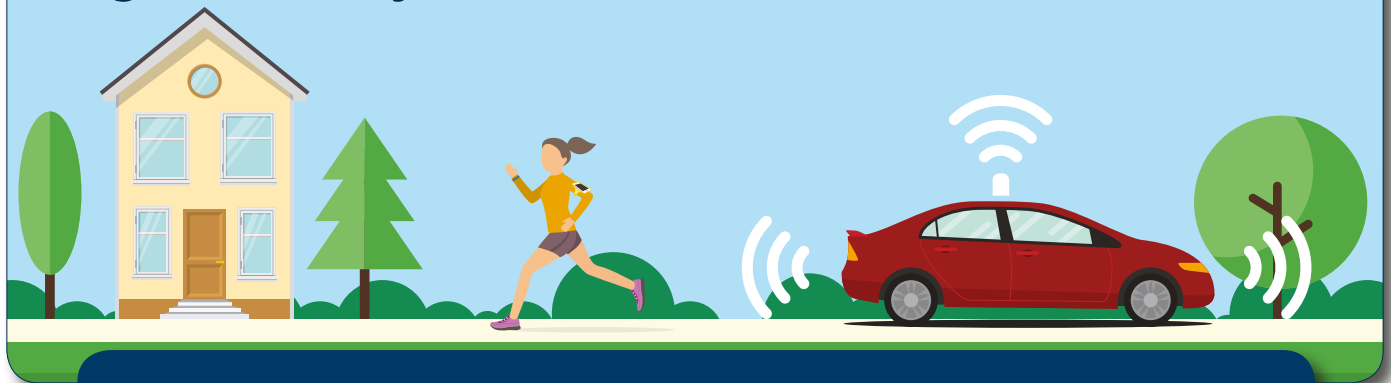# Big data analytics: An insurance (r)evolution

Consumers: the driving force behind big (data) changes in insurance

Big data analytics and the use of predictive modelling are not new in insurance.

For many years, actuaries have analysed large amounts of data to identify trends and anticipate future events (for instance, to assess people's life expectancies) and to price products (such as life insurance).

However, technological advances mean that the volume of data and computing power are increasing.

These, combined with advanced data mining and analytics tools, enable insurers to cover new risks, to offer products better tailored to consumers' needs and to provide better loss prevention advice.

Balancing risks and benefits

Nevertheless, some policymakers and consumer groups are concerned that the use of big data analytics could lead to higher prices, which could exclude certain consumers from accessing cover.

Yet, there is currently no evidence that insurance cover might become unaffordable for certain groups of people or that some of them will be unfairly discriminated against.

On the contrary, insurers have every incentive to offer attractive insurance products for everyone and to cover as many people as possible.

And, importantly, existing legal frameworks, such as the newly adopted Insurance Distribution Directive and the General Data Protection Regulation, provide adequate safeguards to protect consumers from discriminatory and unfair practices.

Benefits for policyholders

More and new data can increase insurers' understanding of risks. They can then offer better loss prevention advice to their customers. Overleaf are examples of how big data can benefit policyholders.

Tailored policies:
- Motor insurance — telematics
- Property insurance — smart meters

Prevention:
- Property insurance — floods
- Health insurance — wearables

The big (data) question

It remains to be seen to what extent insurers will use these new tools and therefore what impact they will have. It will ultimately be consumers — and the products they choose — that dictate how big data analytics changes insurance.

For additional information, please contact Rosa Armesto, head of public affairs and communications at Insurance Europe (armesto@insuranceeurope.eu, tel: +32 2 894 30 62).

Tailored policies
Motor insurance — telematics

New technologies, such as telematics with its real-time, wireless transmission of data, can give drivers access to more tailored insurance policies (eg, "pay as you drive" or "pay how you drive"), as well as lower premiums for certain drivers. This is because the data can give insurers a much better understanding of an individual's driving, and therefore make it easier to refine a driver's risk profile.

## Tailored policies
Property insurance — smart meters

New technology means policyholders can benefit from more tailored property insurance, as well as increased risk awareness and additional risk-reduction services, which can have a positive impact on premiums. This is because by using sophisticated tools to analyse more data, insurers can tailor cover more accurately than they have traditionally, when premiums have been calculated based on information about a property's structure and its level of exposure to crime or weather-related events.

Prevention
Property insurance — floods

Prevention is one of the cornerstones of any insurance scheme, and this is especially true for floods and other weather-related disasters. Without adequate prevention measures in place, certain properties would be very difficult to insure. The use of big data analytics can allow consumers to be advised on the type of prevention measures needed to make properties insurable.
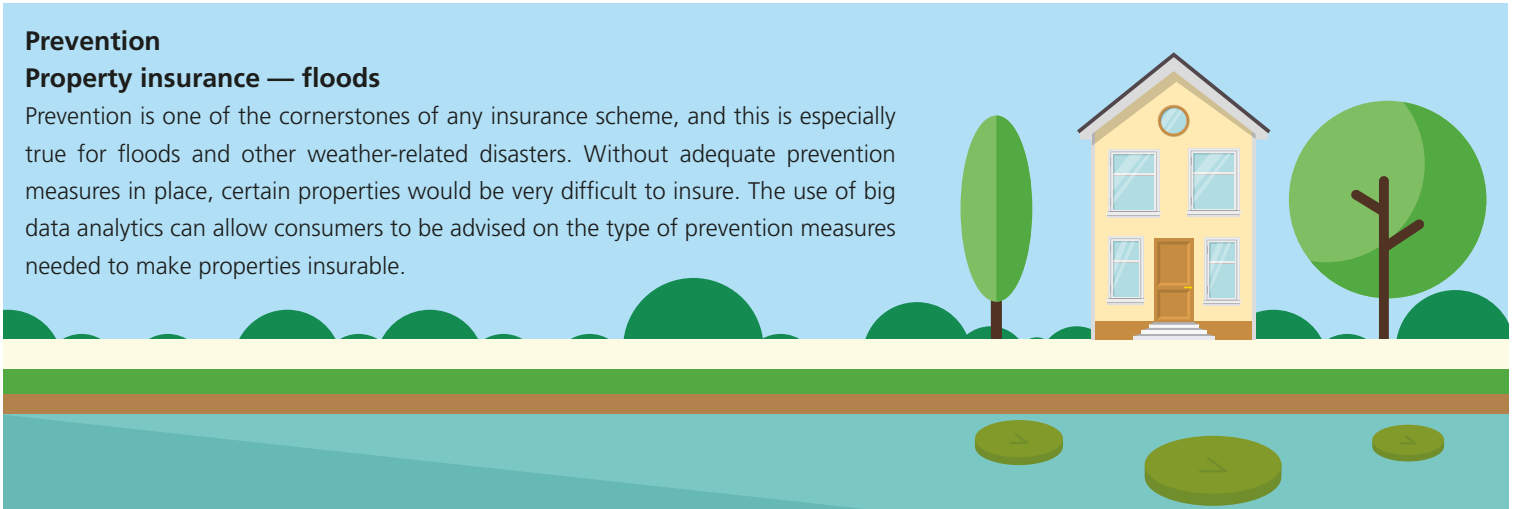
Prevention
Health insurance — wearables

Several insurers offer disease management programmes for people with chronic illnesses, such as diabetes or coronary heart disease. By using big data, it is possible to monitor an individual's health and provide them with lifestyle tips and health advice. As a result, consumers become more aware of the preventive measures they need to take to reduce the risks associated with chronic diseases and control medical costs.