



# Impact Forecasting<sup>®</sup>

Transparent and customisable  
catastrophe models and platform

*ELEMENTS 12 – Summer 2018*



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## Catastrophe Analysis and Reporting

Impact Forecasting provides real-time information on catastrophic events through Cat Alerts, Weekly and Monthly Cat Recaps and the Annual Global Climate and Catastrophe Report.

The Catastrophe Insight portal provides aggregated economic and insured loss data for global natural catastrophe events during the current year plus the previous decade. Users can compare losses by peril or region.

[catastropheinsight.aonbenfield.com](https://catastropheinsight.aonbenfield.com)

In an increasingly risky world, insurers and reinsurers need more sophisticated tools to quantify and manage the risks facing their businesses. Impact Forecasting, Aon's catastrophe model development centre of excellence, enables firms to analyse the financial implications of catastrophic events and achieve a greater understanding of their risks.

## Breadth of Model Coverage

With over 100 probabilistic and scenario models spanning 10 perils and over 60 territories, we empower insurers by providing risk insights for the peak risk zones around the globe, as well as for the emerging markets. This allows insurers to place effective reinsurance programmes and manage capital based on more accurate model results. Impact Forecasting partners with academic and industry organisations around the world to incorporate the latest research into all of our catastrophe models.

## Customisable models

All Impact Forecasting models can be customised based on the client's requirements, for example, using an insurer's loss data to generate more accurate results for a specific line of business, modify an existing event to explore the sensitivity of the losses for regulatory purposes or explore hazard uncertainty for a given peril. Examples include using our engineering expertise to apply claims data from churches and greenhouses to create bespoke damage functions and exploring uncertainty in the hazard component of our US hurricane model.

## Transparent ELEMENTS loss calculation platform

Our models run in ELEMENTS, which gives insurers the ability to incorporate their own view of risk into model results. It delivers transparency so every step of the calculation process is clearly defined and can be easily explained to stakeholders, regulators and rating agencies while helping to quantify uncertainty in various model components. As a universal catastrophe modelling platform, ELEMENTS has the ability to run both Impact Forecasting models and third party models for any peril or territory. It also enables users to quantify and visualise the range of uncertainties to make business decisions based on their individual risk appetites.

## Risk rating information to enhance primary underwriting

Impact Forecasting's set of hazard and risk score products—based on its modelled data—enables more accurate underwriting and risk assessment for natural and man-made hazards. The data helps insurers and corporations understand the impact of catastrophe risk on individual locations and then in turn estimate how much premium to charge. We also integrate our data with a number of third party exposure management and policy administration systems.



## Model Coverage Index

Territory	Probabilistic	Scenario
<b>Algeria</b>	earthquake	earthquake
<b>Australia</b>	flood (Ambiental), hail	flood, flood (Ambiental), hail
<b>Austria</b>	earthquake, flood, hail, windstorm	flood, hail, windstorm
<b>Bahrain</b>	earthquake	earthquake
<b>Belgium</b>	windstorm	windstorm
<b>Bosnia and Herzegovina</b>	earthquake	
<b>Brazil</b>	flood	
<b>Bulgaria</b>	earthquake	
<b>Canada</b>	flood, pluvial flood	flood, pluvial flood, tsunami (UCL)
<b>Chile</b>	earthquake, tsunami	earthquake, tsunami
<b>China</b>	tropical cyclone	flood
<b>Croatia</b>	earthquake	
<b>Cyprus</b>	earthquake	earthquake
<b>Czechia</b>	flood, hail	flood, hail
<b>Denmark</b>	windstorm	windstorm
<b>Finland</b>	windstorm	windstorm
<b>France</b>	hail, windstorm	flood, hail, windstorm
<b>Germany</b>	earthquake, hail, life-terrorism, storm surge, terrorism, windstorm	flood, hail, storm surge, windstorm
<b>Greece</b>	earthquake	earthquake
<b>Guam</b>	tropical cyclone	tropical cyclone
<b>Hong Kong</b>	tropical cyclone	
<b>Hungary</b>	earthquake, flood	
<b>Iceland</b>	earthquake	earthquake
<b>India</b>	tropical cyclone	flood
<b>Indonesia</b>	flood	earthquake, flood
<b>Iran</b>	earthquake	
<b>Ireland</b>	windstorm	windstorm
<b>Israel</b>	earthquake, life-earthquake	earthquake, life-earthquake
<b>Japan</b>	earthquake, tropical cyclone, tsunami	earthquake, flood, tropical cyclone, tsunami
<b>Kazakhstan</b>	earthquake	earthquake
<b>Kenya</b>	earthquake	
<b>Kuwait</b>	earthquake	earthquake
<b>Latin America</b>		flood (Fathom)
<b>Liechtenstein</b>	flood	flood
<b>Luxembourg</b>	windstorm	windstorm
<b>Malaysia</b>	flood, tropical cyclone	flood
<b>Mexico</b>		flood

Territory	Probabilistic	Scenario
<b>Montenegro</b>	earthquake	
<b>Morocco</b>	earthquake	earthquake
<b>Netherlands</b>	flood, hail, storm surge, windstorm	flood, hail, storm surge, windstorm
<b>Norway</b>	windstorm	windstorm
<b>Oman</b>	earthquake	earthquake
<b>Pakistan</b>		earthquake
<b>Peru</b>	earthquake	earthquake
<b>Philippines</b>	tropical cyclone	earthquake
<b>Poland</b>	flood, hail	flood, hail
<b>Portugal</b>		flood
<b>Puerto Rico</b>	earthquake, tropical cyclone	earthquake, tropical cyclone
<b>Qatar</b>	earthquake	earthquake
<b>Romania</b>	earthquake	
<b>Saudi Arabia</b>	earthquake	cloudburst, earthquake, flood
<b>Serbia</b>	earthquake	
<b>Singapore</b>		earthquake
<b>Slovakia</b>	earthquake, flood	flood
<b>Slovenia</b>	earthquake, hail	hail
<b>South Africa</b>	earthquake, hail, hail—crop	hail, hail—crop
<b>South Korea</b>	tropical cyclone	
<b>South Pacific Islands</b>	earthquake	earthquake, tropical cyclone
<b>Sweden</b>	windstorm	cloudburst, flood, windstorm
<b>Switzerland</b>	earthquake, flood	earthquake, flood
<b>Taiwan</b>	tropical cyclone	
<b>Tanzania</b>	earthquake	
<b>Thailand</b>	flood, tropical cyclone	earthquake, flood
<b>Turkey</b>	earthquake, life-earthquake	earthquake, life-earthquake
<b>Uganda</b>	earthquake	
<b>United Arab Emirates</b>	earthquake	earthquake
<b>United Kingdom</b>	fluvial/pluvial flood and storm surge (JBA), life-terrorism, terrorism, windstorm	fluvial/pluvial flood and storm surge (JBA), terrorism—computational fluid dynamics, windstorm
<b>United States of America</b>	earthquake, brushfire, cloudburst / pluvial flood, fluvial flood, life-terrorism, storm surge, terrorism, tornado / hail / severe winds / thunderstorm, tropical cyclone, workers' compensation	cloudburst / pluvial flood, earthquake, fluvial flood, storm surge, terrorism, terrorism-computational fluid dynamics, tropical cyclone, tornado / hail / severe winds / thunderstorm RePlay
<b>Vietnam</b>	earthquake, flood, storm surge, tropical cyclone	earthquake, storm surge, tropical cyclone
<b>Virgin Islands</b>	earthquake	earthquake
<b>Yemen</b>	earthquake	earthquake

# The gateway to independent models

Impact Forecasting offers the ability to run third party models in ELEMENTS to increase your choice of coverage. These range from your own in-house tools to models from JBA, UCL, Ambiental and Fathom.

Equally several Impact Forecasting models are also available on the Flamingo/Oasis and Simplitium ModEx platforms.

*Would you like to integrate your own model? Please contact us!*

## About Impact Forecasting

Impact Forecasting is Aon's catastrophe model development centre of excellence whose seismologists, meteorologists, engineers, mathematicians, finance risk management and insurance professionals analyse the financial implications of natural and man-made catastrophes around the world. Impact Forecasting's experts develop a suite of probabilistic and scenario models, plus its transparent and customisable ELEMENTS loss calculation platform. These empower insurers and reinsurers to understand the impact of global risks ranging from hurricane, earthquake and flood to tsunami, cloudburst and terrorism. To find out more about Impact Forecasting® LLC, visit [www.impactforecasting.com](http://www.impactforecasting.com)

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