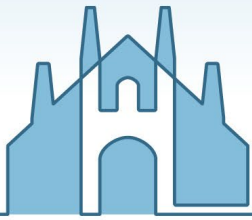




# Sustainability in the Insurance, Pension, Finance & Corporate Fields and the Contribution of Actuaries

**Dr. Frank Schiller**

AAE Board member and  
former chair of the AAE Sustainability and Climate-related Risks Working Group



## Climate Change and Sustainability

—  
What is it all  
about?

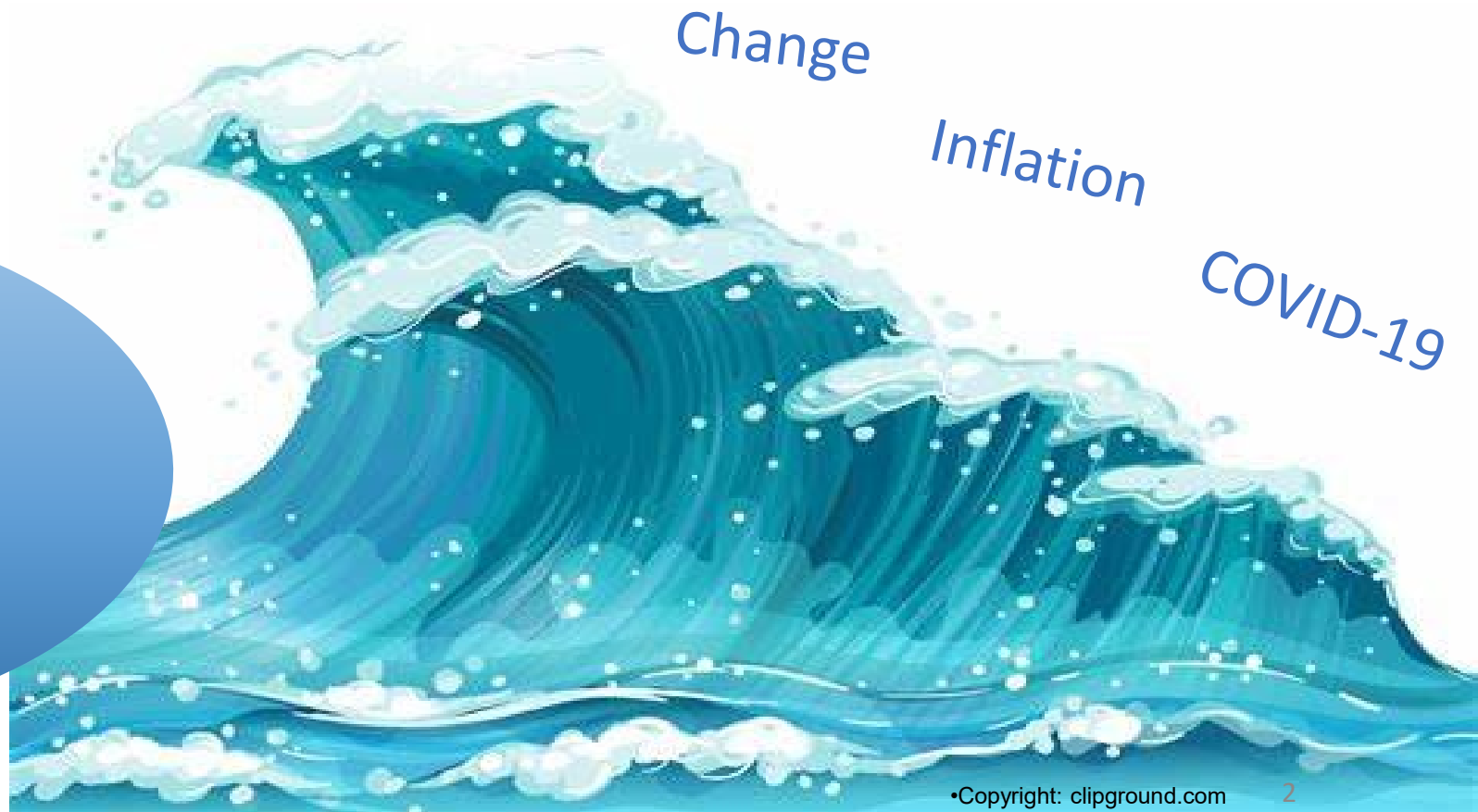
*“And I thought they  
meant something else  
when they warned us  
about the next  
wave...!”*

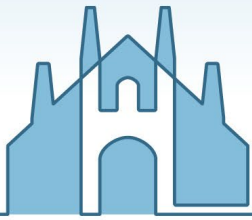
Migration of Peoples  
& Loss of Biodiversity

Climate  
Change

Inflation

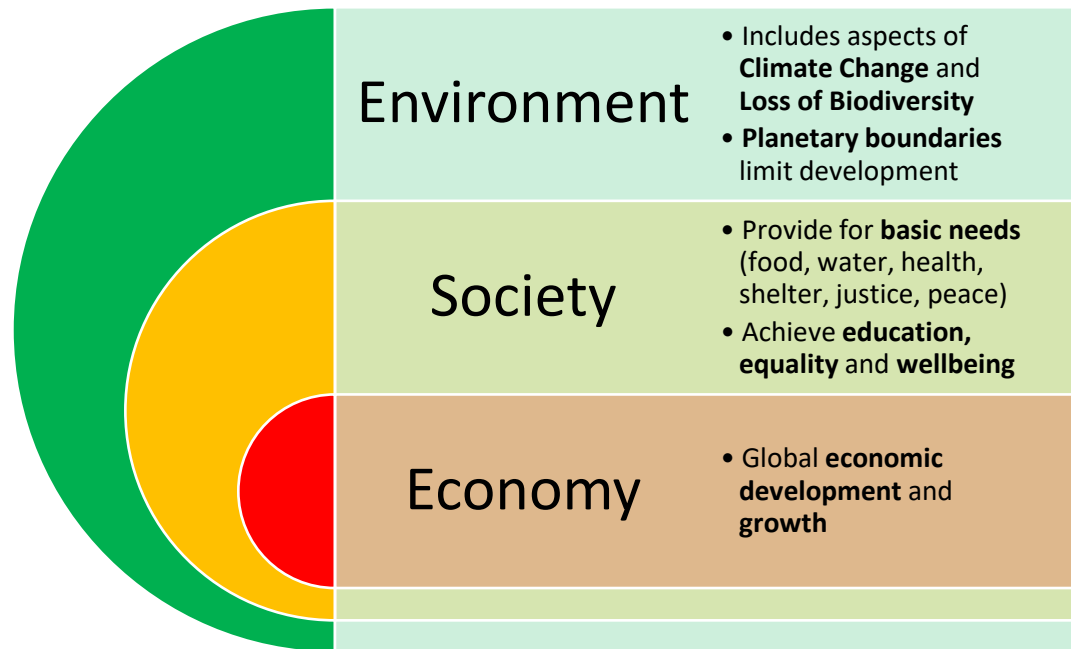
COVID-19





# Sustainability is more than managing Climate Change

The three hierarchical perspectives of sustainability:



The Brundtland Commission:

**“Sustainability means meeting our own needs without compromising the ability of future generations to meet their own needs.”**

In addition to natural resources, we also must consider social and economic resources.



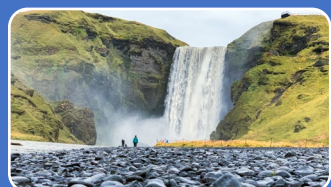
## Main Action Points for European Actuaries

We must assure that the **pensions and insurance industry** maintain their **role for the economy** despite the climate change by answering the three questions:



### Financial Sustainability

- How can we effectively manage the risks posed to insurance and pension systems from the short and long-term policy effects?



### Environmental and Social Sustainability

- How can insurance and pensions contribute to the transition through investments and transition project insurance
- as well as develop long-term sustainable products?



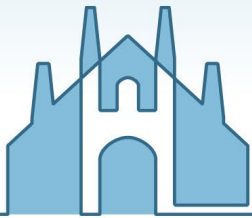
### Climate Protection Gap

- For climate risk borne by society which are not currently insurable, or may become non-insurable under current market conditions, how do public policies work with the insurance and pension industries to assure **society is covered** in these areas?



## A forward-looking approach is needed!

Actuaries are looking to the ...	... past ...	... present ...	... future ...
..., e.g., for ...	... traditional reserving and pricing	... market consistent valuation	... assessment of climate scenarios
The philosophy behind this approach	<i>“The historical development is a valid prediction of the future”</i>	<i>“Today’s financial market already includes all relevant information”</i>	<i>“The future needs to be explored comprehensively from all perspectives”</i>
Required expertise for its application	historical observations and classical statistics	mark-to-market or market consistent modelling	future looking scenario analysis reflecting various external aspects



## Non-linear effects of Tipping Points dominate



**A. Amazon rainforest**  
Frequent droughts

**B. Arctic sea ice**  
Reduction in area

**C. Atlantic circulation**  
In slowdown since 1950s

©nature

**D. Boreal forest**  
Fires and pests changing

**F. Coral reefs**  
Large-scale die-offs

**G. Greenland ice sheet**  
Ice loss accelerating

**H. Permafrost**  
Thawing

**I. West Antarctic ice sheet**  
Ice loss accelerating

**J. Wilkes Basin, East Antarctica**  
Ice loss accelerating

- **Domino-effects** connecting tipping points increase non-linearity.
- Actuaries have to base their scenario analyses on **long-term scientific assessments** and **modelling**.
- No prediction but **what-if-analysis** to support management.

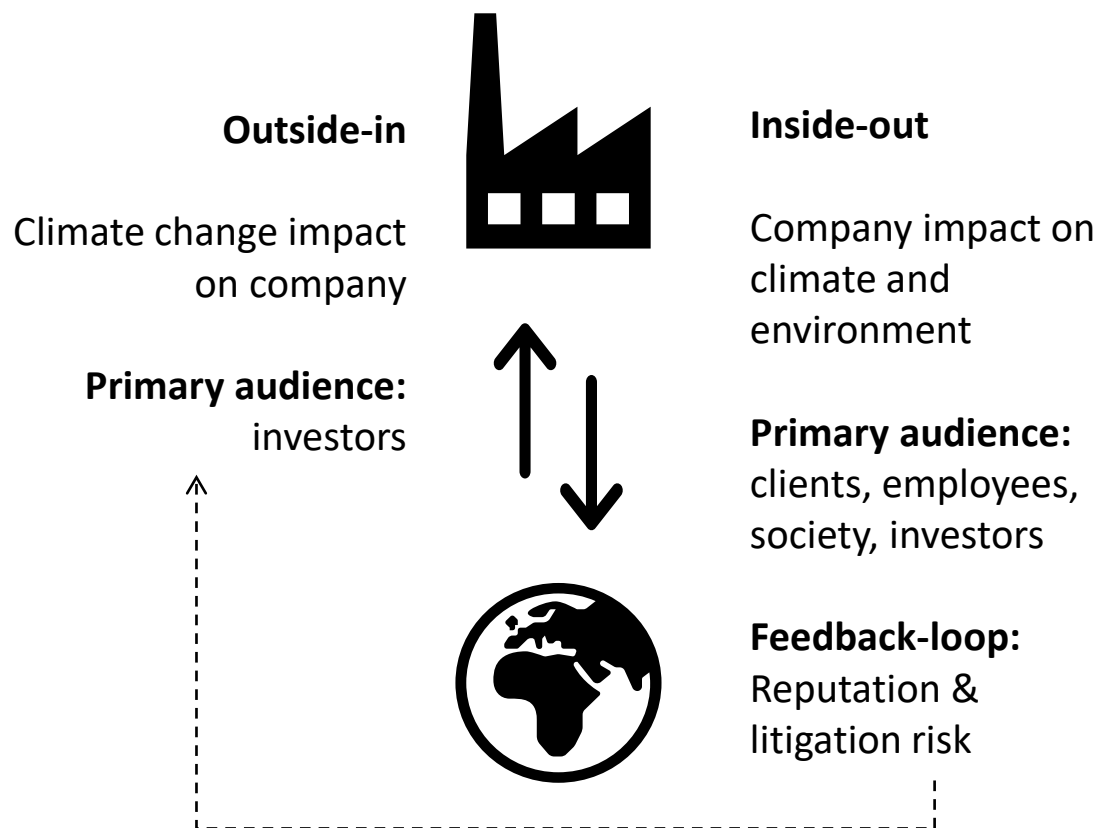
Only scenario-based approaches will enable actuaries and management to anticipate future developments





# Sustainability is not just important for Risk Management

## Concept of Double Materiality especially relevant for Europe

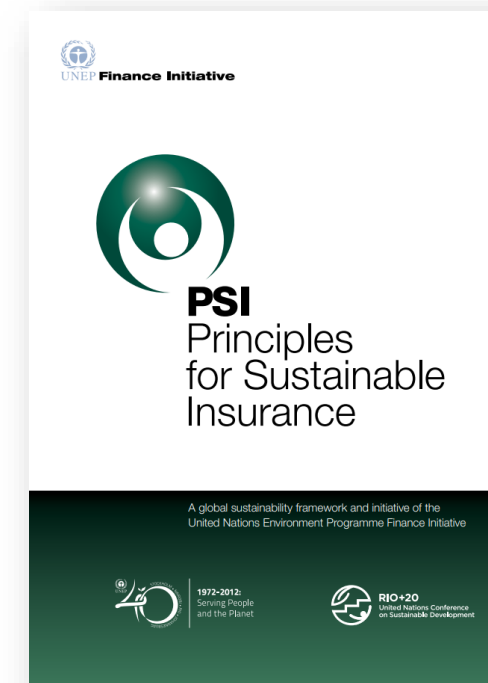


- For the time being the **European** Corporate Sustainability Reporting Directive (CSRD) has **not included life insurance** in the taxonomy for environmental objectives.
- From a global perspective, the **IFRS Foundation** and its International Sustainability Standards Board (ISSB) have **not yet included double materiality considerations**, focussing instead on risks and opportunities that are financially material to reporting entities.



## Sustainable Products: Insurers as Long-Term Partners

- 1. Embed in our decision-making ESG criteria** relevant to our insurance business.
  - Risk management and underwriting
  - Product and service development
  - Claims management
  - Sales and marketing
- 2. Work together with our clients and business partners** to raise awareness of ESG criteria, manage risk and develop solutions.
- 3. Work together with governments, regulators and other key stakeholders** to promote widespread actions on ESG.
- 4. Demonstrate accountability and transparency** in regularly disclosing publicly our progress in implementing the Principles.



**PSI**  
**Principles for Sustainable**  
**Insurance**

<https://www.unepfi.org/insurance/insurance/the-principles/>





# AAE Paper on Sustainable Products in Insurance

## 1. Sustainable savings products

Existing standards and current implementation consistent with banking (Article 6, 8 and 9 type products)

## 2. Sustainable Insurance Products and Insurers as Long-Term Partners

All relevant processes and decisions need to be focussed on long-term target – insurance will add service components and not only pay out

## 3. Insurance Products that Support the Economy in Achieving Sustainability Goals

The UN SDG provide guidance

## 4. Sustainability Reporting and Taxonomies

Transparency and comparability is key – the implementation needs to be adequate, and we should avoid over-engineering



•AAE  
Sustainable Products in  
Insurance

•<https://actuary.eu/memos/aae-discussion-paper-sustainable-products-in-insurance/>

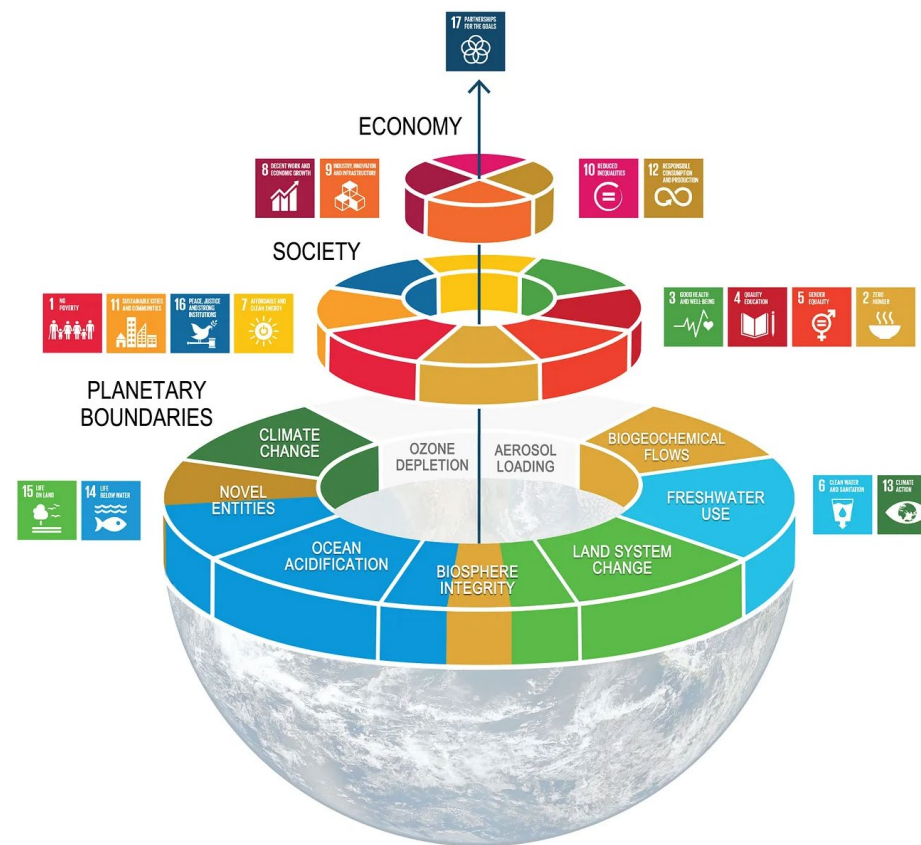


# Insurance Products that Support the Economy in Achieving Sustainable Goals

## Framework around the UN Sustainable Development Goals

WHAT, HOW and HOW MUCH the product impacts ESG:

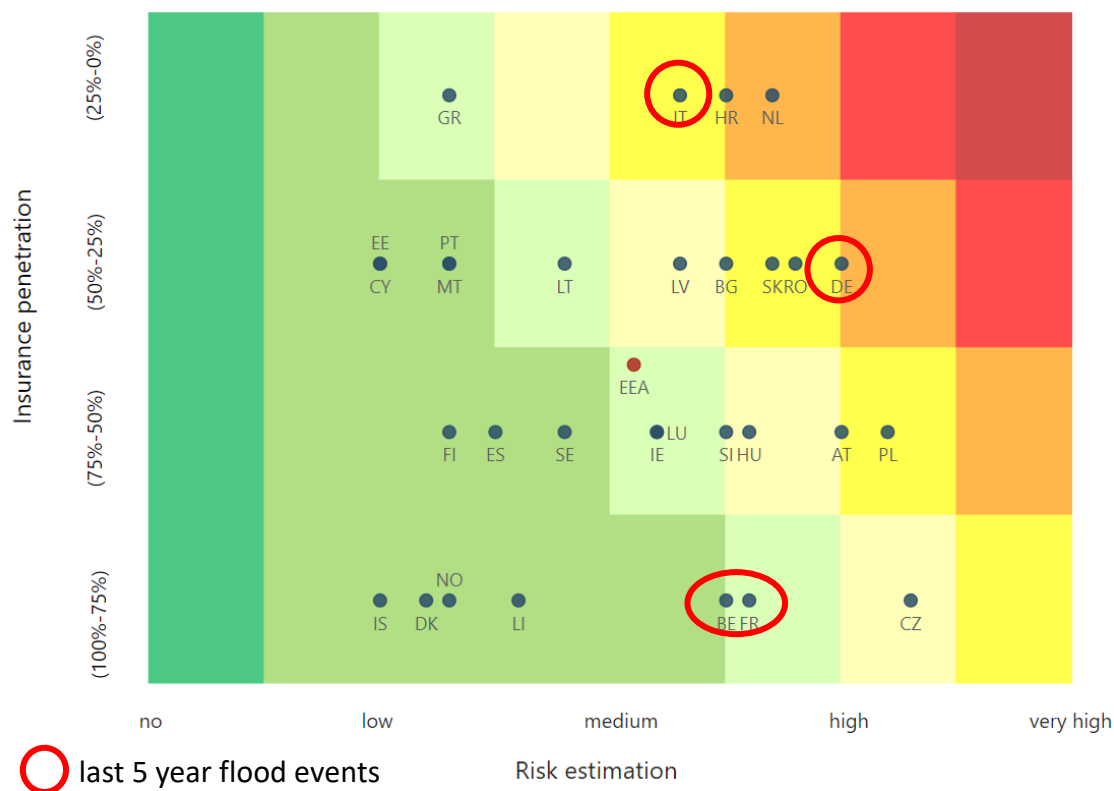
1. Which **objectives** are affected in a relevant and **harmful or beneficial** way
2. Assign a **measure** and describe **risks and opportunities**
3. Aggregate the product's measures, to provide a **transparent overall measure** of the impact.



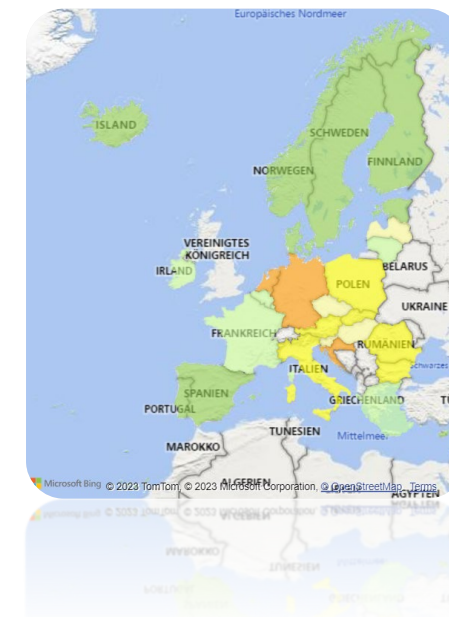


# EIOPA works on early identification of gaps

## Inland flood risk and protection gap



1. Understand **drivers** for existing protection gaps
2. Analyse **measures for mitigating gaps**:
  - reduce vulnerabilities
  - identify proactive prevention measures
  - improve cross-border cooperation
3. Understand possibilities to establish **public-private partnerships vs. public schemes and private protection**

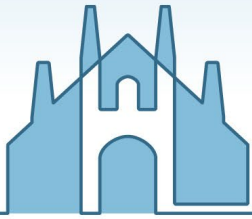




## Climate Protection Gap

With **limited capacities and increasing physical risks** due to the climate change, insurers adopting well-informed underwriting processes may need to **decline coverages**.

- **Protection gaps** are areas in which societal risks are not covered by the insurance industry
- Risks that are uninsurable in profit-oriented markets can only be covered by **public policy encouragement**
- The **early identification** of protection gaps and the **development of shared resilience solutions** between the insurance industry and public protection facilities are key



## Only a world-wide approach will be successful



Climate change is not just a European issue. Solving the climate crisis will need a **global view**.

- There should be **no worldwide inconsistencies** or local regulatory loopholes that can be exploited
- Actuaries can support the development of **accounting and valuation approaches** to make such loopholes more transparent



**XIV CONGRESSO NAZIONALE DEGLI ATTUARI**  
L'ATTUARIO GLOBALE PER UN MONDO SOSTENIBILE  
TRA TRADIZIONE, INNOVAZIONE E RISCHI EMERGENTI



# Thank you for your interest

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