

# Transforming the insurance industry

In 2011, natural disasters caused £100 billion of damage around the world, with record insurance payouts coming from the UK. The ability of the UK insurance industry to weather such challenges is crucial for economic growth.

NERC's catastrophe weather modelling, led by the National Centre for Atmospheric Science (NCAS), is being incorporated into reinsurance models which help prevent the unexpected accumulation of risk, bolstering the industry's resilience. A 5% reduction in average insured losses due to storm damage alone would be worth £62-130m a year to the insurance industry.



**Partners:** Willis Research Network, National Centre for Atmospheric Science, University of Reading

## The collaboration

The UK insurance sector is the third largest in the world and the biggest in Europe. It employs 300,000 people accounting for a quarter of all financial services jobs in the UK.

2011 was the most expensive year yet for the global insurance industry, but the UK insurance industry continues to grow in the face of a global financial recession. How?

Science Minister David Willetts cites continuous engagement with the scientific community as a reason why the UK insurance sector has avoided crisis, even when more record payouts for natural events have come from the London market than from anywhere else.

Creating and exploiting new knowledge in fields such as catastrophe weather modelling helps maintain the UK's competitive position as a centre for reinsurance and to support the industry's growth in the future. NERC funding contributes to safeguarding and improving the £7.2 billion insurance sector to the benefit of the UK economy.

More than ever, insurers need Earth observation data to control their exposure to risk, assess damage and quantify loss. Understanding the physical world is all the more necessary, for scientists and insurers alike, because natural environment is changing so rapidly.

NERC's investment in high-resolution climate modelling at the University of Reading has led to the Willis Research Network entering into a long-term partnership with the university. So far Willis Re has paid more than £0.8m a year for resources including PhD students tasked with turning academic assets into practical applications for the insurance industry.

The ability to observe, understand and simulate natural hazards and risks provides the UK insurance sector with international competitive advantage, equipping it to better manage its own and its customers' risk exposure and costs.

David Willetts: *'The past may be no guide to the future – hence the enormous value of scientific modelling to a world where there is more of value to destroy – more buildings, ships and wealth than ever before.'*

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