Sustainable Insurance: Embracing Global Challenges

Business Models. Protection Gaps. Systemic Risks.

ICIR International Center for Insurance Regulation

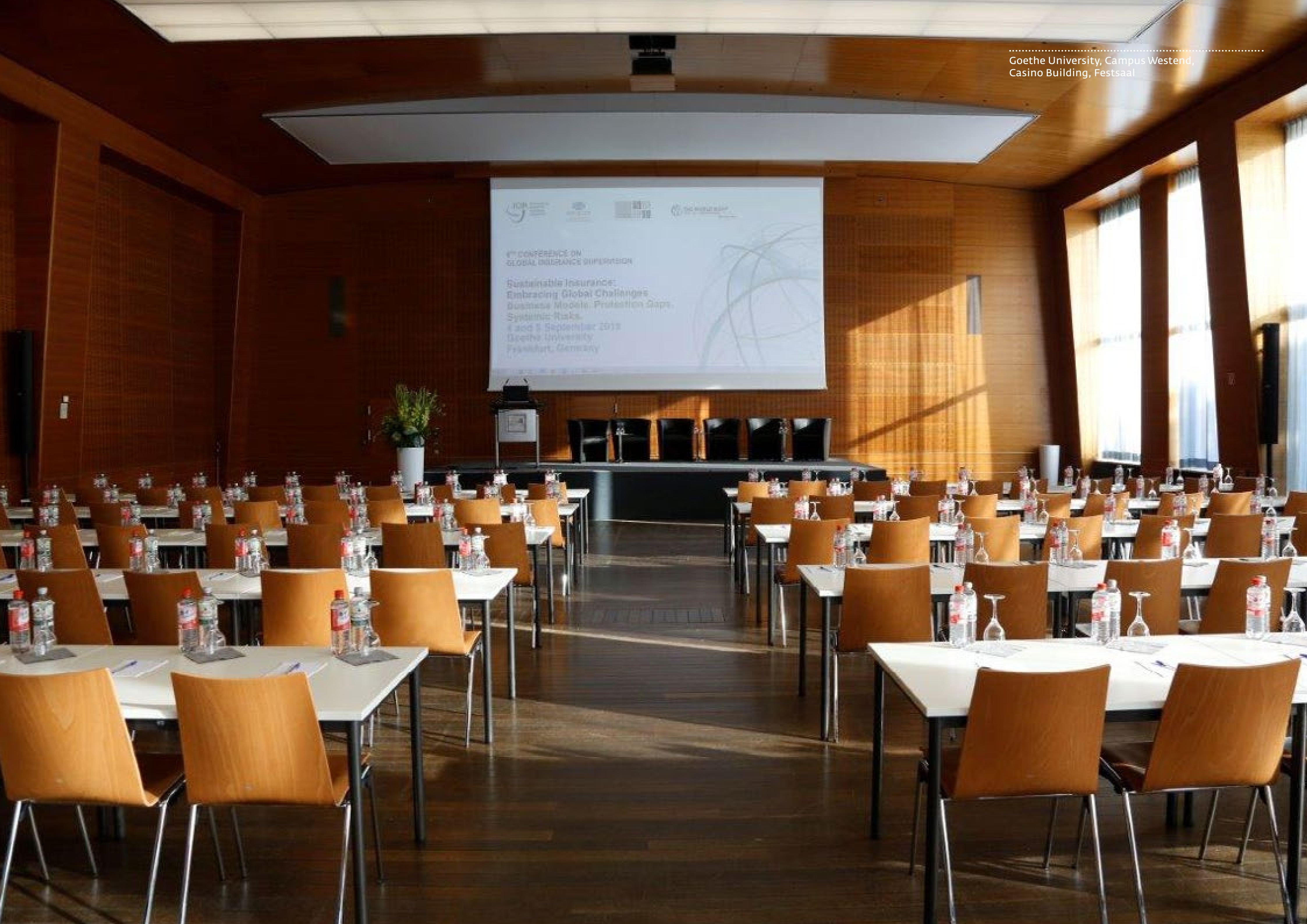
6th Conference on Global Insurance Supervision

4 and 5 September 2019
Goethe University Frankfurt, Germany

Insurance companies in their function as risk managers, risk carriers and investors play a key role in addressing the global sustainability challenges. At the same time, the insurance sector itself is facing disruptive changes caused by climate change, a continuous low-interest rate environment and digitalization. How can business models of (re)insurers become more sustainable and resilient? What can be done to avoid a widening of the protection gap? Moreover, how can a holistic framework contribute to mitigate systemic risks in the insurance sector?

At the 6th Conference on Global Insurance Supervision (GIS), which was held on 4 and 5 September 2019 at the Goethe University Frankfurt, 170 representatives from the insurance sector, academia, supervisory and regulatory authorities from 40 countries discussed the key topics of sustainability from a European and international supervision perspective.

The International Center for Insurance Regulation (ICIR), the European Insurance and Occupational Pensions Authority (EIOPA), the Research Center SAFE (Sustainable Architecture for Finance in Europe) and the World Bank Group organized the conference. ◆



Goethe University, Campus Westend,
Casino Building, Festsaal

Conference Programme
4 September 2019

Moderation: Karel Van Hulle,
Associate Professor KU Leuven and ICIR, Goethe University

Welcome & Introduction

Helmut Gründl, Managing Director, International Center for Insurance Regulation (ICIR),Goethe University
Serap Oguz Gönülal, Lead Financial Sector Specialist, The World Bank Group

Conversation What is Sustainability?

Gabriel Bernardino, Chairman, EIOPA
Christian Thimann, CEO and Chairman, Management Board, Athora Insurance Holding

Moderator: Karel Van Hulle

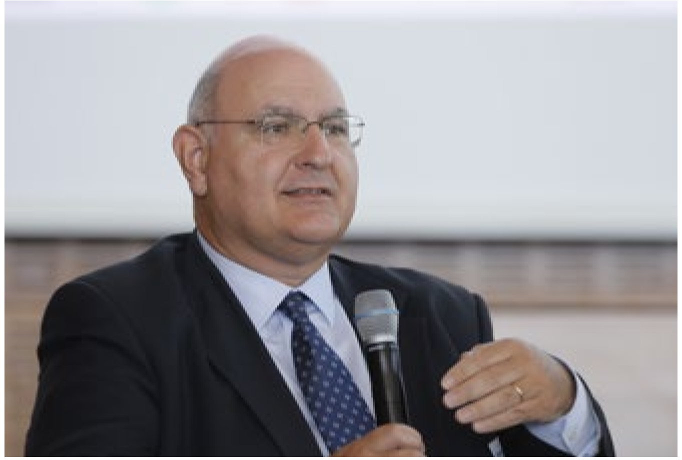
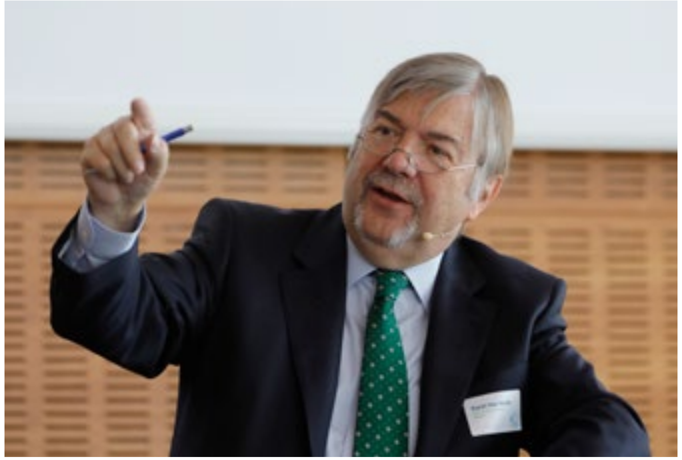
After introductory remarks by **Helmut Gründl** (Managing Director of the international Center for Insurance Regulation, ICIR) and **Serap Oguz Gönülal** (Leader Financial Sector Specialist of The World Bank Group), **Gabriel Bernardino** (Chairman of EIOPA) and **Christian Thimann** (CEO and Chairman of Athora Insurance Holding) discussed what is sustainability and its importance for the insurance sector. Thimann acknowledged that a lot of progress in understanding how environmental risks affect both sides of insurers' balance sheets has been made. However, on risk analysis and risk monitoring further improvements are needed. He reminded that in order to achieve European Union's climate targets in line with the Paris agreement investments of additional EUR 180 billion per year are needed. He also called for a change towards a long-term oriented investment profile. Thimann considered the focus on short-time investment horizons by financial markets as one of the major obstacles in re-directing investments towards sustainable projects. Moreover, he suggested that the biggest climate killer was not coal but globalization. "To become a more sustainable economy, we need to produce more local and avoid transportation of large volumes of goods over long distances," he stated.

Bernardino agreed with Thimann's assessment and called on economic and political decision-makers to show more courage for sustainability. According to Bernardino Solvency II provides already all needed by insurers to become more sustainable. "The money is there, the regulatory framework is there, however, there are not enough projects for sustainable investments," he said. He invited insurers to incentivize corporates to adapt their business models towards sustainability. Moreover, Bernardino urged supervisors to be alert as regards greenwashing.

Furthermore, Bernardino stressed the stewardship role of the insurance sector. For example to increase the European market and citizens' resilience to climate change, (re)insurers should consider the impact of their underwriting practices on the environment. Consistently with sound actuarial practice, where risk mitigation and loss prevention can make a significant difference, the development of new insurance products, adjustments in the design and pricing of the products and the engagement with public authorities, should be part of the industry's stewardship activities.

Both panellists are optimistic that sustainability will become soon a major topic in the public debate. Especially the young generation is aware of the urgent need for a change. ◆

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Since several years, new, agile and innovative firms are posing a challenge to current/traditional business models in the insurance sector. Entry barriers seem to be different depending on where in the value chain the service is provided; new entrants not always require an insurance license. However, boundaries continue to be blurred and the fragmentation of the value chain steadily advances with reversed outsourcing only being one of the latest developments. How will sustainability of insurance business models be impacted in the long-run and with which consequences for the roles of insurance for society? Furthermore, on the one hand, supervisors need to keep an eye on risks arising from innovative technologies, such as Big Data, Artificial Intelligence and Machine Learning, identifying, assessing and monitoring them. On the other hand, supervisors themselves are striving to make use of innovative technologies for their own data analytics and supervision. In the end, the right balance needs to be kept not to stifle innovation. ◆

Panel I
Sustainable Business Models for Insurers: Fair Competition in a Disruptive Environment

- Disruption by global innovation: How to create a level playing field with nonregulated players and more flexible frameworks?
- To what extent can regulation enable innovation and which consequences have to be expected for the insurance sector?
- How can a responsible use of innovative technology be achieved by insurers and supervisors alike?

Panelists:
Andreas Grigull, Senior Business Development Manager Finance & Digital Transformation Expert, Microsoft
Godfrey K. Kiptum, Chief Executive Officer, Insurance Regulatory Authority, Kenya
Kathleen Köhn, Senior Officer, Insurance and Pension Fund Supervision Department, German Federal Financial Supervisory Authority and Chair of InsurTech Task Force, EIOPA
Monica Mächler, Member, Board of Directors, Zurich Insurance Group
Ricardo Ernesto Ochoa Rodríguez, President, CNSF (Mexico's Insurance and Surety Bond Regulator)

Moderator:
Monique Goyens, Director General, BEUC – The European Consumer Organisation

Panel I
Sustainable Business Models for Insurers: Fair Competition in a Disruptive Environment

New technology firms (InsurTechs) and incumbent technology giants such as Google enter the insurance market and challenge traditional business models in the insurance sector. To meet the new challenges supervisors do not only have to keep an eye on new market entrants but also strive to make use of innovative technologies for their own analytics. How can regulators and supervisors response to the changing environment to ensure a level playing field as well as the solvency of the insurance sector without stifling innovation?

Monique Goyens, Director General, BEUC – The European Consumer Organisation, who moderated the panel opened the discussion from the consumers' perspective highlighting possible negative effects due to the application of new analytical tools for profiling consumers.

TRANSPARENCY ON THE USE OF ALGORITHM IS IMPORTANT

Monica Mächler, Member of Board of Directors, Zurich Insurance Group took the industry perspective and emphasised that consumers are calling for more convenience and better service when dealing with insurance. Therefore, a more risk-based assessment was in the interest of the customers. She mentioned the example of Zurich, which recently succumbed to a self-committed code of conduct on data handling. Moreover, to build trust insurers should be transparent on the use of algorithms. Mächler recommended focusing on the validity of data input as well as on data output, as the verification of the algorithm model itself was rather difficult.

Andreas Grigull, Senior Business Development Manager Finance & Digital Transformation Expert, of Microsoft agreed with Mächler's assessment that transparency was critical for the use of algorithm and the implementation in Artificial Intelligence (AI) models. He stressed that insurers should be transparent and accountable. There is no need for a black box. Nevertheless, Grigull argued against a more regulatory approach to transparency. This would not bring any benefit to governance of the insurance sector. He stated that it would probably hinder the sector's innovation capability.

SELF-COMMITMENT IS NOT ENOUGH

Ricardo Ernesto Ochoa Rodriguez, President, CNSF (Mexico's Insurance and Surety Bond Regulator) questioned that self-commitment by companies was not sufficient to protect consumers because they could not enforce those commitments. He argued that policy holders should know which risk factors the insurers take into account.

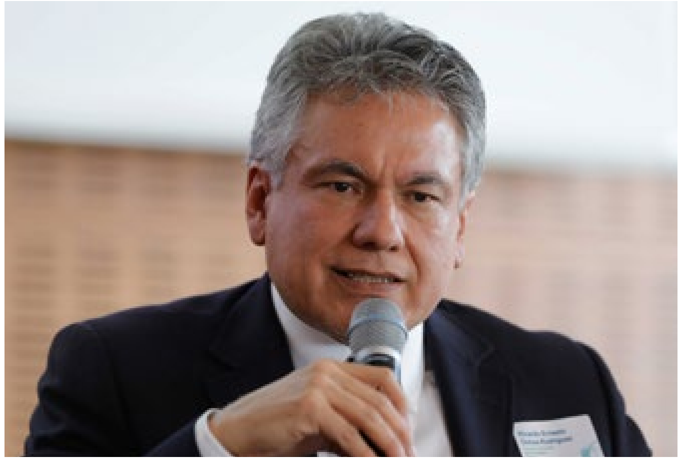
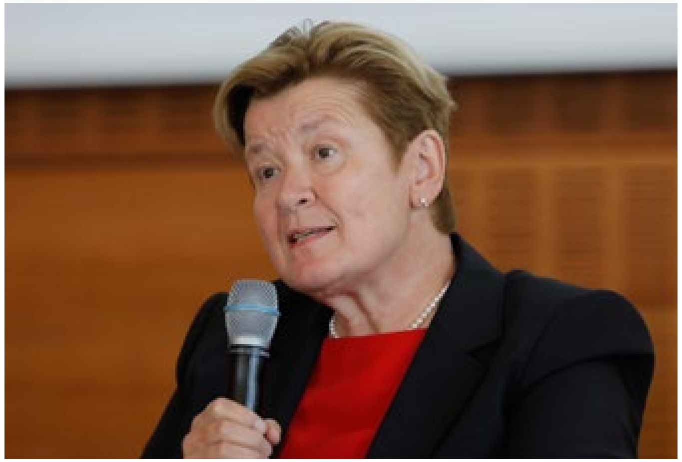
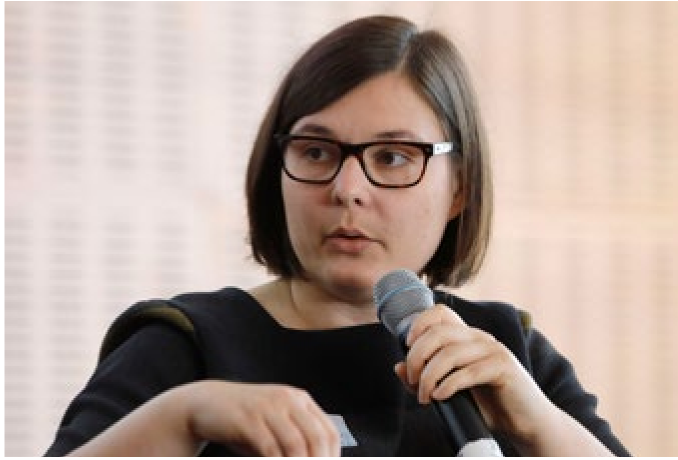
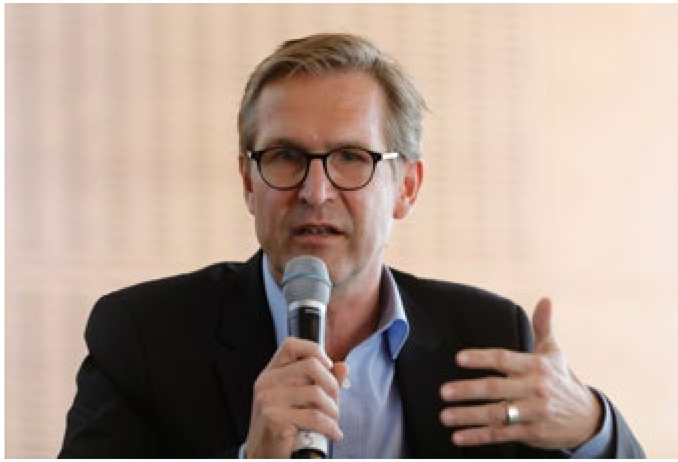
Furthermore, Rodriguez pointed out that the pace of digital transformation varied among member states. Therefore, regulators should follow the principle of proportionality to find the right balance between innovation and solvency of the system.

This was also underlined by **Godfrey K. Kiptum, Chief Executive Officer, Kenyan Insurance Regulatory Authority**. He argued that even though data protection was important availability and affordability of insurance was a more pressing issue in Kenya.

SUPERVISORY AUTHORITIES TO PROVIDE MORE GUIDANCE

Kathleen Köhn, Senior Officer, Insurance and Pension Fund Supervision Department, German Federal Financial Supervisory Authority and Chair of EIOPA's InsurTech Task Force stressed that the regulatory framework Solvency II is efficiently equipped to address the challenges of Big Data and AI in insurance, regarding its principle-, risk-based and forwards-looking approach. She conceded that Solvency II left room for interpretation. Therefore, EIOPA was striving to create a clearer guidance on the assessment of algorithms and AI tools and takes a leading role in developing detailed guidelines on new technologies for the sector.

She stressed the need to look further into the topics digital responsibility and supervision of innovative algorithms, ensuring that insurers processes remain traceable, transparent and legal in order to maintain consumer confidence in the market.◆

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Insurers in their function to provide protection to citizens and consumers are confronted not only with an ever-changing risk landscape but also with changing consumer behavior and preferences. Insurance has an important function to help people and firms getting back into business after a disaster struck and major damages were caused. However, low insurance penetration, increasingly uninsurable high value exposures as well as underestimated or silent developments in risk profiles contribute to a widening protection gap. This not only refers to natural catastrophes but also to ageing populations. Climate change, scientific progress and increasing healthcare costs, to mention but a few, may exacerbate the protection gap. On the other hand, trends in sustainable finance and sustainability in general provide momentum for new products and innovative product development to cover the changing needs of emerging economies and the young generations around the globe. ◆

Impulse Statement
Protection Gaps: Natural Catastrophes

Swenja Surminski, Head of Adaptation Research, Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science (LSE)

Impulse Statement
Protection Gaps: Demographic Change and an Ageing Society

Yoshihiro Kawai, Chair, Insurance and Private Pensions Committee, OECD, and Professor at Tokyo and Kyoto University

Panel II
Closing the Protection Gaps: The Leading Role of Insurance

- What is the role of insurers with regards to the protection gap?
- How can the protection gap be turned into an opportunity for all stakeholders, be it at the political, economic or policyholder level?
- How can new trends and innovation help to meet changing needs and behavior of the young generation around the globe and close the gap?

Panelists:
Anderson Caputo Silva, Practice Manager; Finance, Competitiveness & Innovation - Long Term Finance, The World Bank Group
Arup Chatterjee, Principal Financial Sector Specialist, Asian Development Bank
Ekhosuehi Iyahen, Secretary General, Insurance Development Forum
Robin Lang, Senior Vice President and Chief Risk Officer, RenaissanceRe Syndicate Management Ltd.
Swenja Surminski, Head of Adaptation Research, Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science (LSE)

Moderator:
Gabriel Bernardino, Chairman, EIOPA

Panel II
Closing the Protections Gaps: The Leading Role of Insurance

Panel II discussed possibilities of how political and economic stakeholders could work together to mitigate or even close protection gaps and how the insurance sector could contribute to this process. **Gabriel Bernardino, Chairman of EIOPA** who moderated the panel stressed in his introduction that the awareness of the negative consequences of protection gaps for the economic development was still missing in the society. Therefore, to foster the dialogue with the different stakeholders still many concerted efforts are needed.

CONCERTED APPROACH OF ALL STAKEHOLDERS NEEDED

Anderson Caputo Silva, Practice Manager, Finance, Competitiveness & Innovation – Long Term Finance of the World Bank Group pointed out that apart from natural disasters and health protection, the ageing population was posing a major challenge to governments and the financial sector. He insisted on a concerted approach from all relevant private- and public-sector stakeholders to meet the challenges of protection gaps. According to Silva, there is already a close cooperation of The World Bank, governments and scientists on the issue of protection gaps. However, so far the input of the insurance industry is missing, Silva stated. He invited the private sector to share information and to work on innovative solutions. Silva announced that in the near future The World Bank would provide access to one of its web-based databases as a first step towards a joint data collection for measuring and quantifying underinsurance in different markets.

NEW RISK MODELS FOR A CHANGING RISK LANDSCAPE

Robin Lang, Senior Vice President and Chief Risk Officer of RenaissanceRe Syndicate Management expressed confidence that insurers due to their experience in assessing, computing and trading risks could contribute to close protection gaps. According to him, new risk models are needed to meet the changing consumer demands as well as for a changing risk landscape. Due to the collection of more and better data, Lang pointed out that risk mapping and risk modelling will improve.

WORK ON THE CAUSE OF PROTECTION GAPS

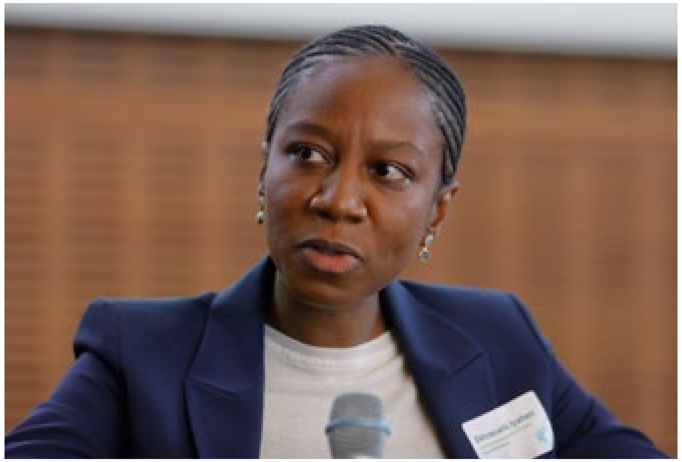
Swenja Surminski, Head of Adaptation Research, Grantham Research Institute on Climate Change and the Environment at the London School of Economics, noted that some leaders in the insurance sector have started treating sustainability as a strategic issues, but that the majority of companies still struggle with integrating this topic into their business models. In particular she highlighted lack of engagement with customers, and encouraged the sector to use sustainability as an opportunity. She cautioned for exaggerated expectations on the accumulation of more granular risk data as better data alone would not necessarily lead to better decisions. The assumption that the insurance industry knows all about risks, is wrong, especially when it comes to future risks, she said, warning the sector of complacency when it comes to assessing climate change risks. Moreover, she reminded that the protection gap was only a symptom and stressed that the insurance industry neglected the reduction and prevention of loss. According to Surminski, research provided already a lot of evidence on the payoff of loss prevention and resilience. However, she argued this has not yet triggered a change in behaviour, as the gains from other investments are more visible. She called upon the regulatory authorities to incentivise the insurance industry to work on the causes of protection gaps, and urged the sector to use their investment, underwriting and advisory practices to help reduce risks.

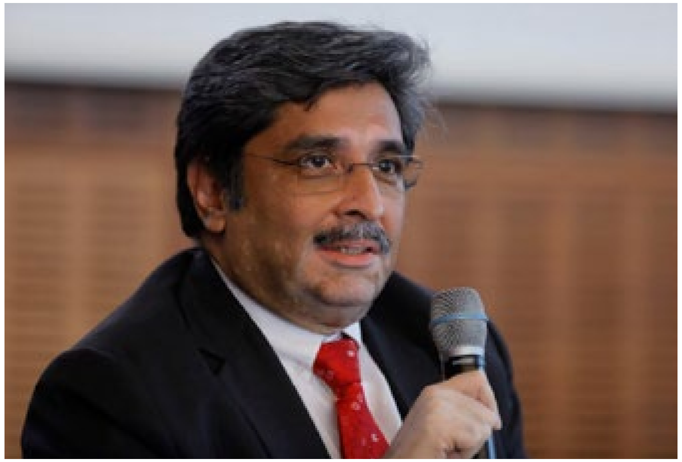
PRODUCT INNVATION ACCOUNTING REGIONAL DIFFERENCES

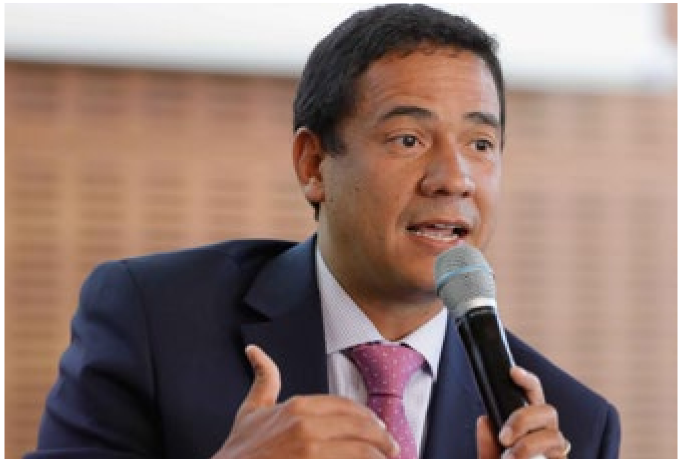
Ekhosuehi Iyahen, Secretary General of the Insurance Development Forum underlined that understanding the risk was a prerequisite for closing the protection gap. However, according to Iyahen, developing emerging markets' risk awareness is often insufficient and the regulatory framework is immature. Moreover, for lower-income households and small- and medium-sized enterprises insurance is often either not available or affordable. Therefore, there is a need for different insurance products for developing markets, which have other ▸

needs and a different risk appetite compared to mature markets, Iyahen stated. She stated that collaboration between the private sector and the public sector thinking outside of the box, presents an opportunity to develop relevant solution and is a key pillar of IDF's efforts. She stated that there is a lot more that can be done jointly to develop markets through education, development of new solutions, standards and better insurance regulatory regimes.

According to **Arup Chatterjee, Principal Financial Sector Specialist of the Asian Development Bank** the lack of transparency and trust have hindered the development of the insurance markets in the developing countries. Added to this is the lack of awareness and failure of professional advice. He encouraged the insurance sector to engage in cross-sectoral coordination within the financial sector to define both synergies and trade-offs. A transition to a more integrated approach to decision making is critical and multi-stakeholder partnerships can facilitate cross-sectoral coordination and decision making can help in accelerating achievement of development outcomes by supporting effective policy planning, prioritization, implementation and outcomes. ◆







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Break-Out Sessions
Session 1: The Do's and Dont's of Infrastructure Investments

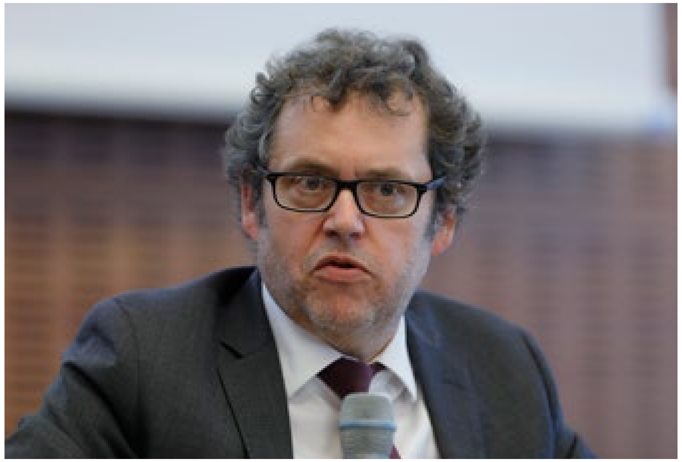
Moderator:
Yoshihiro Kawai, Chair, Insurance and Private Pensions Committee, OECD, and Professor at Tokyo and Kyoto University

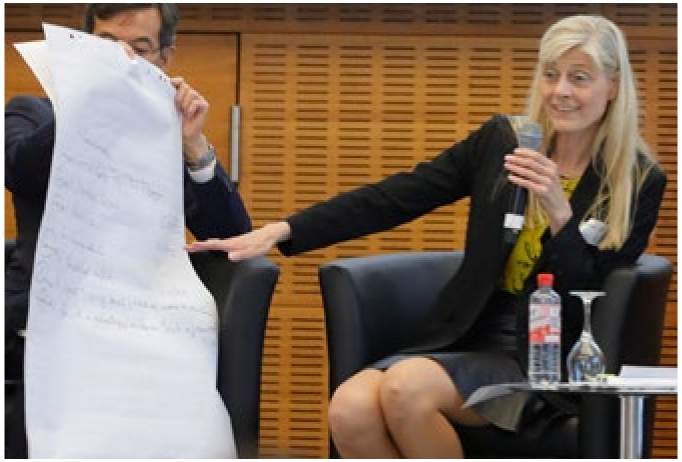
Session 2: How to Identify, Monitor and Assess Emerging Risks and their Impact on Sustainability

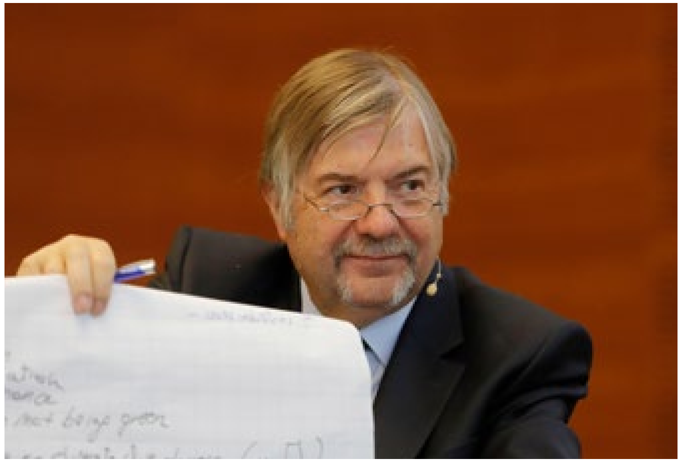
Moderator:
Anna Maria D'Hulster, Independent Board Member

Session 3: Enabling Fair Competition in the Light of Innovation

Moderator:
Timothy Shakesby, Principal Expert on Financial Innovation & Leader of the Conduct of Business Oversight Team, EIOPA







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Moderator: Manuela Zweimüller,
Senior Advisor on International Affairs, EIOPA

Systemic risk, if undiscovered or underestimated, can provide for major turbulences on financial markets and jeopardise financial stability. Similar to emerging risks also systemic risks need to be identified, assessed, mitigated and monitored. Not only to avoid similar crisis situations as in the past but also to be prepared for future challenges. Therefore, a holistic framework needs to encompass not only a market-wide perspective but also an economic activity view with regards to individual firms. Macro-elements, together with micro-prudential ones are providing together for a robust framework, which then can be complemented by recovery and resolution schemes as well as insurance guarantee schemes as a last resort in a gone concern environment. Not only financial stability is in the focus of such macro regulatory activities but also individual consumer protection objectives, which sometimes may be in tension to each other. Overall, sustainable insurance businesses and markets support a sustainable economy and thus financial stability overall. ◆

Impulse Statement
Systemic Risks: A Challenge to a Sustainable Insurance Business Model?

Francesco Mazzaferro, Head of the Secretariat, European Systemic Risk Board (ESRB)

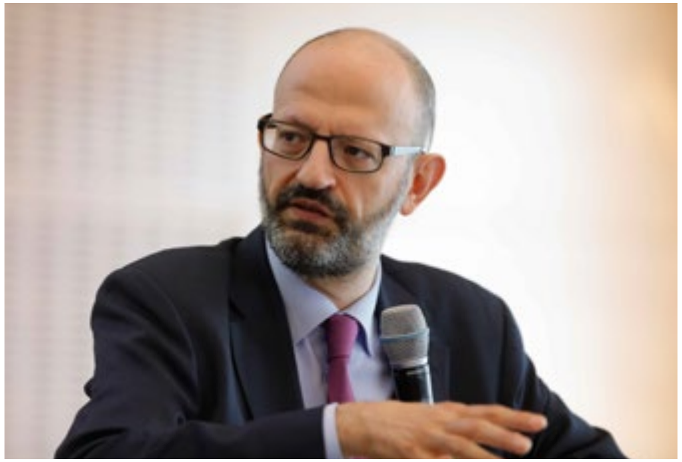
Panel III
Micro Meets Macro: A Holistic Framework for Systemic Risks in the Insurance Sector

- How can the holistic framework be best implemented in practice? What is needed forits smooth functioning and implementation assessment from a global perspective?
- How can the holistic framework contribute to a sustainable and robust market and financial stability?
- Which differences will we see in the monitoring of the policy measures and their assessment and how can risks arising from such differences be mitigate

Panelists:
Jonathan Dixon, Secretary General, International Association of Insurance Supervisors
Helmut Gründl, Chair of Insurance and Regulation, Goethe University
Francesco Mazzaferro, Head of the Secretariat, European Systemic Risk Board (ESRB)
Cristina Mihai, Head of Prudential Regulation and International Affairs, Insurance Europe
Hiroshi Ota, Deputy Commissioner for International Affairs, Japanese Financial Services Agency

Moderator:
Steven E. Seitz, Director, Federal Insurance Office, U.S. Department of the Teasury

Panel III
Micro Meets Macro: A Holistic Framework for Systemic Risks in the Insurance Sector



In his impulse statement **Francesco Mazzaferro, Head of the Secretariat of the European Systemic Risk Board**, outlined the major risks to European Union financial stability and explained how they may affect insurers. He pointed out that insurers under certain circumstances - although they are specific entities with particular risk-bearing capacities - could be affected by systemic risks or even contribute to amplify systemic risks. According to Mazzaferro, to make business models of insurers more resilient, a comprehensive regulatory framework is needed, which supports and complements the existing micro-prudential policy tools such as Solvency II via a macro-prudential policy. Furthermore, he advocated a recovery and resolution scheme to ensure orderly failures of distressed insurers and to provide for loss compensation for policy holders in the event of insurance insolvency.

MICRO MEET MACRO: A HOLISTIC FRAMEWORK FOR SYSTEMIC RISKS IN THE INSURANCE SECTOR

The subsequent panel moderated **Steven E. Seitz, Director; Federal Insurance Office of the U.S. Department of Treasury** discussed how a holistic framework for the insurance sector could contribute to financial stability. The panellists from insurance, academia and regulators agreed on Mazzaferro's assessment that a holistic framework is needed to address potential systemic risks in the insurance sector. However, different views were expressed on the questions what the holistic framework should encompass and how it could be best implemented in practice.

ALIGNED MICRO- AND MACRO-PRUDENTIAL POLICIES

Jonathan Dixon, Secretary General of the International Association of Insurance Supervisors (IAIS) outlined that the IAIS has developed a holistic framework for assessing and mitigating systemic risk in insurance, which will be put to a vote at the forthcoming IAIS annual general meeting in Abu Dhabi in November this year. The IAIS' holistic framework takes into account that potential systemic risk can arise from both entity-based risks as well as from activity-based risks in insurance. Therefore, the framework aligns micro-prudential and macro-prudential policies. We are moving to an approach that combines system-wide risks arising from particular activities and exposures and potential systemic risks arising from the distress or disorderly failure of particular insurers, Dixon said. At the same time, according to him additional measures are needed, such as stress testing on company level and supervisory powers for intervention. Supervisors would need a broad toolbox of supervisory powers of intervention in response to different causes of systemic risks under different circumstances. Moreover, Dixon underlined that an integrated framework was needed, including the consistent and comprehensive implementation of those supervisory measures across global jurisdictions.

GLOBAL LEVEL PLAYING FIELD AND FLEXIBILITY IN IMPLEMENTATION

Cristina Mihai, Head of Prudential Regulation and International Affairs of Insurance Europe took the industry perspective, arguing that the tools provided by Solvency II were already sufficient to tackle potential systemic risks at the micro-prudential level. In her view, systemic risk in insurance can only originate from a very limited number of activities undertaken on a large scale in adverse conditions. Therefore, a greater focus on potential systemic activities of the insurance sector as a whole was warranted. We agreed that insurance is not necessarily systemic. However, some activities that may pose vulnerabilities. Let us identify them, measure them and find out, if they are relevant, she pleaded. Mihai called for a global level playing field, which ensures that all participating jurisdictions achieve comparable outcomes once the holistic framework has been approved and is being implemented. She insisted on the strict and consistent application of the principle of proportionality allowing all insurers to apply a measure with different expectations of granularity.

Hiroshi Ota, Deputy Commissioner for International Affairs at the Japanese Financial Services Agency also emphasised the need for flexibility in implementing the holistic framework. According to him, the supervisory measures to address systemic risks should be adjustable to take particularities of the insurance sector and the supervisory framework in the different jurisdictions into account. Otherwise, we will end up imposing unnecessary regulations for some jurisdictions, Ota stressed. Potential vulnerabilities of insurers such as the risk of illiquidity could differ from region to region depending on the composition of investment assets, he said. In Japan, a turmoil of international markets would directly affect Japanese insurers through the foreign currency markets, as the share of hedged foreign bonds in Japanese investment trust portfolios is relatively high.

DATA POOLING FOR BETTER RISK MODELS

Helmut Gründl, Chair of Insurance and Regulation at the Goethe University Frankfurt reminded that measuring risk is a prerequisite for managing risk and underlined the importance of research on systemic risk. He conceded that most research on systemic risk was based on regression analysis and produced inconclusive results. We do not have yet sufficient data to cover properly systemic risks in research, Gründl stated. He recommended the application of calibrated research models instead. Gründl presented the results of a research project, which estimates surrender rates of German insurance policy holders in the event of a sudden steep rise in interest rates. Our results show that a mass surrender is possible, Gründl said. However, according to the results the asset sale would take place over a couple of years. Therefore, a fire sale in insurance contracts due to economic shocks is rather unlikely, Gründl argued.

Mazzaferro pointed out that there had already been runs on insurances and insisted on stress tests for insurance companies. He urged for a continuous dialogue between the industry and the supervisors to share information. Micro and Macro need to come closer, he said. ◆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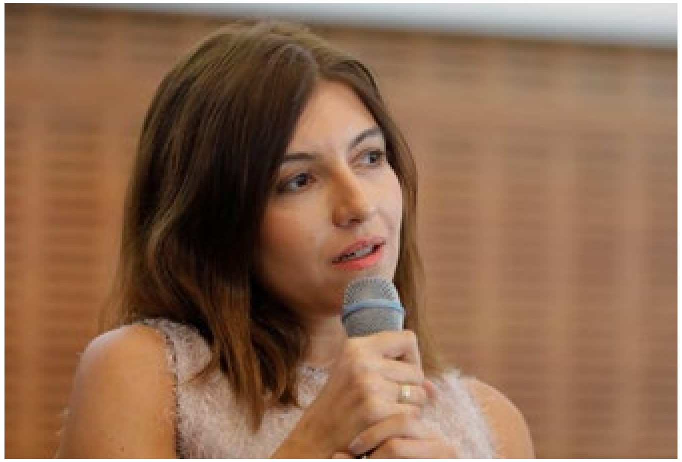

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Senior Advisor on International Affairs, EIOPA

Keynote Address
Outlook for Global Insurance Markets – Towards Sustainability

Greg Medcraft, Director, Directorate for Financial and Enterprise Affairs, OECD

Closing Remarks

Fausto Parente, Executive Director, EIOPA

In his keynote address, **Greg Medcraft, Director, Directorate for Financial and Enterprise Affairs, OECD** outlined the various risks arising from climate change and digital transformation highlighting the economic and social role of insurance in mitigating these risks.

He further illustrated how the insurance industry could meet expectations of policyholders while maintaining long-term value.

Medcraft expressed confidence that technological developments and a global regulatory environment will promote the industry's adaptation towards the new complex risk environment. According to him, the utilisation of big data and Artificial Intelligence (AI) will allow underwriters to offer innovative products and lower costs.

Moreover, he called for a greater use of the international reinsurance markets as it could absorb losses caused by natural catastrophes more easily compared to the domestic financial system. However, for accessing risk capital from international markets an appropriate regulatory framework is the precondition, Medcraft stated.

He continued by stressing the importance of policy in addressing the underlying risks of new technologies and called for cooperation and collaboration among governments to make sure insurance markets are fit for purpose.

Medcraft presented examples of the OECD's contribution to support governments, the insurance industry and regulators in building better policies for addressing the challenges of climate change and new technologies.
In order to keep pace with the fast-moving development in the insurance market, OECD would expand its research on possible coverage for cyber risks, Medcraft explained.
He concluded by emphasizing the relevance of the international dialogue in achieving a sustainable global insurance market.