



Impact of Climate Change on Insurers – Threats and Opportunities

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Climate circumstances of our planet are undergoing significant changes leading to increasing number of extreme weather events

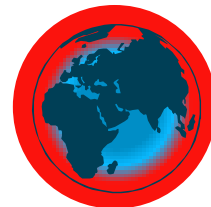
Selected indicators of climate circumstances

**GLOBAL MEAN
SURFACE
TEMPERATURE**



+ 0.75°C
in the last 100
years

**LAND MASS
WARMING VS.
WARMING OF
OCEANS**



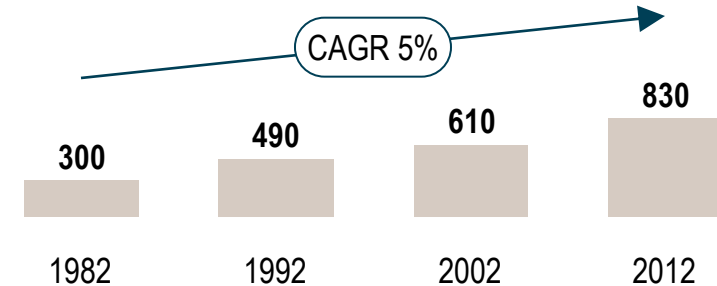
x 2
over the last 100
years

**SEA LEVEL
RISE**

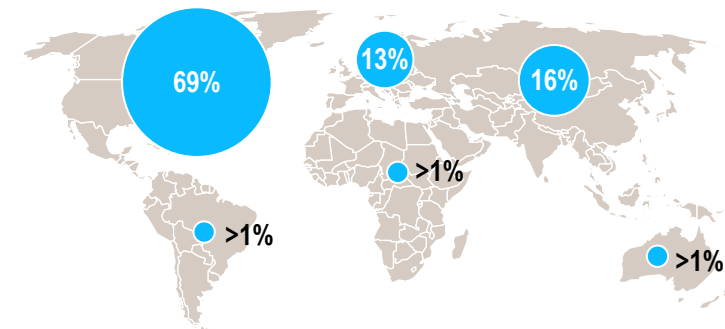


+ 3 mm
per year

DEVELOPMENT OF NUMBER OF EXTREME WEATHER EVENTS [#]

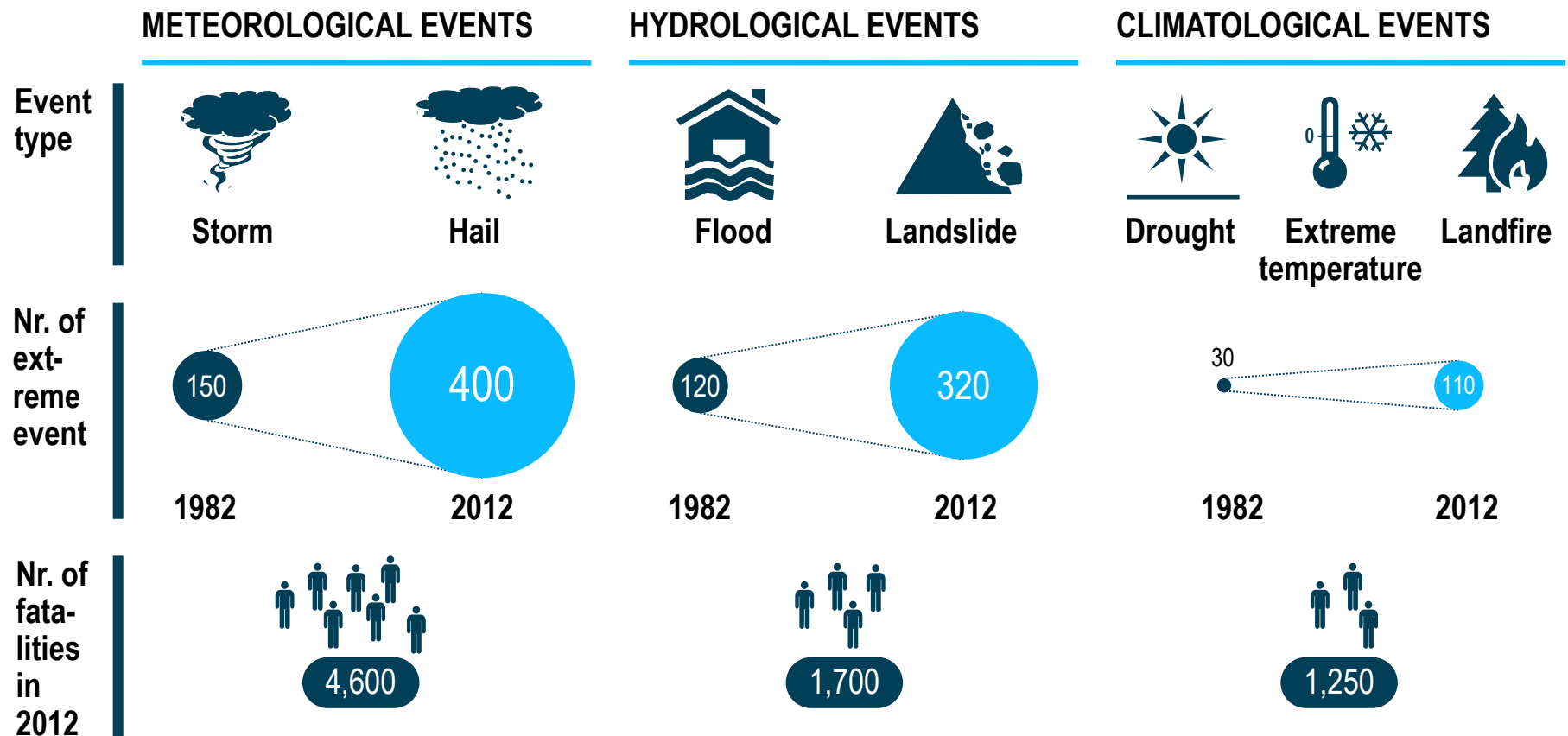


GEOGRAPHICAL DISTRIBUTION OF LOSSES, 2012 [%]



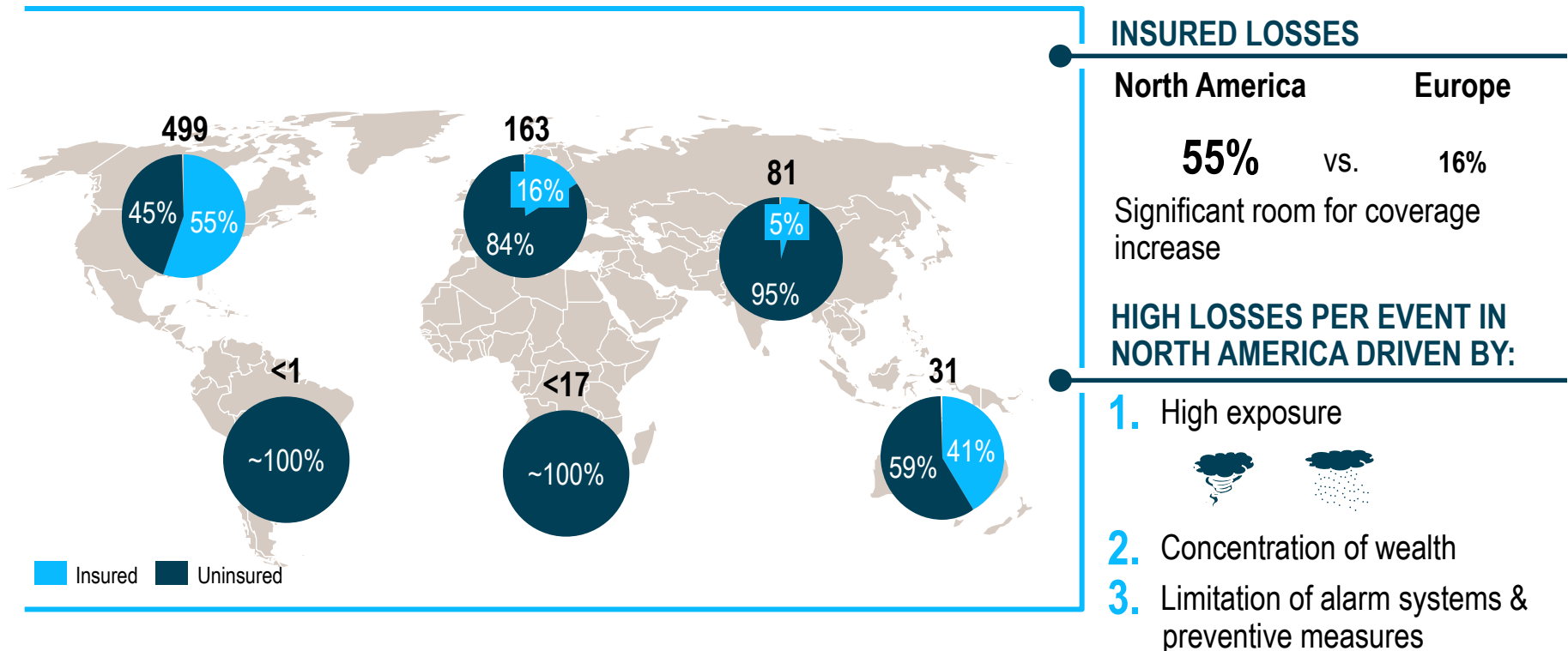
Insurers are the first line of defense against extreme weather losses with inevitable consequences on property, casualty and life

Weather events by type








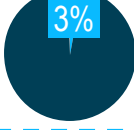


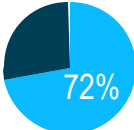



Catastrophe insurance market is the most developed in North America – European insurers are significantly lagging behind

Review of natural catastrophes size per event, 2012 [USD m]



Flooding losses are hardly insured, providing insurers significant room to increase coverage and expand their business

Review of losses per natural catastrophe, 2012

	Loss events [#]	Fatalities/ events [#]	Losses/event & share of insured losses [USD m]	CONCLUSIONS
Meteorological events 	>1 event per day (407)		246 	Hydrological events (floods) are 1. Not insured 2. Frequent (~1 event/day) 3. Low in fatality 4. Relatively low in losses ➔ Room for coverage increase
Hydrological events 	~1 event per day (326)		67 	
Climatological events 	~1 event every 3 days (109)		250 	
Geographical events¹⁾ 	~1 event per week (63)		322 	

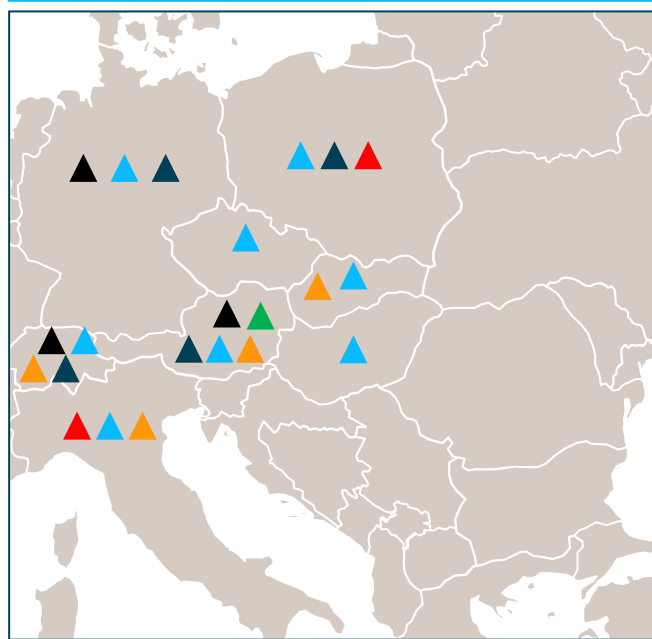
1) Independent from climate change phenomenon

 Insured  Uninsured

In Central Europe, floods and storms are the most feared natural disaster type, providing space to increase coverage

Most feared natural disasters in selected European countries

Risk of natural disasters



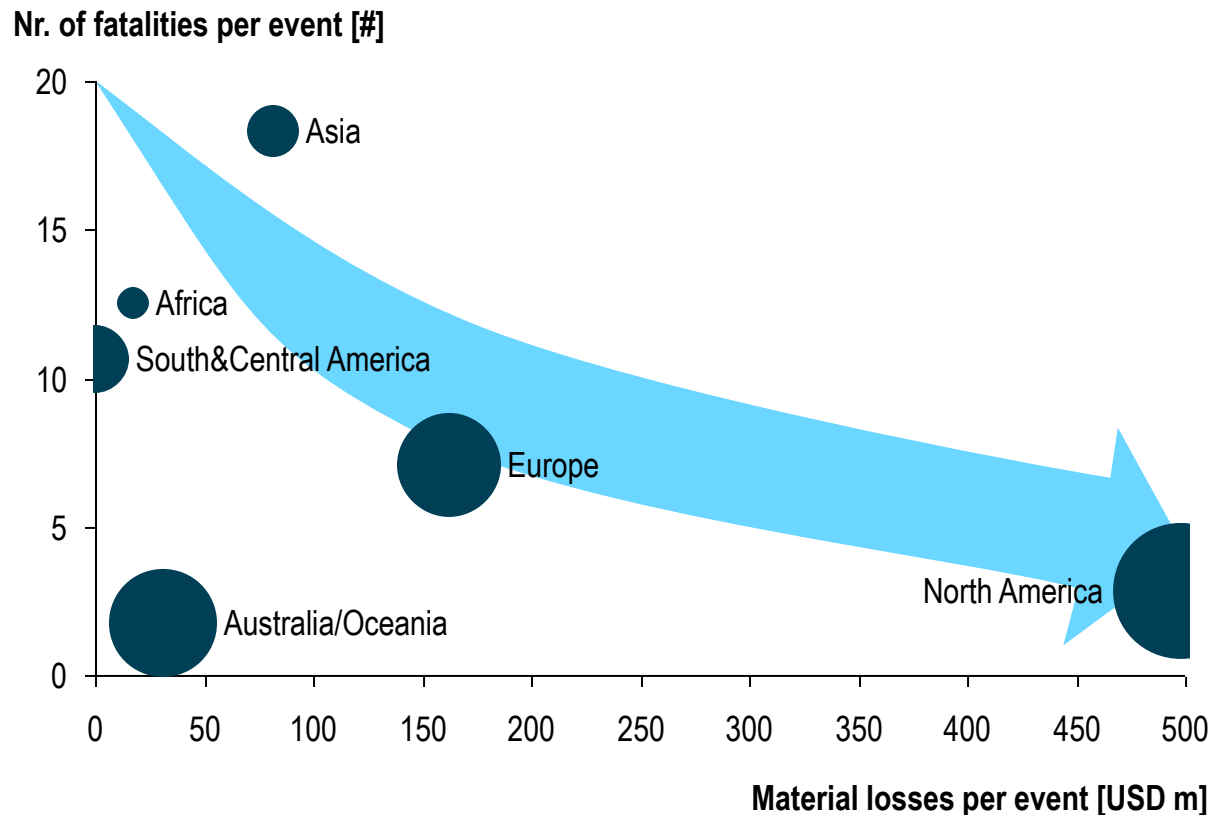
- ▲ Hail ▲ Avalanche ▲ Flood ▲ Storms
- ▲ Landslide ▲ Wildfire

Natural disasters review

	Floods	Storms	Hail
Frequency/probability	High seasonality	Medium seasonality	Medium seasonality
Impact on the portfolio	Impact on the whole portfolio (property, car, agriculture, health, life)	Impact on the portfolio (property, car, agriculture)	Impact on the portfolio (agriculture, car, property)
Geographical concentration	Well predetermined danger zones	Limited predictability	Not predictable
Size of potential loss	The threat is predictable providing timeframe to implement preventive measures	Might lead to floods and inland flooding	Moderate destructive force

In Europe, P&C insurers are the most vulnerable to extreme weather events – Future challenge is to mitigate these risks

Impacts of extreme weather events by continent



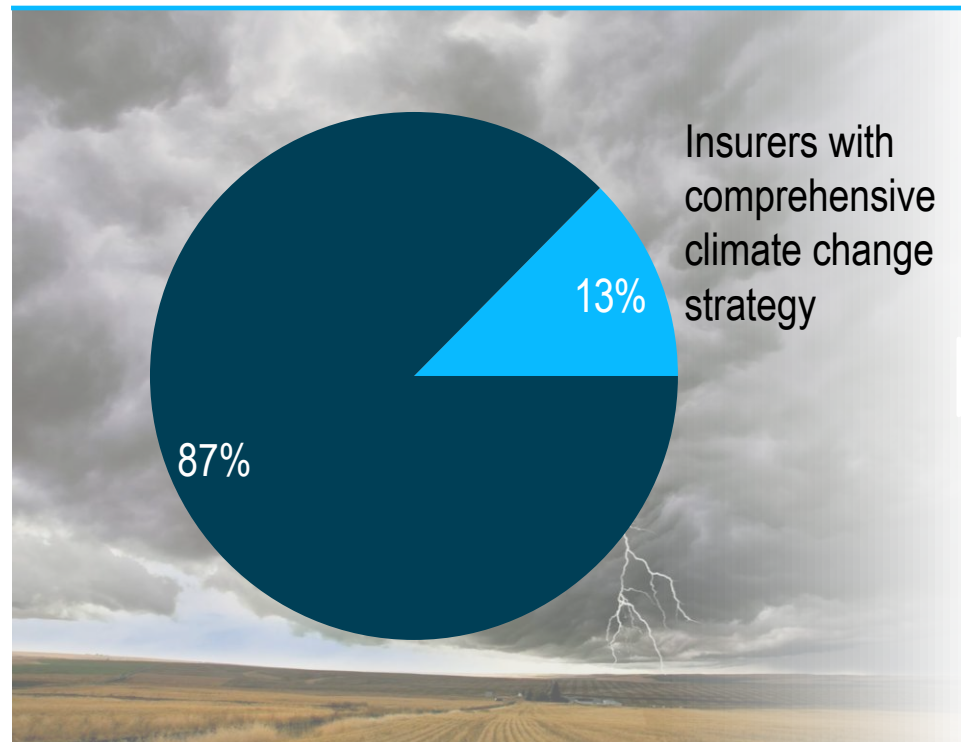
INSIGHTS

- > **The more developed a country is the less fatalities and health losses** occur as a result to extreme weather events:
 - Life before wealth in priorities
 - More stable resistant architecture
 - Awareness of possible impacts
 - Forecast of extreme events
 - Availability of early warning systems
 - Deployment of prevention steps
- > **The more developed a country is the higher its property and casualty losses** are in extreme weather events:
 - Higher wealth in form of property
 - Immobility of most of the property
 - Geographical concentration of property
- > In **Europe**, the main impact of extreme weather events is **material loss** absorbed by the **P&C insurers**

Most of the insurers are not yet prepared to successfully tackle the impact, as most of them lack strategy on climate change

Results of research on climate strategies of insurers

INSURERS HAVING CLIMATE CHANGE STRATEGY



CONCLUSIONS

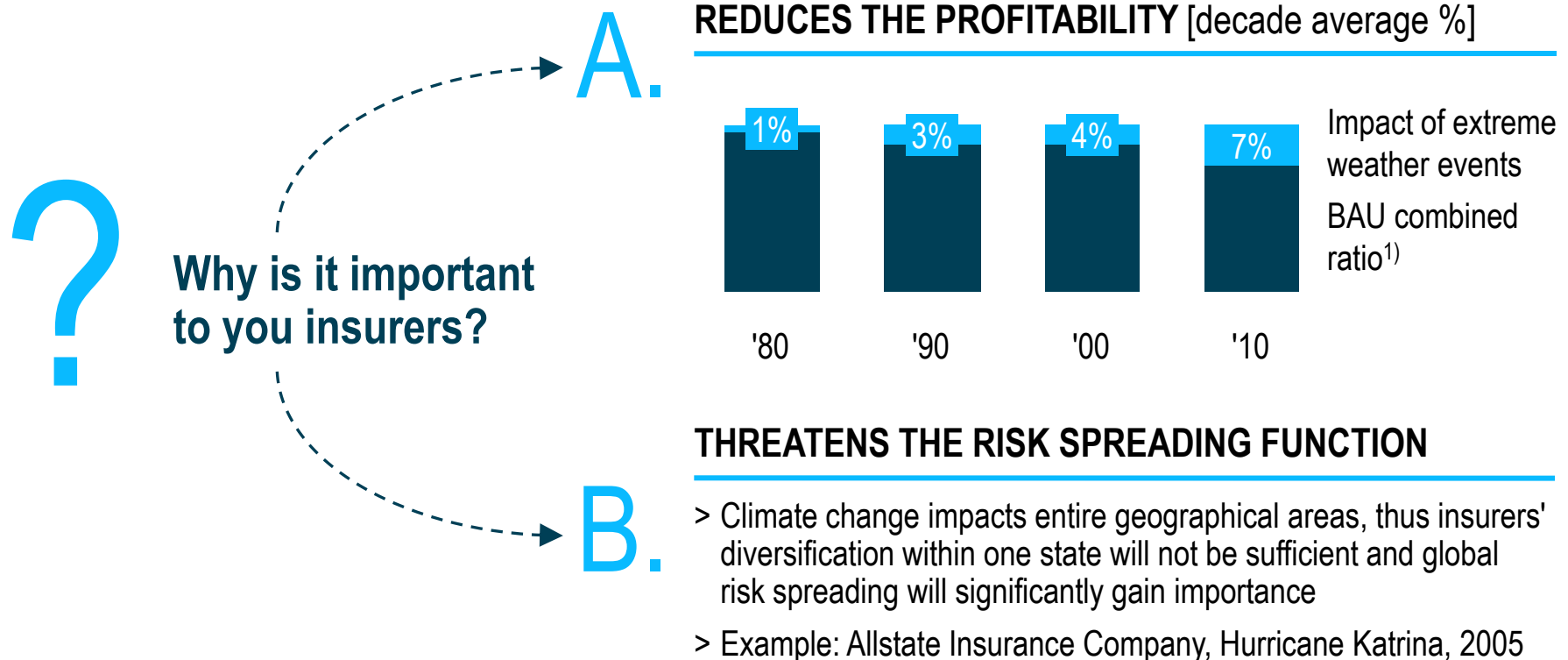
1. Majority of insurers have no climate change strategy
2. Mainly large insurers have strategy in place to cope with the impacts of climate change
3. P&C insurers are the most advanced in understanding and tackling the impacts of climate change

Forerunners:



Impact of climate change is tangible on the industry bottom-line, while simultaneously threatens the core function of insurance

Impacts of climate change on insurance



1) BAU – Business As Usual

Impact on insurance industry is on three levels: inevitable threats, potential business opportunities and a game changing momentum

Three levels of climate change impact



1

THREATS: Aftermath of the climate change poses significant challenges on the insurance industry, especially on P&C players in the form of increased claims due to extreme weather events

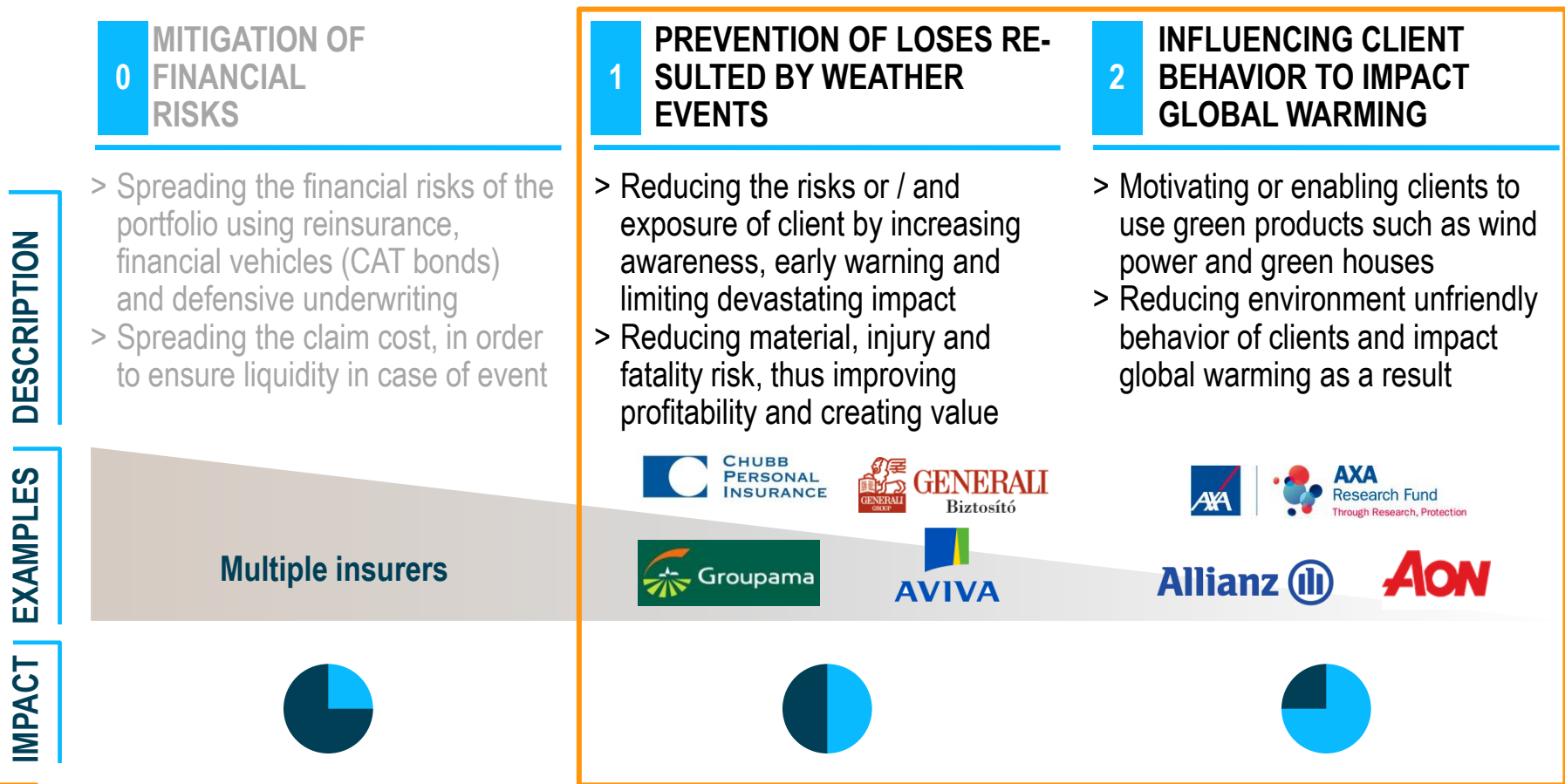
2


BUSINESS OPPORTUNITY: Changed weather circumstances and the resulted new / higher risks open new business opportunities to insurers in mitigating them

3

GAME CHANGING MOMENTUM: Insurers have the opportunity to play an active role in fighting climate change through increasing the awareness, introducing green products and influencing client behavior





Insurers have three strategic options to turn the impacts of climate change into their favor – Prevention will be the focus of next 3 years



 Focus of the next 3-5 years for insurers in Europe

The role of insurers is to influence society and reduce risky behavior and decrease the number of claims as a consequence

Examples of insurers preventing climate risks

INSURER	PREVENTION MEASURE(S)
 GENERALI Biztosító	> Provision of meteorological SMS alarm system to prevent losses caused by storms or destructive weather conditions
	> Provision of multi-risk weather and crop insurance offer to manage climate risks > Separate guarantees for tractors and other equipment
	> Chubb Wildfire Defense Services providing preventive measures : lay-down temporary water lines, removal of grass, limbs, patio furniture etc. around the house, application of thermo-gel
	> Training for the staff, customers and citizens in general to deal with natural disaster management organized with French Red Cross

Game changing momentum: Insurers have the chance to play active role in fighting the climate change by introduction of green products

Examples of insurers influencing clients' behavior

Allianz Climate Solutions (ACS)



Introduced **>70 products** and services globally to **mitigate climate change** and environmental risk:

- > Cars – Discounts for hybrids
- > Property – Upgrade for "green homes"
- > Industrial clients – Pollution liability, plantation insurance
- > Asset Management – Renewable energy funds



AXA Research Fund



AXA fund and **promote risk research** and education (surveys, conferences, reports etc.)

Provide **insurance for renewable technology** projects to enhance the shift to a low carbon economy



Aon Environmental Services Group



Provide **Comprehensive risk analysis** service about clients' potential environmental exposures:

- > Site condition uncertainties
- > Third-party toxic tort uncertainties
- > **Probabilities modeling** techniques
- > Decision tree analysis
- > Monte Carlo risk evaluation



Travelers Green Insurances



Eco-friendly coverage option to build green solutions in the event of a covered loss

Protective device discounts (alarms, smoke detectors etc.)

Green Home discounts in case of LEED¹⁾ certified property



1) Leadership Energy and Environmental Design

Ten actions recommended to the Hungarian insurers to tackle the impacts of climate change

Recommended actions

1. **Educate your clients** to understand the most frequent extreme weather events, to prepare for them and to avoid or minimize the connected losses
2. **Introduce new riders/ product add-ons** specializing on the most feared impacts of extreme weather event
3. **Request the government** to implement **more preventive measures** and to increase awareness of possible impacts of extreme weather events and to promote **financial self-care**
4. **Motivate your clients** to **minimize** their **exposure** towards the impacts of extreme weather events through discounts and special offers
5. **Build-up your in-house automatic warning line** to your **clients** through which you can warn them in case of forthcoming severe weather events
6. Cooperate with research centers specializing on **forecasting and modeling extreme weather events** and aftermath
7. **Implement joint preventive measures** in cooperation with multiple insurers (i.e. MABISZ members)
8. **Adjust the pricing** to the real risk profile of your client
9. **Introduce** and promote wide spread usage of **green products** for corporate and retail segment
10. Show leadership to your clients to make them think and act environmentally friendly – **Be a game changer**

It's **character**
that **creates**
impact!