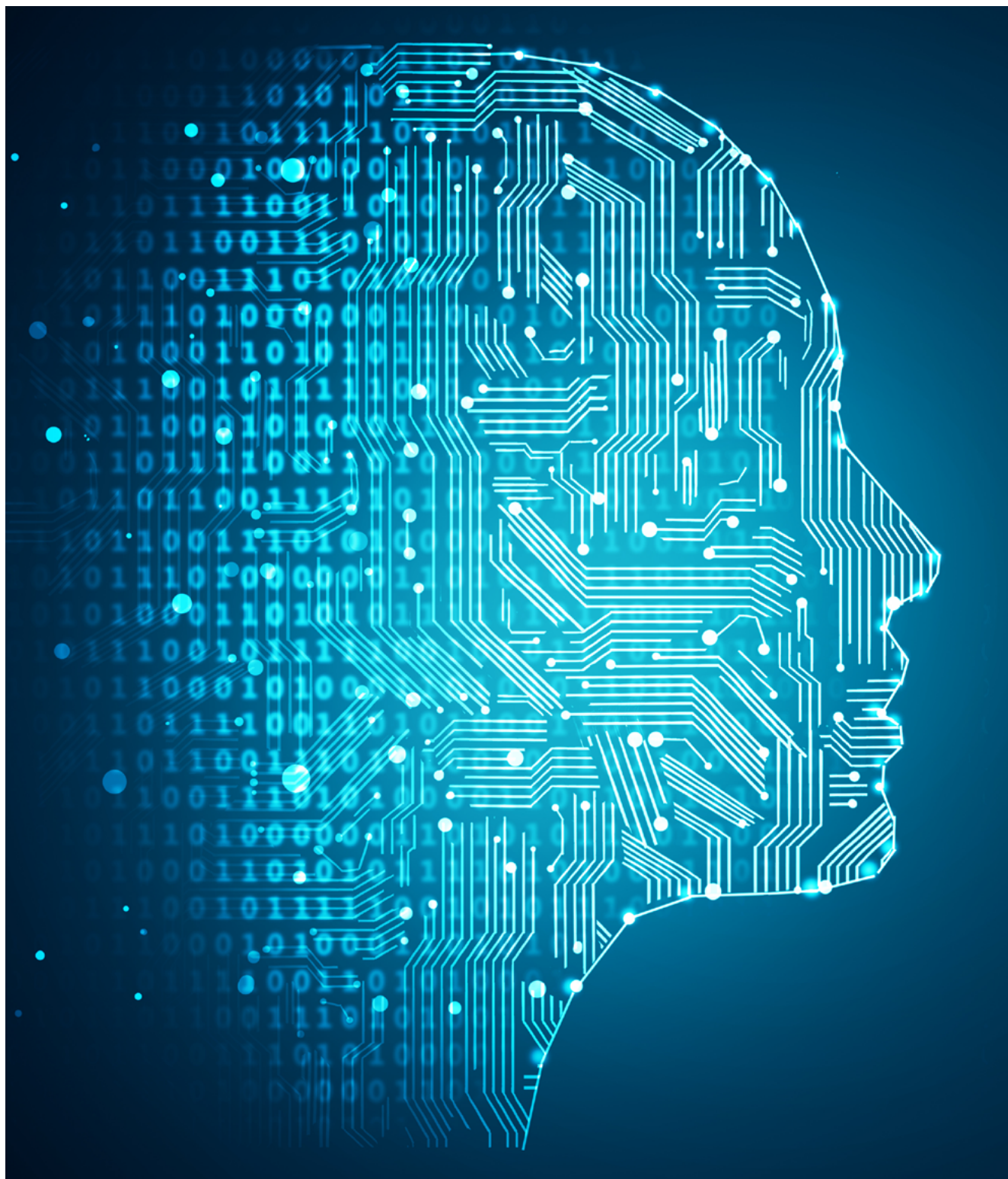


ETHICAL FRAMEWORK

for the application of AI in the Insurance Sector





This is an ethical framework for data-driven decision-making by insurers that are member of the Dutch Association of Insurers (Verbond van Verzekeraars). It reflects what Dutch insurers stand for when using artificial intelligence (AI) and other data-driven products and processes in their relationship with customers. It forms a non-statutory starting point in the use of modern techniques: if a certain technique, even though permitted by law, is contrary to these principles, insurers will not use this. The framework will be binding as self regulation for members of the Dutch Association of Insurers by 1 January 2021. That means that from that date, customers can expect their insurer to act according to these principles. If the insurer does not act accordingly, a complaint can be raised with the Netherlands Financial Services Complaints Tribunal (KiFiD) an independent complaints handling body for financial services consumers. In the period 2021-2023 Stichting Toetsing Verzekeraars the foundation that oversees the application of self regulation by Insurers in the Netherlands, will undertake an audit on the framework to check whether they comply. The audit report will be public on sectoral level. In case an insurer does not act according to the framework, the Association of Insurers will sanction the insurer.

With this ethical framework the Dutch Association of Insurers hopes to contribute to further development and deployment of safe and reliable AI applications in the insurance sector. Giving insurers the proper tools to assess the ethical aspects of their intended AI applications and giving consumers the trust and confidence that the use of AI by their insurers will provide them with the same level of service and protection as they had before.

The framework is based on the recommendations of the [High-Level Expert Group on Artificial Intelligence](#). This European Commission's advisory body determined that for an ethical use of AI, seven requirements for responsible AI should be respected:

1. [Human agency and oversight](#)
2. [Technical robustness and safety](#)
3. [Privacy and data governance](#)
4. [Transparency](#)
5. [Diversity, non-discrimination and fairness](#)
6. [Societal and environmental well-being](#)
7. [Accountability](#)

For each requirement, several standards have been elaborated for Dutch insurers below. These standards apply in a risk-based way not only to AI but to all modern, data-driven decision-making that affects customer confidence. For instance, core processes such as underwriting, premium setting, fraud detection and claims handling should be considered. As the reputation risk increases with the application in question (e.g. pricing, acceptance, fraud), stricter demonstrable compliance with the framework will become more desirable. The same applies to the customer: private consumers and self-employed persons deserve more protection than major corporate customers. The same rules and principles also apply to external purchases of data and/or techniques.

▼ Requirement for responsible AI	▼ Sub-requirement	▼ Standard for insurers
Human agency and oversight	Use of AI	<p>1. Before insurers use data-driven applications, they carry out an adequate compliance assessment (whether or not as part of a PARP process), in which they make a conscious choice with regard to identified risks compared to more traditional techniques and processes.</p> <p>2. When using data-driven applications such as chatbots, where necessary insurers will mention that the customer is dealing with a system and not a human being, to avoid any confusion or ambiguity.</p>
Technical robustness and safety	Cyber security	<p>3. Insurers will ensure that appropriate security measures are in place for data-driven applications (including data management).</p> <p>4. Insurers will ensure that data-driven applications are technically safe and robust, and that 'self-learning' only takes place under supervision and within a clear oversight framework.</p>
	Fall-back and general security	5. If a data-driven application is not or no longer considered technically safe or robust, insurers will take measures as soon as possible to ensure that the application does comply.
	Reliability and reproducibility	6. Insurers monitor whether data-driven systems in use work in accordance with pre-defined goals, objectives and intended applications.
	Data quality and integrity	<p>7. Insurers will ensure adequate quality (including evaluation of the data quality criteria completeness, correctness, timeliness, adequacy and representativeness) of data and training data used for data-driven applications.</p> <p>8. When using data-driven applications, insurers make a well-considered choice whether or not to use biometric data, data generated from 'affective computing', social media data, web-history, IP address and IoT data and will inform customers transparently when required.</p>
	Access to data	9. Insurers will ensure responsible data management and guarantee good data governance.
Privacy and data governance	Respect for privacy and data protection	<p>10. When using personal data for data-driven applications, insurers work in accordance with the General Data Protection Regulation (AVG), the Dutch GDPR Implementation Act (UAVG) and the Code of Conduct for the Processing of Personal Data by Insurers (<i>Gedragscode Verwerking Persoonsgegevens Verzekeraars</i>).</p> <p>11. Prior to the purchase, development and/or commissioning of data-driven applications, insurers carry out a data protection impact assessment (DPIA) where necessary.</p> <p>12. Insurers opt for data-driven systems that process as little potentially sensitive data or personal data as possible (data minimisation) and/or offer the possibility to increase privacy through, for example, encryption, the use of pseudonyms, anonymity or aggregation.</p> <p>13. Insurers provide thorough protection of (training) data from degradation, contamination or hacking.</p>
	Human control	14. Insurers provide adequate training for employees working with data-driven applications, in particular to prevent 'confirmation bias' (preference for confirmation) and to preserve human autonomy.
	Human supervision	15. In practice, the use of data-driven applications always takes place under adequate human supervision and responsibility, for example by retraining AI where necessary.
		16. New techniques will first be tested in a familiar setting, to see whether margins of error and other risks increase compared to alternative methods and processes.
Transparency		17. Before insurers deploy data-driven systems, they consider how to explain the results of the application to customers in the best possible way.

▼ Requirement for responsible AI	▼ Sub-requirement	▼ Standard for insurers
		18. When using data-driven applications, human intervention can always be called upon and customers can have the results of an application explained.
Diversity, non-discrimination and fairness	Prevent unjust bias	19. When violations of fundamental rights, including unjustified discriminatory bias, cannot be avoided or excluded in data-driven applications, insurers will not deploy an application.
	Accessibility and inclusive design	20. When opting to use data-driven systems, insurers pay attention to diversity and inclusiveness, especially for people at risk of exclusion or disadvantage due to special needs and/or a disability.
Societal well-being	Social consequences	21. Insurers will internally monitor the effects of the use of data-driven decision-making for groups of clients.
	Society and democracy	22. Insurers strive to keep as many customers as possible insurable and will inform customers who are more difficult to insure or uninsurable about ways to reduce risks or alternative ways to cover risks.
Accountability	Verifiability	23. Insurers provide an internal control and accountability mechanism for the use of AI systems and the data sources used. 24. Insurers promote the knowledge of directors and internal regulators on data-driven applications. 25. Insurers ensure thorough internal communication on the use of data-driven systems.
	Minimisation and reporting negative impacts	26. For all data-driven applications, insurers carry out a risk and impact assessment amongst primary stakeholders. 27. Insurers promote the expertise of their employees working in the field of accountability and control of data-driven systems through an education programme. 28. Insurers ensure an open culture within their company, in which employees are encouraged to make ethical decisions within a sound system where any negative consequences of the use of a data-driven application can be reported and dealt with adequately.
	Documentation of considerations	29. Insurers will set out the choices made regarding the use of data-driven decision-making in their internal policy, whereby the decisive factors are made transparent.
	Complaints	30. Insurers inform customers on the possibilities of reporting complaints regarding the use of data-driven applications, first to their own company and then to designated dispute resolution bodies.



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