



This abstract summarises the report on "Anwendung von Künstlicher Intelligenz in der Versicherungswirtschaft" which was approved by the DAV committee Actuarial Data Science on 14.02.2020. The complete publication (in German language) is available [here](#). The translation of the third chapter is available [here](#).

## Application of artificial intelligence in the insurance industry

The report first summarizes the state of the application of artificial intelligence (AI) in the insurance industry and addresses the current role of actuaries in its application. In connection with the general discussion and its choice of words, we already use the term artificial intelligence here, although applications that meet the strict definition of artificial intelligence are not yet in use in the insurance industry, but rather applications of machine learning (ML) / statistical learning (SL).

The second part focuses on guidelines for trustworthy AI and addresses the question of how to demonstrate and ensure trustworthiness or more general whether there is a need for regulation. Taking into account the different laws such as Solvency II, General Data Protection Regulation or the German General Equal Treatment Act as well as the Code of Conduct and the report of the DAV on processing of data in the area of data science, we deal with these questions from the perspective of actuaries.

In the third section, the status of explainable and interpretable AI is presented: With the increasing use of machine learning and artificial intelligence algorithms, it is often demanded that the algorithms used be "explainable". This is to prevent that the decisions based on algorithms are not comprehensible or may be unfair or wrong. Approaches to interpretability for common procedures are explained and concise examples are used to show that interpretability is quite possible.

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