

## Strength in Numbers

*Multi-modelling and bespoke solutions are key to effective risk management, says Adam Podlaha, head of Impact Forecasting International at Aon Benfield Analytics*

**Q** What role are new catastrophe models playing in risk management in Europe and how is Aon Benfield Analytics involved?

**A** There are three aspects to this. First, models help insurers decide how much reinsurance coverage they need to buy—coupled with other factors such as risk appetite. Second, they help to track the evolution of insurers' exposures, which can be valuable information for risk managers insuring new locations.

Finally, certain parts of the models can also be used to influence primary underwriting by assisting insurers to understand the vulnerability of individual insured properties. We are also helping to add clarity to our clients' portfolios by improving the quality of their exposure data and provide guidance on how modelling can be used for Solvency II purposes.

**Q** What further innovation in model development in Europe do you foresee?

**A** The industry is heading towards a multi-model approach, so creation of more transparent models, even for territories and perils that are currently well modelled such as European windstorm, is clearly a need. Having just one model is dangerous, but three or four



Adam Podlaha, head of Impact Forecasting International at Aon Benfield Analytics

ing solutions offer increased transparency and customisation options. The model needs to be understood both by the modellers and the client in order to make the decision about how much reinsurance to buy.

Our models are open and customisable on many levels so the client has a much better grip

expanding in areas including life modelling for earthquakes and terrorism.

**Q** What role will your academic partners play in this innovation?

**A** Aon Benfield Research is the collective name for the firm's global academic partnerships. Impact Forecasting combines the latest findings of Aon Benfield Research with our own modelling technology to provide client-specific solutions. For example, on our forthcoming European Windstorm model, we are working with the University of Cologne whose windstorm research will be directly used inside the model. This includes the statistical and probabilistical downscaling of windstorm events data to a much greater resolution, from approximately 100km x 100km to 1km x 1km. We frequently schedule face-to-face discussions and joint working sessions with our academic partners on key risk topics, which helps to develop long-term relationships and deliver the most relevant research to the insurance industry.

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allow improved insight and enable clients to make better decisions on their reinsurance purchases. This aligns with a point made by a prominent scientist, who said it is better not to look for a precisely correct answer but to take account of the whole range of plausible answers and expect the correct one to be in that range, and is one of the reasons Impact Forecasting is creating our own European Windstorm model, which will be released next year.

In addition to a new model Impact Forecast-

ing on what is happening inside the model. For example, a client informed us that an engineering company could provide interesting data for our Austrian flood model in respect of the planned flood defences level. We were then able to alter one of the model's components to give that particular client an insight into what effect these changes will have on the loss estimates when they come into force in a few years' time.

Impact Forecasting is also focusing on non-modelled perils, such as tsunamis, and is