

Case Study

Contract Research: Climate research focusing on the reinsurance industry for Willis Reinsurance

Key Facts

- The summer of 2007 was the wettest since records began. Insurance companies paid out over £3 billion in claims.
- The Association of British Insurers predicts that if we do not adapt to climate change now the economic and social costs will be extreme.
- Willis Reinsurance is a leading global reinsurance broker, providing risk modelling expertise, capital market solutions, actuarial services and reinsurance design.
- The Walker Institute for Climate System Research brings together the University of Reading's unique breadth and depth of climate expertise. It is a leading UK multidisciplinary research centre delivering better knowledge of future climate and its impacts for the benefit of society.
www.walker-institute.com
- Willis Reinsurance is working with the University's Walker Institute for Climate System Research to improve knowledge of climate related risks.
- The research programme ensures that Willis and the insurance sector in general are better informed on the frequency, severity and cost of future extreme weather events.

The Client

Willis Reinsurance is a leading global reinsurance broker, providing risk modelling expertise, capital market solutions, actuarial services and reinsurance design.

Reinsurance exists to insure insurance companies against huge losses. As one of the world's largest reinsurance brokers Willis wants to protect themselves and their clients from the potentially massive future losses associated with climate related catastrophic events.

The Challenge

The insurance sector has seen a dramatic increase in weather related losses over the past 10 to 15 years and the industry is becoming increasingly aware of the risks from climate change.

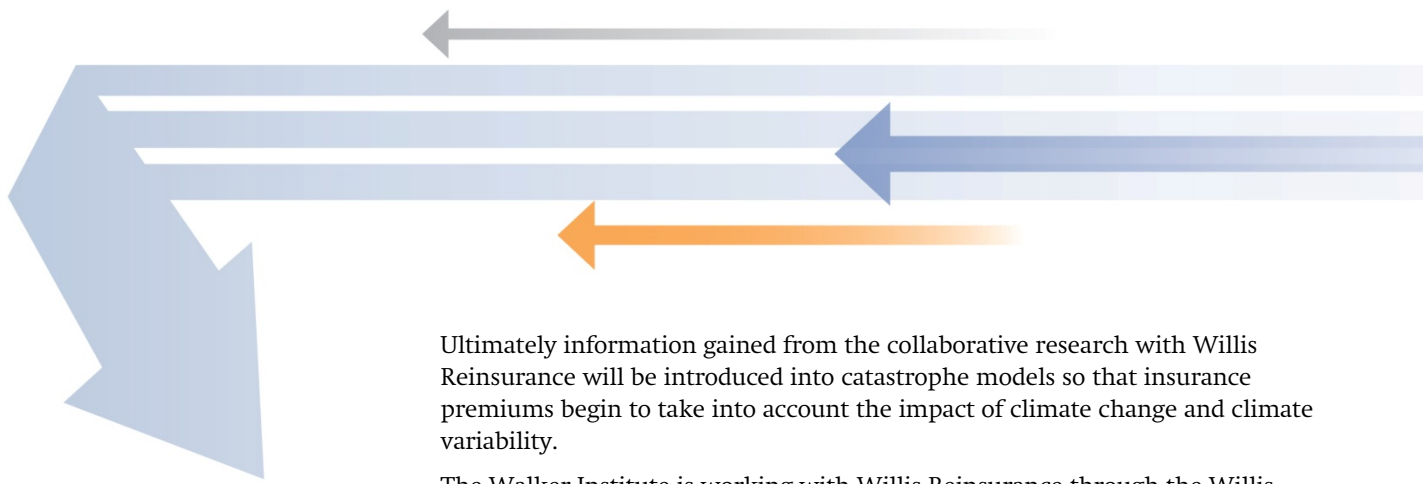
Traditionally the insurance and the reinsurance sectors have used historical event sets to predict climatic conditions in the future. However, the changing climate means that the past is no longer a good model for the future.

Catastrophes do not have to strike the UK directly for UK-based companies to suffer heavy losses. As a result of hurricane Katrina, for example, Lloyds of London, a British insurance market, lost around \$2.5billion.

The insurance and reinsurance industry need to find new ways of assessing their exposure to climate risk.

Solution

The University of Reading's Walker Institute for Climate System Research is working with Willis Reinsurance to undertake climate research focusing on the reinsurance industry as the end user. One of the Institute's areas of focus is improving predictions of extreme weather, like hurricanes, droughts and floods, particularly for the next 5 to 20 years. Clearly such research is of great interest to the insurance and reinsurance sectors.



Ultimately information gained from the collaborative research with Willis Reinsurance will be introduced into catastrophe models so that insurance premiums begin to take into account the impact of climate change and climate variability.

The Walker Institute is working with Willis Reinsurance through the Willis Research Network – a unique academic-industrial collaboration. The Willis Research Network brings together researchers from leading international scientific institutes, catastrophe modellers and insurers to increase knowledge of catastrophic events.

Benefits to the Partner

Improved predictive and modelling capability will better prepare Willis Reinsurance in determining appropriate risk and insurance pricing structures for clients located in established and emerging high risk regions.

Through this research programme the Walker Institute helps the insurance and reinsurance sectors better understand the frequency, severity and cost of future extreme weather events.

Benefits to the University

The University is developing and strengthening its knowledge base through interaction with Willis Reinsurance and other partners within the Willis Research Network.

The University has gained prestige as part of the largest collaboration between the insurance industry and academia.



‘We are working with the Walker Institute, University of Reading, to gain detailed information about how extreme events and hazardous weather might change in the future – vital for our assessment of climate related risks.’

Matthew Foote

Research Director, Willis Research Network

University of Reading

The University of Reading is a world-class research-intensive university covering a broad spectrum of disciplines across the Life and Physical Sciences, Arts and Humanities, Social Sciences and Henley Business School. Areas of particular strength include: Climate Systems Science, Preventative and Therapeutic Health Sciences, Sustainable Construction and Environments and Computational Science and Informatics.

The University works with businesses providing support for research and development, as well as access to expertise and equipment to solve business challenges. To find out how you can access the leading minds at the University of Reading please contact our Knowledge Transfer Centre.