

Monte Carlo 2020

Re | think complexity – Be better prepared for systemic risks

7 September 2020

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Insurance
industry outlook

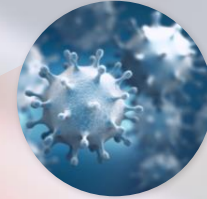
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Systemic risks
on the rise

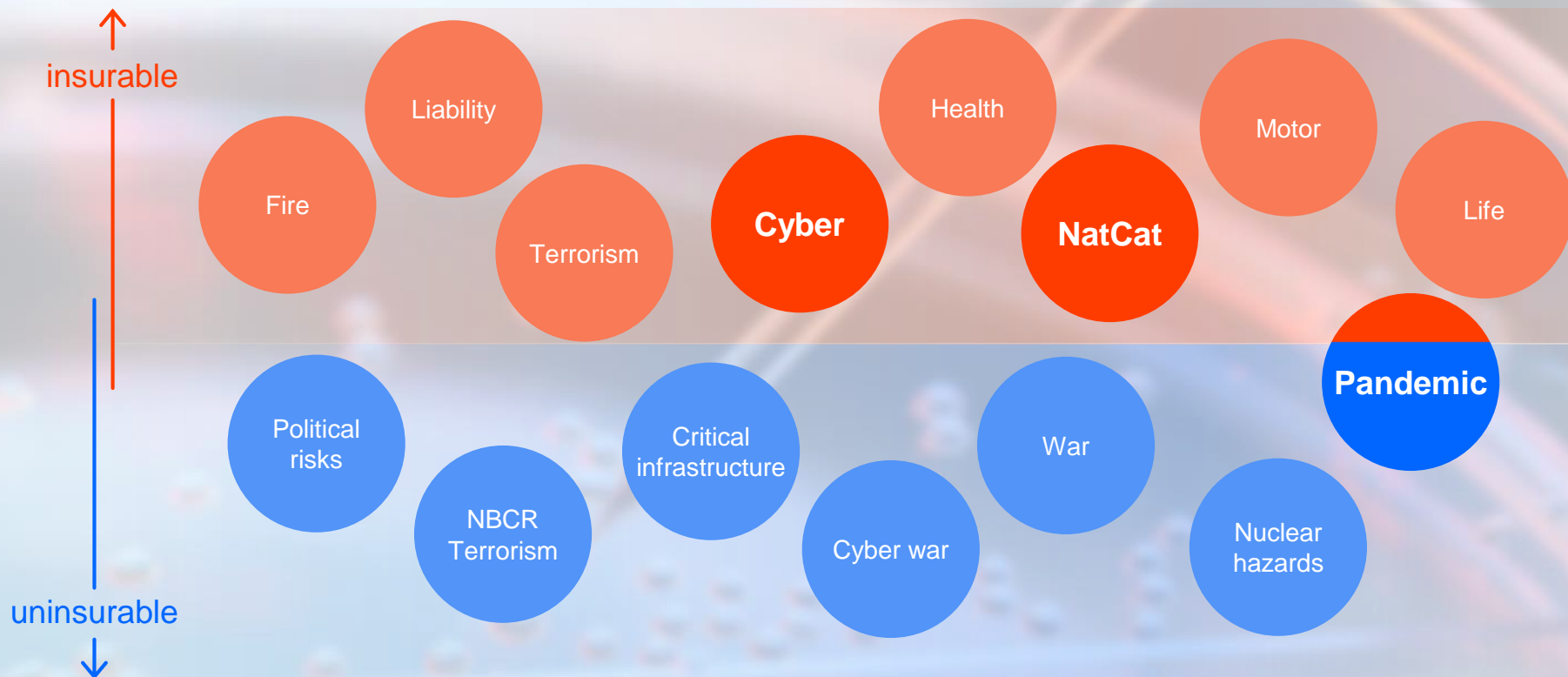
Stefan Golling –
Torsten Jeworrek

Pandemics
Cyber
Climate change



Insurability of risks

Assessable – random – independent



Update on recent loss events

COVID-19-related losses with reduced momentum since **30 June**



Hurricanes **Hanna**, **Isaias** and **Laura** (July and August):
Munich Re anticipates a **low triple-digit-million euro** amount in claims



Explosion in **Beirut**: Claims in a **low three-digit-million euro** range expected



California wildfire season is currently still ongoing: Impact for Munich Re currently **not estimated to be material**

Primary insurance and reinsurance development

Global premium development 2017–2019/2020e–2022e

P-C RI: Ceded premiums 2019



Europe	€85bn	31%
North America	€94bn	34%
Asia Pacific	€66bn	24%
Latin America	€15bn	5%
Africa/Middle East	€14bn	5%
Total	~€274bn	100%

P-C RI and PI real growth rates (CAGR)

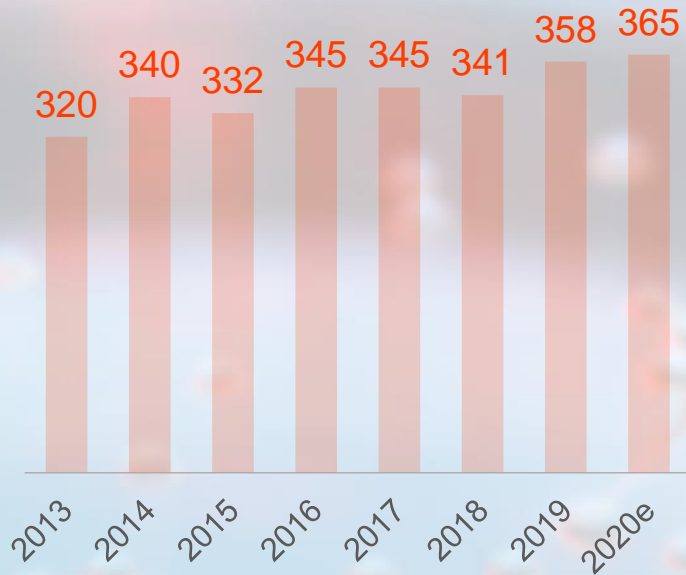
RI		PI	
17–19	20–22	17–19	20–22
2%	1-3%	2%	1%
8%	2-4%	3%	2%
6%	4-6%	4%	4%
2%	0-2%	0%	0%
1%	2-4%	-1%	2%
5%	2-4%	3%	2%

Insurance capacity stable overall

Alternative capital re-evaluating investment case

Dedicated reinsurance capital

Traditional RI capital (US\$ bn)



¹ Total of reported top 50 fund NAV plus estimated non-reported capital
Source: AM Best, Guy Carpenter, Munich Re

Trends

Traditional market

- Traditional reinsurance capital showing overall stable development despite recent COVID-19 impact
- Capital markets highly volatile in 2020 but recent market recovery
- Capital increases by existing market players and new players entering the market
- Withdrawal of capacity in some lines of business

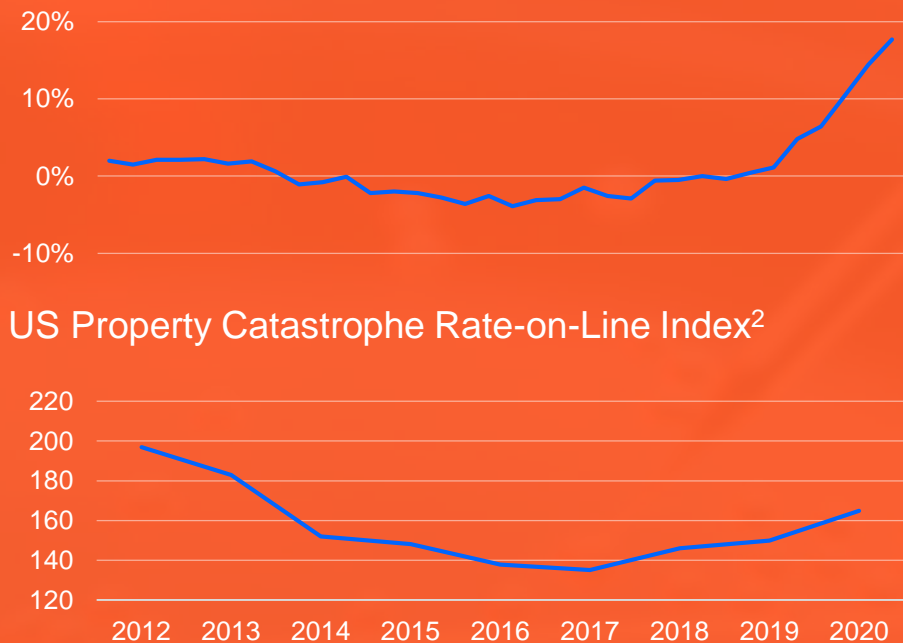
Non-traditional capacity/Alternative Risk Transfer (“ART”)

- Market for Alternative Risk Transfer (ART) remains stable at US\$ 90bn+ ¹
- Loss creep, unmodelled perils and uncertainty around COVID-19 leading to investors expecting higher returns
- Recent tendency to lock up capital in illiquid products driving interest in more transparent, liquid Cat bond market
- “Flight to quality” of ART capacity supporting our retro programme

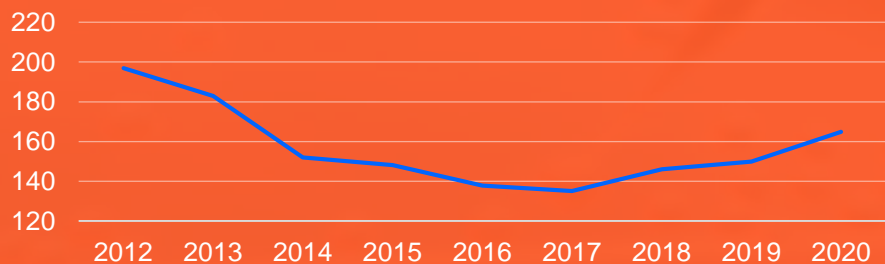
Industry's price development favourable

Insurance and reinsurance indices showing upward price trends in recent years

US composite insurance price change¹

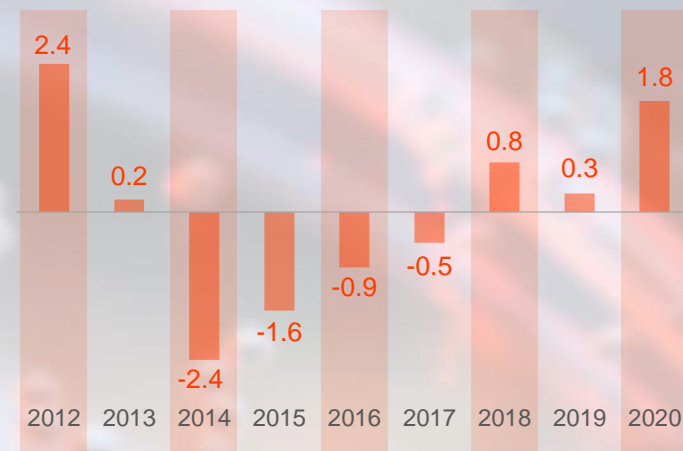


US Property Catastrophe Rate-on-Line Index²



¹ Marsh Global Analytics ² Guy Carpenter. Based on 1990 (=100)

Munich Re renewal price changes (%)



Systemic risks on the rise



Pandemics
Global COVID-19 economic losses up to **US\$ 12 trillion**¹

Image: zhangshuang / Getty Images



Cyber
Ransomware attacks increased by **148%** in March 2020²

Image: Andrew Brookes / Getty Images



Climate change
~800 million people live in cities that will be affected by **sea-level rise** if no action is taken³

Image: Song about summer / Adobe Stock

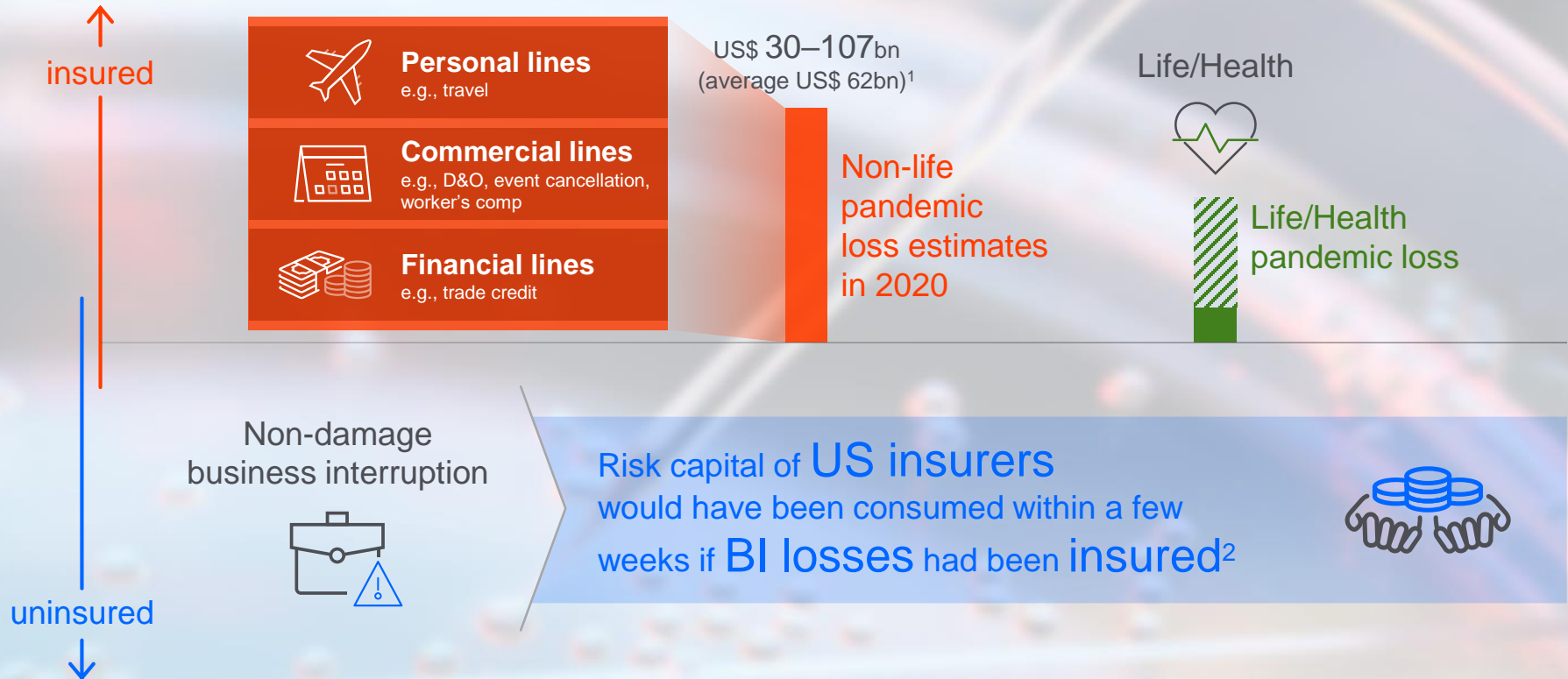
¹ Source: IMF June 2020

² Compared to baseline levels in February; Source: Carbonblack, April 2020

³ Source: C40 Cities, RCP 8.5 "business as usual" scenario

Insurance industry bears significant COVID-19 losses

But there is a huge uninsured portion



¹ Source: Dowling, Artemis, Barclays, BofA, KBW, USB, Lloyd's, Wells Fargo, Goldman Sachs, Berenberg

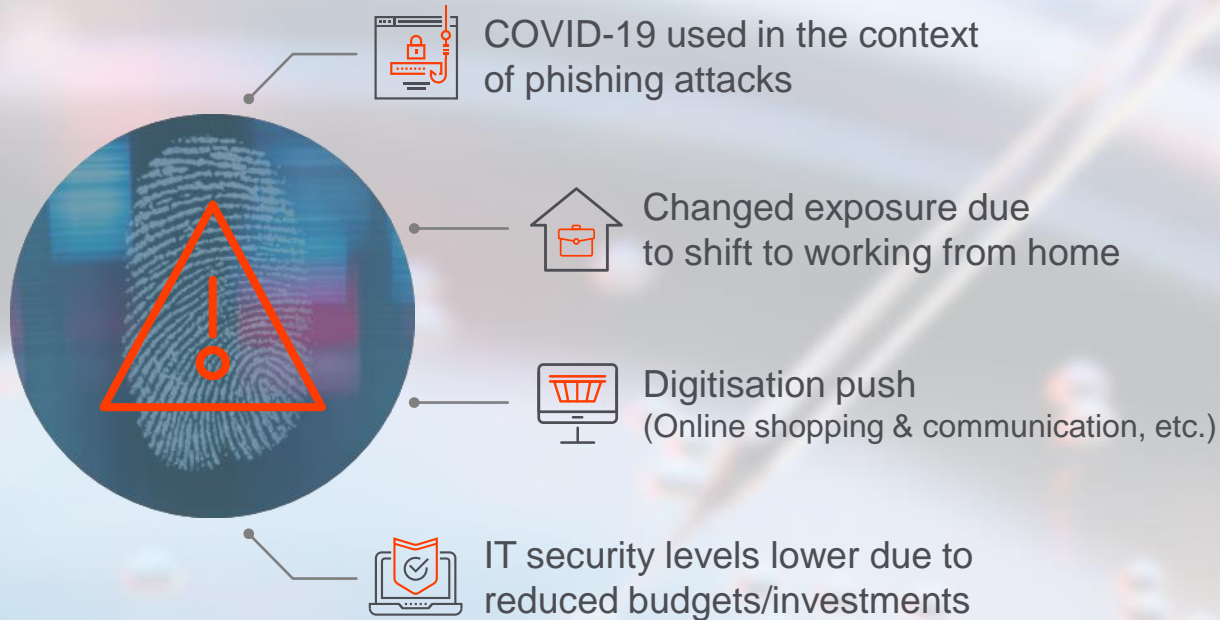
² Source: APCI

Munich Re's approach to uninsured pandemic risks



COVID-19 significantly affecting cyber risk

Developments underline necessity, potential and complexity of cyber insurance



Accelerated digitisation

- Strong increase in digital solutions
- Raised cyber awareness
- Increase in frequency and severity of malicious attacks
- Increase in frequency of cyber crime losses to be expected
- Hardening of conditions likely

Current “hot” topics we are addressing



Cyber
challenge

**Market
sustainability**
(ransomware)



**Coverage
topics**
(system failure,
CBI, bricking)



Cyber war
(LMA Cyber
Working Group)



COVID-19
(constant exchange of
information on developments)



**Silent
cyber**
(comprehensive
solutions)



**Accumulation and
systemic risk**
(vendor models,
insurability)

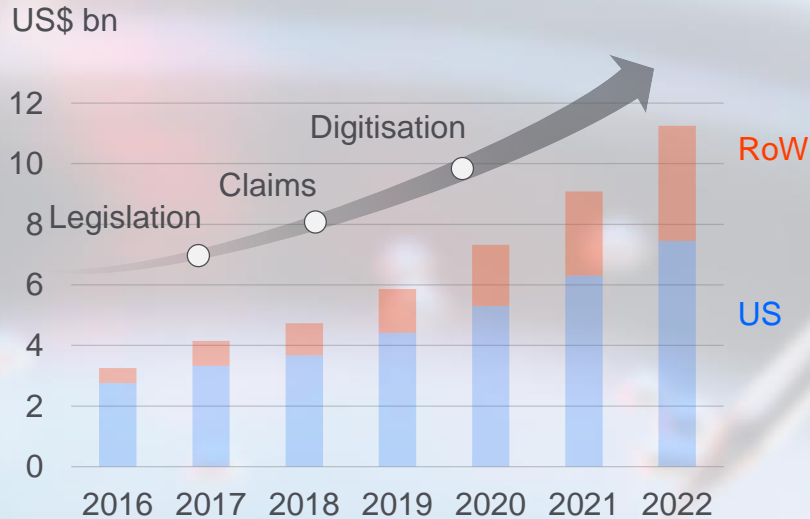


**Technology
and insurance**
(augmented
underwriting)

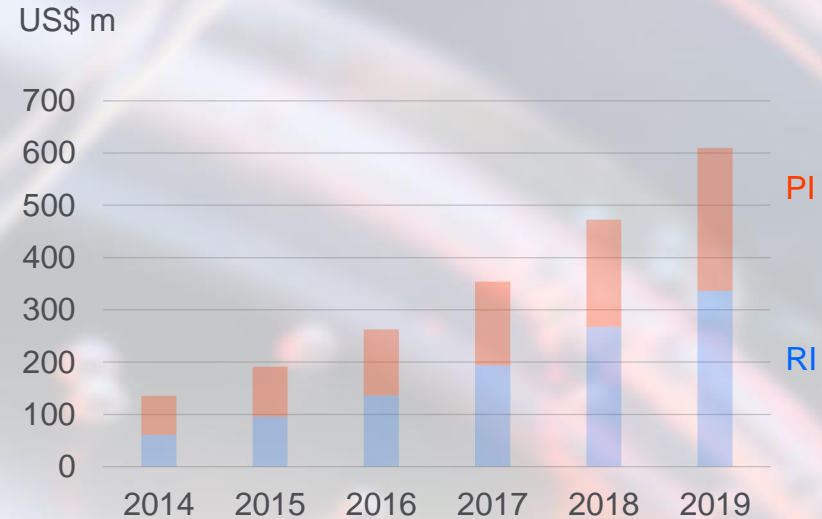
Strong growth expected in cyber insurance market

Cyber is one of Munich Re's main strategic areas

GWP global cyber insurance market¹



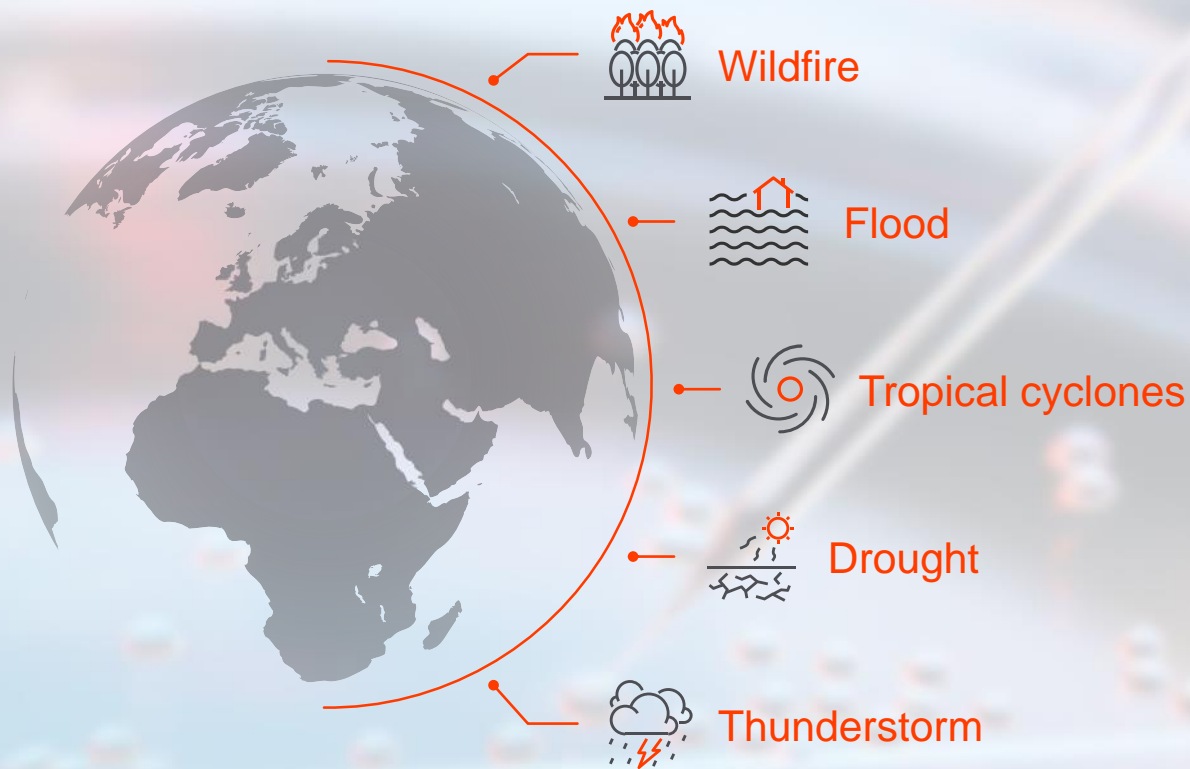
GWP Munich Re cyber portfolio



Cyber reinsurer of the year 2017, 2018, 2019 and 2020

Climate risks – The clock is ticking

Adaptation and mitigation required



Global effort



Economic +
ecological
transformation

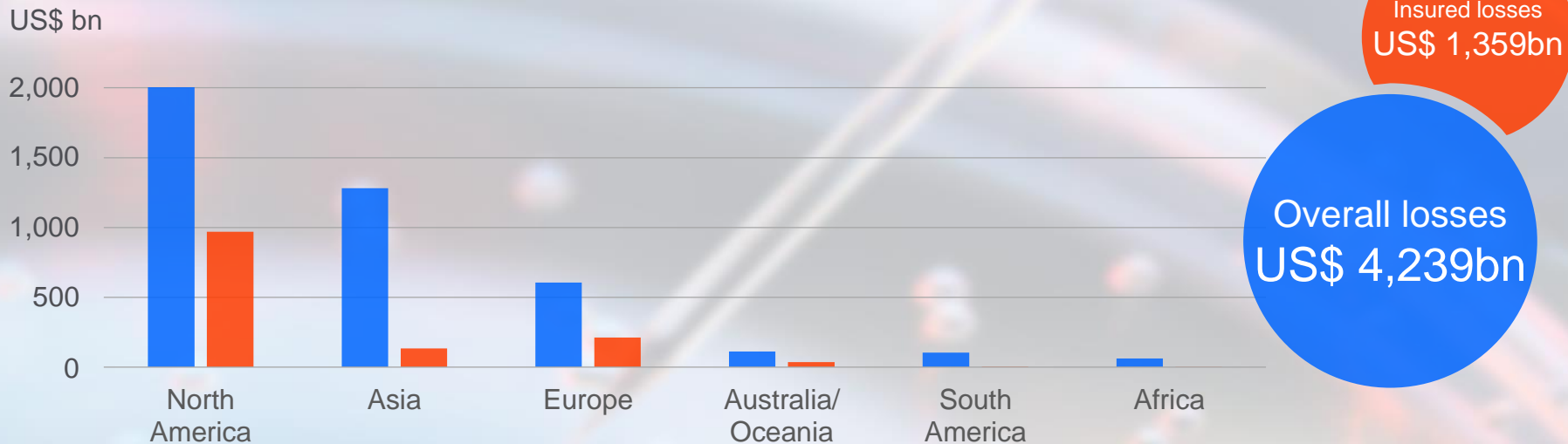


Technological
push

Insurance gap still very high in many parts of the world

Decreasing in industrialised countries, unchanged in developing countries

Losses from weather-related natural disasters 1980–2019



Worldwide: Less than 1/3 of losses were insured

Solutions to mitigate climate change and strengthen resilience

Initiatives to support the Paris Agreement targets and to adapt to climate risks

Munich Re memberships



Net Zero Asset Owner Alliance



ClimateWise



Insurance Development Forum



Climate Action 100+

Enabling

- Green Tech Solutions
- Investments and partnerships

Disabling

- No new coal
- No new oil sands
- Asset divestments

**Munich Re
Solutions**

Resilience

- High risk capacity
- Digital risk assessment tools
- Parametric trigger solutions

Re | think complexity

Be better prepared for systemic risks

