Impact Forecasting – Aon Benfield’s catastrophe model development centre of excellence – has launched a unique suite of new scenario models to generate loss estimates for specific historic or hypothetical events.

Losses for events such as the storm surge by Hurricane Sandy, Thailand floods or windstorm Xynthia can now be calculated to gauge the financial impact of their potential reoccurrence. Equally, scenarios can be generated for possible future events by integrating footprints from either Impact Forecasting, our insurer and reinsurer clients or third party organisations such as PERILS.

Benefits for insurers and reinsurers
Scenario models help to:

- validate existing probabilistic models
- examine specific historic or hypothetical events in territories where no models currently exist
- monitor exposure in key areas and provide more detailed information for reinsurance purchase and claims management.

Suite of scenario models
Available through ELEMENTS, Impact Forecasting's loss calculation platform, footprints already available for key peril and regional hotspots include:

- **US**: Hurricane Sandy storm surge footprints by Impact Forecasting (developed by the SLOSH model) and PERILS (produced by SERTIT). In addition, footprints are available for hurricanes Katrina and Ike
- **Japan**: 15 event scenarios for tsunami, based on events defined by the Japanese government and USGS
- **Europe**: PERILS windstorm scenario events for Klaus, Xynthia, Joachim and Andrea (produced by MeteoSuisse, the German Weather Service (COSMO-EU) and EuroTempest)
Integrating customized footprints

Scenarios can be generated for possible future events, for example, based on maximum possible magnitudes of a flood or earthquake. The scenarios are generated by integrating footprints (maps highlighting the extent of the area affected at a given intensity) from either Impact Forecasting, insurers and reinsurers or third party organizations such as PERILS.

Efficient and practical implementation

Any insurer or reinsurer Impact Forecasting licensee can use ELEMENTS with any event footprint to estimate losses for those scenarios. The ELEMENTS platform unlocks the full potential of event footprints to estimate losses, computing in minutes work that would take hours to complete using Geographical Information Systems and databases. Overall it helps companies to improve the continuity and standardization of these processes.

About Impact Forecasting

Impact Forecasting is a catastrophe model development center of excellence within Aon Benfield whose seismologists, meteorologists, hydrologists, engineers, mathematicians, GIS experts, finance, risk management and insurance professionals analyze the financial implications of natural and man-made catastrophes around the world. Impact Forecasting’s experts develop software tools and models that help clients understand underlying risks from hurricanes, tornadoes, earthquakes, floods, wildfires and terrorist attacks on property, casualty and crop insurers and reinsurers. Impact Forecasting is the only catastrophe model development firm integrated into a reinsurance intermediary.