

# Impact Forecasting<sup>®</sup>

Transparent and customisable  
catastrophe models and platform

*ELEMENTS 13-2019*



**AON**  
Empower Results<sup>®</sup>

# Contents

About Impact Forecasting	3
Model Coverage Map	4-5
Model Coverage Index	6-7

## Catastrophe Analysis and Reporting

Impact Forecasting provides real-time information on catastrophic events through Cat Alerts, Weekly and Monthly Cat Recaps and the Weather, Climate & Catastrophe Insight: Annual 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.aon.com](http://catastropheinsight.aon.com)

## About Impact Forecasting

In an increasingly risky world, insurers and reinsurers need more sophisticated tools to quantify and manage the risks facing their businesses. Impact Forecasting, The Aon reinsurance solution catastrophe model centre of excellence, Impact Forecasting, 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 almost 80 territories, we empower insurers by providing risk insights for the peak risk zones around the globe, as well as for the emerging markets. 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 requirements, such as using an insurer's loss data to generate more accurate results for a specific line of business or developing an entire new model for a previously uncharted peril and territory. Recent examples include using our engineering expertise and the client's claims data for greenhouses to create bespoke damage functions; and developing an advanced Computational Fluid Dynamics based model to quantify property damage and workers' compensation risk for Manhattan, New York.

### Transparent ELEMENTS catastrophe modelling platform

Our models run ELEMENTS, giving 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. Plus, ELEMENTS' Application Programming Interface (API) ensures smooth integration with your catastrophe modelling processes.

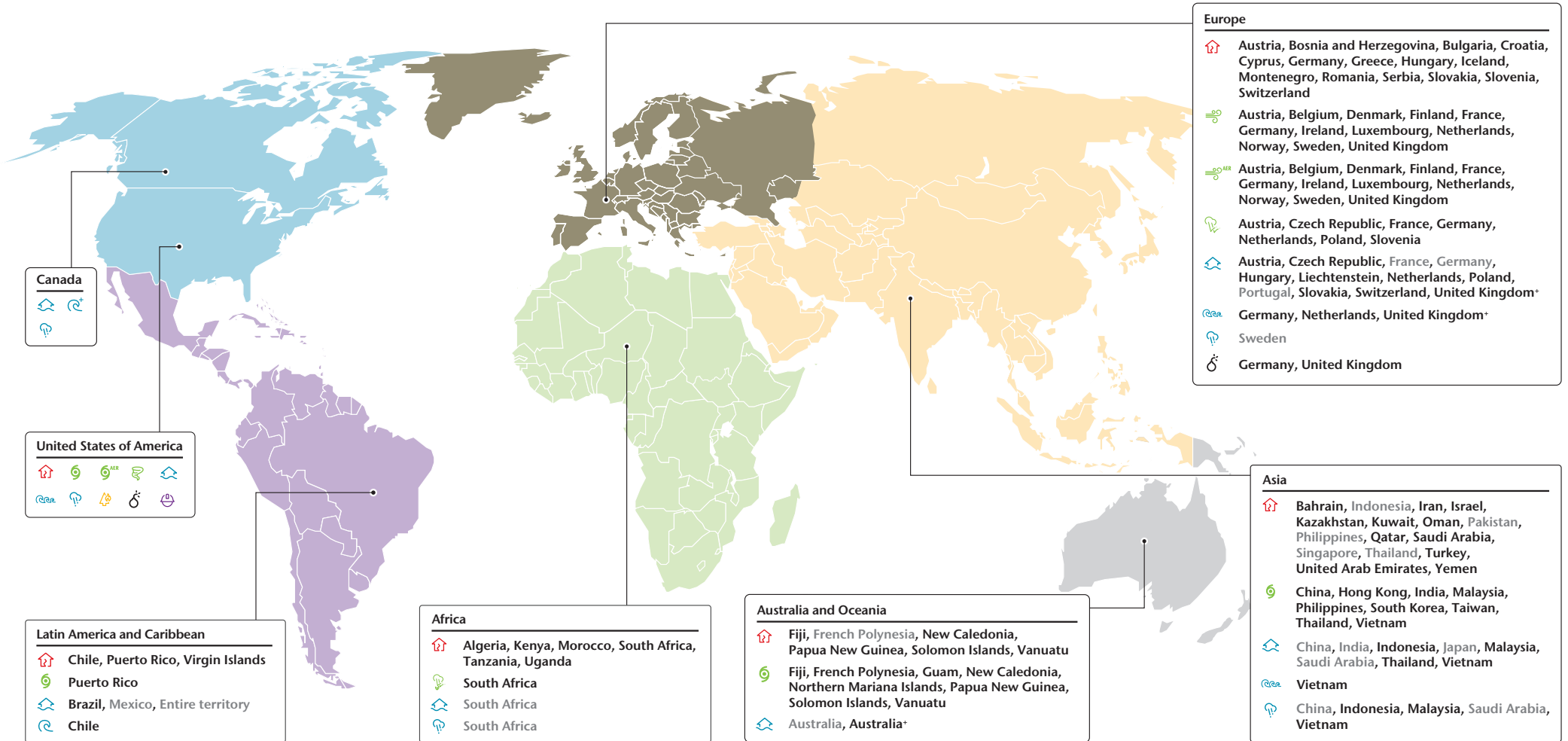
### Risk rating information to enhance primary underwriting

The Impact Forecasting hazard and risk score products enable 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 estimate how much premium to charge. Our data are integrated with a number of third party exposure management and policy administration systems.

### Automated Event Response for US hurricane and European windstorm

Today's weather prediction models offer an opportunity for insurers to estimate the impact of costly hurricanes and windstorms in real time. Utilising weather forecast and station data, Impact Forecasting's Automated Event Response brings together its expertise in hurricane and windstorm modelling with a portfolio-specific approach to loss estimation to enhance claims response and reporting.

# Model Coverage Map



## Map Icons

- 🏠 earthquake
- 🌀 tropical cyclone
- 🌪️ severe convective storm
- 🌪️ windstorm
- 🌪️ hail
- 🏠 fluvial flood
- 🌊 storm surge
- 🌀 tsunami
- 🌪️ pluvial flood / cloudburst
- 🔥 brushfire
- 👤 terrorism
- 👤 workers' compensation

**AER** Automated Event Response scenario model only  
**Country** + third party models

## Model Coverage Index

Territory	Probabilistic	Scenario
<b>Algeria</b>	earthquake	earthquake
<b>Australia</b>	flood (Ambiental)	flood, flood (Ambiental)
<b>Austria</b>	earthquake, flood, hail, windstorm <sup>AER</sup>	flood, hail, windstorm <sup>AER</sup>
<b>Bahrain</b>	earthquake	earthquake
<b>Belgium</b>	windstorm <sup>AER</sup>	windstorm <sup>AER</sup>
<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, pluvial flood
<b>Croatia</b>	earthquake	
<b>Cyprus</b>	earthquake	earthquake
<b>Czech Republic</b>	flood, hail	flood, hail
<b>Denmark</b>	windstorm <sup>AER</sup>	windstorm <sup>AER</sup>
<b>Fiji</b>	earthquake, tropical cyclone	earthquake, tropical cyclone
<b>Finland</b>	windstorm <sup>AER</sup>	windstorm <sup>AER</sup>
<b>France</b>	hail, windstorm <sup>AER</sup>	flood, hail, windstorm <sup>AER</sup>
<b>French Polynesia</b>	tropical cyclone	earthquake, tropical cyclone
<b>Germany</b>	earthquake, hail, life-terrorism, storm surge, terrorism, windstorm <sup>AER</sup>	flood, hail, storm surge, windstorm <sup>AER</sup>
<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, pluvial flood	earthquake, flood, pluvial flood
<b>Iran</b>	earthquake	
<b>Ireland</b>	windstorm <sup>AER</sup>	windstorm <sup>AER</sup>
<b>Israel</b>	earthquake, life-earthquake	earthquake, life-earthquake
<b>Japan</b>		flood
<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 <sup>AER</sup>	windstorm <sup>AER</sup>
<b>Malaysia</b>	flood, pluvial flood, tropical cyclone	flood, pluvial flood
<b>Mexico</b>		flood
<b>Montenegro</b>	earthquake	

Territory	Probabilistic	Scenario
<b>Morocco</b>	earthquake	earthquake
<b>Netherlands</b>	flood, hail, storm surge, windstorm <sup>AER</sup>	flood, hail, storm surge, windstorm <sup>AER</sup>
<b>New Caledonia</b>	earthquake, tropical cyclone	earthquake, tropical cyclone
<b>Northern Mariana Islands</b>	tropical cyclone	tropical cyclone
<b>Norway</b>	windstorm <sup>AER</sup>	windstorm <sup>AER</sup>
<b>Oman</b>	earthquake	earthquake
<b>Pakistan</b>		earthquake
<b>Papua New Guinea</b>	earthquake, tropical cyclone	earthquake, tropical cyclone
<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>Solomon Islands</b>	earthquake, tropical cyclone	earthquake, tropical cyclone
<b>South Africa</b>	earthquake, hail	earthquake, flood, hail, pluvial flood
<b>South Korea</b>	tropical cyclone	
<b>Sweden</b>	windstorm <sup>AER</sup>	cloudburst, flood, windstorm <sup>AER</sup>
<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 <sup>AER</sup>	windstorm <sup>AER</sup>
<b>United States of America</b>	brushfire, cloudburst / pluvial flood, earthquake, fluvial flood, life-terrorism, severe convective storm, storm surge, terrorism, tropical cyclone, workers' compensation	brushfire, cloudburst / pluvial flood, earthquake, fluvial flood, severe convective storm, storm surge, terrorism-computational fluid dynamics, tropical cyclone
<b>Vanuatu</b>	earthquake, tropical cyclone	earthquake, tropical cyclone
<b>Vietnam</b>	flood, pluvial flood, storm surge, tropical cyclone	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 your own models or third party models in ELEMENTS to increase your choice of coverage. In addition to hosting your own models, there are 3rd party models available from JBA, UCL and Ambiental. Impact Forecasting also collaborate with Fathom and ImageCat to bring you additional insight.

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 catastrophe modelling 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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