



Persistent Changes, Emerging Threats and Potential Opportunities

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Top Risks : Environmental & Technological

Environmental

Extreme weather events

Stress imposed on earth systems

Biodiversity loss, ecosystem attrition



Technological

Cyber security incidents

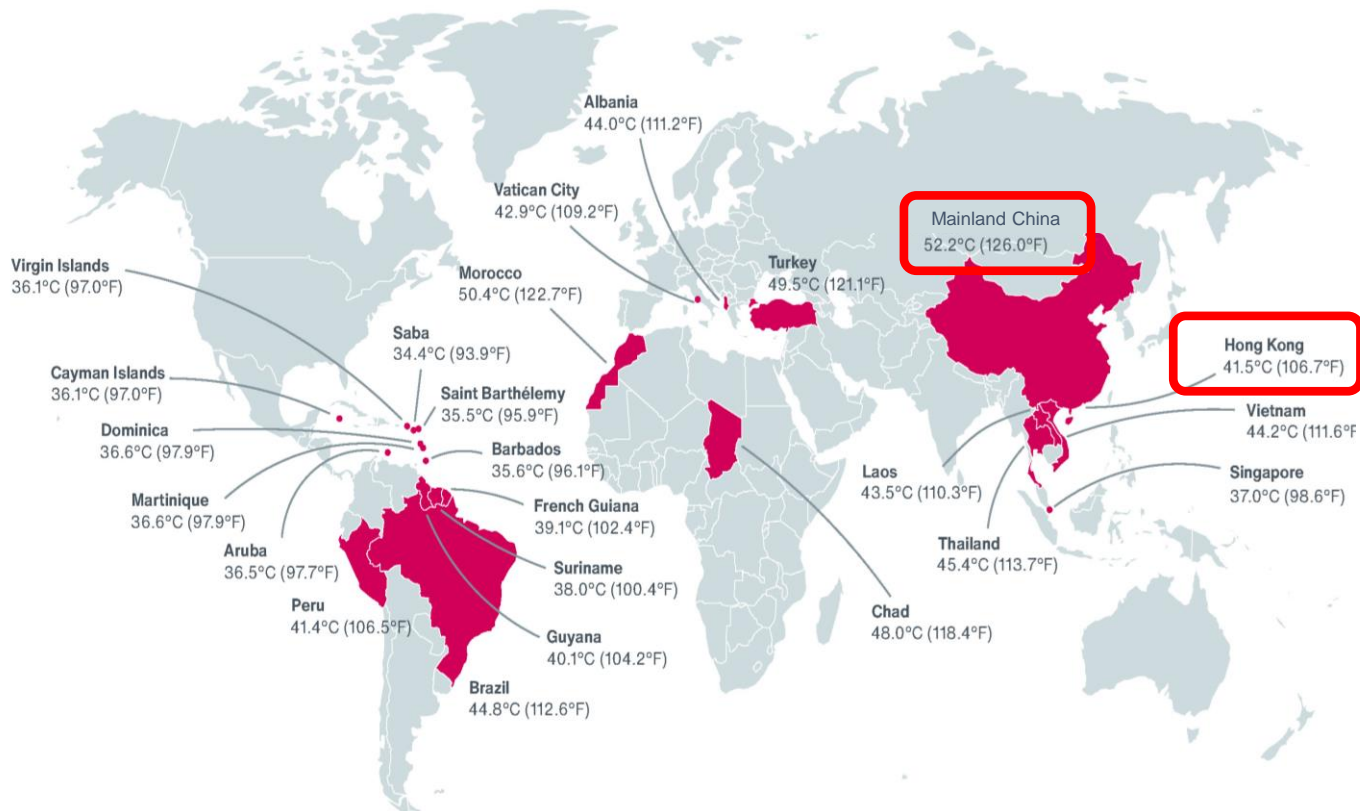
Artificial Intelligence

Misinformation & disinformation

Adverse outcome for vulnerable groups

Update on Climate Change

Temperature Matching or Breaking Record in 2023



Source: Aon

Sea Levels Rising 4.4 mm Annually



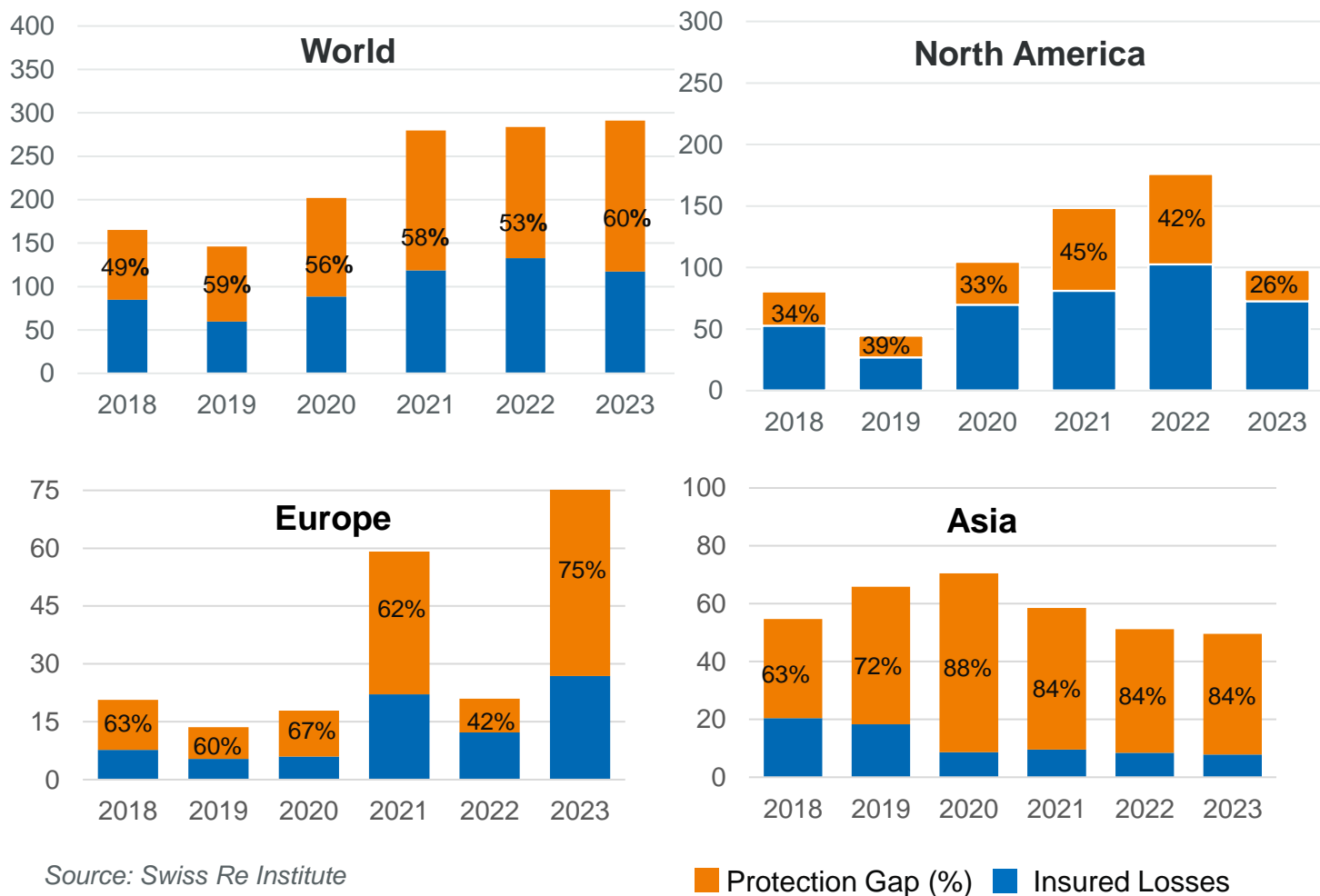
Source: NASA

Temperature Risen by 1.5°C in the Past Few Decades

Sea Levels Risen by 10 cm since 1993

Consequences of Ignoring Climate Change

Nat Cat Protection Gap by Region, US\$ Billion (2018 – 2023)



Risk of sudden and frequent economic losses



Adverse claims experience



Funding for post-disaster recovery



Aggravated fiscal burden



Cross-sector impact on morbidity and mortality, business disruption, and property damage

Consequences of Ignoring Climate Change

Latent Health Risks

Source: World Health Organization

Vulnerability factors

- Demographic
- Geographical
- Biological factors & health status
- Sociopolitical
- Socioeconomic
- Health system capacity
- Gender & equity

Climate-related hazards

- Extreme weather events
- Heat
- Sea level rise
- Air pollution
- Vector distribution & ecology
- Water scarcity
- Reduced food production

Exposure

- People & communities
- Health workforce
- Infrastructure
- Energy systems
- Water systems
- Food systems
- Health systems

Health Outcomes



Injury & mortality from external weather events



Heat-related "illness"



Respiratory illness



Water-borne diseases



Zoonoses



Vector-borne Diseases



Malnutrition & food-borne diseases



Noncommunicable diseases (NCDs)



Mental & psychosocial health

Health System & Facilities

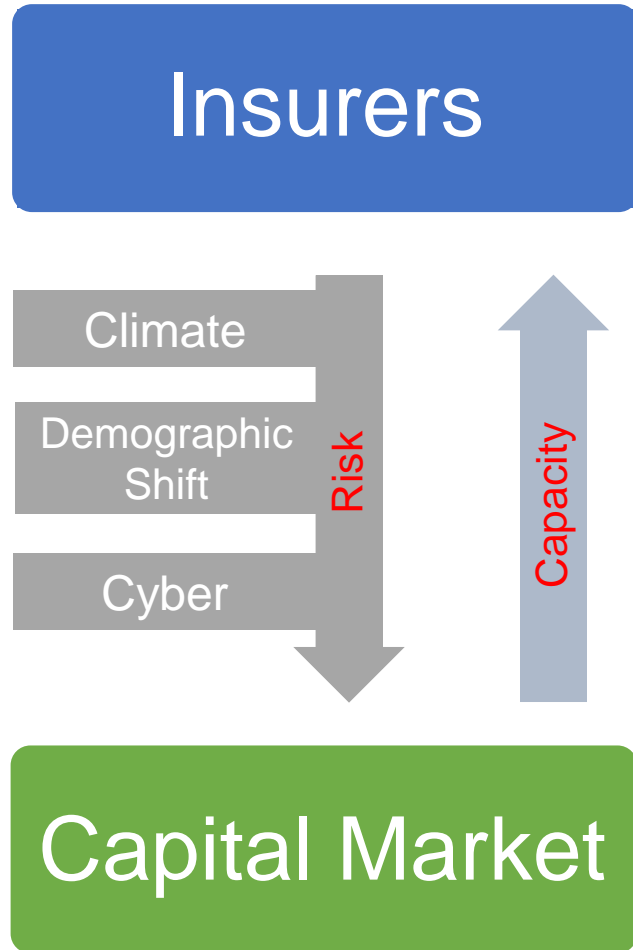


Impacts on health care facilities

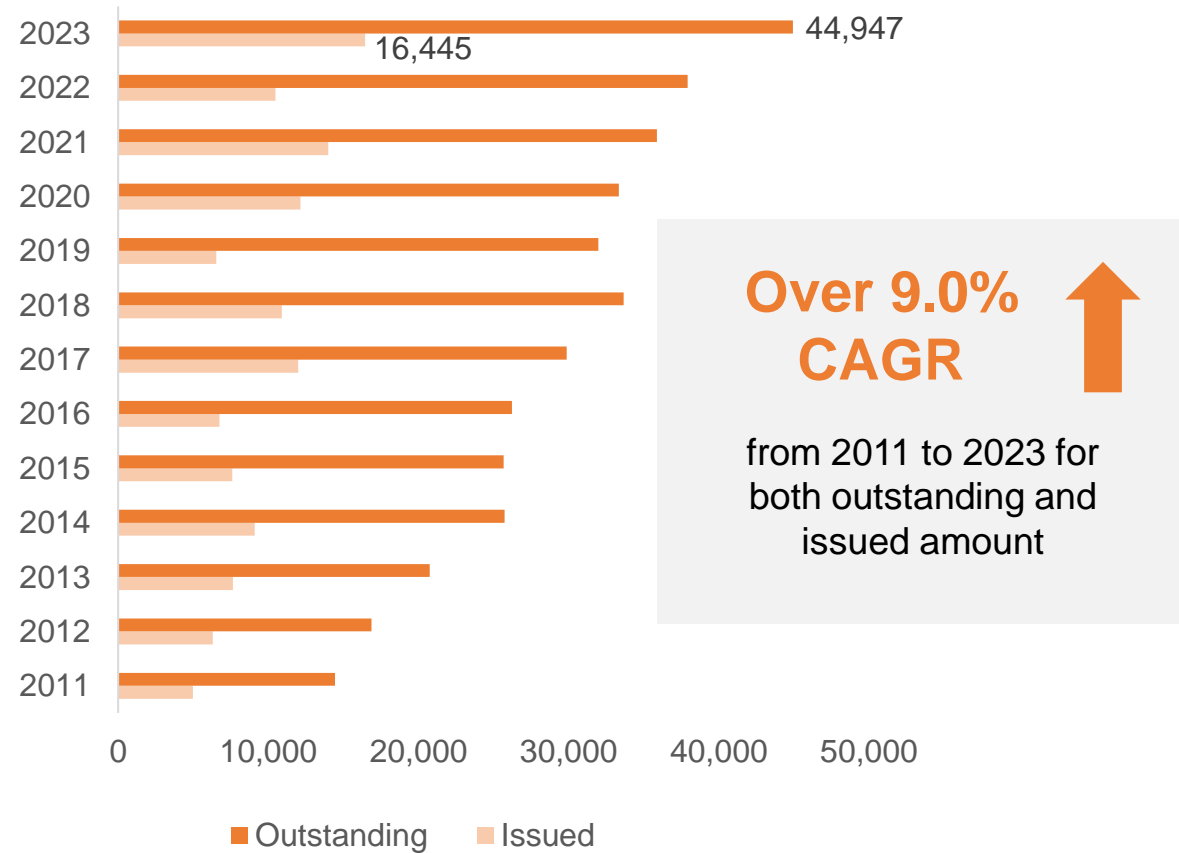


Effects on health systems

Alternative Risk Transfer Solutions



Global Insurance-linked Securities (ILS) Market (US\$ Million)



Source: Artemis

Vibrant Ecosystem

Promote Awareness of Institutional Investors

Enrich Risk Types

Widen Product Structures



Success Factors

Identify Potential Sponsors

Availability of Data

Support International Organisations and Assist Developing Economies

01

Reliable Data Source

02

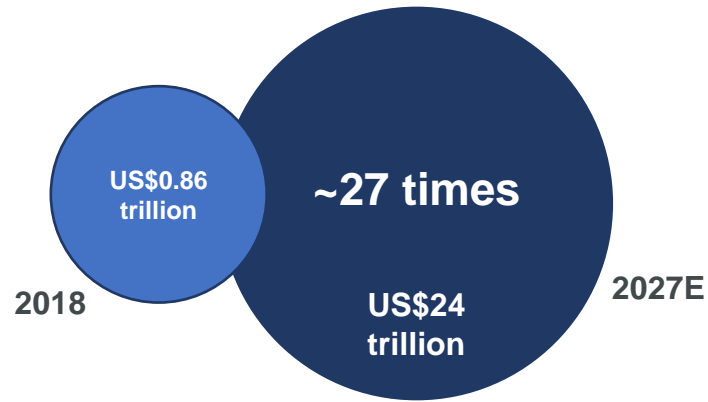
Trustworthy Model

03

Product Innovation

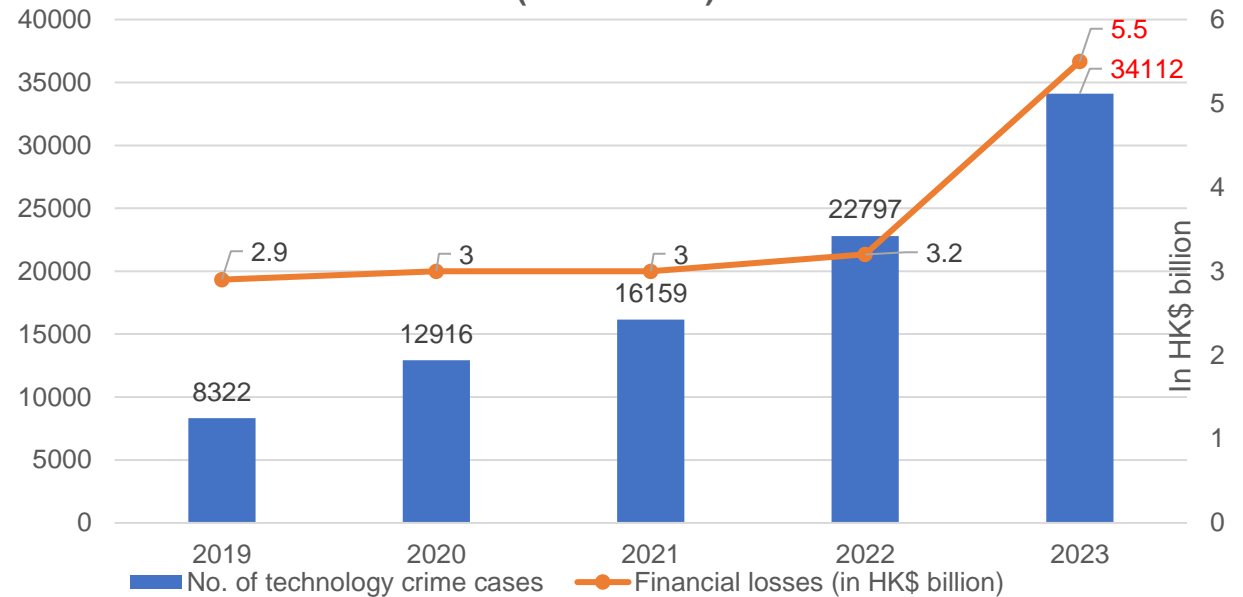
Update on Cybersecurity Threats

Cost of Cybercrimes Worldwide

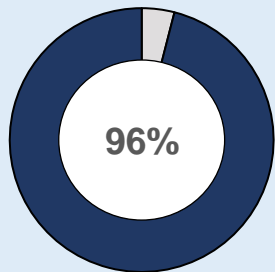


Source: Statista Technology Market Outlook, National Cyber Security Organizations, FBI, IMF, World Economic Forum

Technology crimes and financial losses in Hong Kong (2019 – 2023)



96% of local companies experienced phishing attacks in 2023



Local companies and residents reported

> 34,000 cybercrime cases in 2023

Local companies and residents lost

> HK\$5.5 billion in 2023

Consequences of Ignoring Cybersecurity Threats



**Sensitive data
breach**



**Disruption of
internal
operations**



**Spill-over to
other FIs**



**Reputation
damages**



**Disruption of
critical external
service**



Cyber Resilience Assessment Framework

01

Inherent Risk Assessment

Evaluates insurers risk rating in three-tiers:
- High / Medium / Low



Maturity Assessment

Includes 90 to 221 maturity controls
spinning across 7 domains

02



03

Remediation Plan

Submits of improvement roadmap with
action plan and target completion date



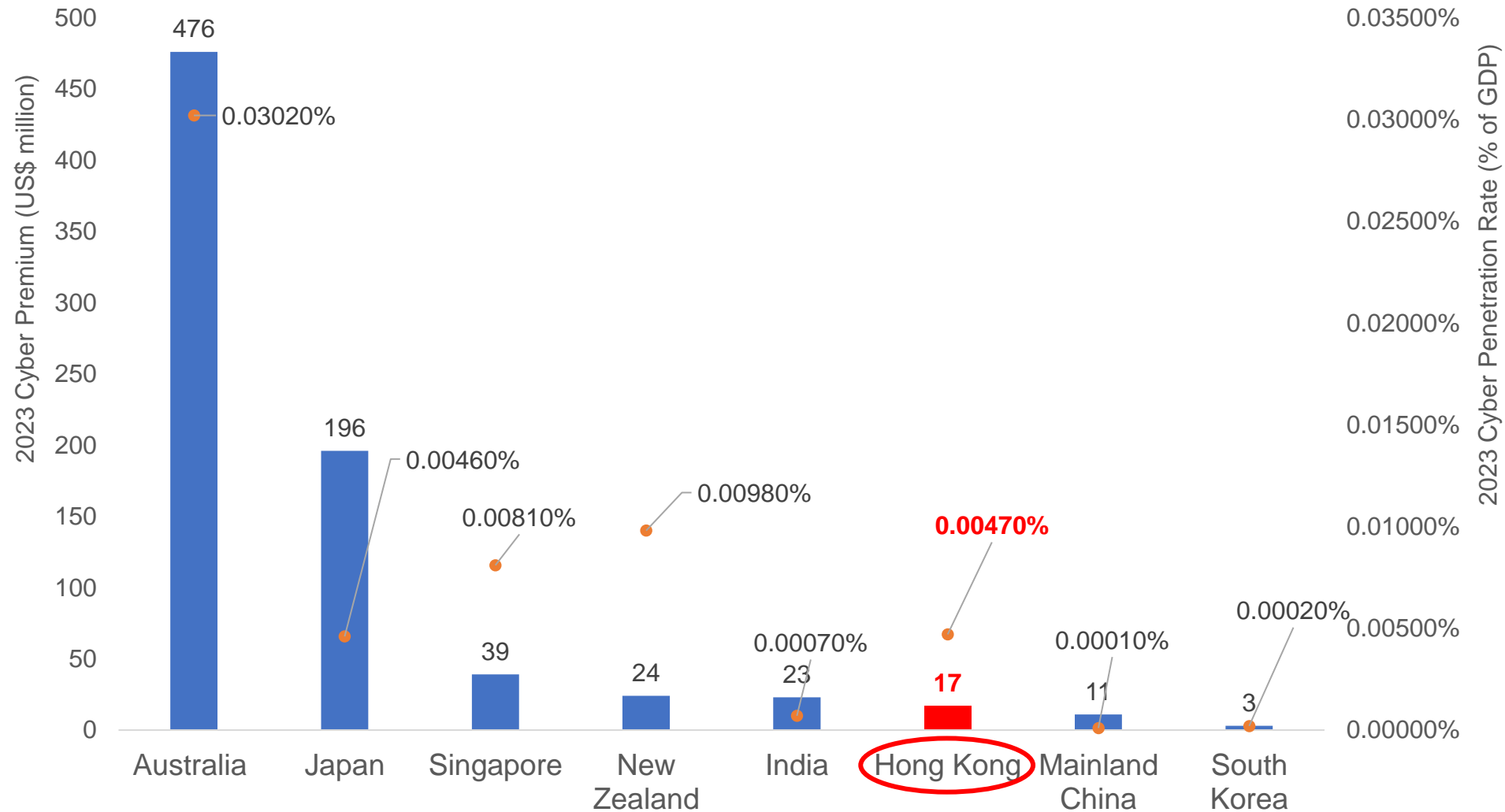
Jan
2025



Cybersecurity guideline
ready to be launched

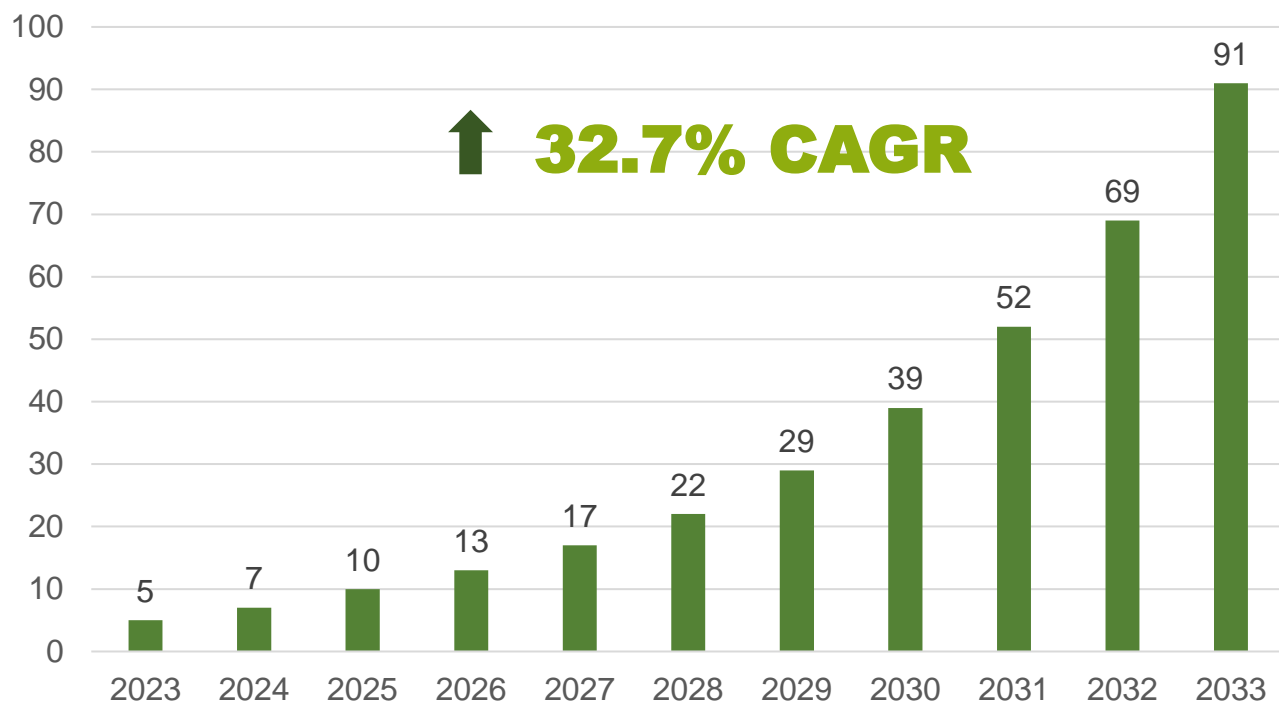
Market Potential in Hong Kong

APAC Cyber Insurance Market in 2023



Trends of AI Adoption

Global Expenditure by Insurers on AI (US\$ Billion)



Source: market.us

AI Applications in Insurance

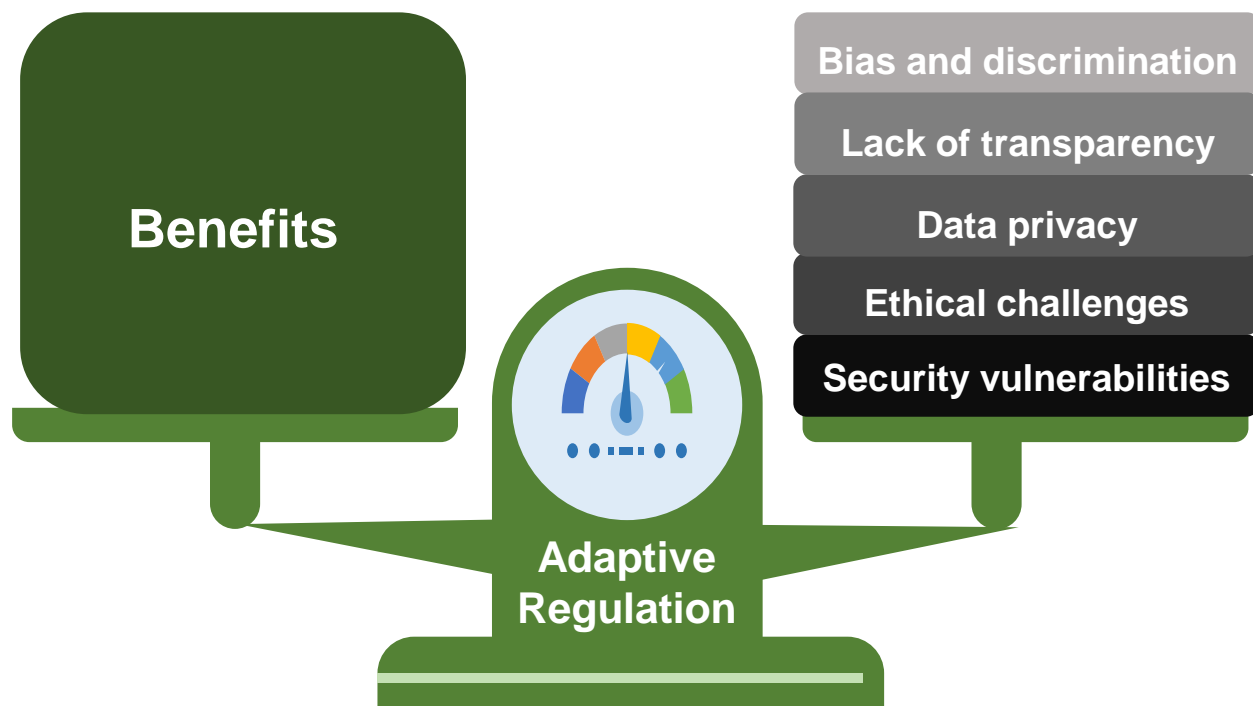
Risk Modelling & Assessment

Automated Underwriting

24-hour Robo-advice/
AI-based mental health support apps

Automated Claims

Fraud Detection



Consideration

- **Human in the loop**
- **Investment across the value chain**
- **Caution in automated modelling: financial exclusion and discrimination**
- **Robust data governance framework**

Way Forward

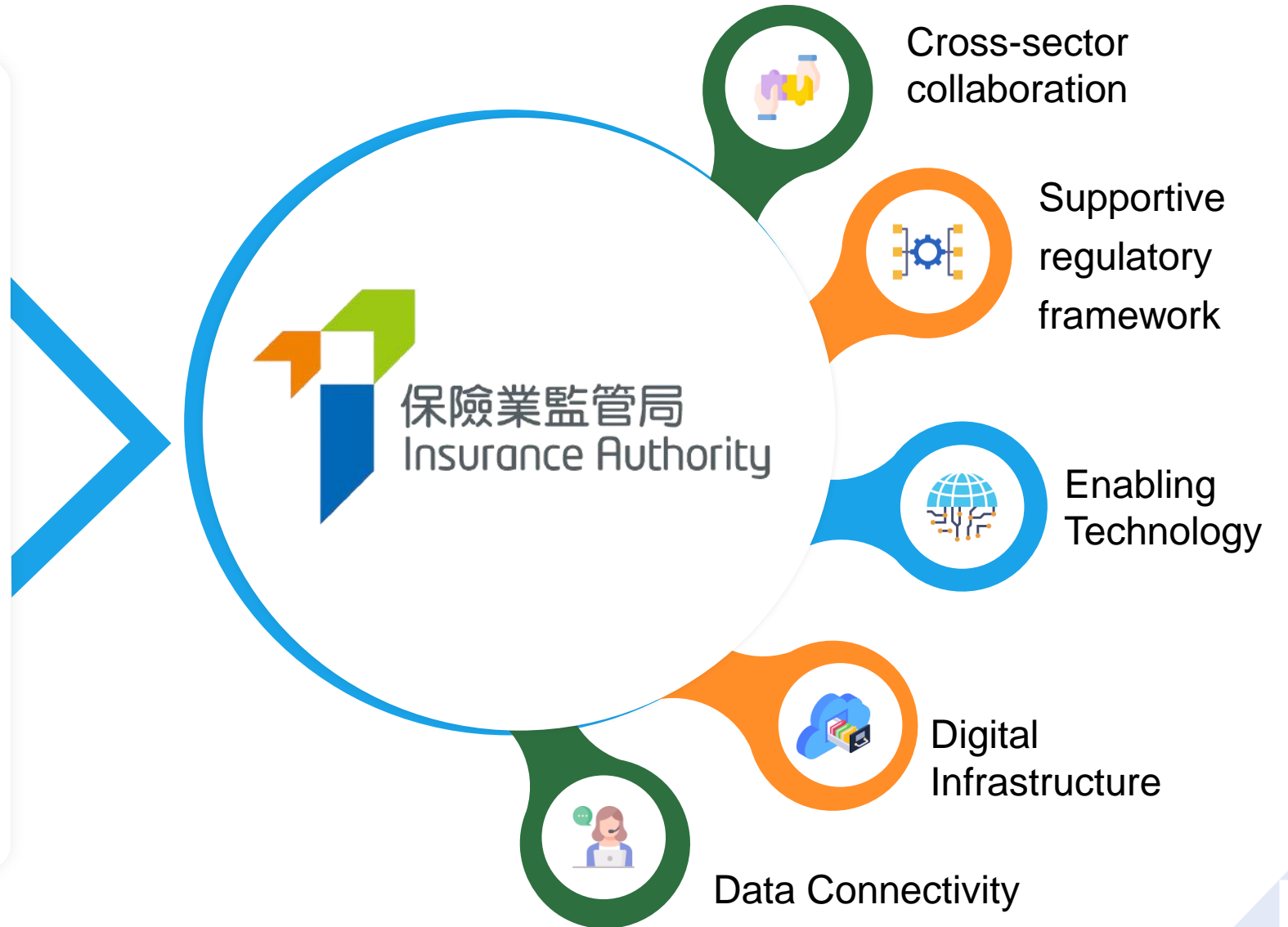
- **Fintech adoption survey**
- **Clear regulatory requirement**

To align with IAIS Strategic Themes

Strengthening supervisory
response to climate change

Adapting to increasing digital
innovation and cyber risks

Supporting insurance to serve its
societal purpose of building
resilience





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