

PRESS RELEASE

EIOPA reviews the use of Big Data Analytics in motor and health insurance

- *Strong trend towards data-driven business models throughout the insurance value chain*
- *Traditional data sources such as demographic data or exposure data are increasingly combined with new sources such as online and telematics data for increasingly tailored products and services and more accurate risk assessments*
- *31% of insurance firms are already using Big Data Analytics tools such as artificial intelligence and machine learning algorithms and 24% are at a proof of concept stage*
- *Increased granularity of risk assessment is not yet causing exclusion for high-risk consumers but impact of Big Data Analytics expected to increase in the future*
- *Strong need to address issues with the fairness of the use of Big Data Analytics and with the accuracy and explainability of “black-box” algorithms*

Frankfurt, 8 May 2019 – Today, the European Insurance and Occupational Pensions Authority (EIOPA) published its [report](#) on Big Data Analytics in motor and health insurance.

Data processing has historically been at the very core of the business of insurance undertakings, which is rooted strongly in data-led statistical analysis. Data has always been collected and processed to inform underwriting decisions, price policies, settle claims and prevent fraud. There has long been a pursuit of more granular datasets and predictive models, such that the relevance of Big Data Analytics for the sector is no surprise.

In view of this, and as a follow-up of the [Joint Committee of the European Supervisory Authorities cross-sectorial report on the use of Big Data by financial institutions](#), EIOPA launched a thematic review on the use of Big Data Analytics and associated benefits and risks focusing on motor and health insurance business lines.

The review revealed a strong trend towards increasingly data-driven business models throughout the insurance value chain. Traditional data sources such as demographic data or exposure data are increasingly combined with new sources such as online or telematics data, providing greater granularity and frequency of information about consumer’s characteristics, behaviour and lifestyles. There is an extended use of data sourced from third-party data vendors.

Big Data Analytics tools such as artificial intelligence or machine learning are already actively used by 31% of firms, and another 24% are at a proof of concept stage. These tools enable the development of more accurate assessments, without or with limited human intervention, increasing the efficiency and speed of decision making and therefore reducing operational costs. However, biases inherent in the data being used can be reinforced through machine learning algorithms if firms do not have adequate governance arrangements in place. This issue becomes more significant where certain outputs reached by ‘black box’ algorithms cannot be specifically and adequately explained.

Cloud computing services, which reportedly represent a key enabler of agility and data analytics, are already used by 33% of insurance firms, with a further 32% saying they will be moving to the cloud over the next 3 years. Data security and consumer protection are key concerns of this outsourcing activity.

The evidence gathered shows many opportunities for Big Data Analytics for both the insurance industry as well as for consumers. However there are also risks which need to be addressed if this potential is to develop in a sound way. Some of these risks are not new, but their significance is amplified in the context of the use of Big Data Analytics. This is particularly the case regarding issues linked with fairness and principles for responsible behaviour in a digital age, as well as with the accuracy, transparency, auditability, and explainability of certain tools such as artificial intelligence and machine learning.

In 2019, EIOPA's InsurTech Task Force will conduct further work to address in particular the highlighted risks in collaboration with the industry, academia, consumer associations and other relevant stakeholders and in the context of work conducted by the Joint Committee of the ESAs, other international fora and of the EU-US insurance dialogue.

Gabriel Bernardino, Chairman of EIOPA, said: *„European insurance firms are implementing ambitious digital transformation projects to embrace the opportunities offered by artificial intelligence and machine learning and to remain competitive in a globalised economy. Besides the benefits arising from the use of Big Data Analytics insurers have to adapt their governance frameworks to address the challenges posed by these new technologies, in particular issues with the fairness of the use of Big Data Analytics and the accuracy and explainability of “black-box” algorithms. EIOPA will closely work together with all the relevant stakeholders to address the challenges and by that responsibly supporting to harness the multiple benefits for the consumers.“*

The [report](#) and a [fact sheet](#) can be obtained via EIOPA's Website.

Notes for Editors

The **thematic review** was launched during summer of 2018. A total of 222 insurance undertakings and intermediaries from 28 jurisdictions participated. The input collected from insurance undertakings represents approximately 60% of the total gross written premiums (GWP) of the motor and health insurance lines of business in the respective national markets, and it includes input from both incumbents and start-ups. In addition, EIOPA collected input from the national competent authorities (NCAs) from the European Economic Area, and from two consumers associations.

The **European Insurance and Occupational Pensions Authority (EIOPA)** was established on 1 January 2011 as a result of the reforms to the structure of supervision of the financial sector in the European Union. EIOPA is part of the European System of Financial Supervision consisting of three European Supervisory Authorities, the National Supervisory Authorities and the European Systemic Risk Board. It is an independent advisory body to the European Commission, the European Parliament and the Council of the European Union. EIOPA's core responsibilities are to support the stability of the financial system, transparency of markets and financial products as well as the protection of insurance policyholders, pension scheme members and beneficiaries.