

AON

**Impact of the
losses on changes
in direct insurance
product – “what
after?”**

13 June 2024

Proprietary & Confidential



Agenda

- Section 1** Impact Forecasting overview
- Section 2** Loss experience impact on existing models
- Section 3** How models can help design an insurance product
- Section 4** Portfolio optimisation with Nat-Cat model

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Impact Forecasting overview



Better decisions on catastrophe risk

Impact Forecasting: Global catastrophe model development team



90 Countries



135+
Models



12 Perils



150+
Modelling experts
over **5 time zones**



30,000
Events in Cat
Insight database

Innovating For Your Strategic Goals as a Reinsurer

Through Impact Forecasting's Products and Services

Transparent
Models

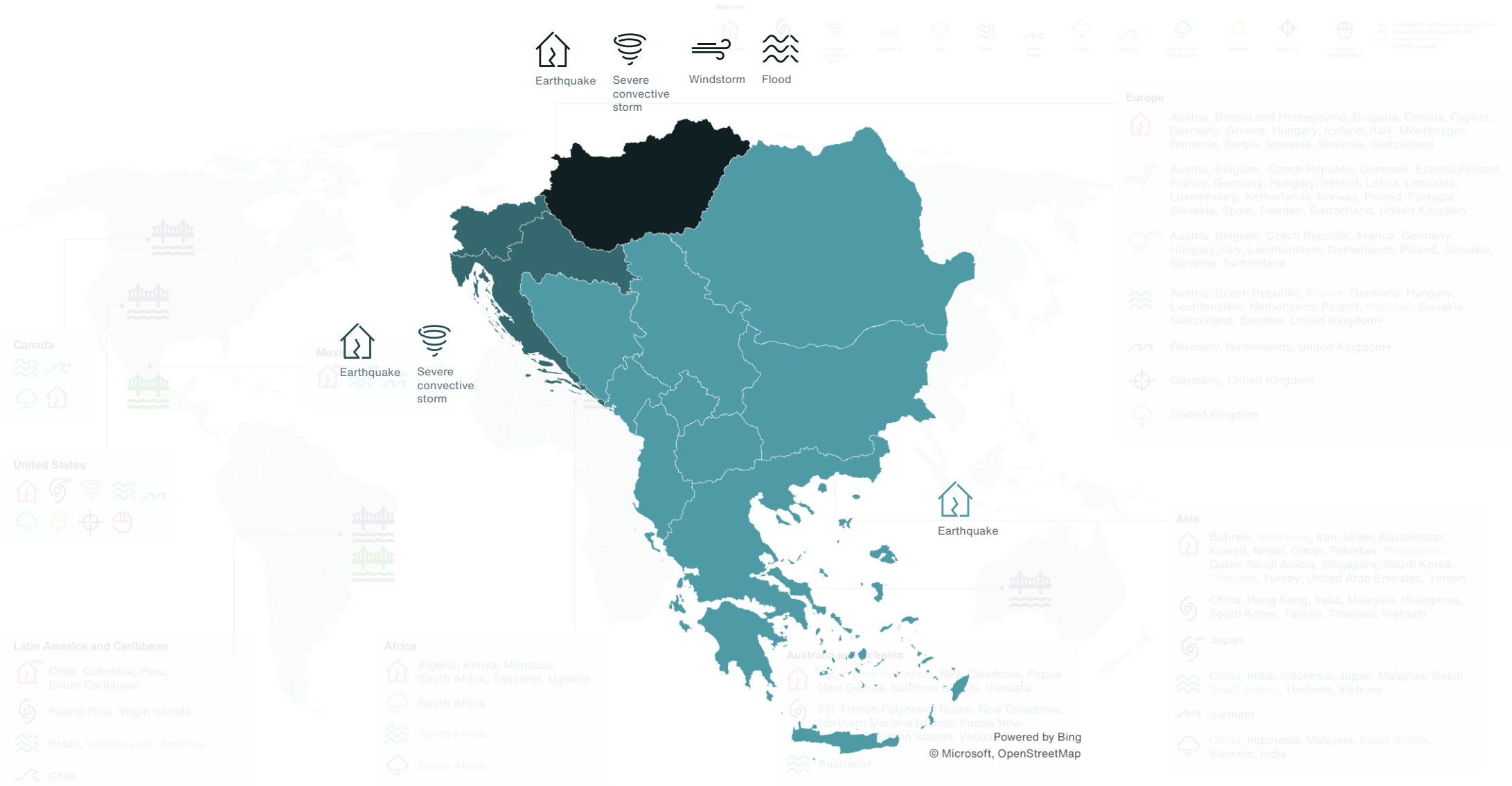
Industry Loss
Curves

Catastrophe
Insight

Climate
Change
Solutions

Event Loss
Projections

125 global models to help you make better decisions



2

Loss experience impact
on existing models



France 2022 events and their impact on the IF model

Hazard performance

- France 2022 hail event hit more than a 1000 Postal codes in 1 year
- Impact Forecasting Return Period of hitting that many Postal codes is greater than 1000 years.

Vulnerability performance

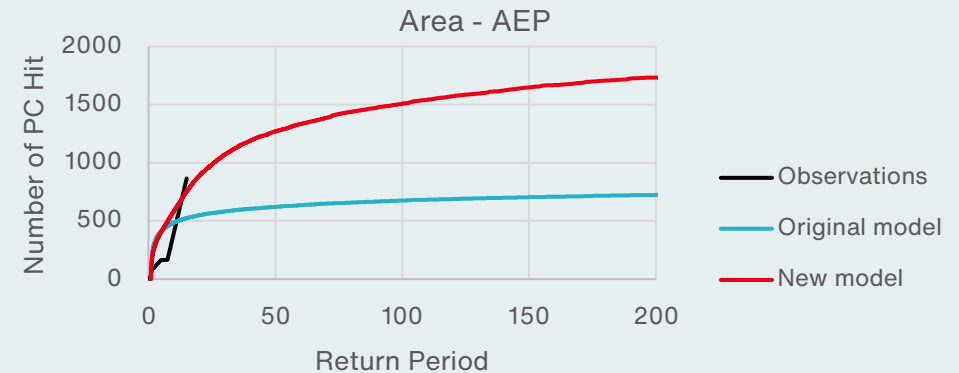
- Impact Forecasting vulnerability curves generally performed well in the validation tests against the 2022 France hail claims.

Model Update

- Extensive review of the hazard.
- Hail events covering bigger area.
- More events occurring during the year.
- Review of vulnerability as new data are available.

Conclusions

- Vulnerability performance is good.
- Hazard needs revision.

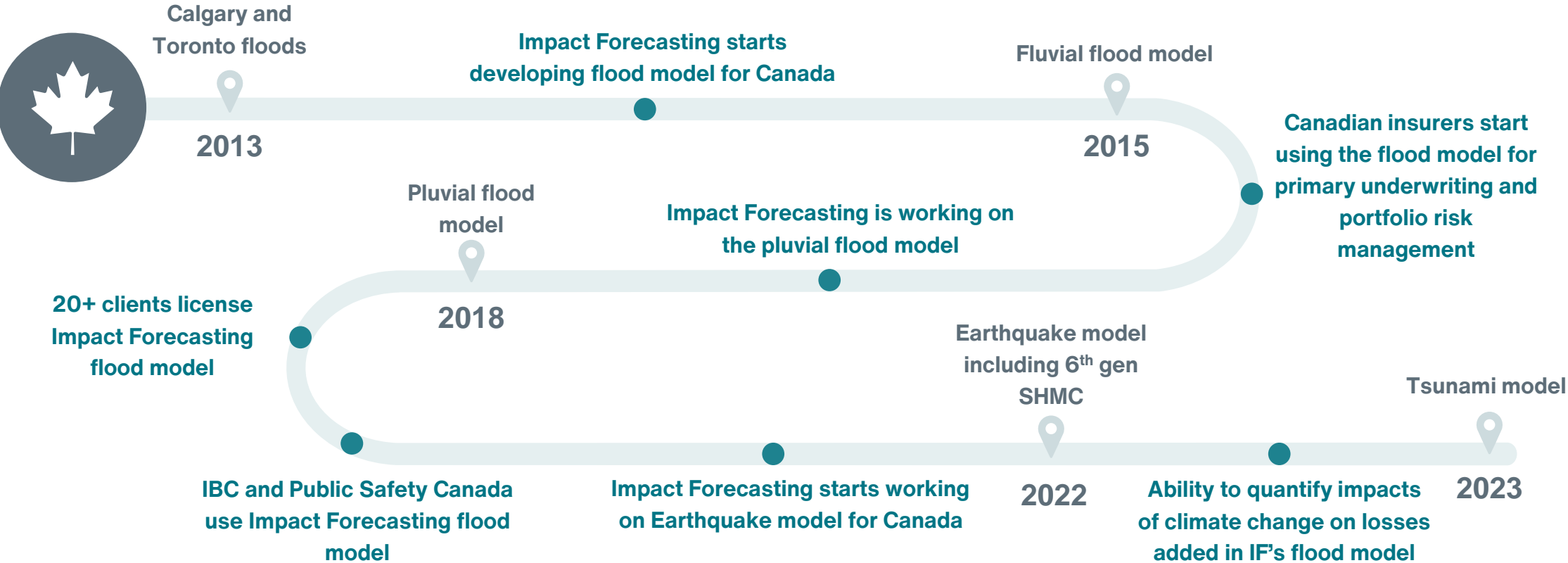


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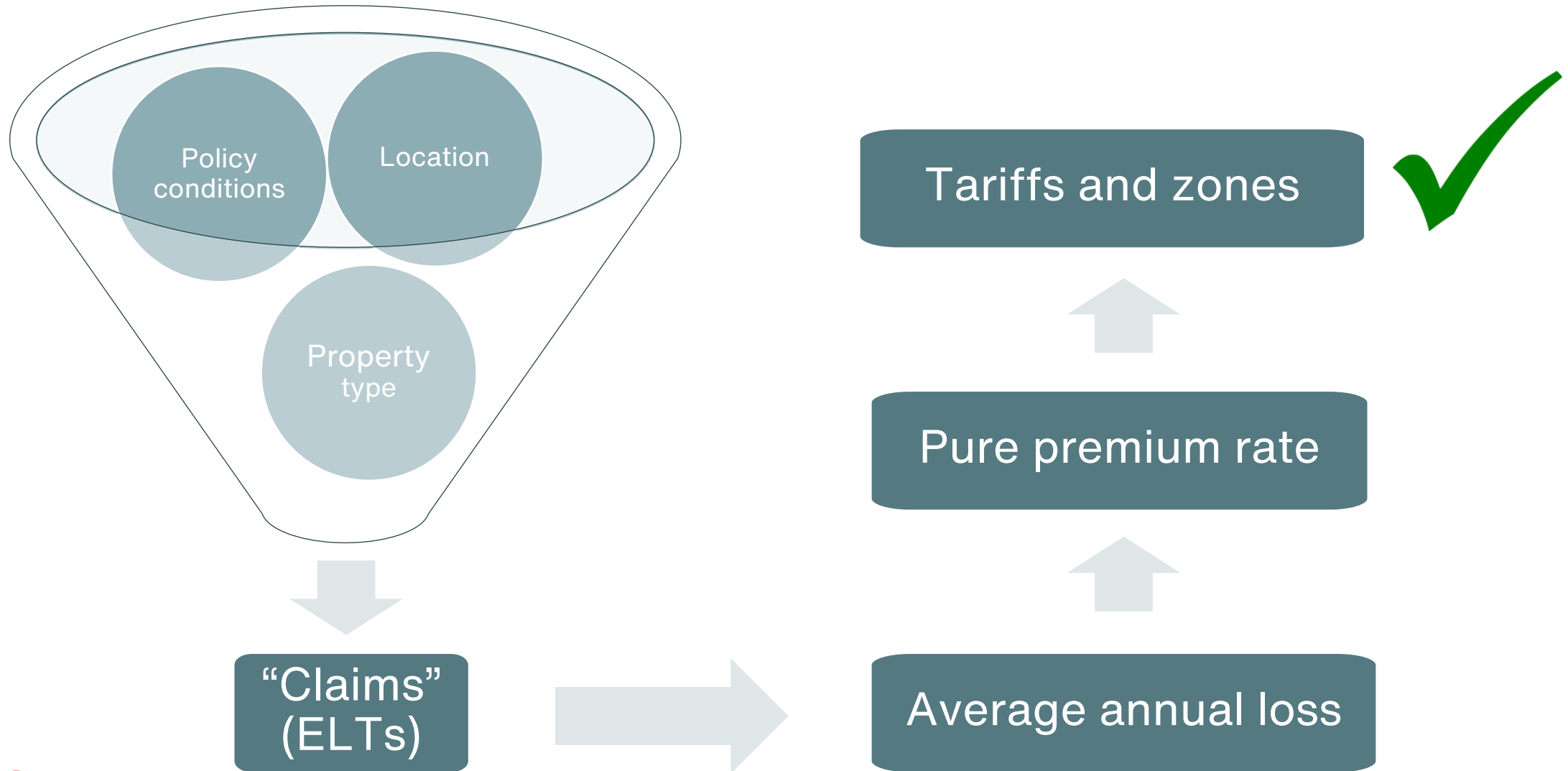
How models can help design an insurance product



Impact Forecasting journey Canada



Using Cat Model to Design Insurance Product



New product design

Determine the effect of various insurance conditions

- Deductibles: min, max, as % of loss, TIV...
- Limits: location, policy etc.

How?

- Re-run ELEMENTS with different deductibles and limits settings
- Use modified pure premium

Effect of deductibles

PC	Occupancy	Coverage	Limit	Deductible	Gross / GU
T2G0J8	Residential	Building	100%	0.1%	99%
T2G0J8	Residential	Building	100%	0.2%	99%
T2G0J8	Residential	Building	100%	0.5%	97%
T2G0J8	Residential	Building	100%	1.0%	94%
T2G0J8	Residential	Building	100%	0.0%	100%

Effect of limits

PC	Occupancy	Coverage	Limit	Deductible	Gross / GU
T2G0J8	Residential	Building	1%	0.1%	6%
T2G0J8	Residential	Building	10%	0.1%	52%
T2G0J8	Residential	Building	50%	0.1%	99%
T2G0J8	Residential	Building	100%	0.1%	99%

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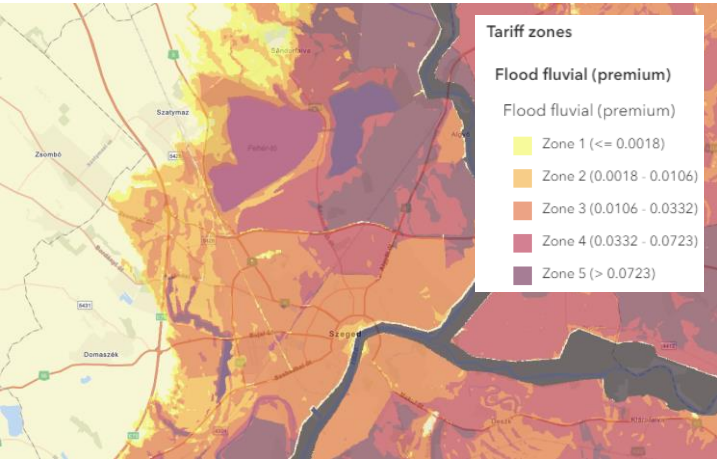
Portfolio optimisation with Nat-Cat model



Portfolio optimisation with Polish client

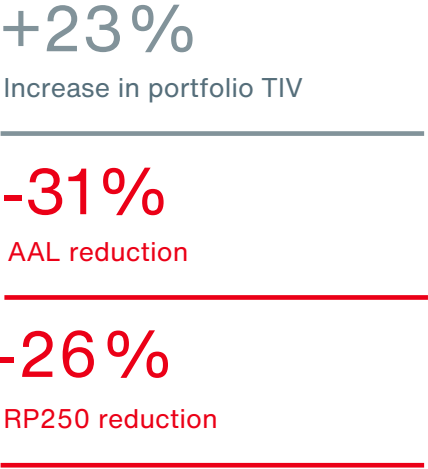
The choice

- Major Polish insurance company selected IF flood model for **rate calculation** for residential LOB (after many years of RFPs).
- IF has delivered **hi-res flood model data** (AAL rates) and an API.
- Polish client integrated IF's flood pure premium via API into their **day-to-day underwriting workflows**.



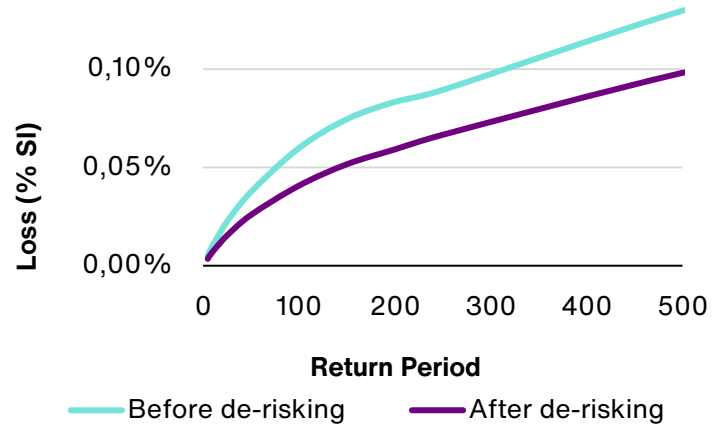
The analysis

- Based on the data, policies potentially generating biggest losses are being removed from the portfolio.
- The policies represent very small part of the portfolio.
- Overall portfolio grows; sum insured goes up.
- Modelled losses decrease.



Client benefits

- **One model used for primary underwriting and reinsurance modelling** = selective underwriting directly impact renewal results
- EP curves show that losses in percentage of sum insured go down. This means the portfolio has gotten less vulnerable to flood.
- Positive development of modelled losses helped brokers negotiate favourable price of the reinsurance programme.



Impact Forecasting provides around **50 companies globally** with a solution for primary underwriting.

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