

ROUNDTABLE ON SUSTAINABLE FINANCE

Morning session



Methodology on potential inclusion of climate change in the nat cat standard formula

EIOPA Roundtable on Sustainable Finance

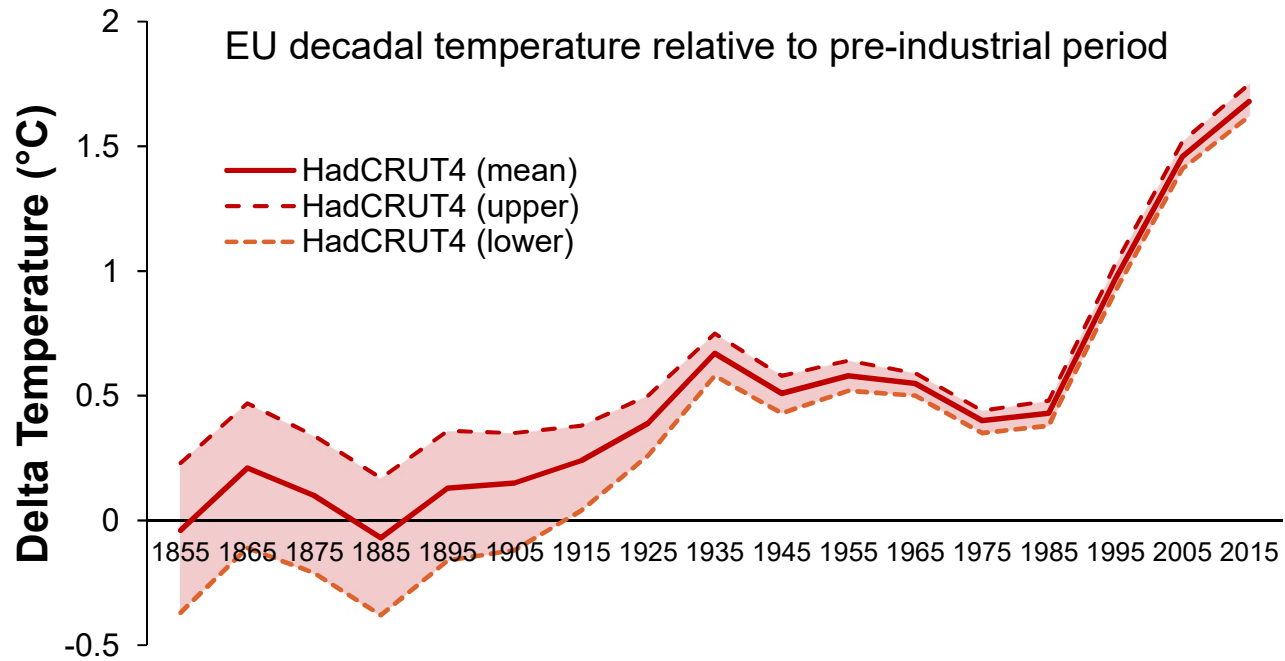
Presenter: Marie Scholer

Date: 16 December 2020

WHY IS CLIMATE CHANGE RELEVANT FOR THE (RE)INSURANCE INDUSTRY?

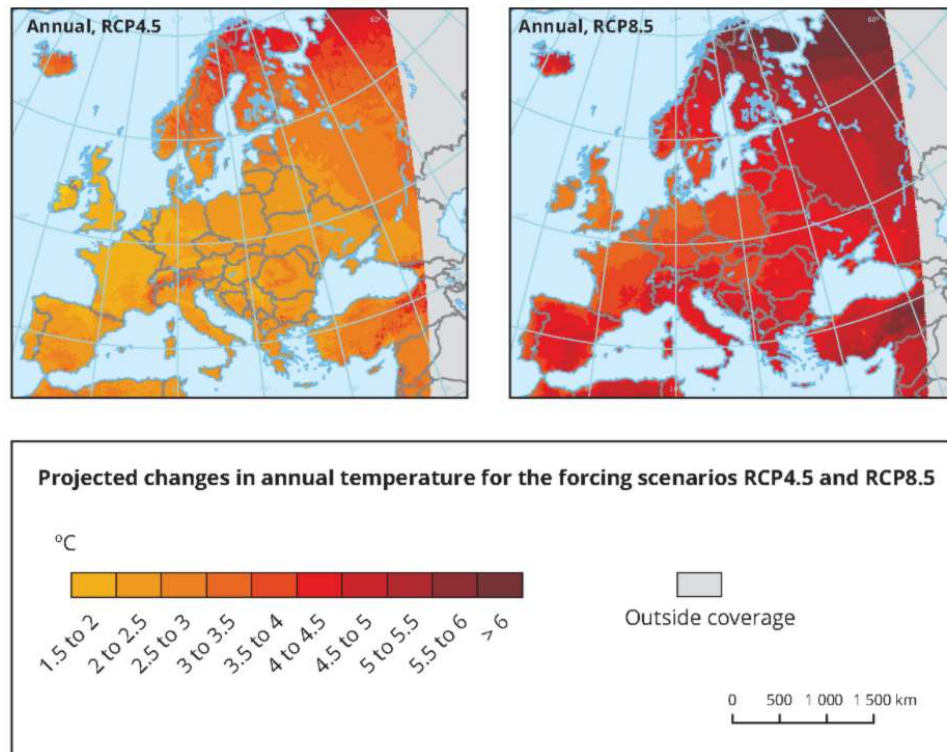


AVERAGE TEMPERATURE IS INCREASING IN THE EU



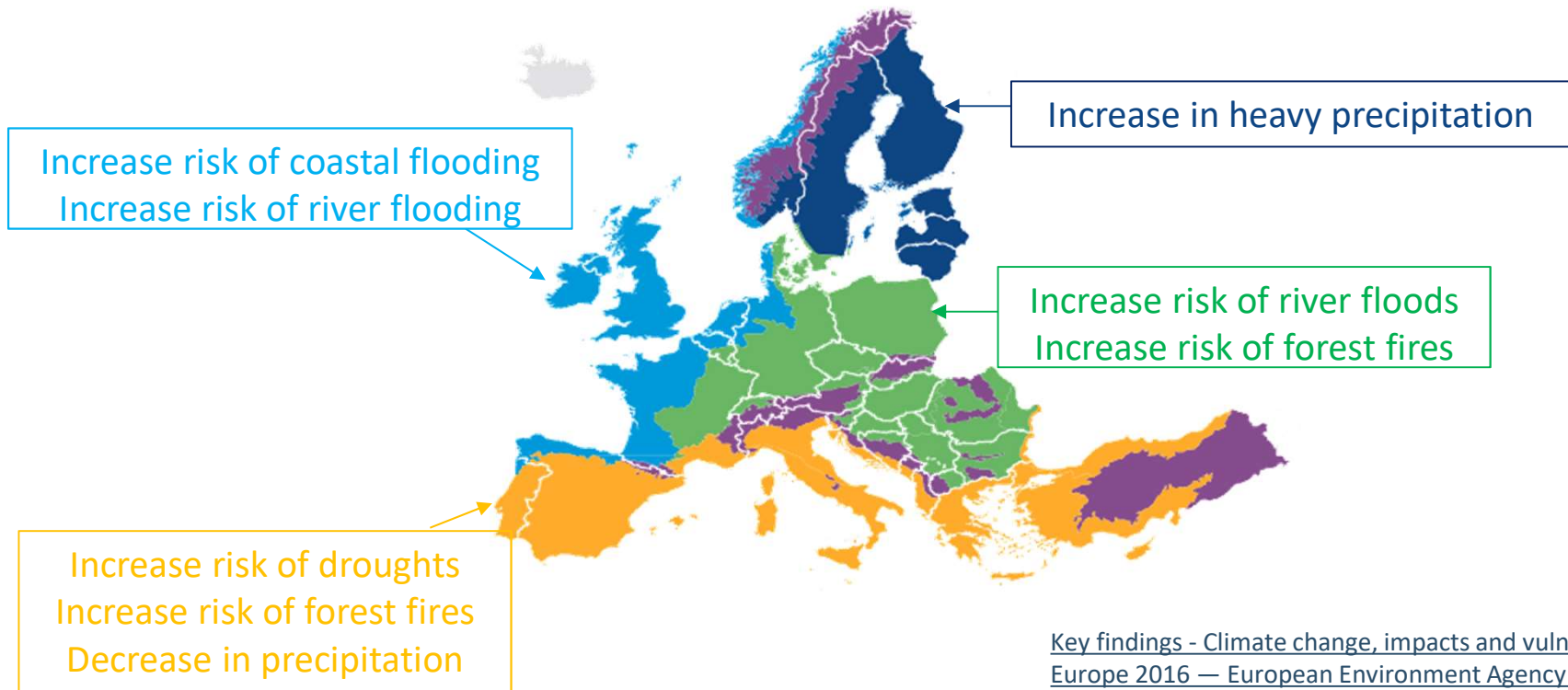
[Global and European temperatures — European Environment Agency \(europa.eu\)](#)

TEMPERATURES ACROSS EUROPE : TO INCREASE MORE THAN THE GLOBAL AVERAGE



[Global and European temperatures — European Environment Agency \(europa.eu\)](#)

IMPACT OF CLIMATE CHANGE IN THE EU



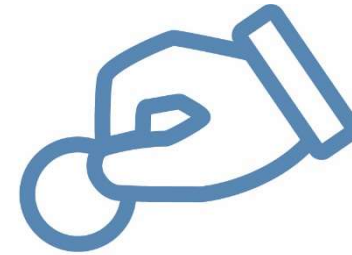
Key findings - Climate change, impacts and vulnerability in Europe 2016 — European Environment Agency (europa.eu)

CLIMATE CHANGE = INSURANCE RISK

The escalating frequency and severity of extreme weather conditions have shone a spotlight on **insurance risk and climate change.**



WHY IS THIS IMPORTANT FOR EIOPA?



SOLVENCY II

- The Solvency II regime codifies and harmonises the EU insurance regulation.
- EU insurance companies must hold enough capital based on their risk profile to reduce the risk of insolvency.



SOLVENCY II: NAT CAT CAPITAL REQUIREMENT



WHAT DOES EIOPA PROPOSE?



EIOPA'S PROPOSALS

New methods

- Forward-looking models
- Inclusion of new countries
- Inclusion of new perils
- Inclusion of new activities
- Introduction of Loading Factor
- Capture climate change by correlating perils

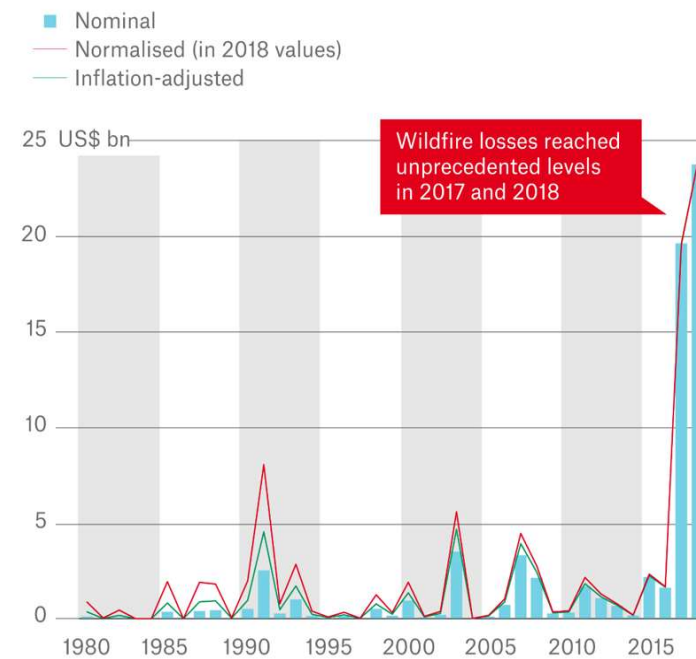
Adapted processes

- Assessment
- Recalibration

1. FORWARD-LOOKING MODELS

- Nat Cat models which explicitly consider climate change
- The impact of climate change is mostly not explicitly reflected in the current Nat Cat models used to perform the calibration of the SF parameters.

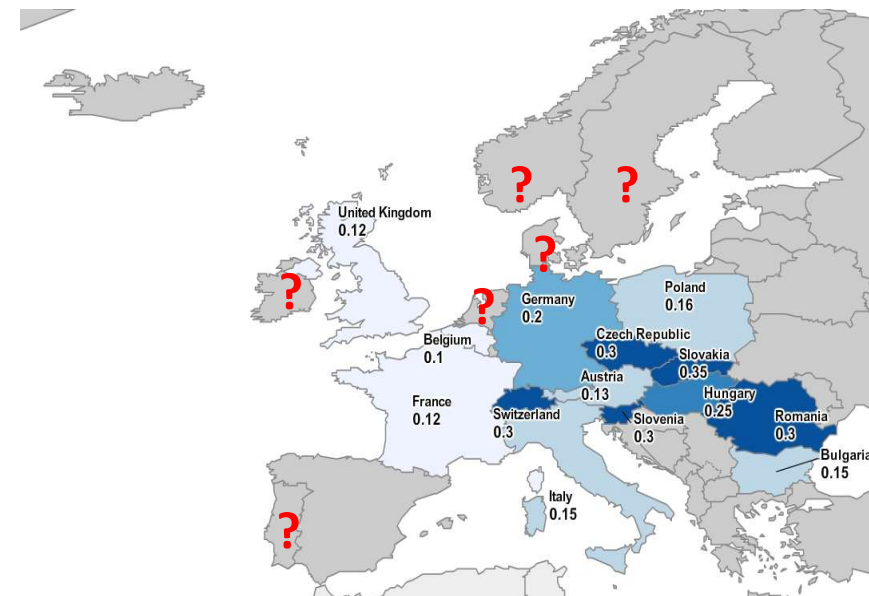
New methods



2. INCLUDE NEW COUNTRIES

- Due to climate change, the frequency and intensity of certain perils in certain countries might change.
- Countries which might not have been relevant for the (re)insurance sector in the past might become more relevant.

New methods



3. INCLUDE NEW PERILS

New methods

Currently the standard formula covers



Earthquake



Flood



Windstorm



Hail

3. INCLUDE NEW PERILS

New methods

Other perils such as wildfires or droughts should be considered



4. INCLUDE OTHER INSURANCE ACTIVITIES

New methods

- Lines of Business fire and other damage, marine aviation transport and motor are considered in the Nat Cat SCR SF module.
- Crop insurance could be added for perils such as droughts.



5. INTRODUCTION OF LOADING FACTOR

New methods

- Add a **loading factor** to account for additional climate change risk.
- Look at **correlation matrices** and ensure that they properly reflect climate change effects. Climate change has the potential to alter the current spatial and peril dependencies, especially in the tail of the distribution.

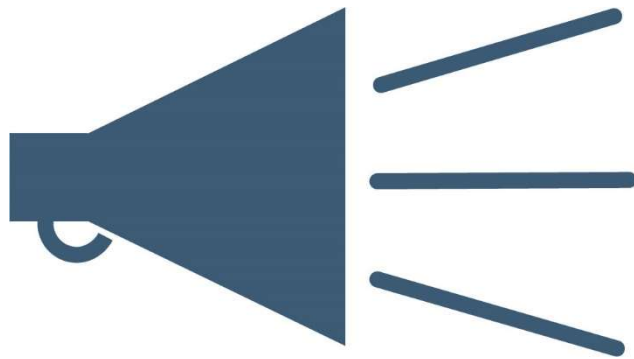
6. RE-ASSESS & RECALIBRATE NAT CAT SCR PARAMETERS ON A REGULAR BASIS

New process

- Model changes due to climate change or other reasons;
- New scientific evidence on climate change;
- Changes in exposure and/or vulnerability;
- New insurance products...



PUBLIC CONSULTATION: HAVE YOUR SAY



Discussion paper:
Methodology on potential inclusion of climate change in the Nat Cat standard formula

By 26 February 2021

[GO TO EU SURVEY](#)

THANK YOU!

For more information visit:
<https://www.eiopa.europa.eu>