



ACTUARIAL ASSOCIATION OF EUROPE

Non-Life Working Group Update

INSURANCE COMMITTEE, UTRECHT

20th September 2018

Matthias Pillaudin (Chair)

Peter Franken, Dieter Koehnlein, Declan Lavelle, Christoph Krischanitz, Kartina Tahir Thomson

General Update

- We had a couple of conference calls over this session.
- Four main activities:
 1. Letter on USP
 2. Risk mitigation techniques
 3. Solvency II
 4. Climate change
- Feedback from MAs needed

RISK MITIGATION TECHNIQUES

Peter Franken

Survey on Risk Mitigating Techniques Non-Life U/W risks (RMTs)

Survey on application of Risk Mitigating Techniques (RMTs)

- by Non-Life insurance companies
- on their underwriting risks

Goal aligned with AAE strategic objective 3: to promote a European community of actuaries; to encourage the exchange of information and ideas:

- Give a view of what types of RMTs are used in Europe
- Effectiveness of RMTs in context of capital and Solvency II

Proposed timeline:

- **October 2018: Send survey to AAE IC representatives**
- **December 16, 2018: Deadline for responses on survey**
- **Present results of Survey in AAE IC spring meeting**

Climate Change

Matthias Pillaudin

Context

Since the 1990s, European organizations have become increasingly interested in climate change. In particular in recent years, several publications have dealt with the insurance sector. Among which:

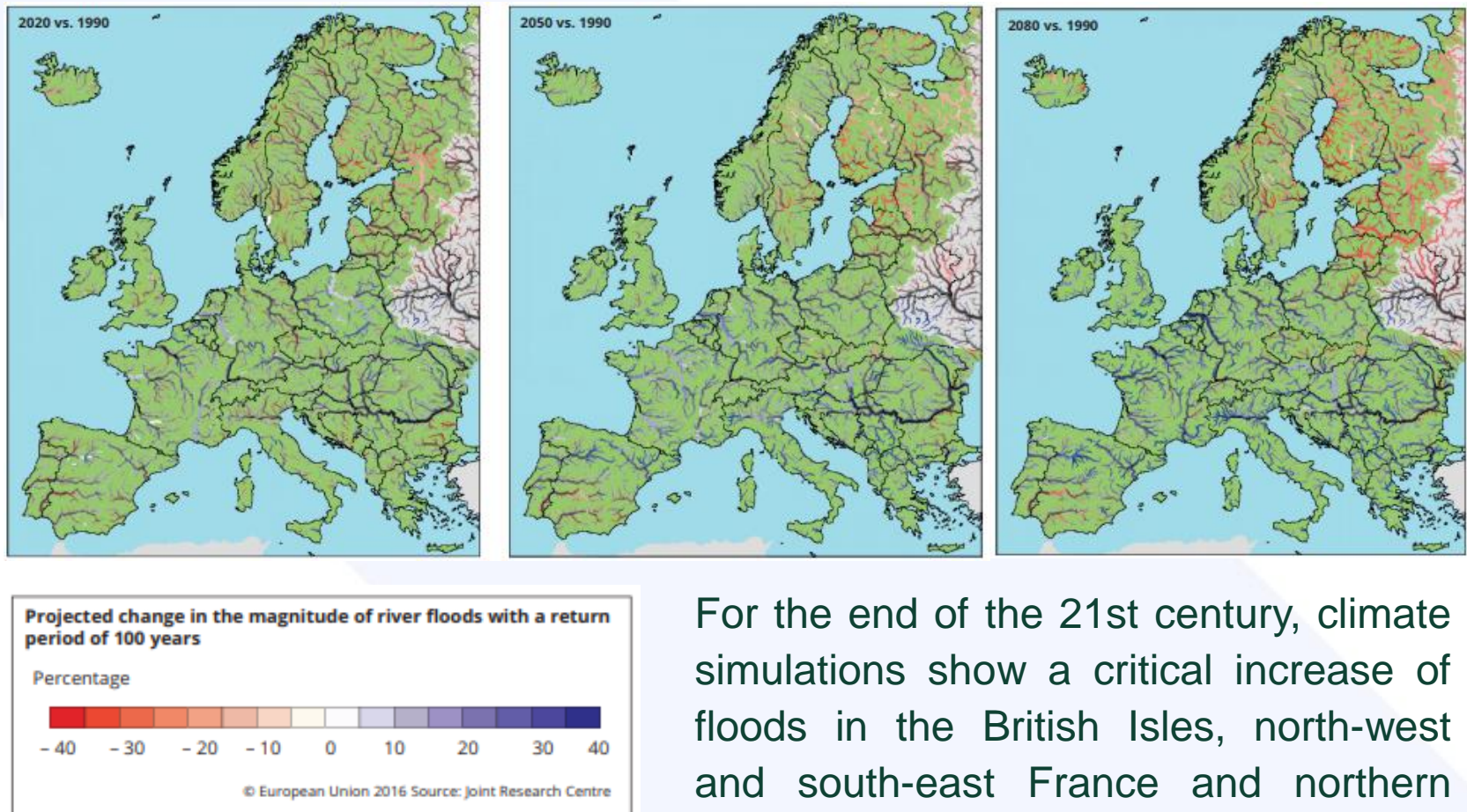
- Insurance sectoral report of the Working Group on European Climate Change
- HLEG (launch in December 2016) – “green” finance
- EU Strategy on adaptation to climate change – consultation in the beginning of 2018
- Issue paper on climate change risks from International Association of Insurance Supervisors & Sustainable Insurance Forum

Otherwise, in some MAs (the UK and France a minima), a task force has been launched to deal with this topic from an actuarial point of view.

Disclaimer : this presentation is addressed to the members of the insurance committee of the AAE; it is not a scientific study on climate change or its consequences and it is based widely on the work of the European environment Agency. In addition, it voluntarily deals only with P&C risks.

Hydrological Hazard : river flood

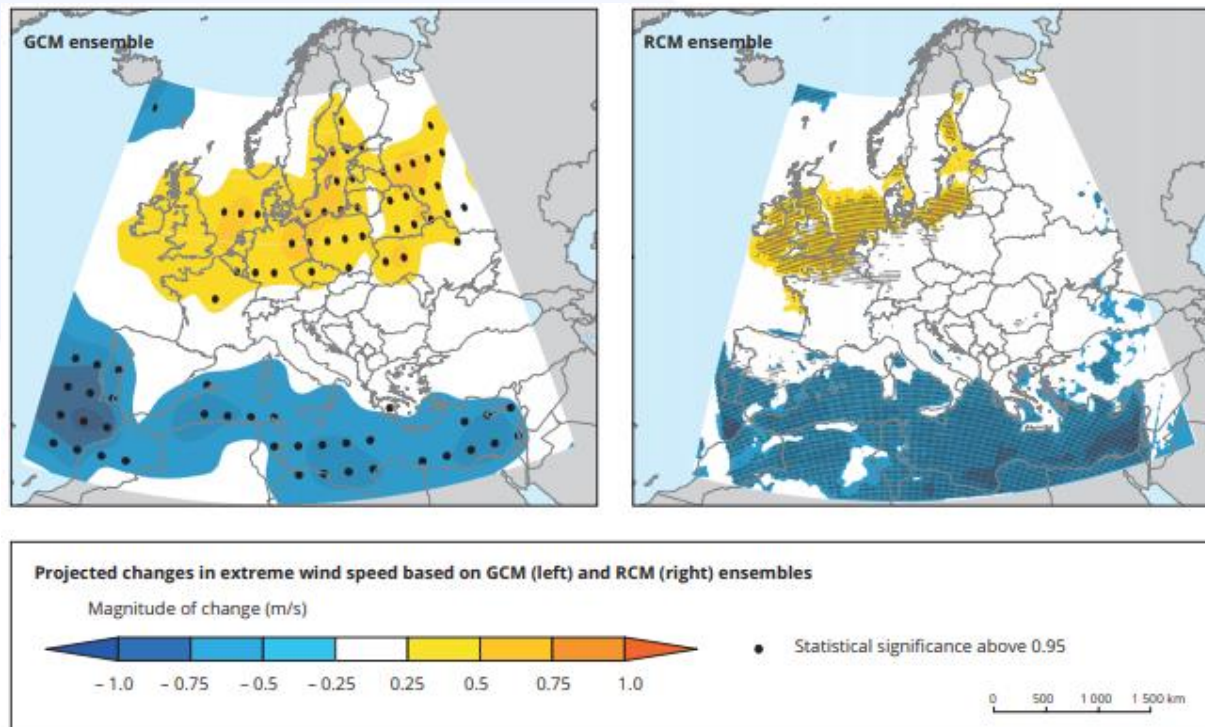
Many factors can cause a river flood, yet, the most common one is heavy rainfall. It damages buildings, bridges, roads or crops.



For the end of the 21st century, climate simulations show a critical increase of floods in the British Isles, north-west and south-east France and northern Italy.

Meteorological hazard : windstorms

Windstorms are the natural disasters causing the most economic losses for insurance around the world. Moreover, they may be accompanied by hail and/or heavy precipitations.

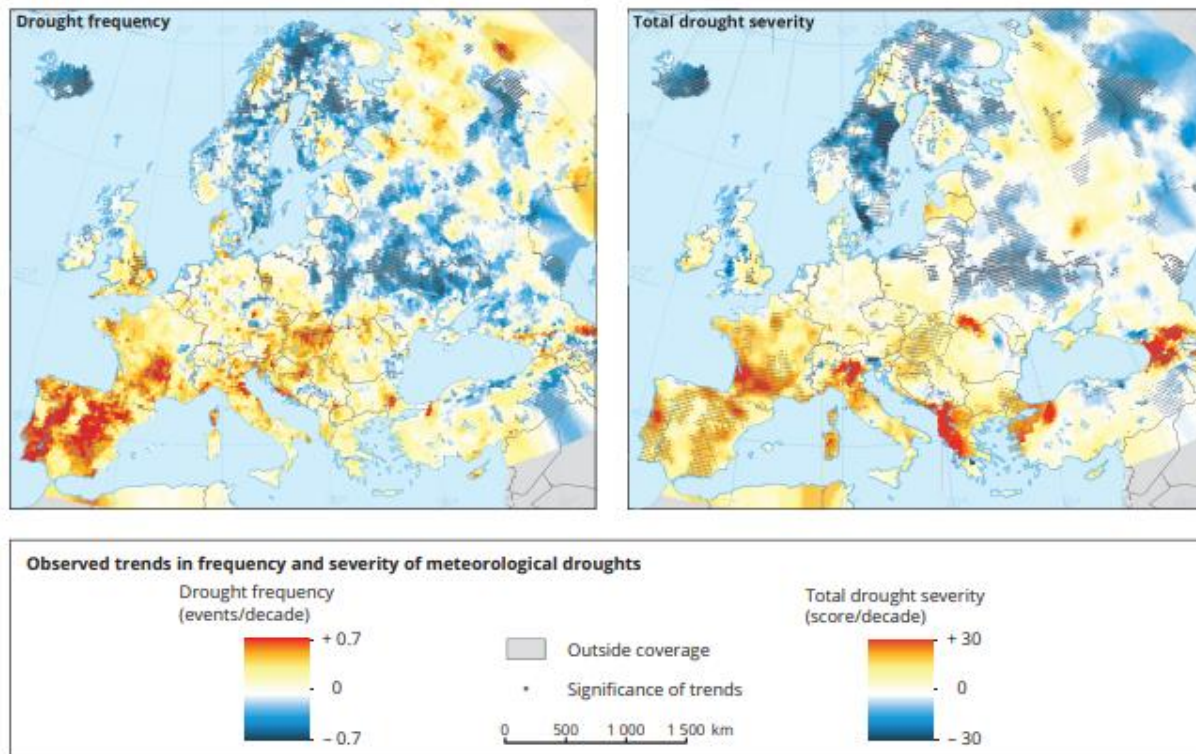


Recent simulations show an increase in the number of European windstorms in central Europe.

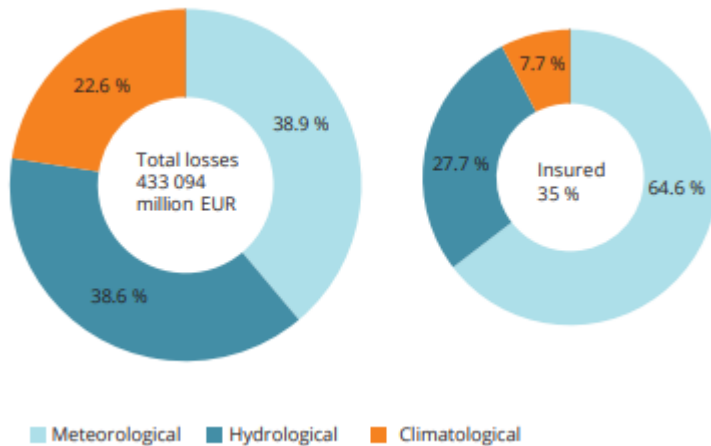
Climatological hazard : droughts

Droughts cause precipitation deficiency but also anomalies in evapotranspiration. This may imply a low soil moisture which has severe consequences for Europe's citizens and most economic sectors.

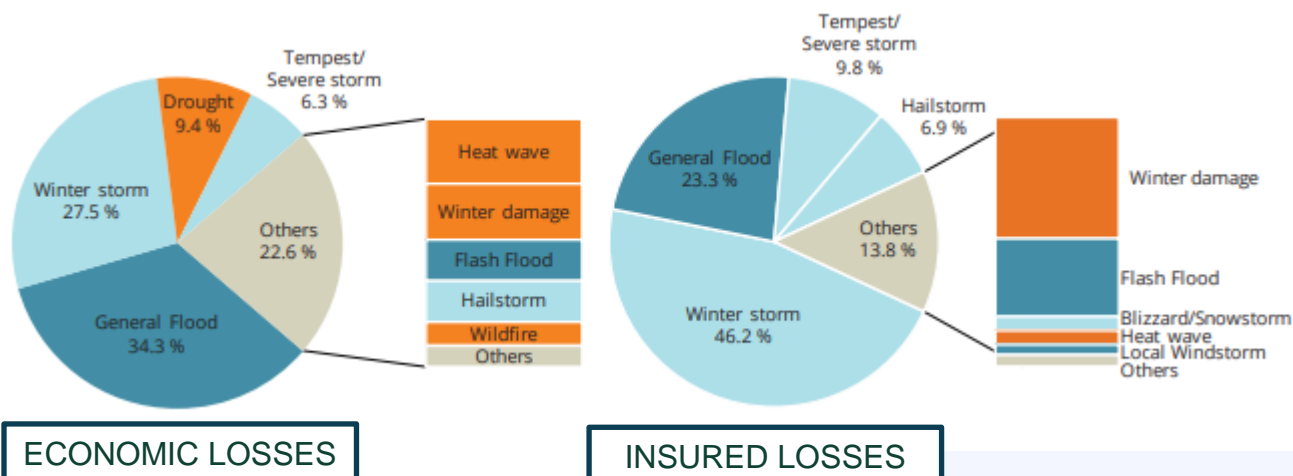
The figure below shows the trend between 1950 and 2012, in terms of frequency and severity of droughts:



Economic impacts of natural hazards in Europe



- Between 1980 and 2016, weather and climate related losses amounted to 436 billion €.
- Only around 35 % of the total losses were insured.
- Meteorological hazards are better insured and climatological hazards less.



Key messages

- The climate change observed over the past few decades strongly influences the frequency and severity of natural disasters.
- The projections for the 21st century foresee a material increase of natural disasters.
- Combined with the increase in population density and the value of insured assets, it is highly likely that the economic losses resulting from climate change will increase over the 21st century.
- These projections are, however, conditioned by available data and statistical models. So there is uncertainty and the quantification of this risk requires experts.
- As actuaries, we need to improve our knowledge of the risks associated with climate change and be able to quantify and integrate them into our risk management and underwriting frameworks

Next steps

Next spring Meeting AAE : the NLWG will :

- Give an overview of the work in progress / finalized in the MAs
- Consider the possibility to start working at European level

Other possible tasks for the IC/RMC:

- Considering the impact on Life insurance/actuaries : mortality & morbidity rates
- What consequences in terms of Risk Management : new risk or not?
- Getting in touch with IAA