

Conference Summary

INDONESIA RE INTERNATIONAL CONFERENCE (IIC) 2024

Accelerating Transformation in Insurance Industry:
Driving Growth, Strengthening Resilience

Prepared by:

CONTENT & SPEAKER WORKING TEAM
IIC Committee 2024



Content

A Glimpse of IIC 2024	01
Opening Statement Benny Waworuntu President Director of Indonesia Re	03
Panel Discussion 1 Navigating Data Engineering Challenges in Insurance Industry	10
Panel Discussion 2 Business Transformation in Insurance: Empowering Growth, Delivering Durable Impacts	38
Panel Discussion 3 Renewable Energy Insurance: Addressing Climate Risk	76
Panel Discussion 4 The Future of Insurance: Enhancing Enterprise Data Center as Corporate Strategic Enabler	119
Panel Discussion 5 Indonesia's Green Taxonomy: Ways to Achieve Economic Resilience and Global Sustainability	161
Final Summary	187

A Glimpse of IIC 2024

Currently, Indonesia and the world are in a state of uncertainty due to pressures, challenges and risks from various crises occurring on both nationally and globally. The impact of COVID-19 pandemic, global inflation, and unstable political conditions have caused market uncertainty and hardening which is still ongoing until today. While the emergence of these crises might lead to negative impact on the condition of the economic sector -including the growth and sustainability of the National Insurance Industry-, these crises also in fact have increase the world's awareness on the importance of insurance industry's role as part and backbone of the economic sector.

Insurance industry holds a very critical role in maintaining the rotation of the economy and the quality of life of people in a country. As the level of complexity of the problems facing the world is increasing, people's awareness and needs for insurance protection is also increasing. Hence, as time goes by, insurance industry needs to continuously increase its capacity and capability, as well as strengthen its resilience to face uncertainty and ensure sustainable industry growth.

For insurance and reinsurance companies, transformation is mandatory to maintain their competitive advantages, ensure their sustainable growth, and maintains their relevance in the industry. In the transformation perspective, a significant role of an insurance or reinsurance company is played by their implementation and advancement of data analytics, artificial intelligence, human resources, ESG, etc. Transformation is also needed by insurance and reinsurance companies to overcome challenges and seize promising opportunities to improve performance, boost business growth, provide the best service for customers, and strengthen resilience and sustainability.

A Glimpse of IIC 2024

(cont.)

The objective of achieving resilience and sustainability in the Insurance Industry can occur if resilience and sustainability are reflected in all components in the Insurance Industry ecosystem. Reinsurance companies as providers of extended capacity for insurance companies play a vital role in it. Optimizing reinsurance support and services is a key success factor in creating resilience and sustainability in the Insurance Industry as well as optimizing the insurance industry's contribution to achieving the Sustainable Development Goals (SDG) which have been agreed globally through all members of the United Nations (UN).

PT Reinsurance Indonesia Utama (Persero) as the National Reinsurance Company (Perusahaan Reasuransi Nasional, PRN) is committed on their role as a Center of Knowledge in the National Insurance Industry, one of which is through holding company's annual event entitled Indonesia Re International Conference (IIC). In 2024, PT Reinsurance Indonesia Utama (Persero) will also hold the **Indonesia Re International Conference (IIC) 2024** which is intended to be a means for the National Insurance Industry and all stakeholders in the economic sector to identify, describe, and analyze existing issues in the insurance sector and the economy at national and global levels critically and in depth, including discussing alternative solutions to these issues.

Opening Statement

BENNY WAWORUNTU

President Director of Indonesia Re

Assalamualaikum Warrahmatullahi Wabarakatuh.

Peace be upon you, shalom, Namo Buddhaya, salam kebajikan/greetings of virtue.

As we have known, Indonesia and rest of the world are still in a state of uncertainty due to pressures, challenges and risks from various crises occurring on both nationally and globally. The impact of COVID-19 pandemic, end of low interest rates, geopolitical conflicts, prolonged financial underperformance, heightened global natural catastrophic activity, and other relevant economic factors have induced the “re-balancing” of the global state.

The ever-persistent uncertainties might lead to negative impact on the condition of the economic sector -including the growth and sustainability of the National Insurance Industry. Government, regulator, business practitioners and other stakeholders have tried to map and implement some efforts to alleviate loss or to mitigate upcoming risks, this also include calling insurance companies to take bigger part in managing the risks.



Opening Statement (cont.)

BENNY WAWORUNTU

President Director of Indonesia Re

Therefore, reinsurance companies have systemic impact and have a stabilizing effect on the direct insurance industry and thereby on the economy overall. Reinsurers, together with insurance companies, holds a very critical role in maintaining the rotation of the economy and the quality of life of people in one country.

However, despite their pivotal role in the economy, it seems awareness about insurance industry, especially reinsurers, among public in general needs to be repeatedly and continuously shaped.

We indicate that public awareness on insurance industry mainly is still low due to loss of trust which is caused by insurance failure cases that are currently unresolved. Moreover, a series of revocations of insurance company business licenses by the Financial Services Authority (OJK) indicates the level of public vulnerability to insurance products. This make aspects of guarantees, default mechanisms, and aspects of increasing financial literacy and inclusion are important for stakeholders to pay attention to amidst the lack of public trust in the insurance industry.

Low trust of public on insurance industry is also aggravated by low penetration rate in Indonesia. The lack of rapid growth in the insurance sector can be caused by low use and severe public trust in insurance products. This is due to the problems that often arise in the insurance sector in the form of difficult claims processes, premiums that are not affordable by all groups, lack of public access to insurance products and the potential for default. This caused Indonesia's low insurance penetration (whole), which is only 3.18 percent of GDP by the end of 2022, and 0.5% for General Insurance in 2023.

Opening Statement (cont.)

BENNY WAWORUNTU

President Director of Indonesia Re

Another real bummer is how insurance fraud remains a widespread issue in Indonesia, costing businesses, insurers and consumers billions IDR each year. It entails intentional deception throughout the insurance process, from policy purchase to claims settlement. Health care insurance fraud, particularly medical fraud, stands out as one of the most financially burdensome fraud, followed by life insurance and property and casualty fraud. The impact of insurance fraud doesn't just affect businesses and insurers—it can also result in higher premiums for consumers.



Yet, despite the challenges, the insurance industry- especially reinsurance company- is very well known has a cut-throat competition. For a country with a very low insurance penetration, Indonesia has a fairly lot of insurance companies. In 2023 there are more than 75 General Insurance companies, more than 50 Life Insurance Companies; and 8 Reinsurance Companies fought over those insurance companies who contested for little pie of market. This raises an unhealthy competition among reinsurance companies, especially in terms of pricing,

Insurance industry also hit by another relevant economic factor, that is deficit in balance of payment. Indonesia recorded a deficit of 2.2 billion US dollars in the balance of payments the first quarter of 2024, which widened twice as much as the fourth quarter of 2023.

Opening Statement (cont.)

BENNY WAWORUNTU

President Director of Indonesia Re



There may be root of causes that make those issues happened.

Dig a little deeper, the problem of failure to pay in insurance companies may cause by the incapability of the company. There are some main-driver of the failure, such as insurance company management not implementing good corporate governance (GCG) in a prudent and disciplined manner. Insurance products sold sometimes violate the proper rules and regulations, give customers almost impossible promise, unreasonable benefits and investment returns to customers. In line with this, companies also sometimes do not carry out risk management in an inherent and strict manner.

Reinsurance companies often come to spotlight due to how weak its risk identification and selection. At its core, the fundamental objective of reinsurance is to manage and distribute risk transferred from insurance companies. Based on this ground, risk management in Reinsurance companies become very fundamental. However, due to high-level of competition, reinsurance companies seem to put aside proper risk management, and carrying out weak underwriting process and careless business acceptance.

Opening Statement (cont.)

BENNY WAWORUNTU

President Director of Indonesia Re

Beside the incapability, lack of capacity in insurance and reinsurance companies maybe one of the root cause. Insurers must in fact maintain enough capital to carry the risks that they underwrite. Should they take on more risk than they could afford to pay out in claims, then they would become insolvent in the event of total loss. As such, Insurers will purchase reinsurance to guarantee they have sufficient capital in respect of paying the claims.

Recognizing the importance of capacity in insurance industry, Financial Services Authority (OJK) through POJK 23/2023 has raised the minimum equity for insurance and reinsurance firms, reflecting the regulator's effort to strengthen the financial base of the insurance and reinsurance sectors in Indonesia. However, some insurance and reinsurance companies find that this regulation is challenging to meet.

Furthermore, insurance industry operates under the increased scrutiny of an ever-changing regulatory environment. Insurer and Reinsurers are expected to fully understand how changes at the regulation in state-level impact their organization, as well as meet customer expectations for substantial coverage with fair requirements and claims processes. Collaboration among insurers, regulators and other stakeholders will be key to help forge a path toward a consumer- and tech-centered future as insurers work to navigate the impact of AI, solvency strengthening issue, and climate change to provide proper coverage for consumers.

Opening Statement (cont.)

BENNY WAWORUNTU

President Director of Indonesia Re

From the explanation above, it is clear that reinsurance should be last resort of risk mitigation, and also as a backbone of the economy and country risk-manager. Reinsurance will manage the risks, to retain, to diversify and disperse those risks among the ecosystem.

Individuals and organizations lessen the impact of risks and prevent catastrophic financial losses by shifting the financial responsibility to the insurance companies. On the other hand, the insurance companies mitigate their exposure to large losses, ensuring their financial stability and ability to pay claims to reinsurance, and for that reason, the scheme between industry and insurance firms' risk management should also be mirrored between the insurer and reinsurer.

In essence, reinsurance is the bedrock of the insurance industry, ensuring that it can continue to offer protection and peace of mind to individuals and businesses, no matter how turbulent the seas of risk may become.



Opening Statement (cont.)

BENNY WAWORUNTU

President Director of Indonesia Re

Now that we know the importance of insurance industry, it is crucial for the industry to be resilient and sustainable. For insurance and reinsurance companies, transformation is mandatory to maintain their competitive advantages, ensure their sustainable growth, and maintains their relevance in the industry. In the transformation perspective, a significant role of an insurance or reinsurance company is played by their implementation and advancement of data analytics, artificial intelligence, human resources, green investment, ESG, etc. Transformation is also needed by insurance and reinsurance companies to overcome challenges and seize promising opportunities to improve performance, boost business growth, provide the best service for customers, and strengthen resilience and sustainability.

Through IIC 2024, Indonesia Re reopen the discussion space regarding the creation of resilience and sustainability in the Insurance Industry through transformation in an international event entitled Indonesia Re International Conference (IIC) 2024 with the main theme ***"Accelerating Transformation in Insurance Industry: Driving Growth, Strengthening Resilience"***.

Wassalamualaikum Warrahmatullahi Wabarakatuh.



First Panel Discussion

Navigating Data Engineering Challenges in Insurance Industry

Content:

- Implementation of PDP Law: Navigating the Era of Personal Data Protection in Insurance Industry
- Catching Up the Game: Increasing Data Governance and Knowledge Management in Insurance Industry
- Data-Driven Decision Making: Transforming Insurance Industry through Advanced Data Analytics

Moderator Introduction

BEATRIX SANTI ANUGRAH

Director of Development and Information Technology of Indonesia Re



Data engineering is the process of designing and building systems that let people collect and analyze raw data from multiple sources and formats. These systems empower people to find practical applications of the data, which businesses can use to thrive.

Companies of all sizes have huge amounts of disparate data to comb through to answer critical business questions. Data engineering is designed to support the process, making it possible for consumers of data, such as analysts, data scientists and executives, to reliably, quickly and securely inspect all of the data available.

In insurance industry, data engineering plays a crucial role in shaping operations, decision-making, and customer experiences. Hence, ensuring reliable and trustworthy data is a priority for Insurance companies.

But even though we do realize the importance of data in Insurance Industry, challenges remain.

The main challenge is how we can manage diverse data types, such as customer information, claims data, and policy details. The challenge lies in managing large datasets prone to human errors or inaccuracies. Best practices involve defining a single source of truth, whether it's an industry standard or an internal organizational standard.

Implementation of PDP Law:

Navigating the Era of Personal Data Protection in Insurance Industry



YUDISTIRA DWI WARDHANA ASNAR

Head of Informatics Program,
School of Electrical Engineering & Informatics, ITB

Executive Summary:

Insurance industry has the duty to protect customer data. This duty includes the responsibility to ensure the security of customers' personal data as to prevent misuse or violation of their privacy rights amidst the increasing incidents of personal data breaches experienced by both individuals and legal entities.

The PDP Law imposes a heightened need for insurance companies to bolster their data protection practices. This entails the fortification of measures to safeguard customer data against unauthorized access, disclosure, alteration, misuse, or loss.

Implementation of PDP Law: Navigating the Era of Personal Data Protection in Insurance Industry

Yudistira Asnar
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Disclaimer

- This session doesn't reflect my employer's views; and it is my personal opinion
- I am an Information Technology Geek
 - Not a lawyer
 - Not a GRC guy

A Brief on UU PDP No 27/2022

- Personal Data – data about individual that can be identified/identifiable (i.e., in solitaire or in combination with other data) directly/in directly through electronic/non-electronic system (IT/manual)

General	Specific
Full name, Gender, Citizenship, Religion, Civil Status, any personal identifiable information	Data about medical-health, biometric, genetic, criminal records, data about minor

A Brief on UU PDP No 27/2022 - Roles

- (Personal) Data Subject – whose data is being “managed”
 - Right: informed about how the data is being used, access-rectify-copy-transfer the data, object-limit-terminate to the processing
- Data Controller – who determines the purpose & means of processing personal data
 - Obligation: obtain lawful consent, implement appropriate security measures, respond subject access request
- Data Processor – who processes personal data on behalf of the data controller
 - Obligation: process data according to the controller’s objectives/instructions, implement appropriate security measures, assist the controller in fulfilling subject access request

A Brief on UU PDP No 27/2022 - Remark

- DPO – who is responsible to inform, monitor, assure the implementation of UU/Policy-related to PDP, consult & assure the compliance to UU PDP
- Personal Data Processing covers *collecting, management, analysis, storing, rectifying, updating, viewing, distributing, disseminating, publishing, deletion/removal*
- Punishment: administrative and criminal codes
- 3 x 24 hours
 - Notification for Data Protection Failure
 - Handling Subject Access Request
 - Deadline for Data Processing Termination/Limitation

Key Differences with PDP vs GDPR

- GDPR is for all EU residents' data
- GDPR penalty is only administrative fine
- Limitation to Transfer Personal Data outside of the jurisdiction
- GDPR specify stricter protection for special categories of personal data (i.e., biometric, genetic, religious)

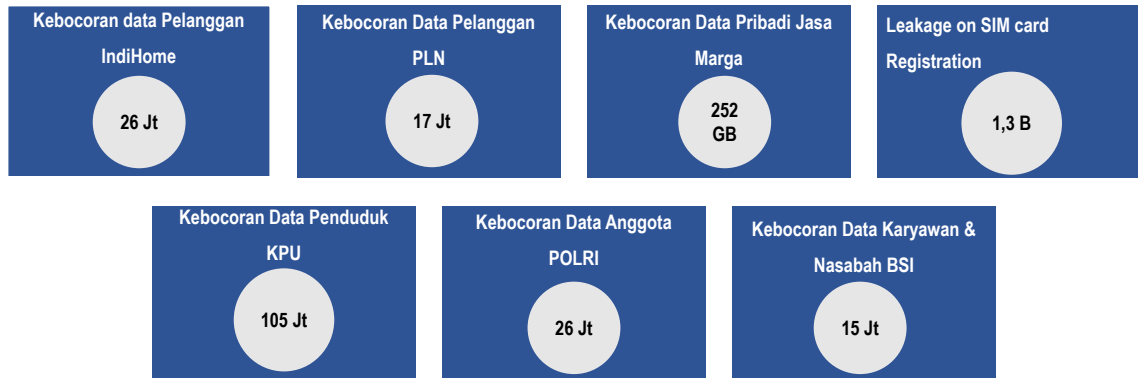
Key Differences with HIPAA

- HIPAA put focuses on health information-related data
- HIPAA allows some form of health information without individual consent with certain restrictions
- HIPAA is subjected to healthcare providers, plans, and clearing houses

Some forms of UU PDP Violation (Not complete sets)

- Collecting personal data without consent
- Failing to protect personal data
 - Failing to secure
 - Failing to notify
- Selling personal data without proper authorization
- Sharing/transfer/publish data that are still categorized as PII
- Failing to comply with subject access requests
- Failing
- Processing data beyond the stated proposed
 - Mining
 - Analytics
 - Storing

(Alleged) Personal Data Protection Incidents

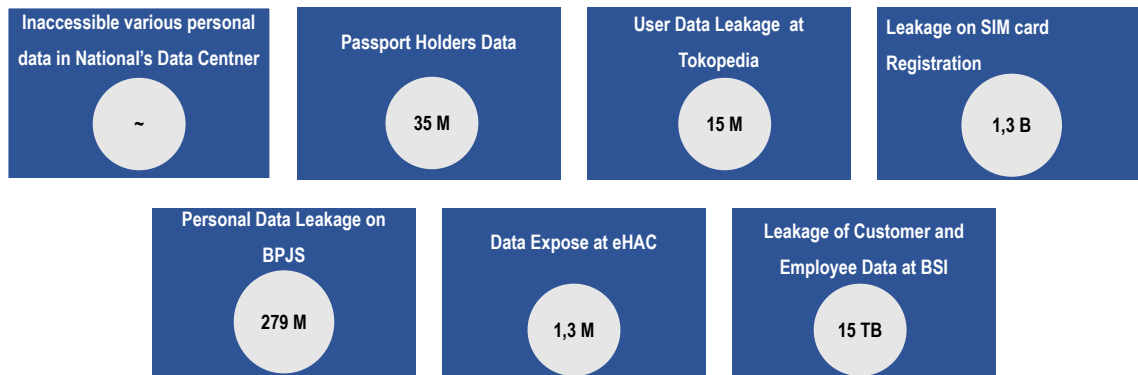


24 Juli 2024

IIC2024 - Yudis (C)

9

(Alleged) Personal Data Protection Incidents



24 Juli 2024

IIC2024 - Yudis (C)

10

Incidents in the Insurance Industry

- Reinsurance Group of America (RGA)
 - On October 16, 2023, RGA disclosed that it experienced a cybersecurity incident. An unauthorized third party gained access to certain technology systems of the company
 - Fortunately, based on the investigation, RGA does not believe that any client policyholder data was accessed or extracted. The company has been working to restore normal operations and communicate with clients about the incident
- Wilton Reassurance Life Company (PBI)
 - PBI suffered a data breach that impacted more than 1.2 million customers. Initially, about 371,359 individuals were affected, but later, it was revealed that at least 1,209,825 individuals were impacted².
 - The breach highlights the importance of robust data protection measures in the reinsurance industry.

Incidents in the Insurance Industry

- Fidelity Investments Life Insurance
 - On March 1, 2024, A 3rd breach at Infosys McCamish Systems compromised personal information of over 28,000 customers. The breach exposed customer names, states of residence, Social Security numbers, dates of birth, and bank account details.
- UnitedHealth Group
 - On February 20, 2024, It suffered a massive cyberattack caused a nationwide outage in a computer system used for data transmission between healthcare providers and insurance companies. Some pharmacies were unable to process prescriptions
- Aflac and Zurich
 - In 2023, Cybercriminals compromised a 3rd contractor, resulting in the leak of personal information from more than 2 million Aflac life insurance and Zurich auto insurance policyholders in Japan.

CHALLENGES



Urgency of PDP Implementation:

The PDP Bill has been in discussion since 2018 and will be enforce at October 2024.

Continuous exploitation of data in this "Big Data" and "Artificial Intelligence" age, both with and without consent.



Lack of Awareness and Cyber Threats:

Many data controllers lack awareness of cyber threats. Despite the availability of international security standards (e.g., ISO 27000 series), not all entities implement them in Indonesia.

Even with secure systems, vulnerabilities persist, and cyber threats evolve. Data controllers must continually improve their security measures.



Data Breaches and Impact on Critical Sectors:

In 2022, over 21,000 companies in Indonesia experienced data breaches, affecting critical sectors like healthcare, finance, e-commerce, and utilities.



Balancing Risk Coverage and Premiums:

As an insurance company, it creates an opportunity and challenge in pricing cyber risk coverage accurately. Historical data related to cyber incidents is often lacking, making it difficult to set premiums.

The nature of cyber risk constantly changes, requiring continuous rate adjustments to keep up with emerging threats.



Access to Security Information for Underwriting:

During the underwriting process, insurance companies need information about the security systems of corporations. However, obtaining this data can be challenging.

Ensuring proper electronic system security and assessing risk accurately are crucial for effective underwriting.

Pivotal Initiatives

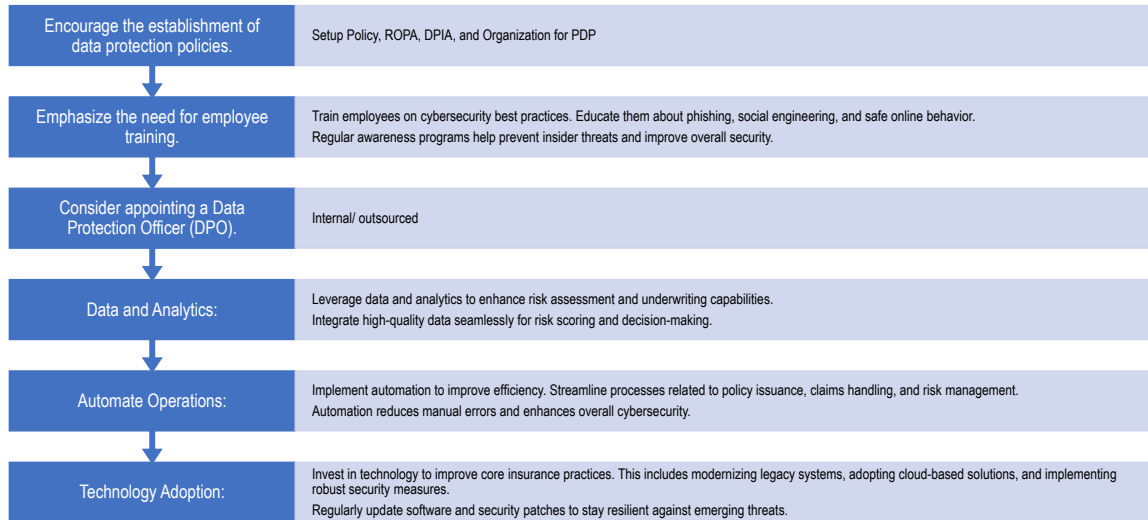
As Company

- Implement Incident Response
 - Is the incident really happening?
 - Which individuals are affected?
- Manage 3rd parties as data processor
 - Proper personal data processing
 - Appropriate protection on personal data
- Obtain sufficient consent
 - Businesses don't tell really what they do
 - Customers don't respond to the inquiry

As Business

- Keeping historical information on data breach
- Defining methods to apprise the cyber risks during the underwriting process

Quick and Dirty



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15

Thank you and sorry for anything incorrect or inappropriate things

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16

Q&A Session

Question:

Can insurers share insureds' names with reinsurers under PDP Law? Some insurers refuse to do this, but names are crucial for aggregating risk across different insurers.

Answer:

Yes. When you deal with an insurance agreement you should share your data and underwrite the risk.

Question:

In Indonesia's PDP Law, is there a difference between handling of General and Specific personal information?

Answer:

Of course there's a difference. Specific personal information handling requires a higher level of protection due to its sensitive nature, such as genetic, biometric.

You cannot change your specific personal information.

Conclusion:

From Bapak Yudistira, we learn that UU PDP No. 27/2022 has mention several aspects related to personal data protection, such as information that considered as personal data, both on general and specific information; roles of data subject, data controller, and data processor, and punishment and sanction. We also learn some differences between UU PDP, GDPR, and HIPAA, even they seem familiar at glance.

Personal data itself is classified into general and specific, and (re)insurance company has to put a concern on both. Since legislation is very technical, everyone involved has to understand IT and law. Beside, data processing is also a highlight to be concerned, since data processing consist a long process from data mining, analytics, and storing.

In 2022-2023, there are some incidents regarding data in the Insurance Industry. Hence, it becomes an urgency for us to implement PDP Law, since PDP Law will be our legal standing against upcoming digital challenges and cyber risks.

Catching Up the Game:

Increasing Data Governance and Knowledge Management in Insurance Industry



ARIF PERDANA

Associate Professor and Director of the Action Lab Research Network at Monash University

Executive Summary:

Data governance plays a pivotal role in managing the deluge of data and ensuring regulatory compliance. It encompasses processes that support Omni-channel operations, risk insights, process automation, and analytics.

Knowledge management is crucial for claims processing, providing portals or service centers that streamline interactions between policyholders and insurers. The insurance sector's reliance on timely, accurate information to underwrite policies, manage claims, and provide exceptional customer service further accentuates the significance of robust Knowledge Management solutions.

Data Governance and Knowledge Management in Insurance Industry

Arif Perdana, PhD

Director Action Lab, Indonesia

Associate Professor, Faculty of IT, Monash University



What is Data Governance?

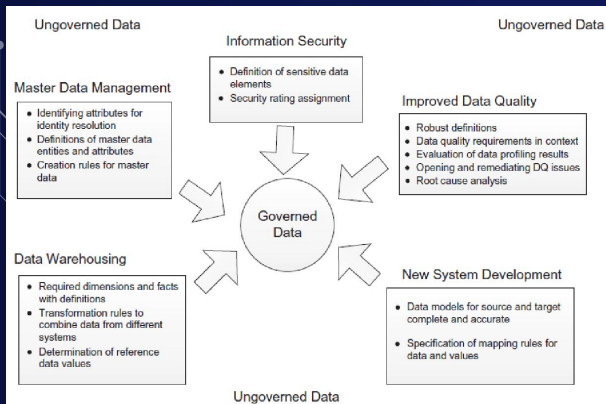
Data governance is a framework of people, processes, and technologies that ensures data is managed effectively and used responsibly throughout its lifecycle to achieve organizational objectives.

"Organizations today generate more data volume and variety than ever before. As executives look to transform their enterprises into more data-informed and future-ready postures, they must employ modern data governance...by design and not as an afterthought."

—Jim Cushman
CPO of Collibra



Why is Data Governance?



Plotkin, 2014

Data

Effective Data Governance

Ineffective Data Governance

Data Improvement

Data Degradation

ASSET

LIABILITY

Mahanti, 2020

How is Data Governance?

- Data Owner (Strategic), Data Stewardship (Tactic), Data Custodian (Operational)
- Data Accessibility: Ensuring that data is available and easy to consume by the business functions that require it.
- Data Security: Ensuring data is classified according to its sensitivity and defining processes for safeguarding information and preventing data loss and leakage.
- Data Quality: Ensuring data is correct, consistent and free of "noise" that might impeded usage and analysis.
- **Data Knowledge:** Ensuring data is clearly structured, documented and labeled, enables easy search and retrieval, and is compatible with tools used by business users, and can generate insights.



Data Governance and Knowledge Management

Data governance provides the **foundational framework** for ensuring that the data used in knowledge management initiatives is **trustworthy, secure,** and **compliant with regulations**, thereby supporting effective knowledge creation and utilization across the organization.

Knowledge management focuses on **extracting** and **applying the knowledge embedded within that data** to drive organizational success.



Guardians of data: TruMe Life's continuous quest for data protection

Ratna Januarita¹, Indra Fajar Alamsyah¹ and Arif Perdana² 

Abstract

Over the past decade, Indonesia has witnessed a surge in data breaches, raising questions about its data-protection approach. Notable breaches include those in the health, energy, utility, e-commerce, and financial sectors. Recognising this precarious situation, the government passed Law No. 27 of 2022 on Personal Data Protection (UU PDP) in 2022, emphasising individual data rights and promoting accountability among data controllers. This case study describes the data governance, focussing on the Indonesian insurance firm, TruMe Life (pseudonymised), which adheres to international standards and Indonesia's UU PDP. This case underscores the criticality of robust data governance in ensuring compliance and operational efficiency and bolstering customer trust in insurance, culminating in implications for research and industry practices.

Keywords

Data governance, insurance, personal data protection, risk management, Indonesia, biographical note

Critical Importance of Data Governance in Insurance



Protection of Sensitive Information: Effective data governance in insurance companies safeguards sensitive personal data like medical records and financial information, preventing breaches with severe legal and financial consequences.

Regulatory Compliance: Data governance frameworks ensure that insurance companies adhere to stringent data handling and privacy regulations, such as GDPR and Indonesia's Personal Data Protection law, thus avoiding fines and legal issues. Enhanced

Customer Trust: By responsibly managing data and ensuring its security, insurance companies build customer trust, a critical competitive advantage that significantly impacts retention and satisfaction.

Risk Management: Effective data governance supports the insurance industry by identifying, evaluating, and mitigating risks associated with data handling and processing, ensuring operational stability and integrity.

Unique Aspects of Data Governance in the Insurance Industry



Complex Data Processing Needs: Insurance firms require sophisticated data governance to accurately manage complex datasets used for determining policy premiums, managing claims, and assessing risks across various applications.

Integration with Core Business Functions: In the insurance industry, data governance is integrally linked with core business functions like claim processing and risk assessment, making it a crucial component of operational efficiency and effectiveness.

Ethical and Privacy Considerations: Data governance in the insurance sector must navigate unique ethical challenges, ensuring fairness and avoiding discriminatory practices in profiling and decision-making about coverage and premiums.

Legal and Regulatory Scrutiny: The insurance sector's data governance faces intense regulatory scrutiny due to the sensitive nature of the data, making it essential for compliance and legal risk management.

High Stakes in Data Breaches: Data breaches in the insurance industry carry high stakes, potentially leading to significant financial losses and long-lasting damage to a company's reputation and customer trust.

TrueMe Life Case



Category	Details
Data Governance and Compliance	<ul style="list-style-type: none">- Robust Framework: Aligns with international standards and Indonesia's laws, enhancing trust and efficiency.- ISO Principles: Focuses on legal risk management crucial for data protection and mitigating liabilities from breaches.
Knowledge Management and Information Security	<ul style="list-style-type: none">- Continuous Integrity and Security: Maintains data integrity through structured knowledge management, audits, and adherence to standards.- Employee Training: Ongoing education on data governance and security protocols to keep personnel updated.
Legal Risk Management	<ul style="list-style-type: none">- Risk Framework: Utilizes detailed risk management frameworks to mitigate risks associated with data governance.- Regulatory Adaptation: Proactively updates governance practices to remain compliant with evolving regulations.
Ethical and Human Rights Considerations	<ul style="list-style-type: none">- Data Privacy: Treats data protection as an extension of human rights, emphasizing ethical considerations.- Stakeholder Engagement: Engages with various stakeholders for transparency and accountability, enhancing trust and inclusivity in governance strategies.



THANK YOU!

Conclusion:

Data governance is a frame work, it is the responsibility for the whole companies. With existing regulatory like PDP in Indonesia, PDPA in Singapore that scrutinize the insurance industry due to the sensitive nature of the data, and the increasing data branch, we need to have a strong data governance.

If data was managed properly, it will became our asset, but if its improperly govern, then data will became a problem or a liability. Data governance provides the foundational framework for ensuring that the data used is knowledge management initiative is trustworthy, secure, and compliant with regulations. so it would be a effective knowledge creation.

Why is data governance critical in insurance?

First, it protects sensitive information. Second, it is a regulatory compliance. Third, it strengthens customer trust. Last but not least, data governance itself is a part of risk management in insurance industry.

Also, we learn that data governance in insurance has some unique aspects, such as complex data processing needs, integration with core business functions, ethical and privacy considerations, legal and regulatory scrutiny, and high stakes in data breaches.

From the example given by Bapak Arif Perdana, we could see True Me as a study case for a company who implement data governance and compliance with robust framework and ISO principles, continuously maintains data integrity and security, as well as employee training for education on data governance. True Me also utilizes detailed risk management framework and proactively updates governance practices, and they also treats data protection as an extension of human rights, and engages with various stakeholders.

Data-Driven Decision Making: *Transforming Insurance Industry through Advanced Data Analytics*



DELVI EKA PUTRA

Senior Customer Advisory at SAS Institute

Executive Summary:

With the advent of disruptive technologies and evolving customer expectations, insurance companies are under pressure to adapt and innovate to stay ahead of the game.

Insurers shall start to develop and use dynamic analytic platform to access accurate data consistently in order to increase confidence in the accuracy and timeliness of their data. With the help of advanced analytic tools and techniques, insurers could discover new ways to optimize policy pricing, streamline the claim process, and improve customer service.

With the dynamic analytic platforms, insurers can have competitive advantage against emerging InsurTech Providers and competitors who have yet to embrace a data-centric approach to their business workflows.



Data Driven Decision Making: Transformation Insurance Industry Through Advanced Data Analytics

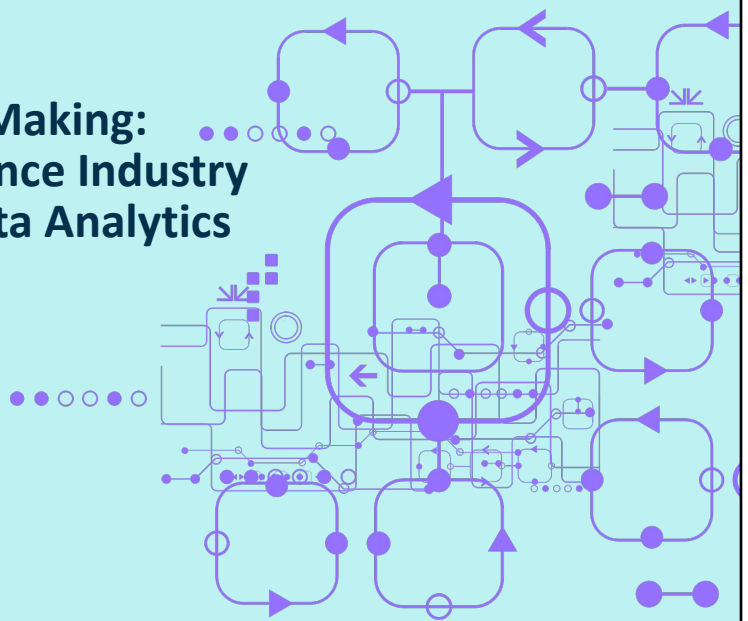
SAS® Advanced Analytics

July 24th, 2024

Delvi Eka Putra

Principal Customer Advisory Solution Architect

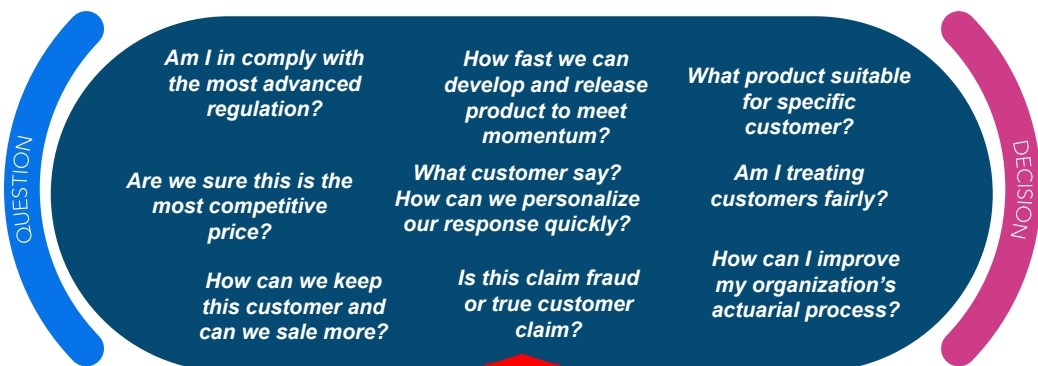
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Highly Regulated and Competition in Insurance Industry

Push Insurance Company to Review Their Business.



Push Factors

Compliance: Climate, IFRS, etc.

Government Regulation

Competitor

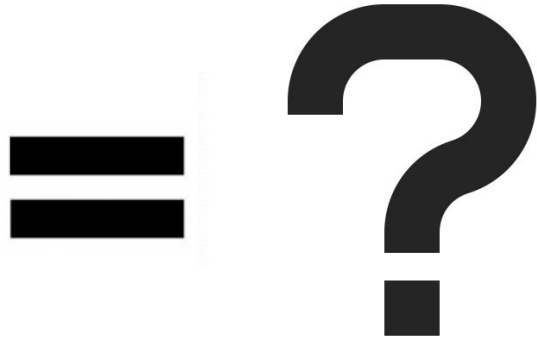
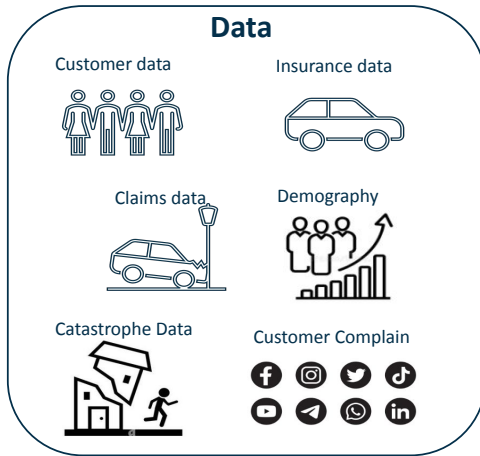
Investor Trust

Customers Trust



How Can We Start Transformation Process?

Data Alone doesn't drive your insurance. Decisions do.

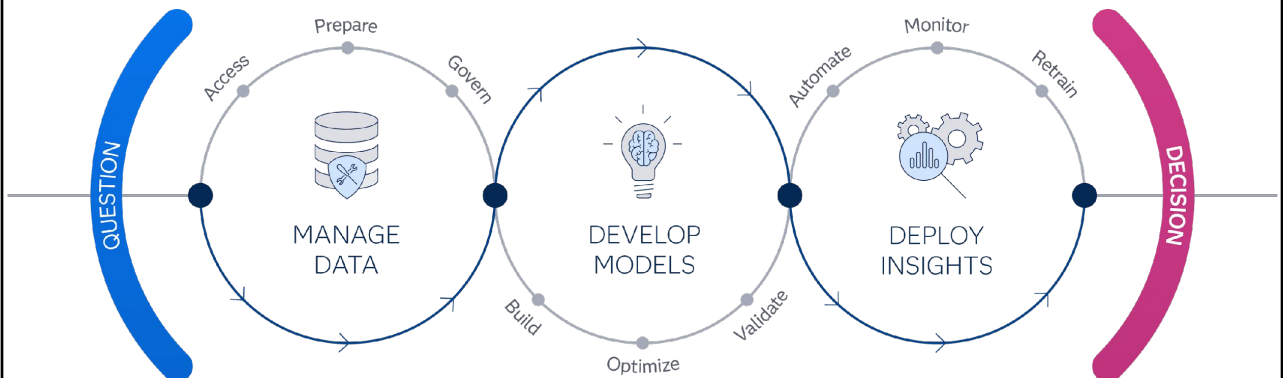


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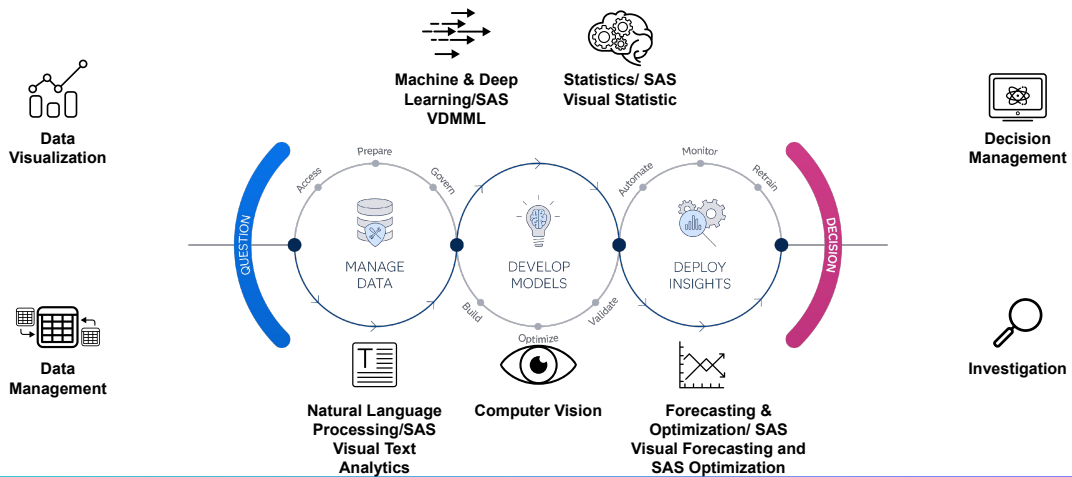


SAS[®] Advanced Analytic for Analytics Life Cycle

End-To-End Analytics Journey To Speed Up Taking Decision from Questions

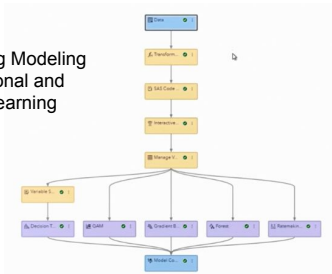


SAS® Advanced Analytic Platform



SAS® Dynamic Actuarial Modeling for Pricing Optimization

Multiple Pricing Modeling
both Traditional and
Machine Learning



Model	Model Name	Model Description	Model Type	Model Status	Model Version	Model Date	Model Owner	Model Contact	Model Notes
1	Model A	Model A Description	Model A Type	Model A Status	Model A Version	Model A Date	Model A Owner	Model A Contact	Model A Notes
2	Model B	Model B Description	Model B Type	Model B Status	Model B Version	Model B Date	Model B Owner	Model B Contact	Model B Notes
3	Model C	Model C Description	Model C Type	Model C Status	Model C Version	Model C Date	Model C Owner	Model C Contact	Model C Notes
4	Model D	Model D Description	Model D Type	Model D Status	Model D Version	Model D Date	Model D Owner	Model D Contact	Model D Notes
5	Model E	Model E Description	Model E Type	Model E Status	Model E Version	Model E Date	Model E Owner	Model E Contact	Model E Notes

Pricing Model
Comparison and
Champion

Insurance Pricing Optimization:

- Develop new tariff models using machine learning
- Bring tariffs into production much quicker
- Embed complex models for real-time pricing optimization
- Optimize renewal pricing using a dedicated algorithm
- Compare different scenarios in detail via an easy-to-use interface
- Analyze unstructured text data to assess new types of risk

What Benefit One Insurance in Europe Get from DAM Implementation:

- Reduce ratemaking costs by 50%
- Cut the cost of tariff changes by 20%
- Improve conversion rates by 5x with Real-time pricing
- Increase existing portfolio profits by 15–20% with renewal pricing optimization
- Increase overall profits by 1–3%



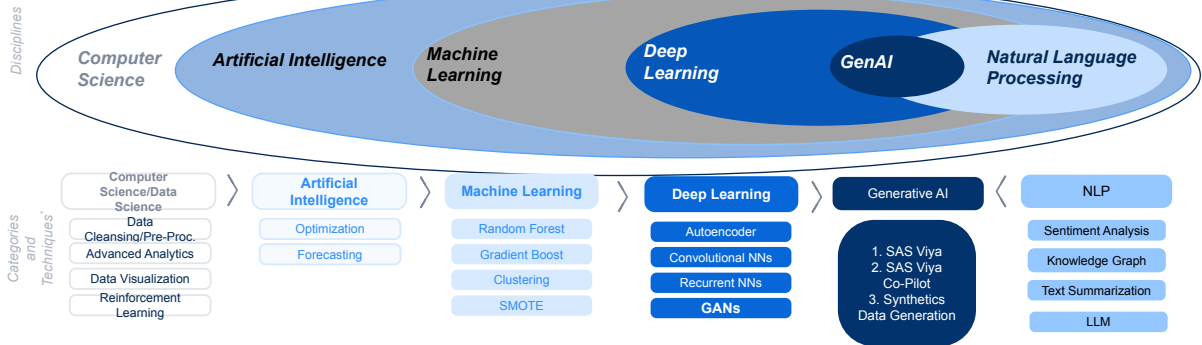
SAS Approach in Generative AI



SAS is equipped to be the *trusted partner* to help organizations to confidently succeed in the Generative AI journey, across different industries, regulatory scenarios and use cases



Generative AI (GAI) is a specific subset of AI algorithms designed to generate new content that closely resembles the data on which it's trained.

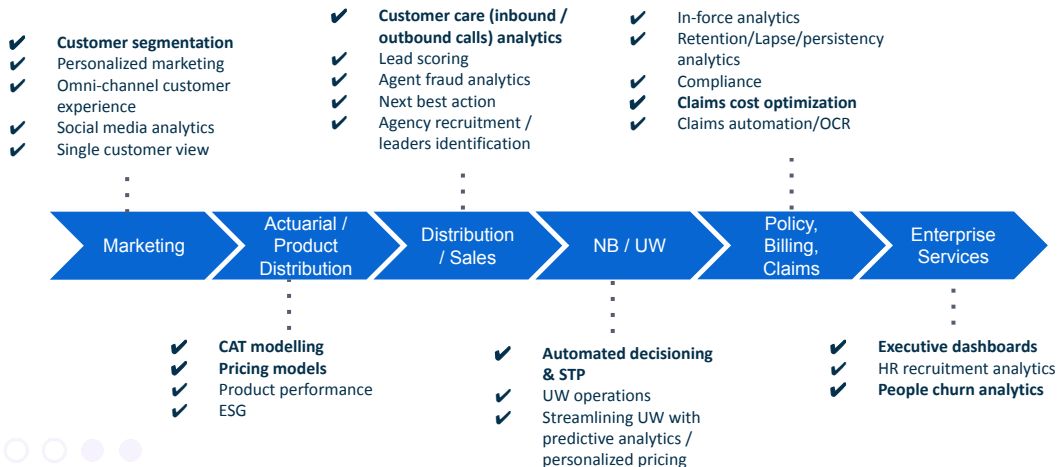


Generative AI in Action with SAS:

1. Viya: Explain, Govern, Orchestrate LLMs
2. Viya Co-Pilot: Accelerate AI Lifecycle / Industry/ Business Tasks using SAS end-to-end Analytics platform
3. Synthetics Data Generation: Mitigate Data Quality and Scarcity. SAS concern to the quality of data, sensitivity/privacy of the data, enough/not enough data



Key use cases across Insurance value chain



Key Take Aways

1

IFRS17 Should become starting point for transformation to increase revenue generation, operation excellent, and risk mitigation

2

Data is extremely valuable..... If only can bring actionable insight

3

Analytics is the only way to speed up getting decision from business question

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Thank You

www.sas.com

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Conclusion:

From Bapak Delvi, we learn that there are several questions that drive transformation in insurance industry, such as what product suitable for specific customers and how can we improve our organization's actuarial process.

However, data alone doesn't drive insurance, but, decision do.

That's why we need analytic platform which able to provide end-to-end analytics journey, from data preparation to analytics and intelligent decision making.

Regarding data in (re)insurance company:

- We need to ensure the data from our portfolio is clear and not contains any fraud
- We need to ensure that our data is well-managed and not scattered
- We need to ensure that our data is 'analytic ready', not just 'statistic ready'. That's how we ensure our data is useful to grow our business. Because, analytics is the only way to speed up getting decision from business question
- IFRS 17 should become starting point for transformation to increase revenue generation, operation excellent, and risk mitigation



Second Panel Discussion

Business Transformation in Insurance: *Empowering Growth, Delivering Durable Impacts*

Content:

- Insurance Digital Transformation: Disrupting and Innovating
- Digital Underwriting: The Benefits and The Challenges
- How IFRS 17 Transform Insurance Business

Moderator Introduction

MARIA ELVIDA RITA DEWI

Director of Finance and Actuary of Indonesia Re



Business transformation in the insurance sector has become a necessity for empowering growth and delivering durable impacts. In an era of rapid technological advancement and evolving customer expectations, insurance companies must adopt a holistic approach to transformation.

This involves not only integrating cutting-edge technologies such as artificial intelligence, machine learning, and blockchain but also reengineering business models, optimizing processes, and enhancing the customer experience.

It's not just about adopting new technologies but about transforming business models, processes, and the customer experience to meet changing market demands and expectations.

Furthermore, the implementation of regulatory frameworks like IFRS 17 demands greater transparency and accountability, pushing insurers to innovate and adapt swiftly. Ultimately, successful business transformation enables insurance companies to remain competitive, build resilience, and achieve sustainable growth, ensuring they meet the needs of their customers and stakeholders in a constantly changing landscape.

Insurance Digital Transformation: *Disrupting and Innovating*



HEMANT NAGPAL, CPCU ARE CCRA

Regional Director,
Head of Catastrophe Analytics – Asia Pacific,
Gallagher Re

Executive Summary:

Insurance digital transformation refers to the comprehensive integration of digital technologies into all areas of an insurance business, fundamentally changing how they operate and deliver value to customers.

Automation is reshaping the insurance sector from underwriting to policy administration. Machine learning algorithms can automate routine tasks, drives efficiency, and deliver enhanced customer experience.

On claim process: automation and data analytics streamline cumbersome paperwork, reducing the time to settle a claim, reduces potential for errors, and wrestling in a win-win for insurers and customers.

Data analytic tools armed with machine learning could initiate predictive model detects and proactively prevent fraudulent activities. It is essential considering Insurance Industry is an industry where credibility is currency, while fraud detection and prevention are pivotal.



Indonesia Re IC 2024: InsurTech Innovations & Disruptions

Hemant Nagpal
24 July 2024



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Agenda

01

Introduction

The current state of the InsurTech market

02

AI & The Insurance Value Chain

How InsurTechs are transforming the insurance value chain

03

Case Studies

Examples of InsurTech disruptors



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INTRODUCTION

Gallagher Re's Global InsurTech Practice

Our InsurTech advisory and reinsurance solution practice bridges the gap between the insurance and technology sectors, enabling our clients to leverage our trusted network of vetted tech providers and in-depth specialist knowledge

Community of internal liaisons interwoven with Gallagher Re



>25 representatives
across 21 regions
in 10 countries



Conduct ongoing company
forensics of the global third-
party ecosystem



Comprehensive oversight of
the entire market, with over
2,500 companies on file



Rigorously vetted hundreds
of technology start-ups

Gallagher Re InsurTech Team



Andrew Johnston MA, Ph.D
Global Head,
Gallagher Re InsurTech



Freddie Scarratt ACII
Deputy Global Head,
InsurTech: UK, EMEA & APAC



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INTRODUCTION

Our InsurTech Proposition

We harness the right technology and look for business outcomes and opportunities for our clients



Client InsurTech Advisory

We offer clients advisory services to evaluate their InsurTech activities to date, state of the market, benchmarking and the implementation of an InsurTech based solution for any issues within their company.

This is mainly completed utilizing three expertise:

- Strategic advisory
- Technology assessment
- Business process optimisation



Specialised Reinsurance Solutions

Traditional reinsurance broking capabilities for full-stack InsurTechs and those aiming to become licensed:

- Capacity risk assessment
- Tailored reinsurance placement
- Claims management
- Nat cat and climate change analytics service



Thought Leadership

Since 2017, our quarterly **Global InsurTech Report**, written in collaboration with CB Insights, has been recognised as the **leading InsurTech reports available within the industry**.

Past InsurTech report themes:

- 2023: InsurTech funding lifecycles
- 2022: Geographic trends and regional idiosyncrasies

To view all InsurTech reports, please visit:

www.aig.com/gallagherre/news-and-insights/



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Introduction

The current state of InsurTech



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01

INTRODUCTION


InsurTech Terminology


The use of technology designed to **squeeze out savings and efficiencies** from an existing insurance model


INSUR • TECH


InsurTechs that are technologically enabled risk carriers.


InsurTechs that offer technology as a product and/or service to the (re)insurance industry.


 Artificial Intelligence


 Bots


 Big Data & High-Performance Algorithms


 Blockchain


 Cloud Services


 Internet of Things

 Human Computer Interfaces

 Mobile Solutions

 Hardware Analytics

 Quantum Computing



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INTRODUCTION

Current State of InsurTech

Whilst interest and activity do not seem to be slowing (quarterly InsurTech deals increased 7% q-o-q, from 100 in 23Q4 to 107 in 24Q1), the average size being written per deal is decreasing

A snapshot

US\$55 billion

has been invested since 2012

c. 3,000

InsurTechs engaging with the insurance space

> 50%

of total deals for product & distribution focused companies

c. 30%

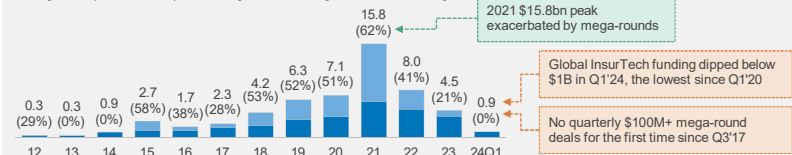
compound annual growth rate since 2012*

* Compound annual growth rate calculated for the period 2012 to 2023
Notes: Figures include both P&C and L&H InsurTech deals
Source: Gallagher Re Global InsurTech Report



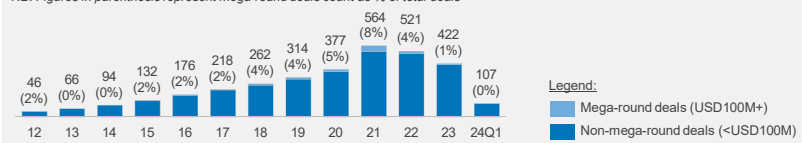
Global InsurTech funding volume (USD billion)

NB: Figures in parenthesis represent mega-round funding as % of total funding



Global InsurTech transaction count

NB: Figures in parenthesis represent mega-round deals count as % of total deals



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INTRODUCTION

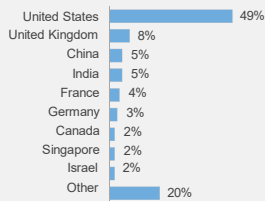
Current State of InsurTech

Significant downturn in later-stage deals throughout 2023

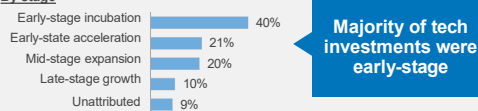
A snapshot: 2012 – Q12024

(Transaction Count: 3,299)

By country



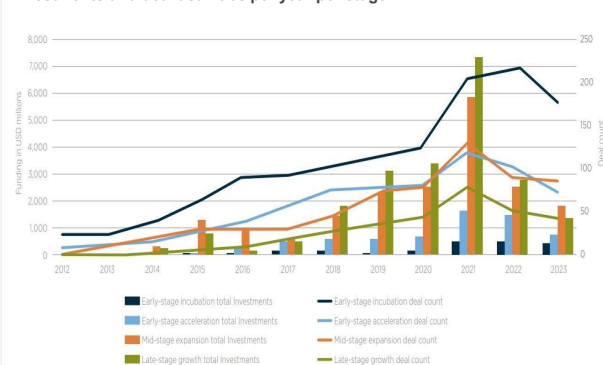
By stage



Notes: Figures include both P&C and L&H InsurTech deals
Source: Gallagher Re Global InsurTech Report



Investments and deal activities per year per stage

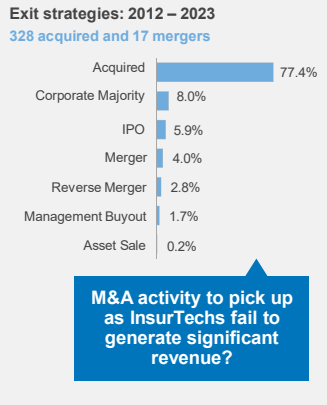


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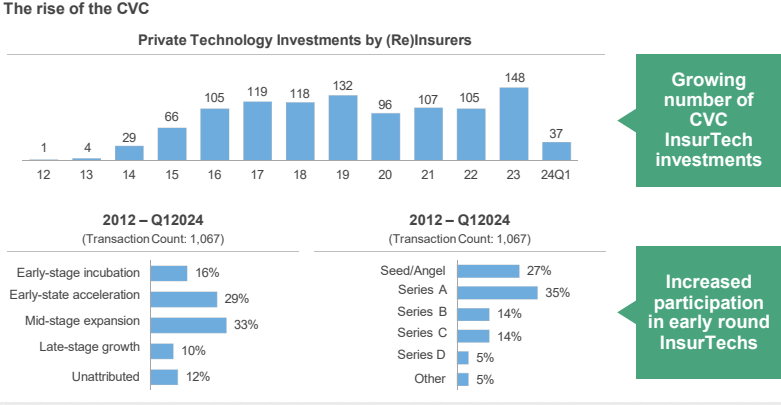
INTRODUCTION

What's Next?

Exit strategies & corporate venture capital (CVC) investments



Notes: Figures include both P&C and L&H InsurTech deals
Source: Gallagher Re Global InsurTech Report



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AI & The Insurance Value Chain

How InsurTechs are transforming the insurance value chain

02

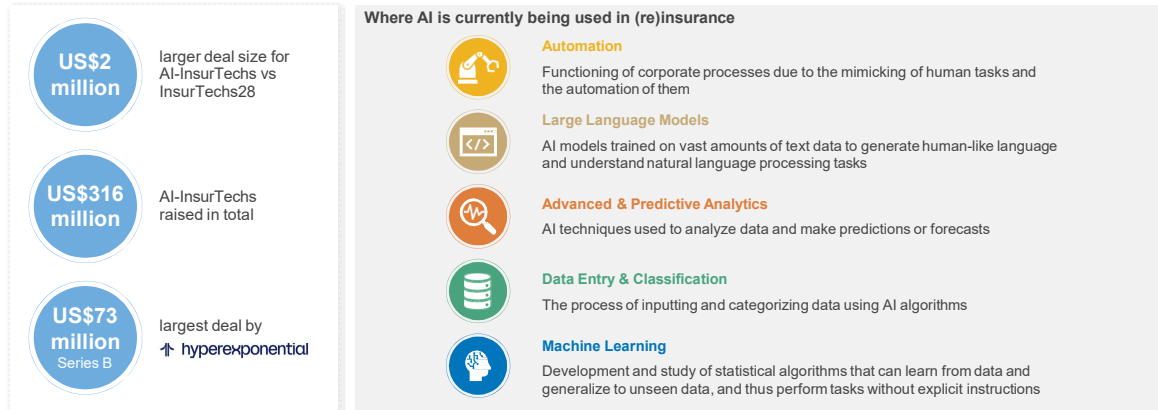


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AI & THE INSURANCE VALUE CHAIN

AI – Hype or The Real Thing?

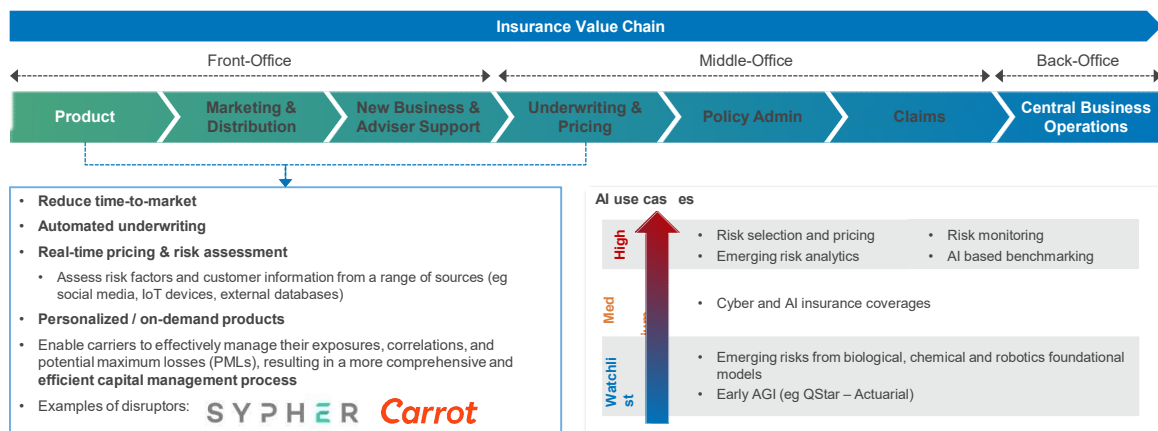
28% of Q1 2024 InsurTech deals went to AI-Centred InsurTechs



AI & THE INSURANCE VALUE CHAIN

Transforming the Insurance Value Chain

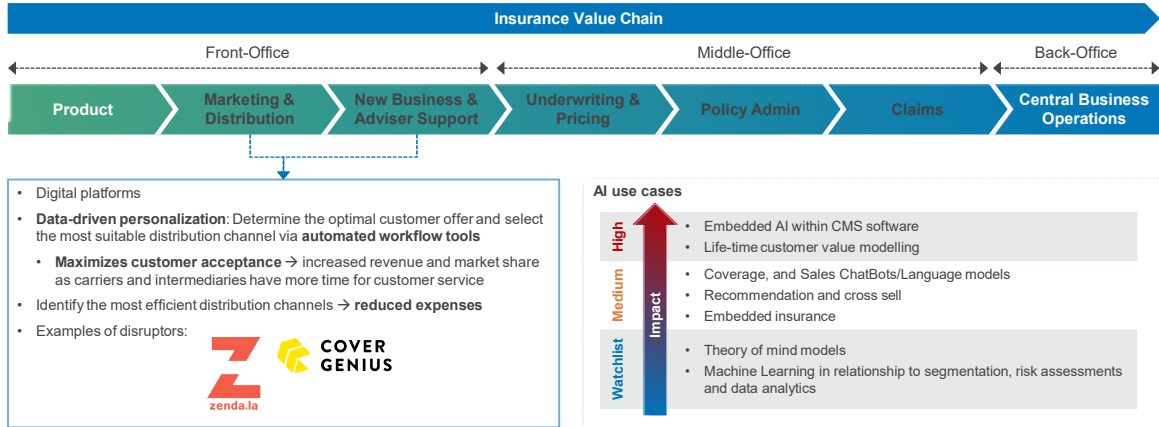
InsurTechs are driving a shift in thinking across the entire insurance value chain by leveraging AI and data analytics



AI & THE INSURANCE VALUE CHAIN

Transforming the Insurance Value Chain

InsurTechs are driving a shift in thinking across the entire insurance value chain by leveraging AI and data analytics



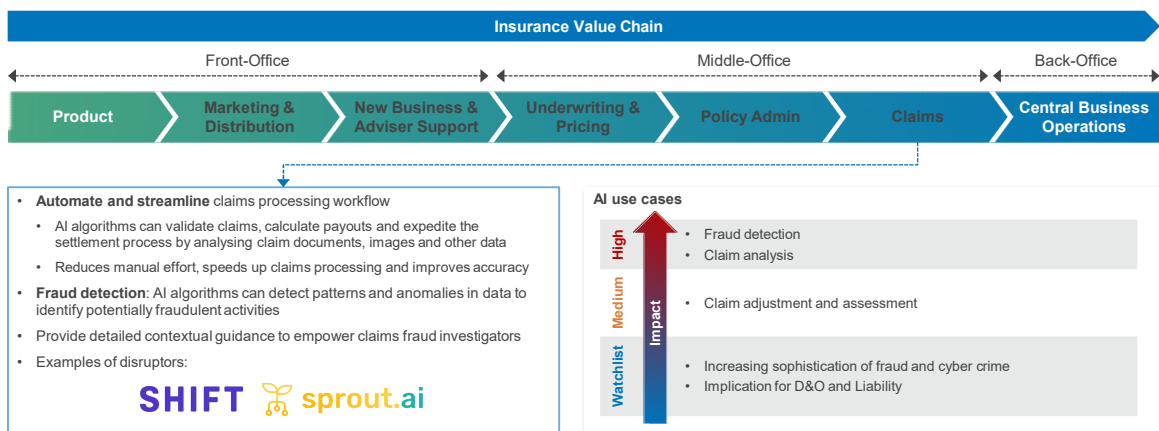
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AI & THE INSURANCE VALUE CHAIN

Transforming the Insurance Value Chain

InsurTechs are driving a shift in thinking across the entire insurance value chain by leveraging AI and data analytics



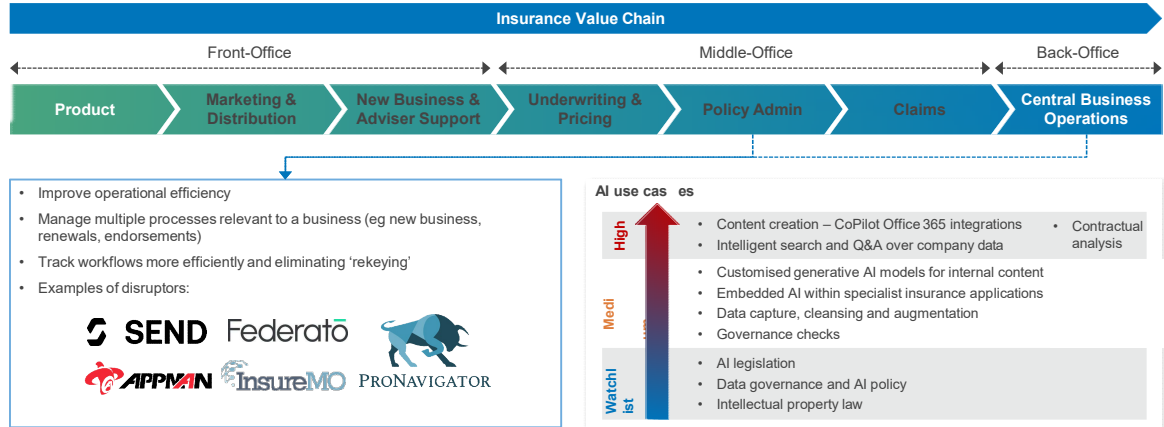
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AI & THE INSURANCE VALUE CHAIN

Transforming the Insurance Value Chain

InsurTechs are driving a shift in thinking across the entire insurance value chain by leveraging AI and data analytics



Case Studies

Examples of InsurTech disruptors

03

CASE STUDIES

InsurTechs in APAC (Non-Exhaustive)

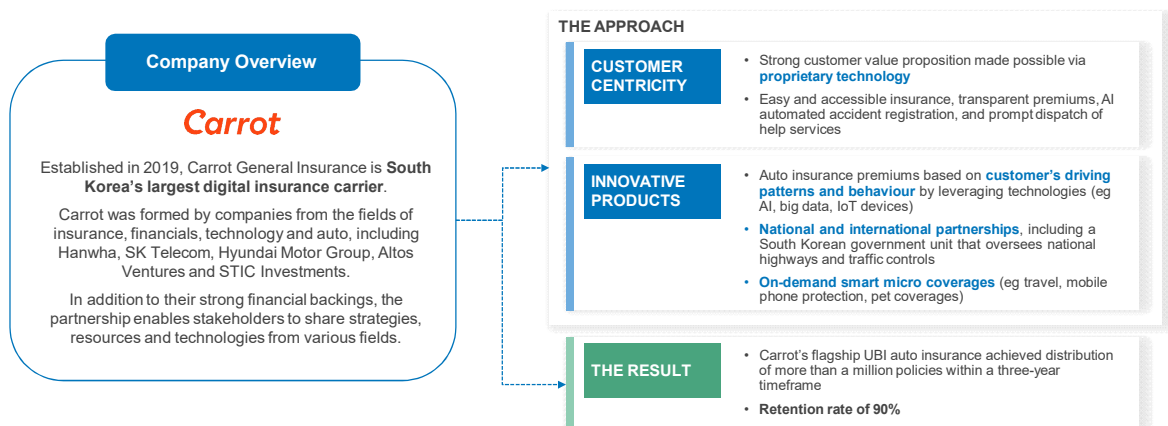


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CASE STUDIES

Case Study 1: Carrot

A full-stack 100% digital insurance carrier. Carrot has been disrupting the market with innovative products – its flagship usage-based auto insurance achieved distribution of more than a million policies within a three-year timeframe



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CASE STUDIES

Case Study 2: **bolttech**

A fast-growing internationally scaled InsurTech with a mission to build one of the world's leading technology-enabled ecosystems for protection and insurance

Company Overview

bolttech

Launched in 2020, bolttech provides access to **tailored and affordable insurance products** to consumers via partner platforms.

bolttech is an **AIFinTech100** company. Key investors include Tokio Marine, MetLife, Khazanah Nasional and LeapFrog Investments.

Today, bolttech works with around **700 distribution partners** and **230 insurers** across more than **35 markets** in North America, Asia, Europe and Africa, with plans for expansion into the Middle East market.

THE APPROACH

AI & ADVANCED ML

- Deliver **data-driven insights** that are giving rise to new value propositions in **embedded insurance**
- An ecosystem-led business model that is transforming the future of insurance distribution

EXAMPLES OF USE-CASES

TAILORED PRODUCTS

- Product recommendation tailored to each customer's specific coverage needs and risk profile
- US: Applying **NLP technology** to process unstructured data and generate automated analysis in real-time, providing deeper insights into evolving customer behaviour

DYNAMIC CUSTOMER SEGMENTATION

- Based on multiple factors and criteria that are continuously changing over time
- **bolt Optimise**: bolttech's proprietary platform for omni-channel testing has been launched in multiple markets across the APAC region, enabling personalised customer engagements

REMOTE DIAGNOSTICS TOOL

- **Click-to-Protect (C2P)**: Award-winning computer vision-based screen diagnostic tool that uses interconnected AIs to assess the condition of any new or used smartphone, creating a new, AI-driven experience for device protection



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CASE STUDIES

Case Study 3: **Admiral** x Google Cloud

In February 2024, Admiral announced Google Cloud as its "strategic cloud partner", whose technology will be used to power the insurer's core insurance operations (incl. policy admin) and to improve Admiral's customer-facing mobile app

Company Overview

Admiral

Admiral is **one of the UK's largest motor insurers** and provides a range of other covers including home, pet, and travel insurance.

Google Cloud

Google Cloud, offered by Google, is a suite of **cloud computing services** including computing, data storage, analytics and machine learning.

It offers **artificial intelligence tools and services** to businesses under their Vertex AI platform, and to software developers under the Duet AI umbrella.

DATA & AI

- Data analytics, machine learning and generative AI capabilities
- Enable **data-driven decision making** across the organization

DIGITAL EXPERIENCE

- Using its centralized view of data to deliver **more personal and seamless digital experiences** to Admiral's customers (including personalized offers and tailored services)
- To bolster Admiral's digital channels

OPERATIONS

- Core policy management and billing platforms on Google Cloud
- Enable Admiral to rapidly scale its technology to meet customer demand and **improve its time-to-market** for new features

SKILLS

- Work with Google Cloud to upskill its employees in **cloud computing and data analytics skills**
- Ensure that Admiral will continue to take advantage of the latest cloud technologies and deliver innovative products and services



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CASE STUDIES

Market Views



InsurTech will both save the industry if we embrace it and call it innovation, or it will destroy the industry as we know it today... if we ignore it and treat it as disruption.



Jason Brown
Group Chief Underwriting Officer,
QBE Insurance Group



InsurTech is not a silver bullet – the real challenge for insurers is to become more innovative in their everyday business.

accenture Accenture Report



My parting advice is this: AI is a once-in-a-generation technology that can unlock sustainable differentiation for businesses, and empower individuals to set themselves apart in a highly competitive job market. But don't fall prey to trying to do too much all at once. You will need to accept risk as part of this journey and failure will certainly be a potential outcome.

But the benefits of being a leader utilizing AI will outweigh any potential downsides.



Adam Cherubini
Founder,
Bottom Line Consulting



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Thank you

Get in touch to let us know how we can help.



Hemant Nagpal
Regional Director
Head of Catastrophe Analytics – Asia Pacific
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It's the way we do it.

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Q&A Session

Question:

What is the role of digital transformation in transforming insurance industry, from a product-centric industry to customer-centric industry?

Answer:

Digital transformation is integral in shifting the insurance industry towards a customer-centric model. It's more like a natural progression. For example, before computer is such a rare item but now we can find it anywhere.

There's always a digital innovation with a lot of things right now. It's a natural progression where there will be an innovation that creates some product to overcome all of our needs.

So, digital transformation hopefully will always be the answer from what the customer needs. .

Conclusion:

InsurTech are two distinct terminology. The first one is 'insure', means InsurTech that are technologically enabled risk carriers, and Secondly, 'tech', means InsurTech that offer technology as a product and/ or service in the reinsurance industry.

From Mr. Hemant Nagpal, we learn that in the foreseeable future, Corporate Venture Capital (CVC) investments in InsurTech seems to be the next big thing, as insurers and reinsurers have increasingly made private technology investments. Those increasing number also happened to merger and acquisition exit strategies that seems to be picking up as the strategies investors choose when InsurTech fail to generate significant revenue.

We can't talk about InsurTech without talking about AI.

AI is a game changer in processing and analyze data. However, we should admit that AI still lacks of emotion and intuitions, which is humans trait

If we look at it specifically, for underwriting & pricing AI will help to reduce time-to-market, automated underwriting, real time pricing & risk assessment. For marketing and business advice, AI help with data-driven personalization to maximizes customer acceptance. For claims, AI help in automate and streamline claims processing and fraud detection. Lastly, for policy admin and central business operations, AI could improve operational efficiency.

Digital Underwriting:

The Benefits and The Challenges



NELSON THAM

Senior Specialty Solution Manager
Swiss Re

Executive Summary:

First thing first, we have to redefining underwriter, as the underwriter's role as a decision maker is evolving, current underwriters also have to take a role as data scientists due to their use of analytics to measure and manage risks.

The value of underwriters will depend on their ability to aggregate all of the data involving a customer, and then apply perspective and judgment when analyze the data.

The importance of data integration and data-centric environment to support the emergence of digital underwriter. Combining the power of analytics with professional insight of underwriters will be the key to deliver our customers the level of service they demand.

Digital Underwriting: The Benefits and The Challenges



Nelson Tham
Senior Solutions Manager Specialty



The world is changing

How the
world does
business

The way we
live our lives

How we look
after our
planet

Challenges of Digital Underwriting

Benefits of Digital Underwriting

- Engineering Digital
- Magnum



Challenges of Digital Underwriting

Challenges of Digital Underwriting

01

Data Security
Concerns

02

Regulatory
Compliance

03

Integration
Complexity

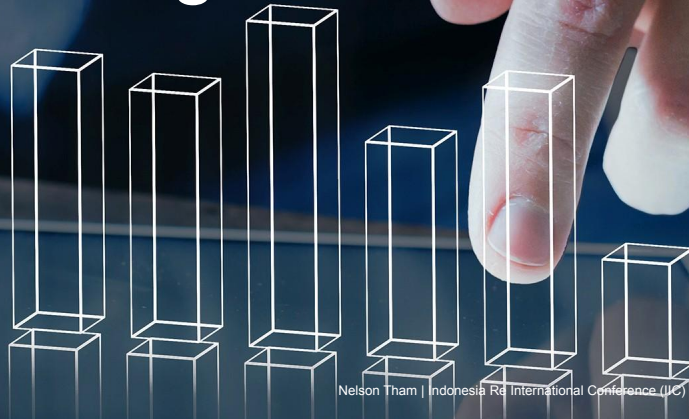
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Vendor Selection

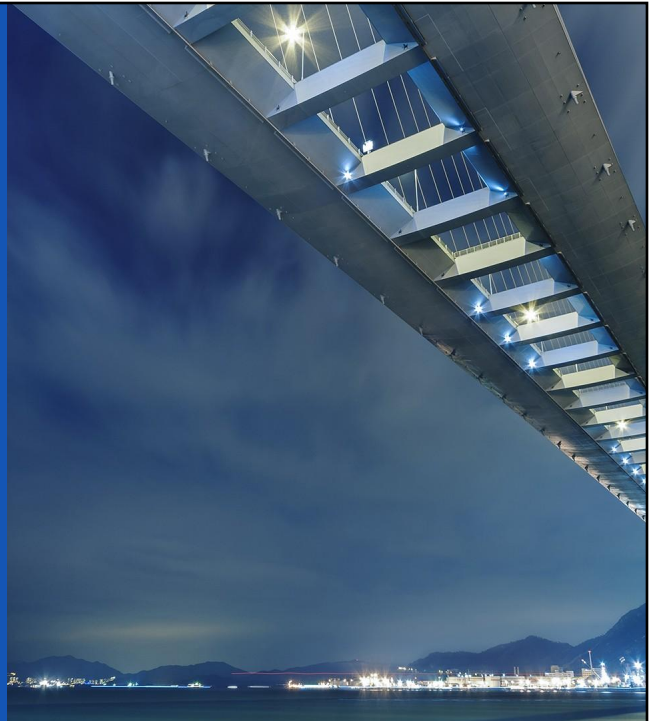
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Resistance to
Change

Benefits of Digital Underwriting.



Engineering Digital



Engineering Digital

Ecosystem

Integration with client and 3rd-party solutions possible



Expertise

UW Best Practice, data, RI capacity, product- and market knowledge



- Modular, component-based, flexible as per need of our client
- Integration of existing tools and processes possible through API's
- End-to-end coverage of the value chain possible
- Option to quickly adjust based on existing toolkit and scalable cloud infrastructure
- No fight for development or maintenance budgets
- Quickest possible roll-outs



9

Access to next-in-class expertise, technology and data

has become critical for improving the performance of a construction book



Growth

- **Distribution**, risk registration
- Design & introduction of **new products** on an up-to-date frontend (parametric, indemnity)
- **Recalibration** of own models "on-the-go"
- Digital risk advisory
- **Accuracy** of projections
- Exact costing as **baseline** for market pricing



Profitability

- **Best practice** underwriting **process**
- Access to Swiss Re's data and technical capabilities
- **Consistency** by working on one UW process
- Portfolio Dashboard to **pro-actively monitor, analyze, steer** the full exposure of the book
- **Capacity**



Efficiency

- **Collaboration & process** platform
- Tenant according top organizational needs/setup
- **Supports internal referral processes**
- **Quick** adjustments
- **Audit-proof**
- Simple access to **digitize** the book
- **Technical skills** can be leveraged

Technologies

- Cloud-based
- Certified, secure
- Tenant setup
- Modular
- Toolkit approach



Services

- 7x24
- Trainings
- Full support & maintenance
- No development/maintenance budgets needs



Ecosystem

- Options for integration
 - client systems, 3rd party
 - Add'l data sources
- API's
- Flexible



Magnum



Magnum The Swiss Re difference



- Our unrivalled risk insights, expertise & innovation.
- A Forrester Wave’s TM leading automated underwriting solution, exclusive to our clients.

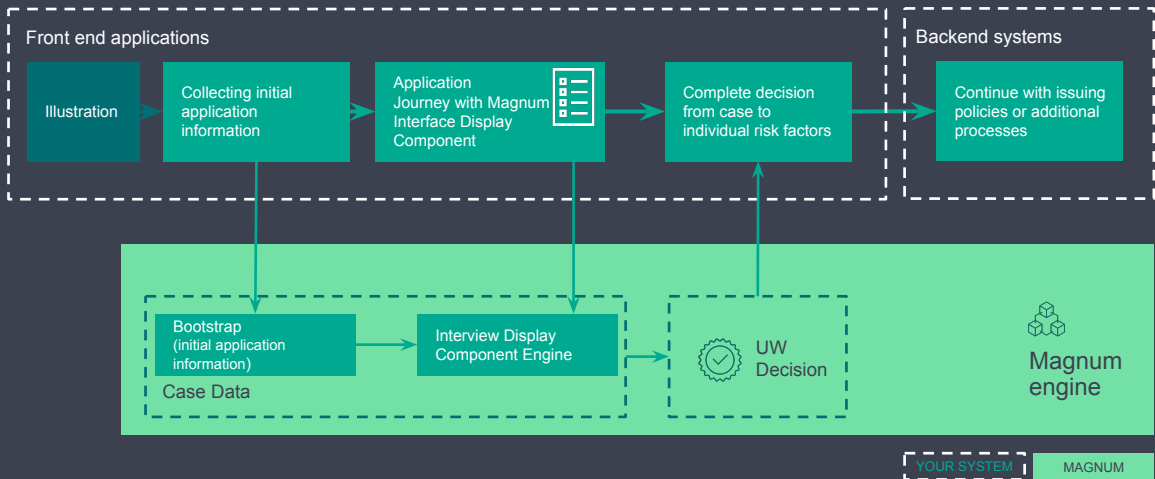
Benefit from
160 years
leading & shaping the industry, 30+ years in automation.

A solution that’s proven to deliver, globally
20+ markets, **60+** installations, **29** languages
20 installations in APAC region, **3** in Hong Kong and growing

How Magnum helped with different clients

1. Increase STP to achieve the targets
2. Fast time to market campaign and products
3. Up sell and cross sell for SIO, GIO and full underwriting products
4. AI and Analytics for product design and operation efficiency
5. Behavioural economic approach for better application journeys and disclosures
6. Horizontal scaling to achieve extremely high throughput (250,000 cases per hour)

Magnum: High level application flow



Magnum for the modern insurer to redefine your underwriting rules and risk management



Agility and Flexibility

React and adapt to change

Respond to new regulations, market demands, or internal policy changes without needing extensive IT involvement



Increased Efficiency

Optimizing resources

Reduces manual efforts, leading to faster business rule design, writing and testing



Improved Risk Management

Control over business decisions

Adjust rules in response to emerging trends or insights from data analytics



Enhanced Customer Experience

Deliver superior customer journeys

Build a seamless and easy customer journey that leads to high levels of completion and satisfaction



Empowering Self-sufficiency

Collaboration and control out the box

Scale at your pace – use Swiss Re rule management services or opt for full self-management



Compliance & Transparency

Testing & audit trails has you covered

Ensure high quality through tools and training that allows you to focus on what is important

Swiss Re Reinsurance Solutions
Partnering for progress

Our platforms,
Implemented your way





Thank you!

Contact us



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Q&A Session

Question:

The world is evolving, how can we ensure that digital tools like auto-underwriting also able lead us to profitable portfolio in upcoming future?

Answer:

In terms of auto underwriting, uw is the key process both in life and non life. Auto underwriting could cut with letting computer do the simple risk, and the uw more focus to the complex risk.

On the life side, they need things to move fast. Give quotations and know what we want. With auto underwriting we can have an efficiency and increase profitability

Conclusion:

The world is always constantly changing.

From how the world does business, the way we live our lives, to how we look after our planet. One of the significant changes in insurance industry is digital underwriting, which have challenges and benefits.

From Mr. Nelson Tham, we learn that one of the significant changes in insurance industry is digital underwriting, which have challenges and benefits. Access to next-in-class expertise, technology and data has become critical to improve performance.

When you find the right formula and method, engineering digital could bring growth, profitability, and efficiency. It needs cloud-based, certified, secure, tenant set-up and modular technologies, a maximal 7 x 24 services with trainings, full support and maintenance, with no development/maintenance budget, and an ecosystem with options for integration, API's and flexible.

How IFRS 17 Transform Insurance Business



ERSA TRI WAHYUNI

Associate Professor in Accounting,
Universitas Padjadjaran

Executive Summary:

IFRS 17 impact on the end to end reporting cycle is substantial. From sourcing data to publishing and disclosing results to the market. This involves core systems, Business Intelligence, and reporting solutions and it will lead to a review of system architecture towards a more integrated approach.

IFRS 17 introduces a new way for measuring insurance liabilities and recognizing insurance revenue. These calculation and disclosure requirements demand a new way of capturing, recording, storing, categorizing and reporting data pertaining to insurance contracts.

While IFRS 17 poses a range of challenges for insurers, it also represents an opportunity to redesign a strategy for data governance based on this new standard. IFRS 17 will introduce additional requirements regarding calculation and disclosure of various financial measures. The goal is to ensure high quality, understandable, enforceable, and globally accepted financial reporting standards based upon clearly articulated principles.

How IFRS 17 Transform Insurance Business (cont.)

The aim is to improve transparency and comparability of insurers' financial statements, regardless of sector, geography, or products. Conclude them all, it is important for insurers to address the concern on performance management changes and governance consideration towards the preparation and implementation of IFRS. Also, it is important to addressing the possible challenge so both regulations require the implementation of an end-to-end approach using an integrated framework.

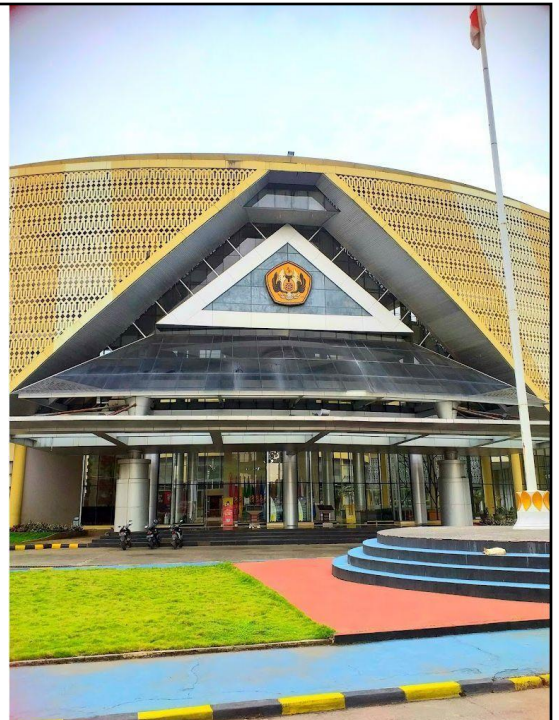
An integrated approach will also be needed to best support the reconciliation between external, management, and regulatory reporting for IFRS 17.



How IFRS 17 Transform Insurance Business

Ersa Tri Wahyuni, PhD
Associate Professor in Accounting
Universitas Padjadjaran, Indonesia

Indonesia Re International Conference 2024
24-25 July 2024



FEB UNPAD
LEADING AND INSPIRING

Speaker's Profile

Ersa Tri Wahyuni, PhD, CA, CPMA, CPSAK, CPA, CACP, QCRO



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Ersa Tri Wahyuni is An Associate professor in Accounting at Universitas Padjadjaran and member of audit and risk monitoring committee.

She earned his Doctoral Degree in Accounting from University of Manchester, UK and her masters degree from University of Melbourne, Australia. Her Sarjana degrees in Accounting and also in Financial Management were awarded from Universitas Trilogi, Jakarta.

She is now the vice chairman of Indonesian Institute of Management Accountant. She was a member of Indonesian Financial Accounting Standard Board IAI 2015-2023 and actively involved in the IFRS implementation in the country as IFRS trainer and consultant for the last 20 years.

She has been active in writing accounting books, accounting research articles and book chapters, both international and nationally.

Ersa is currently an Independent Commissioner of Avrist Assurance and Member of Risk Monitoring Committee at PT Asuransi Tugu Pratama, Tbk

Subject Matter Expert of IFRS 17 in PT Hamilton Prima Indonesia, part of Cognitus Consulting Asia



How does IFRS 17 Change the Insurance Industry?

Insurance obligations and risks

- Measured based on updated information

Insurance revenue

- Reported on an earned basis
- Excludes deposits

Insurance performance

- Distinguishes two key drivers of profitability:
 - Insurance service result
 - Investment result

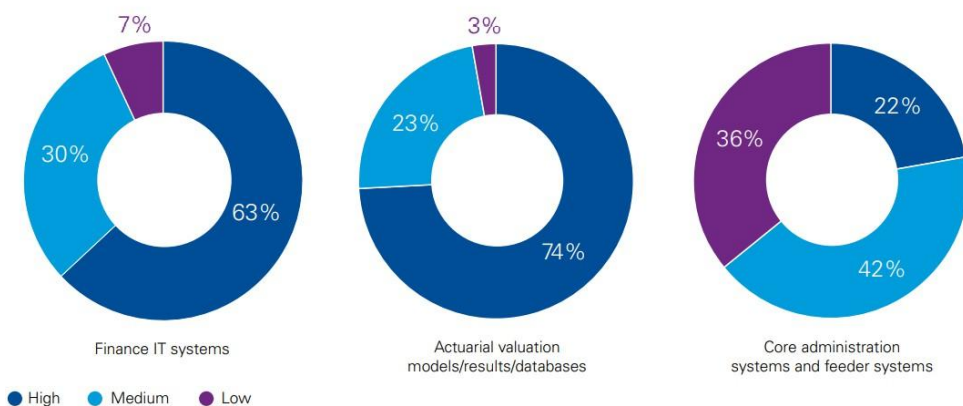
GWP : Gross Weighted Premium as A Top Line Figure will not be relevant anymore



Global Insurance Companies Survey, 2018

(By KPMG, 160 executives, 30 countries)

Level of change expected
(% of all respondents)



Source: In it to win it, Feedback from insurers on the journey to IFRS 17 and IFRS 9 implementation one year in, KPMG International, September 2018.

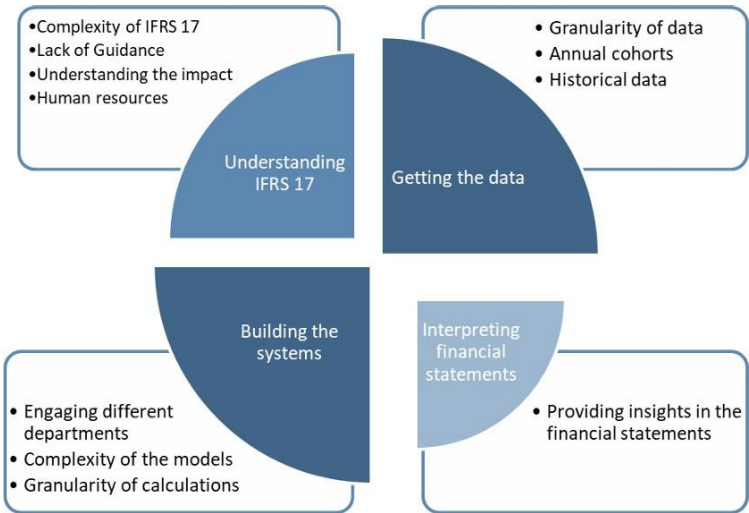


Implementation Report from Europe 2024

EIOPA Survey Report 2024
(European Insurance and Occupational Pensions Authority)

53 Group Companies from
17 Member Countries

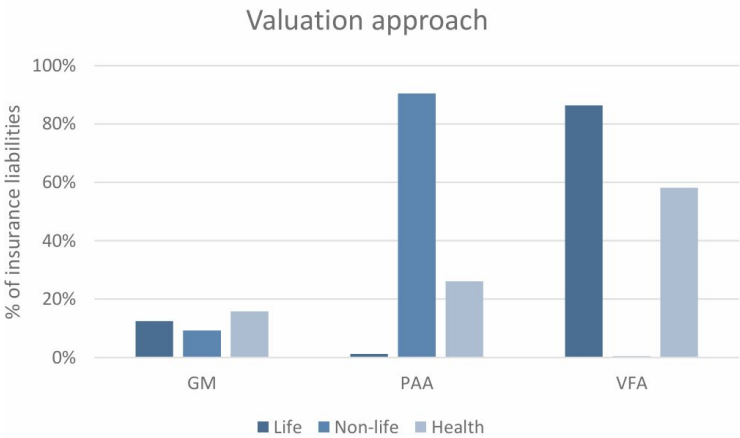
The Reference for data
request was the 30th June 2023
interim reports, six months
after IFRS 17 was
implemented



Valuation Approach In European Insurance Industry

90.4% of insurance liabilities in
Non-life insurance company
are using Premium Allocation
Approach (PAA) Model

For non-life contract of more
than one year, the development
of eligibility testing can be
more advantageous than
applying the General Model
(BBA)



Source: EIOPA, 2024



Half Year Toward IFRS Implementation in Indonesia

IFRS 17 Implementation can be a momentum for Indonesian Insurance to transform in to a more transparent and accountable industry. Technical Challenges is paramount, but the benefits will be outweigh the cost in the long run.



Not Yet Provided Parallel Running Plan to OJK

Life Insurance	: 13 Companies
General Insurance	: 15 Companies
Reinsurance	: 2 Companies



Lesson Learned From Other Jurisdictions About IFRS 17 Implementation

Jurisdictions	Lesson Learned
UK, FRC Report	More detailed disclosure, but still use boilerplate template. Needs more firm's specific explanation.
Australia and New Zealand, AASB Post Implementation Review IFRS 17	Many paragraphs in IFRS 17 are not clear if they also applied for PAA. Confusion in contract boundary when there is termination clause, etc
Indonesia, KPMG May 2024	Challenges in data and systems testing for Indonesian companies
South Korea, Various news article	Increase liabilities, lower RBC, confusion among tax authorities of high profit but low tax.



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- <https://kpmg.com/id/en/home/insights/2024/05/id-psak-117-implementation.html>
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- <https://insuranceasia.com/insurance/exclusive/capital-pressures-linger-insurers-adopt-new-accounting-rule-in-south-korea>
- <https://insuranceasia.com/insurance/news/korean-insurers-face-tax-challenges-amidst-ifrs-17-adoption-report>



HATUR NUHUN

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Q&A Session

Question:

How far do you think IFRS 17 implementation will reveal under reserving and under capitalized of Indonesian insurance industry?

Answer:

If we see experience from other countries in Europe, 46% insurance companies being surveyed have lower retain earning (decrease retain earning), around 1% – 5%.

The problem is the transition impact is much more different if you are using a retrospective model than fair value model. So, try as much as you can using the retrospective one. Because any shock from IFRS 17 will be absorbed in retained earnings not in your profit loss in your current financial year.

One of the big life insurance companies said they are going to use a fair value model in all contracts. If we see the data in Europe, most of the people use retrospective data. You can use fair value data after you do all the maximum effort to use fair value model.

The fair value is easier but the full retrospective will give you a smoother transition number.

Conclusion:

IFRS 17 make insurance industry being comparable, since IFRS 17 make accountant understand how actuarial unit works, and vice versa.

From Ibu Ersu, we learn that IFRS 17 change the insurance industry through:

- Insurance obligations and risks, measured based on updated information
- Insurance revenue, reported on and earned basis and excludes deposits
- Insurance performance, that distinguishes two key drivers of profitability; Insurance services result and investment result

While there are still many lesson learned from other countries on implementing IFRS 17, we should take note in Indonesia is on challenges in data and system testing.

How about Indonesia?

There are still more than 20 life insurance companies, non-life insurance companies, and reinsurance companies to parallel run in Q3 & Q4 2024, while 30 other companies have not provided parallel running plan to OJK.

IFRS 17 do not making GWP as a top line anymore. It encourage the industry to not make profitable product to reach that top line. IFRS gives a little knowledge on how to do or manage actuarial adjustment properly.

In the end, we have a big hope that IFRS 17 will make insurance industry in Indonesia become more transparent and accountable.



Third Panel Discussion

Renewable Energy Insurance: *Addressing Climate Risk*

Content:

- From Brown to Green: Establishing the Connection to Renewable Energy
- Transforming Issues into Action: Addressing Climate Issues through Renewable Energy Investment
- The Role of Planners and Decision Makers in Localizing Disaster Risk Reduction and Climate Change Adaptation

Moderator Introduction

SYARIFAH RAHMA

News Anchor at CNBC Indonesia



Renewable energy insurance is pivotal in this context, providing a safety net for investments in solar, wind, hydro, and other renewable energy sources. This form of insurance mitigates the financial impact of unpredictable events, ensuring that projects can withstand adverse weather conditions, technological failures, and other potential disruptions.

Considering those facts, it is important for us to elaborate how insurance solutions should evolve to meet the unique needs of the renewable energy sector, and in the end may support the resilience of renewable energy infrastructure against the increasing frequency and severity of climate-related events.

We also should address the broader implications of renewable energy insurance on climate risk management. By providing financial protection and stability, insurance not only encourages investment in renewable energy but also contributes to the global efforts in combating climate change.

As we embark further in this climate change discussion, let's consider how we can leverage insurance to drive the transition to renewable energy, ensuring that our path to a sustainable future is both secure and resilient.

From Brown to Green:

Establishing the Connection to Renewable Energy



AGUS PRATAMA SARI

CEO Landscape Indonesia

Lecturer at SBM ITB

Executive Summary:

Allowing transition finance to bridge the gap between traditional and green finance. Indonesia's joint targets under the Just Energy Transition Partnership (JETP) include capping power sector emissions to 290MT by 2030 and reaching net zero by 2050. To achieve that state, phasing out coal-fired power plants while accelerating the deployment of renewable energy sources is necessary.

As financiers are now reluctant to finance coal, a transition taxonomy defines measurable parameters within which coal investment is allowed in order to facilitate early coal decommissioning. Identification of eligible transition activities and investment through principle-based, taxonomy-based criteria, or a combination of both approaches.

Transitions-related finance instruments, such as debt and equity instruments, de-risking products, and other instruments including blended finance. Policy measures that provide market signals to incentivize and accelerate capital flows and to improve the bankability of transition activities.

Leverage the taxonomy as regulatory and industry guidance for reporting and disclosure i.e. POJK 51/ 2017, that currently requires financial institutions to allocate and disclose their investment in sustainable business activities, should be synchronized with the direction of future taxonomy iteration.



Climate Change Stress Test on the Energy Sector

Agus Sari
Landscape Indonesia
agus.sari@landscape.id

Indonesia Re International Conference (IIC) 2024
Accelerating Transformation in Insurance Industry:
Driving Growth, Strengthening Resilience

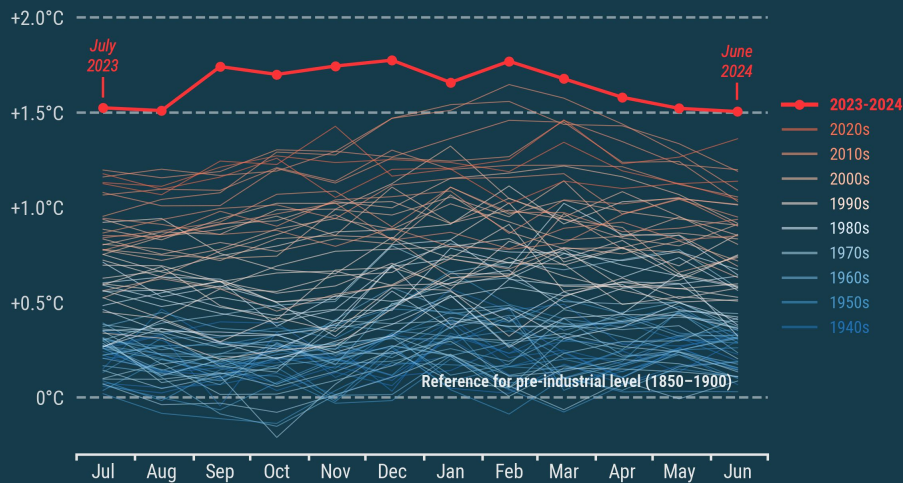
From Brown to Green:
Establishing the Connection to Renewable Energy

July 24, 2024



Monthly global surface temperature increase above pre-industrial

Data: ERA5 1940–2024 • Reference period: 1850–1900 • Credit: C3S/ECMWF



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Climate
Change Service
climate.copernicus.eu

Impacts on the energy sector of climate change

Key climatic changes

- Increased temperature.
- Changing of regional weather patterns.
- Extreme weather events.



Impacts on specific technologies

- Open pit in **coal** mines will disrupt operations.
- Infrastructure in **oil** and **gas** rigs, especially offshore, may be destroyed by extreme weather events.
- **Thermal power** plants will be affected due to decreased efficiency and decreased availability of cooling water.
- Threat to critical equipment and processes pertaining the safety of **nuclear power** plants, cooling equipment, control instruments, and back up generators.
- **Hydropower** generation will be disrupted due to changes in rainfall pattern and hydrological cycle.
- Changing weather events and anticipated cloudiness will disrupt **solar** and **wind** energy. Extreme events may damage equipments.
- Increased temperature and changes in hydrological cycle will disrupt **biomass** energy.
- **Pipelines** and power **transmission** lines may be severely damaged by extreme weather events.

Climate-related trends that change the energy system: policy, technology, market, and society.



GLOBAL REPORT LAUNCH

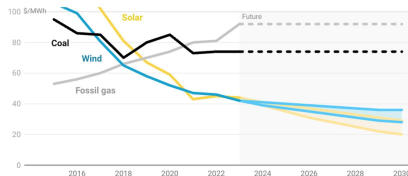
**TRIPLING RENEWABLE POWER AND
DOUBLING ENERGY EFFICIENCY BY 2030
CRUCIAL STEPS TOWARDS 1.5°C**

30 OCTOBER 2023 | Pre-COP28 | Abu Dhabi

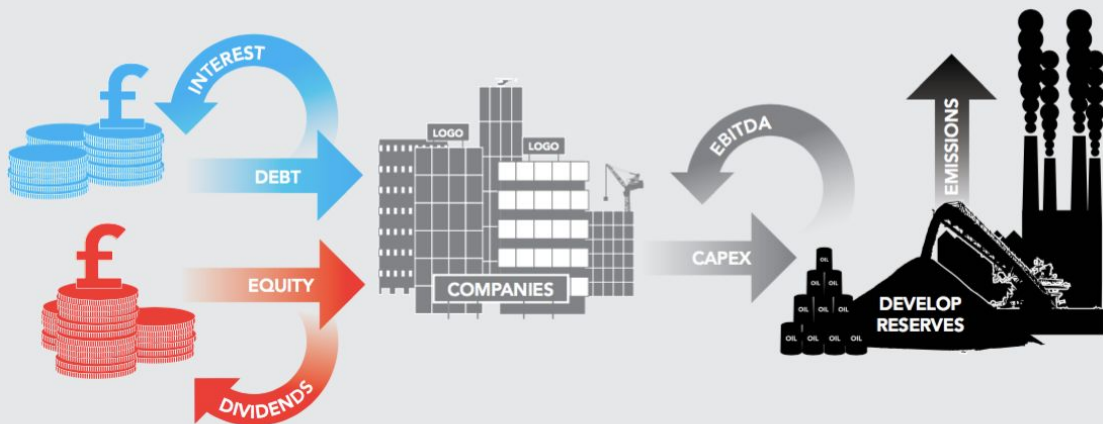


Renewables will keep beating fossil fuels on cost

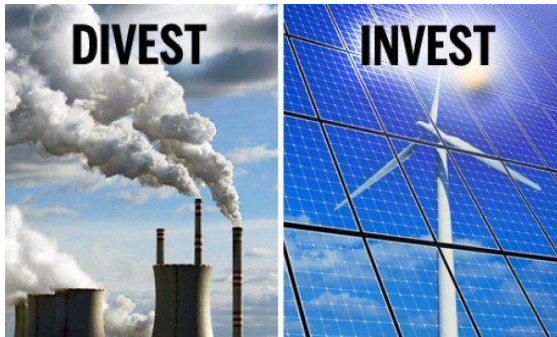
Analysts project that wind and solar will continue to get cheaper, falling further below coal and gas costs globally this decade.



Impacts on the energy sector of mitigation and energy transition to renewables: The risk of *stranded assets*

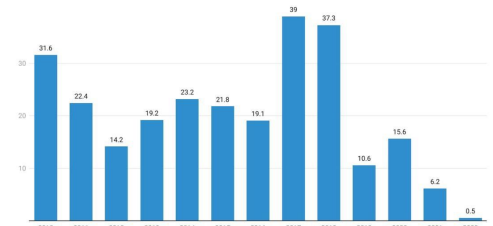


Funding for fossil fuels, especially coal, is much harder to find, driving cost of money in fossil fuels up.



Coal power project finance has fallen 70-fold outside of China since 2017 peak

Annual closed financing \$bn



Source: TransitionZero

CarbonBrief

Thank you – Terima kasih

Agus Sari
agus.sari@landscape.id

Q&A Session

Question:

Funding for fossil fuels will be harder in the future. Is it actually good or bad, especially on insurance and the others financial institutions?

Answer:

Early retirement of assets, such as mines and power plants, refers to the premature cessation of their operations before the end of their expected lifespan. This decision is often driven by economic, environmental, or regulatory factors.

For conventional energy sources like oil, gas, and coal, early retirement essentially means foregoing potential future income. These assets represent significant investments with projected revenue streams over their operational life. By retiring them early, companies relinquish these anticipated earnings.

While the early retirement of assets in the conventional energy sector is generally seen as a positive step for the environment, it can pose challenges for insurance companies. Here's why:

- **Reduced Asset Value:** The premature closure of mines and power plants can lead to a decline in their asset value. This affects the insured value and, consequently, the insurance premium.
- **Economic Downturns:** Early retirement of assets can contribute to economic downturns in regions heavily reliant on these industries. Economic recessions can lead to increased unemployment, financial distress, and, consequently, higher insurance claims due to factors like property damage and business interruption.

Q&A Session

Answer (cont.):

- **Transition Risks:** The shift towards renewable energy sources involves new technologies and infrastructure. This transition period can be associated with increased risks, such as construction accidents, equipment failures, and cyberattacks. These risks can impact insurance companies.
- **Policyholder Behavior:** As the energy landscape changes, consumer behavior and risk profiles may evolve. This can affect insurance underwriting and pricing models.

Question:

What can insurance industry do to help accelerate energy transition?

Answer:

Many funders and financiers still view renewable energy as less reliable compared to traditional energy sources like coal, oil, and gas. They see it as a new technology with unknown risks.

If insurance companies dive deeper, they might realize that these perceived risks are not significantly different from actual risks. This understanding could lead to lower policy rates for renewable energy projects. In the fossil fuel sector, there are numerous risks that haven't been fully considered in insurance policies, which could eventually harm both energy companies and their insurers.

Q&A Session

Answer (cont.):

In contrast, the actual risks associated with renewables are relatively low, allowing for potentially lower policy rates.

Regarding the question of achieving net zero, especially for developing countries, I can speak from experience. I advise the new capital of Indonesia on its strategy to reach net zero by 2045, which is 15 years ahead of the national target of 2060.

Is it possible? Not only is it possible, but it's also easier and cheaper when starting from a blank canvas rather than transitioning from existing assets.

In developing countries, cities are continually being built. Starting fresh and integrating net-zero planning from the outset is much easier and more cost-effective than retrofitting long-term investments made without considering sustainability.

Conclusion:

Natural disaster have been more intense and frequent. More than USD 30 Billion is spent for natural disaster. There are many countries that are experiencing such frequent and intense disaster as well.

What is the impact of those disaster?

First, disasters will disrupt the economy. It is being estimated that $\frac{1}{3}$ of the world economy will have to pay for all of the disaster happened, and by 2050, it will cost USD 2 - 3 Billion.

From Bapak Agus, we learn that climate change unfortunately has lead some impacts on the energy sector, such as open pit in coal mines that will disrupt operations and increased temperature and changes in hydrologic cycle will disrupt biomass energy. Climate-related trends also change the energy system, respectfully on the policy, technology, market, and society.

Considering all those facts, we have to transitioning to renewable energy, since renewable energy keeps on beating fossil fuels on cost. Wind and solar will continue to get cheaper, falling further below coal and gas costs globally this decade.

Transforming Issues into Action: *Addressing Climate Issues through Renewable Energy Investment*



PUTRA ADHIGUNA

Managing Director of Energy Shift Institute

Executive Summary:

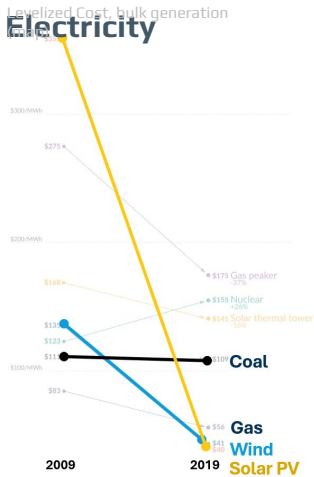
Energy is at the heart of the climate challenge – and key to the solution. Fossil fuels, such as coal, oil and gas, are by far the largest contributor to global climate change, accounting for over 75% of global greenhouse gas emissions and nearly 90% of all carbon dioxide emissions.

The science is clear: to avoid the worst impacts of climate change, emissions need to be reduced by almost half by 2030 and reach net-zero by 2050. To achieve this, we need to end our reliance on fossil fuels and invest in alternative sources of energy that are clean, accessible, affordable, sustainable, and reliable.

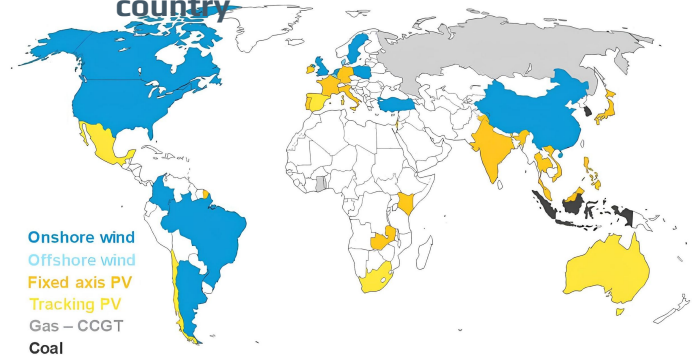
Renewable energy sources – which are available in abundance all around us, provided by the sun, wind, water, waste, and heat from the Earth – are replenished by nature and emit little to no greenhouse gases or pollutants into the air. Renewable energy sources are available in all countries, and their potential is yet to be fully harnessed. Stressing that renewable energy technologies like wind and solar already exist today, and in most cases, are cheaper than coal and other fossil fuels. We now need to put them to work, urgently, at scale and speed.

Shifting global energy economics

Cost of Electricity



Cheapest electricity in each country

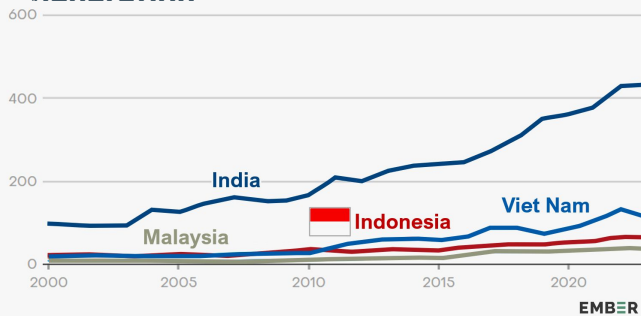


Costs presented as levelized cost. Bulk generation for map
Source: BloombergNEF, IRENA

P.Adhiguna 07.2024 | 3



Clean Electricity generation



Source: Ember-climate, PLN, Pertamina, compiled

P.Adhiguna 07.2024 | 4



Energy Transition

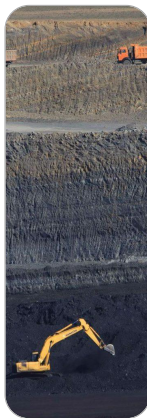


Sources: ICSSA, Bloomberg, National Geographic

P. Adhiguna 07.2024 | 5



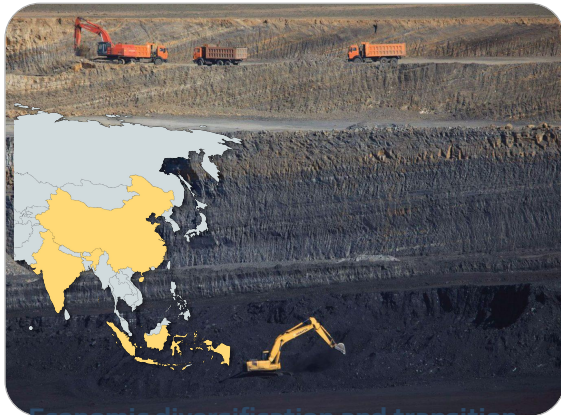
The Many Faces of Energy



Sources: ICSSA, Bloomberg, National Geographic

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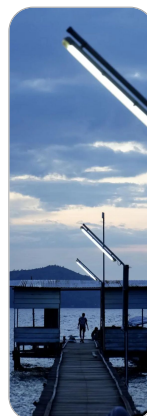




Economic diversification and transition
Renewable energy and green industry
funding

Sources: ICSEA, Bloomberg, National Geographic, MapChart

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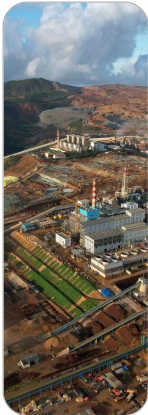


Global value chain and downstreaming
Renewable energy and sustainability

Sources: ICSEA, Bloomberg, National Geographic

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Energy access to remote regions
Renewable energy - distributed

generation

Sources: ICSSA, Bloomberg, National Geographic

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Transition of power sector and energy
Renewable energy and resources
sources

Sources: ICSSA, Bloomberg, National Geographic

P. Adhiguna 07.2024 |





Energy Transition is a strategic pathway for national

industrial competitiveness

Renewable energy and resources

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Sources: ICSA, Bloomberg, National Geographic



Addressing Climate Risk through Renewable Energy Investment

Putra Adhiguna | IndonesiaRe July 2024



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Q&A Session

Question:

Transition from fossil energy to renewable one is not that simple especially for a developing countries, but, there is target to achieve net-zero emission (NZE), what's your thought?

Answer:

The transition from fossil fuels to renewable energy is a complex challenge, particularly for developing nations like Indonesia. Unlike some developed countries, Indonesia has only initiated small steps in this direction, primarily focusing on solar and geothermal energy.

While comparisons to global leaders might be unrealistic, benchmarking against fellow Asian countries like Vietnam or India could provide valuable insights. Indonesia's unique circumstances, including its reliance on fossil fuels for economic growth and energy security, demand tailored strategies and substantial investments to successfully navigate this energy shift.

Q&A Session

Question:

What can insurance industry do to help accelerate energy transition?

Answer:

Asking insurers to gradually back out of the fossil fuel industry is a significant and challenging request. A more practical approach is to carefully reconsider the risks associated with the fossil fuel industry.

Focusing on Indonesia, 60% of its coal exports are destined for China and India. Both countries are major coal producers and top adopters of renewable energy. As their energy systems shift towards renewables, Indonesia's coal industry will be significantly impacted. Therefore, it is crucial to keep an eye on the developments in China and India, as their actions pose substantial risks to Indonesia.

Regarding renewables, I'd like to add to the point about data sharing. Data sharing is essential, although challenging due to competition between insurance companies and the rapidly changing technology landscape, like new battery types emerging every six months. To navigate the energy transition effectively, there must be increased knowledge sharing across the insurance industry, both in developed and emerging markets.

Risk management relies on extensive experience, but in this case, we lack sufficient on-the-ground experience. Thus, cross-regional knowledge sharing is vital to manage and mitigate risks during the energy transition.

Conclusion:

In insurance industry, there are many risks that may not be visible. Global emissions are majorly caused by Energy, so the sector with the most potential for emissions reductions is Energy itself, especially wind and solar energy. Wind and solar energy have a lower cost than other sectors. Therefore, renewable energy is a key path to reduce emissions.

Indonesia itself is a country with expensive electricity cost. One of Indonesia's key challenge is we have a lot of coal but still can't utilize it. And it is reflected by the high cost of electricity. For example, we could see how India build some capacity of clean electricity, So from the chart. we know that Indonesia still have to catch up. The best way to compare renewable is not just by looking at the big companies/source (PLN), but also searching for other alternative.

Energy transition is not a simple thing, because there are different perspectives.

First, Indonesia is a coal country. We can fund the renewable energy from the coal trading. Second, when it comes to downstream, we cannot escape renewable energy. Many renewable energy project actually powered by different coal plants. So that conditions is an opportunity to driving renewable energy. Last but not least, energy access to remote regions with renewable energy.

From Bapak Putra, we learn that renewable energy is a key path to reduce emissions. Due to shifting global energy economics, Indonesia will need to push faster, one MWH at a time.

So, next, Indonesia has a big role to do two things:

- Shifting capital from the old energy to the renewable energy
- To fuel the new energy for the future and the renewable energy

The Role of Planners and Decision Makers in Localizing Disaster Risk Reduction and Climate Change Adaptation



TABASSAM RAZA

Executive Director

Planning & Development Research Foundation, Inc.
(PLANADES)

Executive Summary:

The sharp increase in natural and extreme weather related disasters and their associated impacts have resulted in human sufferings and economic losses in various countries around the world.

It is a wakeup call for urgent and immediate action, not only on integrating Disaster Risk Management (DRM), but also in addressing Climate Change (CC) variation impacts in cities and municipalities. Further, these impacts also necessitate adjustments in the urban planning paradigm.

Fundamentally, those actions are necessary to make resilient urban environment for future generations.

The Role of Planners and Decision Makers in Localizing Disaster Risk Reduction and Climate Change Adaptation:

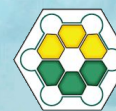
The Case of Philippines

Prof. Dr. Tabassam Raza

24 July 2024

**Indonesia Re International Conference
(IIC) 2024**

Accelerating Transformation in Insurance Industry:
Driving Growth, Strengthening Resilience
Westin Hotel, Jakarta, Indonesia
24 – 25 July 2024



Outline

Topic 1 : Role of Planners and Decision Makers in Localizing
DRR and CCA

Topic 2 : Availability of Mandates in Localizing DRR and CCA

Topic 3 : Mainstreaming DRR and CCA in Local Land Use
and Development Planning Model

Topic 4 : Action Planning



Question: What are the roles of planners and Decision Makers in localizing DDR and CCA

Answer: By Mainstreaming DRR and CCA at very early stages of Land Use and Development/ Master Planning Process. However, the following questions still need to be addressed:



Question 1: What is the Local Governance System status?

Answer: Check the Local Governance System of the Philippines and Indonesia



Local Governance Systems in the Philippines and Indonesia

A Comparative Analysis:

Governance Institutions Comparative Assessment (GICA)

Figure 6.1 An overview of the local government system in the Philippines

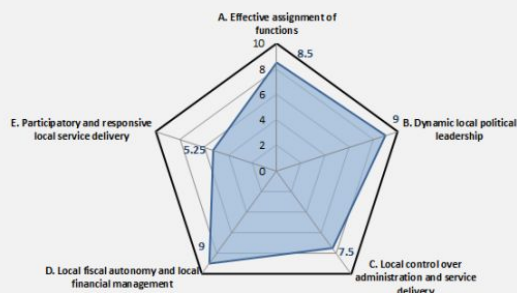
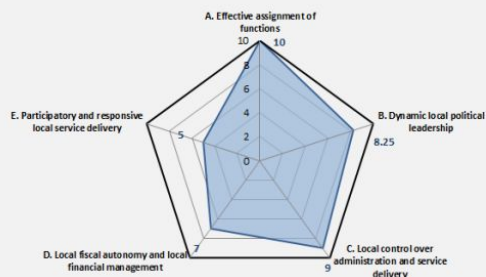


Figure 8.1 An overview of the local government system in Indonesia



Comparison of Political Systems in The Philippines and Indonesia

The Philippines	Indonesia
National/Central Government	National/Central Government
Province	Province
City/Municipality	City/Municipality
District	District
Barangay	Village

LPSI Working Paper, 2015, A comparative Overview of Local Governance Systems in selected countries, https://www.decentralization.net/wp-content/uploads/2019/12/LPSI_WP_LG_Systems_Sep2015.pdf

Local Governance Systems in the Philippines and Indonesia

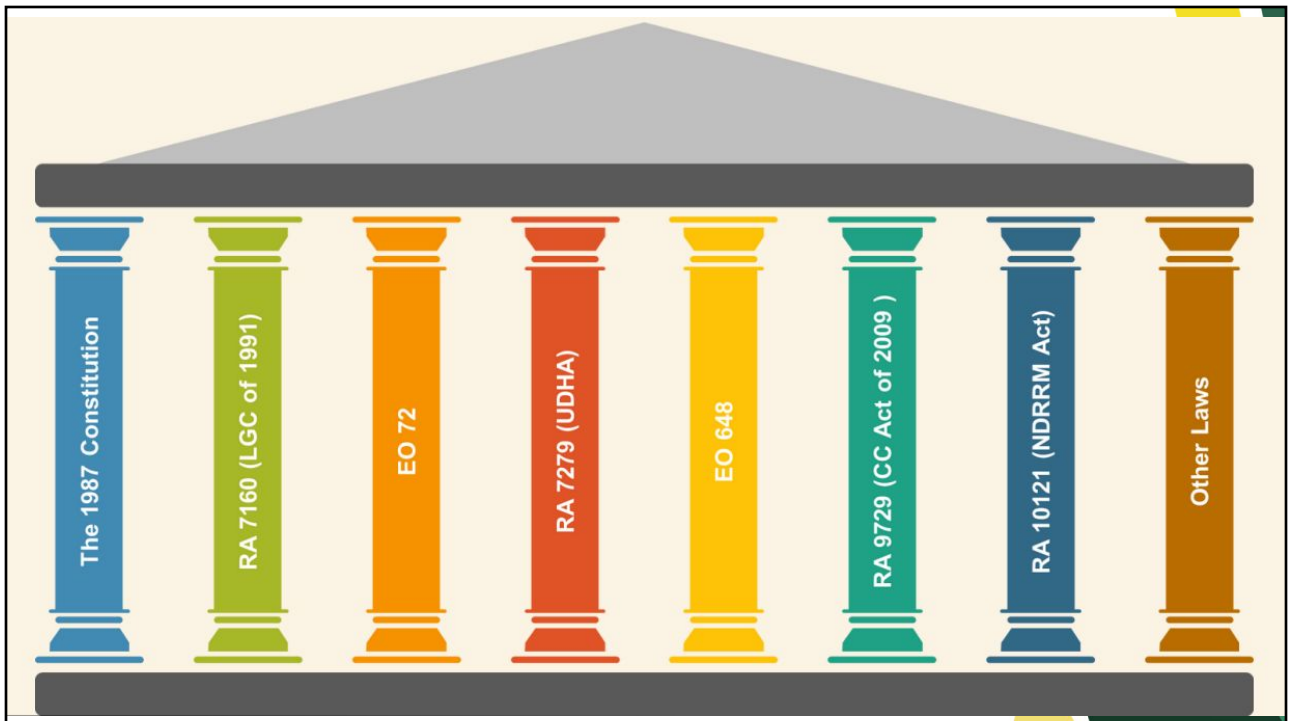
A Comparative Analysis

Table 9.1: An overview of LoGICA scores in selected countries

	LoGICA Index	A. Functional Assignment	B. Local political leadership	C. Local administrative control	D. Local fiscal autonomy and PFM	E. Participation and responsive services
Maximum	50.00	10.00	10.00	10.00	10.00	10.00
Cambodia	8.25	3.00	1.50	0.25	3.00	0.50
Mozambique	15.00	5.00	2.75	1.25	3.50	2.50
India (Kerala)	32.25	7.50	7.75	3.75	7.50	5.75
Philippines	39.25	8.50	9.00	7.50	9.00	5.25
Tanzania	26.00	10.0	5.00	3.25	4.75	3.00
Indonesia	39.25	10.0	8.25	9.00	7.00	5.00
Average	26.67	7.33	5.71	4.17	5.79	3.67

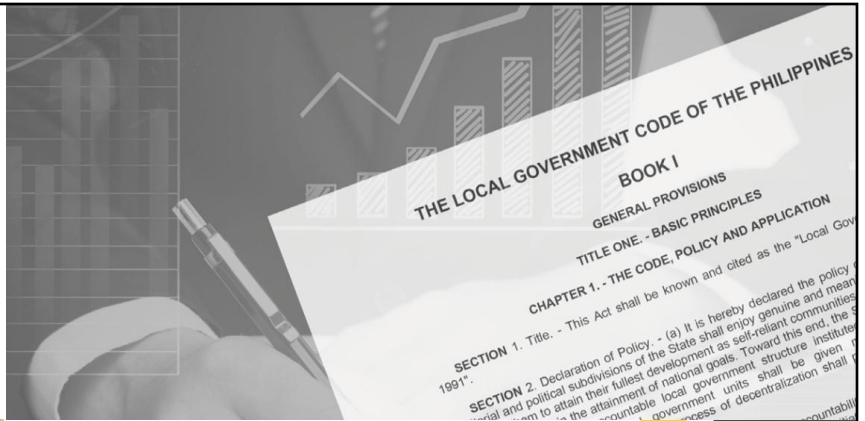
Question 2:
What are the existing policies, strategies, and mandates to localize CCA and DDR?

Answer: Available Policies, Strategies, and Mandates in Localizing DRR and CCA at Local Level in the Philippines Context are as follows:



Local Government Code of the Philippines

Section 20(c)



The local government units shall, in conformity with existing law, continue to **prepare their respective Comprehensive Land Use Plans** enacted through zoning ordinances which shall be the primary and dominant bases for the future use of the land resources.

Long-Term Framework Plan
(9 years)

Comprehensive Land Use Plan (CLUP)

Settlement Policies	Protection Policies	Production Policies	Infrastructure Policies

Local Government Code of the Philippines

Section 447(2)(ix)



Enact integrated zoning ordinances in consonance with the approved Comprehensive Land Use Plan, subject to existing laws, rules and regulations.

Other Relevant Planning Laws

RA 7586 (NIPAS Act)

RA 8550 (Revised Fisheries Code)

RA 8435 (Agricultural Fisheries
Modernization Act)

RA 9003 (Ecological Solid Waste
Management Act)

RA 10066 (National Cultural Heritage Act of
2009)

RA 9353 (National Tourism Act of 2009)

RA 7942 (Mining Act)

RA 8731 (IPRA)

PD 705 (Revised Forestry Code)

Protected Areas

Municipal Waters

Agricultural Lands

Solid Waste

Cultural and Heritage
Conservation

Tourism
Development

Mineral Resources

Ancestral Lands

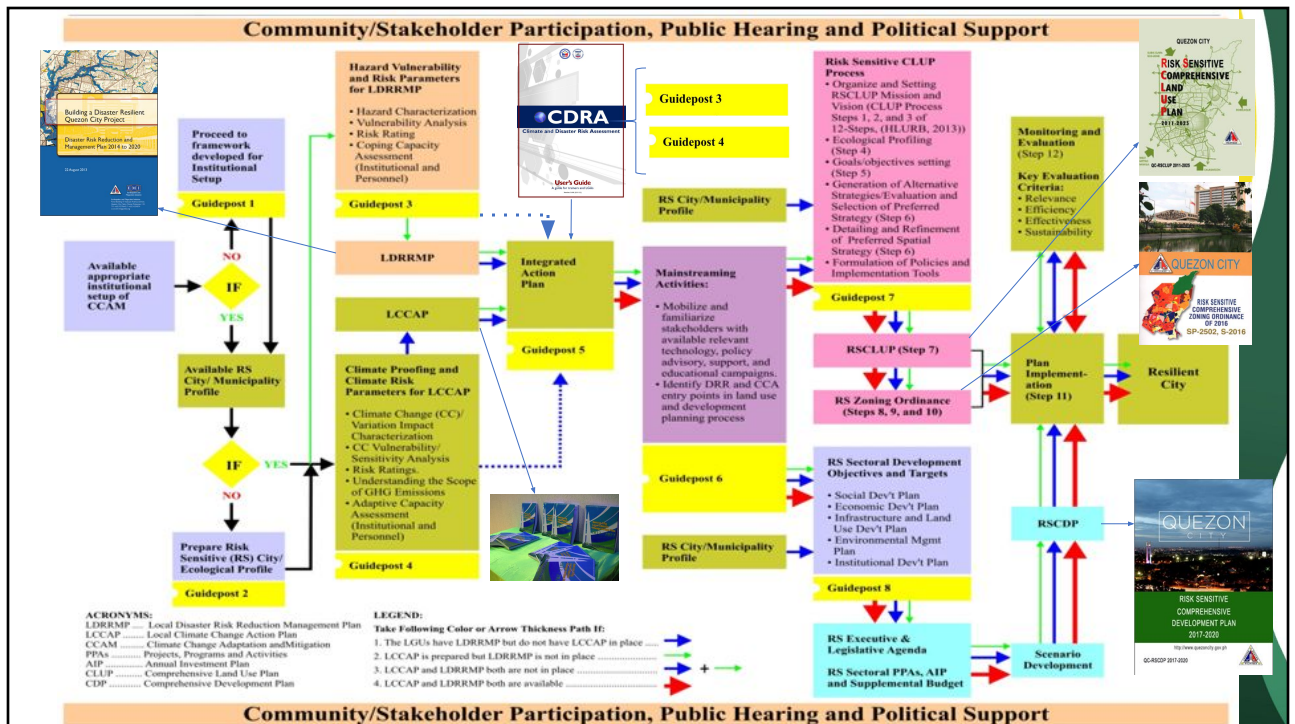
Forest Lands



Question 3:
How the
planners and
decision
makers
localize DRR
and CCA?

Answer: Decision Makers Engage Planners to Mainstream DRR and CCA in Local Planning Process through Policy Development and Implementation, Funding and Investment, Coordination and Collaboration, and Monitoring and Evaluation: Example from the Philippines

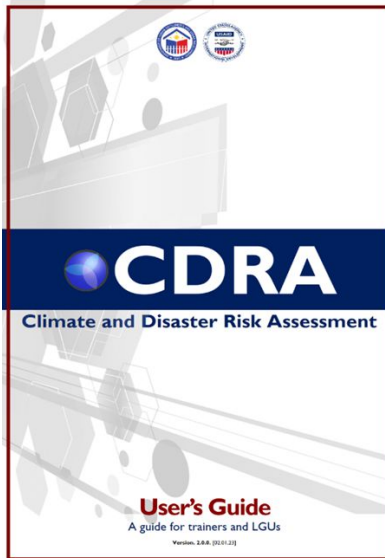




Topic 3: Action Plan in the Philippines Context



LOCALIZING DRR AND CCA



LOCALIZING DRR AND CCA

Barangay	Name of Facility	Type of Facility	Flood Hazard Susceptibility
			Low, Moderate, High
Bacolod	Church in Ozamiz	Institutional	Moderate

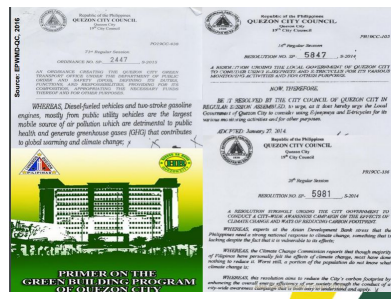
F	G	H	I	J
SENSITIVITY				
Existing condition	Proportion of the structure in dilapidated/ condemned condition	Proportion of structure Made of light materials	Year constructed	Employing Resilient Building Design
excellent, good, fair, poor	if ≤5% of structure, >5 to 10% of structure, >10-20% of structure, ≥20% of structure is in dilapidated/ condemned condition	if ≤5% of Structure >5 to 10% of Structure >10-20% of Structure ≥20% of structures made of light materials	Before 1972, Between 1972-1992, 1992-2012, 2012 and above (year ranges can be adjusted)	Yes or No
good	<5%	<5%		Yes

ADAPTIVE CAPACITY					
Percentage of structures with no access/area coverage to infrastructure related mitigation measures	Capacity and willingness to retrofit or relocate	Insurance Coverage	Government Investments	Available Alternative Sites/Structures	Government Regulations on hazard mitigation zoning and structural design standards
Est. percentage covered by infrastructure-related measures	see Scoring tab (A, B, C, D)	Est. percentage of property covered by insurance	Capacity of government to make investments in CCA-DRR (low, moderate, high, very high)	Availability of land/alternative sites (low, moderate, high, very high)	see Scoring tab (A, B, C, D)
	B		low	Low	B

Low Carbon Cities Establishment Framework (LCCEF): Quezon City Greenhouse Gas Inventory 2010 Base Year

Community Level

Emission Source	2010 Volume	Unit	Total Emissions (tCO ₂ e)	%
Stationary Energy - Fuel	403,328,060.00	liters	961,844.98	.13%
Stationary Energy - Electricity	3,926,193.36	MWh	2,038,479.59	.29%
Transportation	289,775,687.47	liters	709,806,272.66	99.51%
Solid Waste	705,640.72	tons	270,605.34	.04%
Waste Water - Septic Tanks	37,290,340.53	kg BOD	234,929.15	.03%
Sub-Total			713,312,131.72	
(Forestry)	2,545.89	hectares	(31,742.86)	
Total			713,280,388.87	



Entity Level

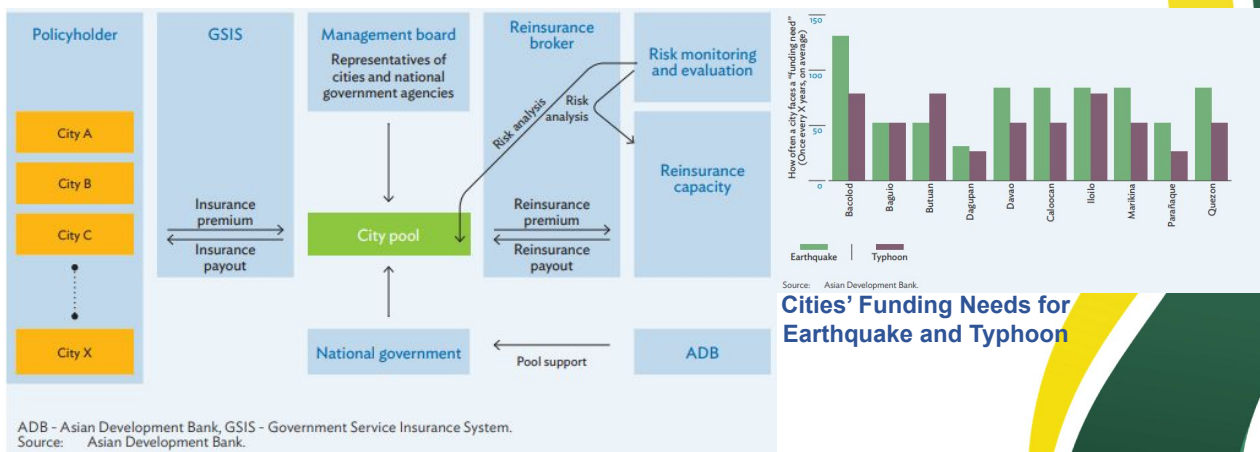
Sector	Total Emissions (eCO ₂)		%
	(kg)	(tCO ₂ e)	
Buildings	39,000,857.99	39,000.86	62.42%
Transport	6,289,050.28	6,289.05	10.07%
Streetslights	14,922,134.77	14,922.13	23.88%
Waste	2,268,847.17	2,268.85	3.63%
Total	62,480,890.21	62,480.89	100%

Source: EPWWMD, QCC 2016

Asia Urban Energy Forum 2018

CONCLUSION	PROGRAMS PROJECTS AND ACTIVITIES	OUTCOMES
Low Carbon City Strategy	<ul style="list-style-type: none"> QC Designated Low Emission Zone Seminar on Preventive Automobile and Best Driving Practices in QC Hall Installation of Air Quality Monitoring Stations Promote the use of E-vehicles within QC Hall Compound Bicycle Lane / "Tutubi" Bicycle Sharing System Biodiesel Project for every Public Utility Vehicle LED (Light Emitting Diodes) Traffic Lights and Streetslights E-Jeepsneys 	<ul style="list-style-type: none"> Energy Efficiency, Renewable Energy and Sustainable/ Green Transportation NEXT STEPS <ul style="list-style-type: none"> Continue Green Building Code Implementation LED Streetslights LED QC Building Lights

Philippines City Disaster Insurance Pool: Rational Design



Proposed Pool Structure

Impact of Risk Pooling on Key Elements of Insurance Pricing

$$\text{Price} = \text{Expected loss} + \text{Uncertainty} + \text{Expenses} + \text{Profit}$$

Additive
 Reduces with more members
 Shared between members
 Retained by the pool

Source: Asian Development Bank.

Reference: 2018,

<https://www.adb.org/sites/default/files/publication/479966/philippines-city-disaster-insurance>

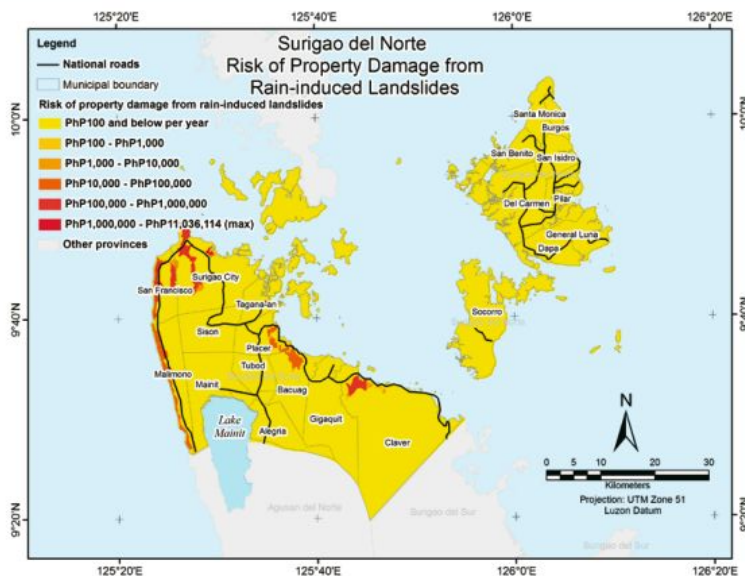
mainstreaming disaster risk reduction in subnational development land use/physical planning in the philippines

GUIDELINES



Subnational Development Planning

Map 8 Risk of Property Damage from Rain-Induced Landslides for individual areas

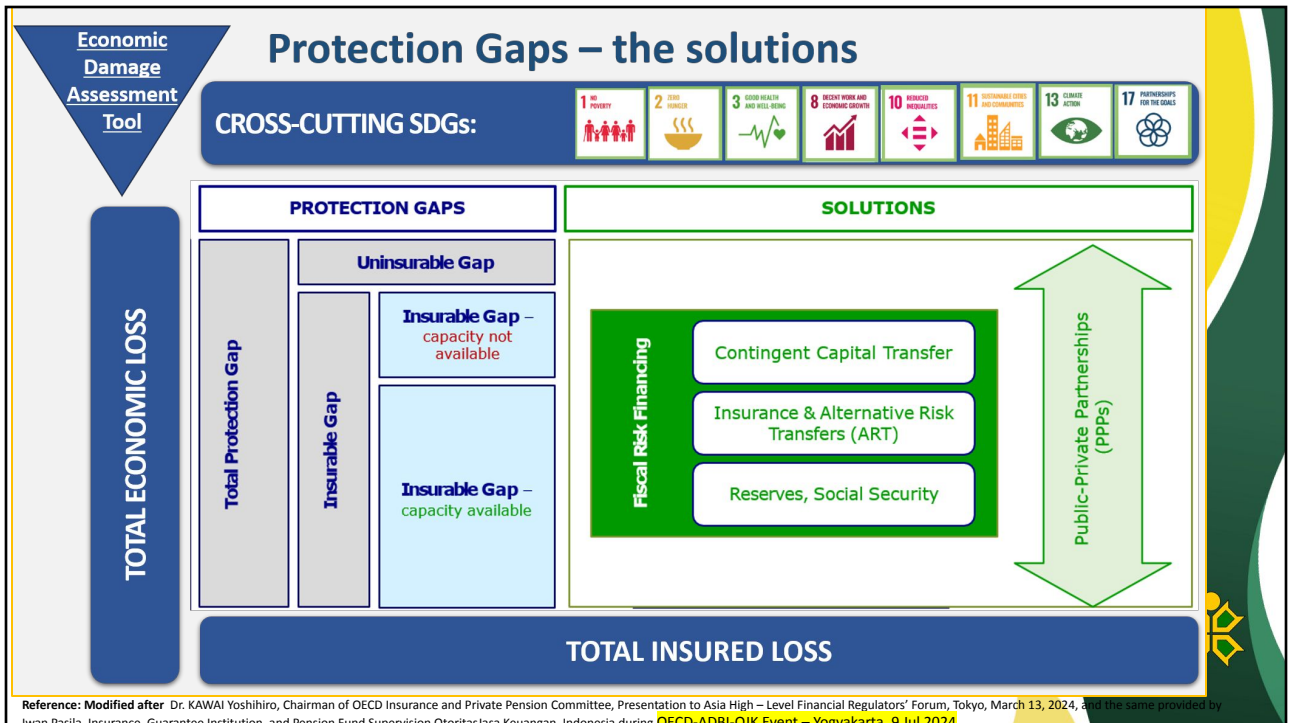
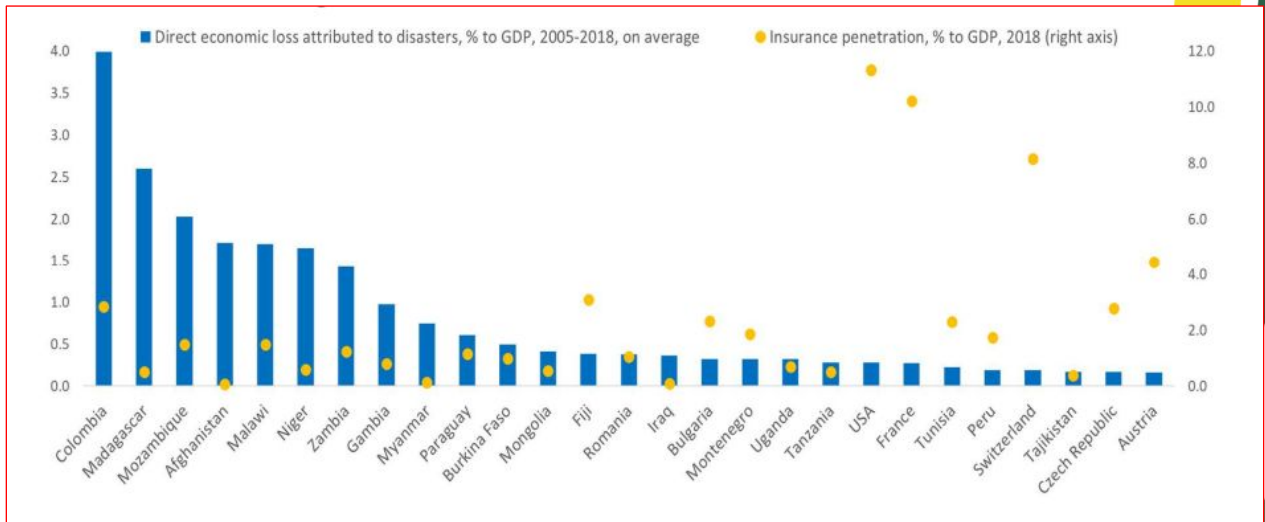


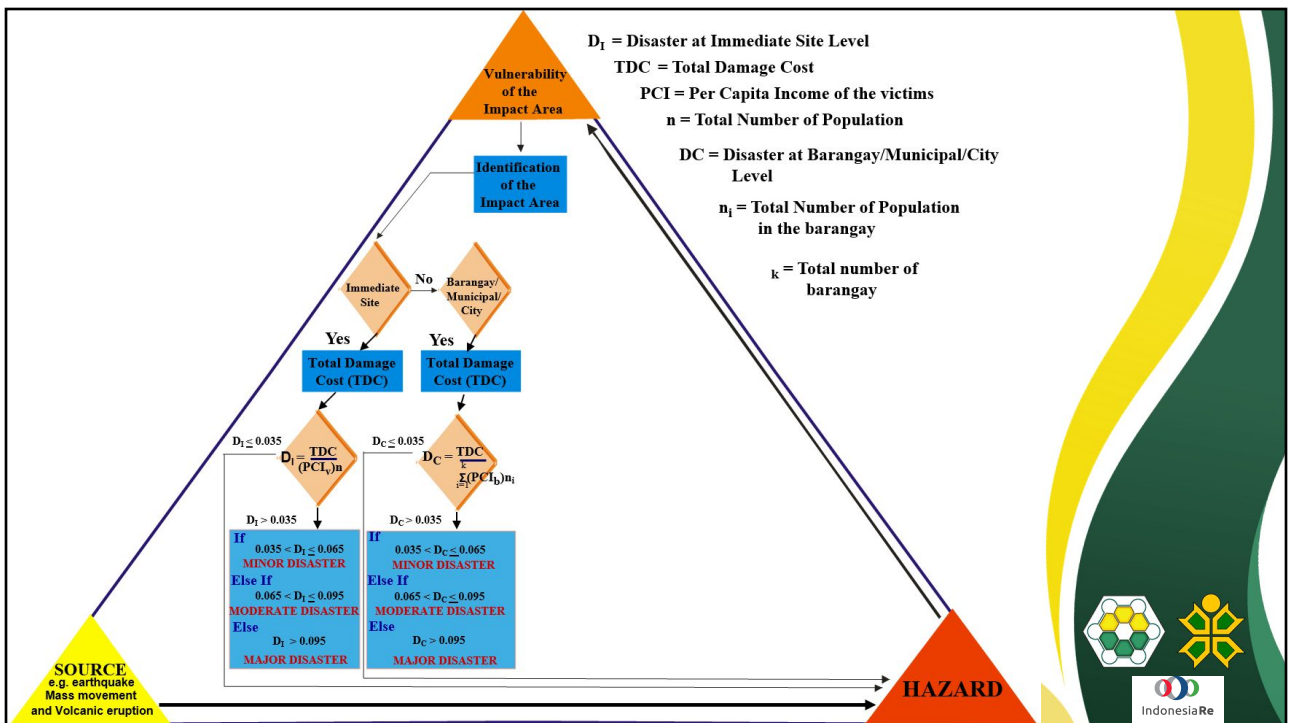
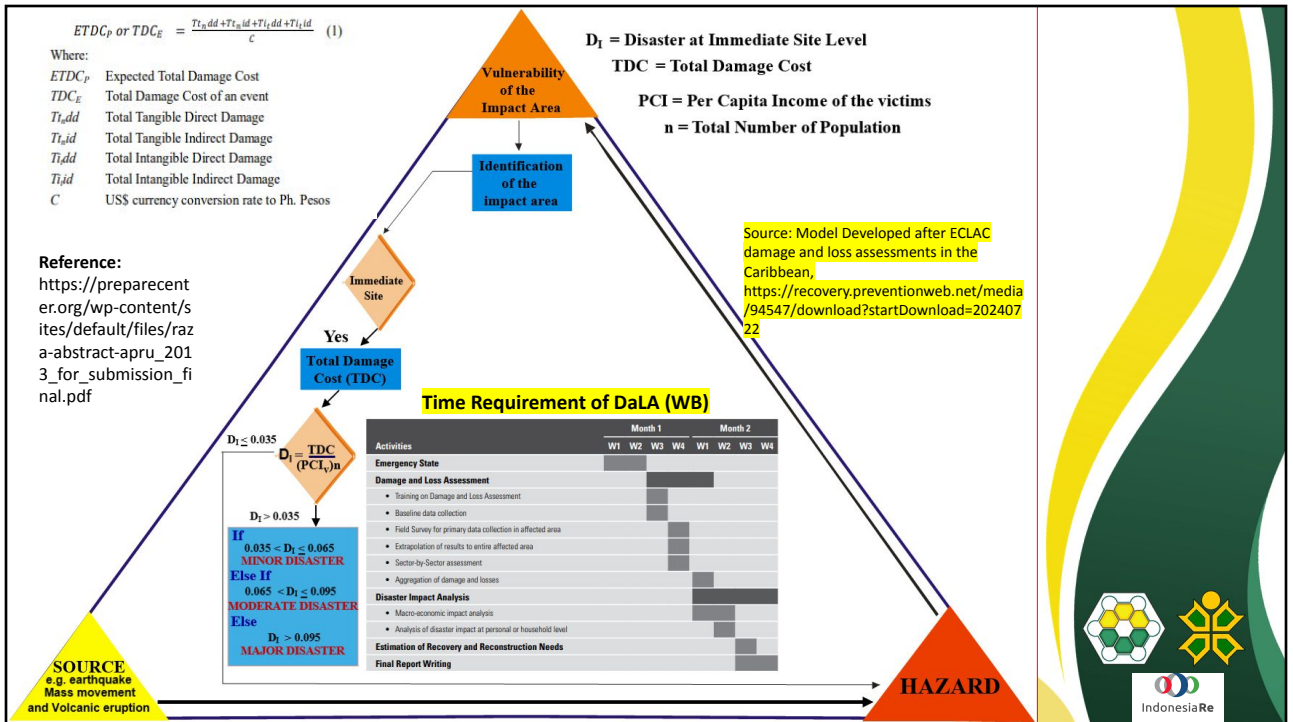
Modified from Source: Hazard Information from READY Project; Mines and Geosciences Bureau (MGB), 2007

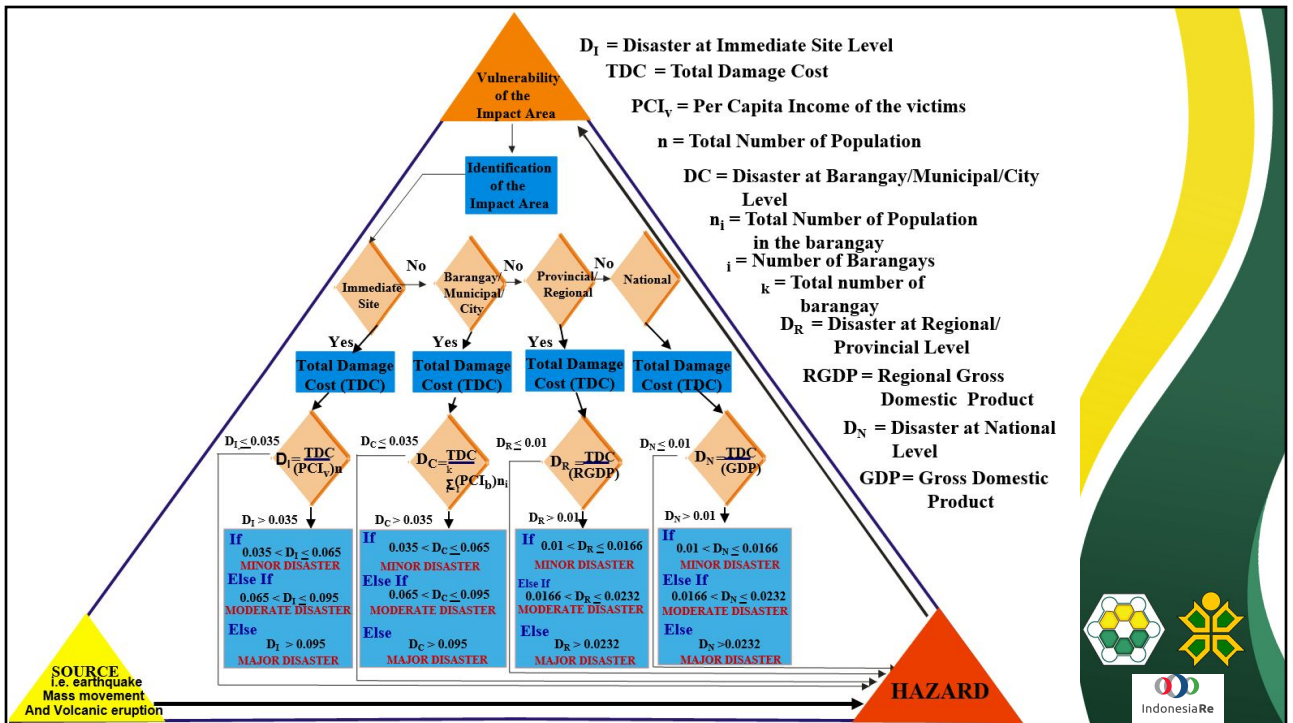
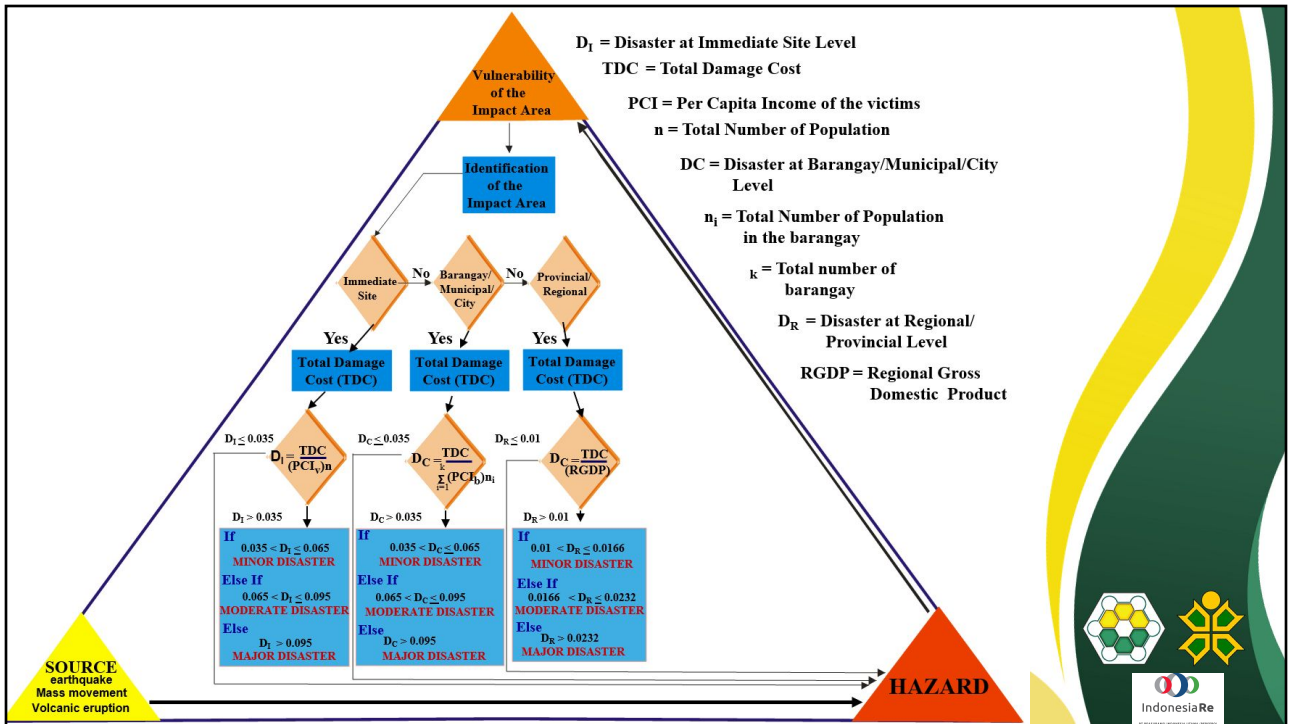
Hazard	DRR-related PPAs		
	Structural Mitigation Measures		Nonstructural Measures
	Control Works (Temporary)	Restraint Works (Permanent)	Mitigation (including Preparedness) and Risk Transfer
Earthquake and rain-induced landslide	<ul style="list-style-type: none"> Cutting unstable soil and rock mass Shaping of slope (stepping) Vegetation Drainage and excavation of trenches 	<ul style="list-style-type: none"> Cast-in-place concrete crib Pre-cast block Ground anchor Gravity retaining wall Concrete spraying works Crib retaining wall Soil nailing 	<ul style="list-style-type: none"> Hazard-resistant design of the slope Good design for construction of building at the toe of the slope Risk transfer (insurance, reinsurance, catastrophic bonds (cat bonds))
Storm/ Flood	<ul style="list-style-type: none"> Sand bag dikes beside river Diversion trenches Artificial channels 	<ul style="list-style-type: none"> Mechanical land treatment of slope, such as terracing to reduce the runoff coefficient Construction of dams/ dikes Construction of levees beside river Construction of bridges Other flood control structures (i.e., spillways, concrete channels, drainage) 	<ul style="list-style-type: none"> Hazard-resistant design and construction Flood and storm forecasting Flood evacuation training programs Coastal zone management plan Financial alternatives Risk transfer (insurance, reinsurance, cat bonds)
Volcanic Eruption	<ul style="list-style-type: none"> Excavation of trench Shaping of slope (stepping) Vegetation Drainage and excavation of trenches 	<ul style="list-style-type: none"> Construction of dikes 	<ul style="list-style-type: none"> Volcanic-resistant design (i.e., roof) Evacuation planning Public awareness Training program Delineation of buffer zones Risk transfer (insurance, reinsurance, cat bonds)
Earthquake	<ul style="list-style-type: none"> None 	<p>For concrete structures :</p> <ul style="list-style-type: none"> Reinforce building with steel moment frame Increase lateral support by infilling opening Protect wall by stiffening floor <p>For wood and other building structures:</p> <ul style="list-style-type: none"> Follow the existing building code for retrofitting of the building under threat of the earthquake impact 	<ul style="list-style-type: none"> Hazard-resistant design and construction codes Early warning system and training Earthquake evacuation planning and training programs Earthquake macro and micro zoning Monitoring and evaluation of old buildings for retrofitting Financial alternatives Risk transfer (insurance, reinsurance, cat bonds)

Topic 3: Action Plan in International Context

Direct Economic Loss, % to GDP, 2005-2018







Number of Countries Lagging in SDGs, and Enabling Conditions for Insurance Sector Development

Table 2: Number of Countries Lagging in SDGs, and Enabling Conditions for Insurance Sector Development

Country	2020 SDG Index Score	I stage						II stage				III stage					
		SDG index						Insurance Potential				Enabling conditions for insurance sector development					
		SDG 11	SDG 3	SDG 10	SDG 1	SDG 8	SDG 2	Country Code xx	GDP per capita, 2019, \$ US	Insurance Penetration, %, 2019		Financial Development Index (0-1), 2018		Government Effectiveness (-2.5 to 2.5), 2019		Regulatory Quality (-2.5 to 2.5), 2019	
										by country	vs average*	by country	vs average*	by country	vs average*	by country	vs average*
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
Nigeria	49.3	red	red	red	red	red	red	LMC	2230	0.33	<1.36	0.25	>0.21	-1.09	<-0.64	-0.86	<-0.67
Eswatini	53.4	yellow	red	red	red	red	red	LMC	3895	2.08	>1.36	n/a	n/a	-0.68	<-0.64	-0.61	>-0.67
Pakistan	56.2	red	red	red	yellow	orange	red	LMC	128/5	0.79	<1.36	0.24	>0.21	-0.68	<-0.64	-0.64	>-0.67
Kenya	60.2	red	red	red	red	orange	red	LMC	1817	2.44	>1.36	0.19	<0.21	-0.38	>-0.64	-0.28	>-0.67
Botswana	61.5	orange	red	red	red	orange	red	UMC	7961	2.87	>2.37	0.26	<0.34	0.43	>-0.05	0.37	>-0.10
Bangladesh	63.5	red	red	orange	orange	yellow	red	LMC	1856	0.5	<1.36	0.23	>0.21	-0.74	<-0.64	-0.93	<-0.67
Indonesia	65.3	orange	red	red	orange	orange	red	UMC	4136	1.68	<2.37	0.37	>0.34	0.18	>-0.05	-0.09	>-0.10
Ghana	65.4	red	red	red	orange	orange	red	LMC	2202	0.83	<1.36	0.15	<0.21	-0.21	>-0.64	-0.11	>-0.67
Philippines	65.5	orange	red	red	orange	orange	red	LMC	3485	1.74	>1.36	0.37	>0.21	0.05	>-0.64	0.01	>-0.67
Sri Lanka	66.9	orange	orange	red	yellow	yellow	red	LMC	3853	1.27	<1.36	0.28	>0.24	-1.66	<-0.64	-0.18	>-0.67
Jordan	68.1	orange	red	red	yellow	red	orange	UMC	4406	1.97	<2.37	0.39	>0.34	0.1	>-0.05	0.03	>-0.10
Egypt	68.8	orange	red	red	yellow	red	red	LMC	3019	0.75	<1.36	0.31	>0.21	-0.42	>-0.64	-0.83	<-0.67
Fiji	70.0	yellow	red	red	yellow	yellow	red	UMC	6176	2.68	>2.37	0.22	<0.34	0.2	>-0.05	-0.22	<-0.10

Note. *on average in countries with the same income level based on the WB classification;

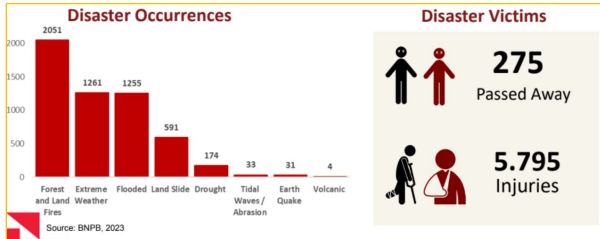
LMC - Lower middle income (US \$1,036-4,045 GNI per capita); UMC - Upper middle income (US \$ 4,046 - 12,535 GNI per capita).

Source: developed by authors based on SDG Index and Dashboard²⁶, AXCO, Financial Development Index²⁷, Governance Indicators²⁸.

Topic 3: Action Plan in Context of Indonesia



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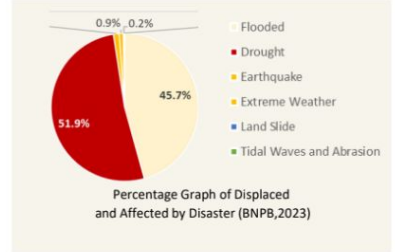


Reference: Ibrahim Kholilul Rohman, Financial protection gaps in retirement savings and insurance for Natural Hazards, IFG Progress, Presented during **OECD-ADBI-OJK Roundtable Event –Yogyakarta, 9 Jul 2024**

Displaced and Affected Individuals in 2023



8.491.288
People
Suffering and
Displacement



Impacted Houses Damaged by Disasters



4.870 Houses
Severely
Damages



36.265 Houses
Low
Damages



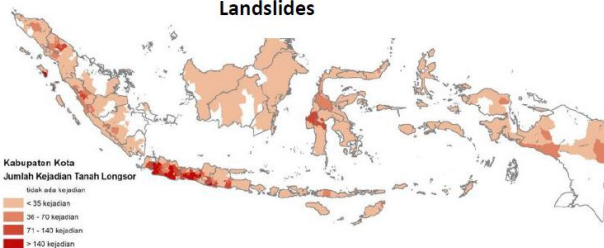
6.079 Houses
Moderately
Damages



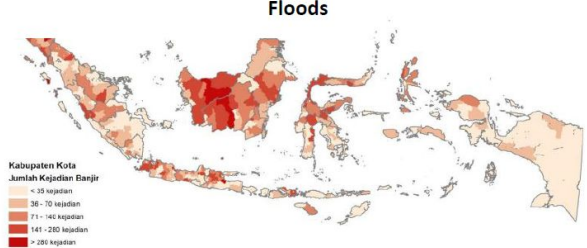
754.827 Houses
Submerged

IndonesiaRe

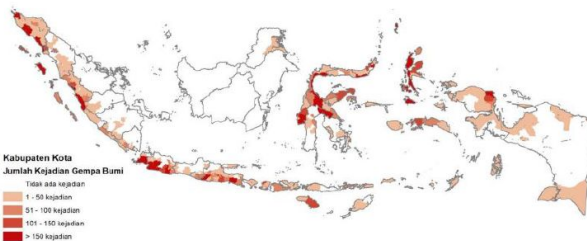
Landslides



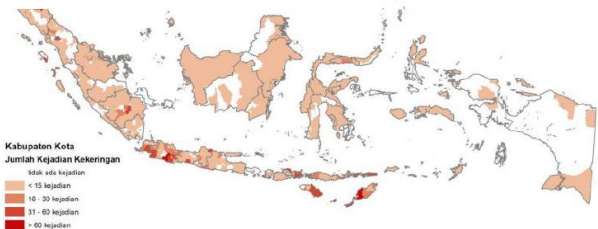
Floods



Earthquakes



Droughts



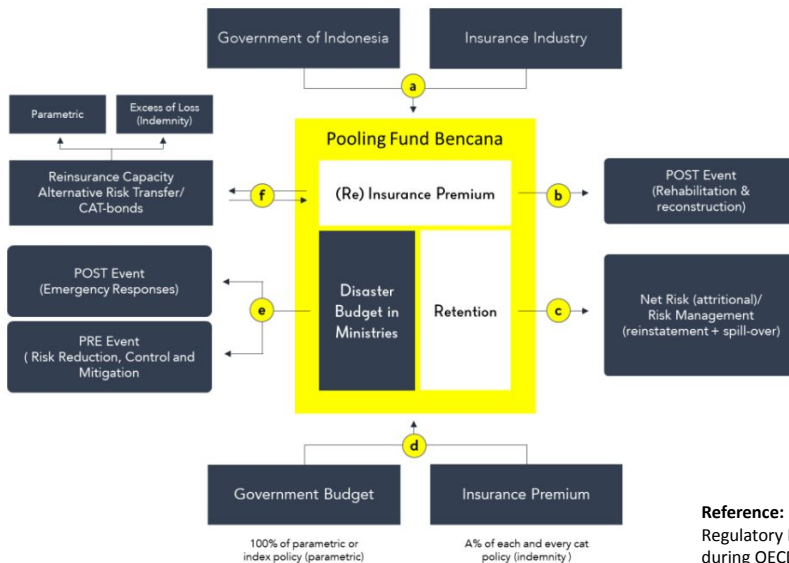
Source: Potensi Desa (2021), LPEM UI, IFGP

Reference: Ibrahim Kholilul Rohman, Financial protection gaps in retirement savings and insurance for Natural Hazards, IFG Progress, Presented during OECD-ADBI-OJK Roundtable Event –Yogyakarta, 9 Jul 2024: **KEJADIAN= NUMBER OF EVENTS**



Initiative on NatCat

Indonesia's Disaster Risk Financing & Insurance (DRFI)



Proper Processes for Risk Assessment and Risk Allocation



Create environment for the financial protection for individuals and businesses



Long-Term View on Disaster Pooling Fund to mitigate the impact on public finances

Reference: Iwan Pasila, Update Update on Indonesia's Insurance Market & Regulatory Development, Otoritas Jasa Keuangan, Indonesia, Presented during OECD-ADBI-OJK Roundtable Event –Yogyakarta, 9 Jul 2024

8

Examples as Decision Makers: Government Policies at National Level

- As a part of the Indonesian government's strategy to build resiliency against natural disaster, the Vice President of the Republic of Indonesia launched the Disaster Risk Financing and Insurance (DRFI) Strategy for Indonesia in 2018. The strategy aims to obtain timely, targeted, sustainable and transparent disaster-risk funding schemes.
- Issued by the World Bank, the first-ever sovereign catastrophe bond in Southeast Asia provides the Government of the Philippines with USD 225 million in protection against earthquake and tropical cyclone risk over 3 years

Reference: Guy Carpenter, 2019, Natural Catastrophe Protection Gap in Asia Calls for Collaborative Innovation, Published by Guy Carpenter & Company LLC. https://www.guycarp.com/content/dam/guycarp-rebrand/pdf/Insights/2022/2022_7_Protection-Gap-Publish-final.pdf





PLANNING AND DEVELOPMENT
RESEARCH FOUNDATION, INC.

THANK YOU

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Q&A Session

Question:

Transition from fossil energy to renewable one is not that simple especially for a developing countries, but, there is target to achieve NZE, what's your thought?

Answer:

Based on available data, there is a noticeable shift happening in the Philippines towards alternative energies, particularly with the adoption of solar panel systems. However, a rapid transition from fossil fuels to alternative energy is not feasible at the moment. This is because we currently lack the necessary resources and infrastructure to support such a shift.

To facilitate this transition, it is essential to first establish a solid infrastructure foundation. I completely agree with the gentleman who suggested that we should observe how other countries are managing their transitions. By learning from their best practices, we can better implement effective strategies in the Philippines.

Q&A Session

Question:

What is the government's role in (DRR) and (CCA), which are crucial for a country's survival, and how does insurance contribute to mitigation efforts?

Answer:

Governments play a crucial role in safeguarding a nation's future by implementing effective Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) strategies. This involves creating comprehensive policies, allocating sufficient resources, and establishing robust early warning systems.

A key governmental strategy is risk pooling, which involves accumulating funds to be used in case of disasters. By acting as a financial safety net, governments can mitigate the impact of catastrophic events. Insurance complements these efforts by providing financial protection to individuals and businesses, aiding in recovery and reconstruction processes.

Risk Pooling is something that governance could do. When there is problem, the risk could be used for solving it. DRR and CCA should be included at the early stage, which is from the planning stage. so it could change the life quality for people.

Q&A Session

Question:

What can insurance industry do to help accelerate energy transition?

Answer:

There won't be an abrupt transition; it's simply not possible. Throughout the day, the word "change" has come up repeatedly—over 20 times by Mr. Tham alone. Change is constant, and if we don't adapt our policies accordingly, as one gentleman mentioned, we'll be left behind.

Indonesia has a competitive advantage in producing high-quality charcoal and coal. Instead of exporting all our good-quality coal and importing inferior bituminous coal, we should focus on redevelopment policies. Development is essential, but so is redevelopment. Take Singapore, for example: it's a small country with no development departments, only redevelopment partners. They constantly redevelop and innovate, setting a strong example.

Indonesia needs its own innovative touch. For the insurance industry to provide effective solutions, it must innovate in its reinsurance strategies. For instance, when insurers invest in building a dam for a city, they reduce future damage and costs, benefiting everyone in the long term. The insurance industry can play a significant role in accelerating the transition from coal to alternative energy by driving development and innovation.

Conclusion:

The role of Planner is to make a plan and then give it to the city government. However, they may haven't implement that plan. So, the focus now is on localizing National policies to trickle down to the local level which is local government. How they are acting to align their policies of Disaster Reduction dan Climate Change Adaptation by mainstreaming it at very early stages of land use and development on Master Planning for next 10 to 25 year by every country.

Local governance systems in the Philippines and Indonesia have similarities, both needing improvement in participatory processes. Key policies in the Philippines include local climate change action plans and disaster risk management plans mandated by law. Decision-makers, like mayors, implement plans developed by planners, integrating DRR and CCA into local development.

From Prof. Dr. Raza, we learn that as a part of the Indonesian government's strategy to build resiliency against natural disaster, Indonesia has launched the Disaster Risk Financing and Insurance (DRFI) Strategy for Indonesia in 2018. The strategy aims to obtain timely, targeted, sustainable and transparent disaster-risk funding schemes

As a part of the Indonesian government's strategy to build resiliency against natural disaster, the Vice President of the Republic of Indonesia launched the Disaster Risk Financing and Insurance (DRFI) Strategy for Indonesia in 2018. The strategy aims to obtain timely, targeted, sustainable and transparent disaster-risk funding schemes.



Fourth Panel Discussion

The Future of Insurance: *Enhancing Enterprise Data Center as Corporate Strategic Enabler*

Content:

- The Urgent and Ugly Truth about Business Disruption in Insurance Industry
- Road to Inclusive Insurance: Exploring the Potential of Uninsured Community and How Big Data Could Play A Role
- Better Together: Finding the Right Balance between Artificial Intelligence and Human Touch
- Cyber Security: Better Defense, Better Measurement

Moderator Introduction

DELIL KHAIRAT

Director of Technical and Operation at Indonesia Re



We have witnessed the progression of the enterprise data center from a support function –providing employees with the tools they need to work– to a business enabler that provides instant access to data that is critical to your business and a positive digital experience for your customers.

Getting your data center strategy right results in a scalable, cost effective asset that can drive digital business, enable innovation, and drive revenue growth.

The insurance industry is on the cusp of a data-driven transformation. By leveraging the power of their enterprise data centers, insurers can unlock a wealth of insights to drive strategic decision-making. This data can be used for everything from risk assessment and personalized pricing to fraud detection and claims processing.

By investing in advanced digitalization and data center, insurers can gain a competitive edge and create a more dynamic and customer-centric future.

The Urgent and Ugly Truth about Business Disruption in Insurance Industry



JONATHAN STERNBERG

Chief Business Officer, Medix Global

Executive Summary:

Insurance companies are navigating a period of extreme uncertainty that requires them to negotiate an unprecedented set of challenges at the same time. Higher inflation and multiple price shocks are increasing the odds of recession across the major developed economies. It is especially challenging because it follows a long period of relative economic stability. Against the current background of huge macro volatility and industry-specific pressures, firms must find new ways to improve their execution and use the benefits of transformation programs to position themselves for increased growth and profitability.

Established insurers tend to be hampered in their transformation efforts by rather monolithic, legacy technology systems that are more difficult and expensive to maintain and upgrade.

Disruptive technologies, shifting demographics, rising customer expectations, increasing regulatory oversight, and new competitive entrants represent serious challenges –even severe threats– to insurers. Staying relevant and viable demands that insurers make bold, strategic, and urgent changes.

medix

Indonesia Re
International
Conference 2024

Jonathan Sternberg
Chief Business Officer



medix

Meet **Medix.**

The crucial health conduit
that delivers impactful responses
to any health need throughout life.

Medix directs the full potential of
medical science to change the
course of your members' health
for better human outcomes.





*We don't provide second opinions
or generic solutions,*

**Medix delivers
personalised health
responses, always
borderless
and scientific.**



**24/7 VIRTUAL
HUMAN SUPPORT**
for corporates and
their employees
around the world.



**INVENTIVE
DIGITAL TOOLS**
combined with
the human touch.



**300+ IN-HOUSE
DOCTORS**
for expert
consultations &
support.



**GLOBAL QUALITY
ACCREDITED
NETWORK** of
over 4,500 world
leading specialists
and 2,000 hospitals.



**IMPACT
ACROSS
90+ COUNTRIES**
with one of the
largest global
health footprints.



**9+ MILLION
CUSTOMERS**
accessing our
resources and
responses.



**RIGOROUSLY
SMART AI &
ANALYTICS**
for data-enriched
decision making.



BASES in London, New York,
Munich, Hong Kong,
Singapore, Jakarta, Mumbai,
New Delhi, Kuala Lumpur,
Bangkok, Melbourne, Tel Aviv,
Dubai (2024), Miami (2024)



STRONG LOCAL FOOTPRINT – APAC BEING A CORE MARKET
Deep understanding of the local Healthcare landscape and corporate world;
Proven better medical outcomes.



**The Future of Healthcare & Impact
on Business Continuity**

The Future of Healthcare in a Nutshell

Existing healthcare institutions will slowly be crushed as new business models with better and more efficient care emerge. Thousands of startups, as well as today's data giants (Google, Apple, Microsoft, SAP, IBM, Alibaba, Tencent, etc.) have entered this lucrative multi trillion \$ healthcare industry with new business models that dematerialize, demonetize and democratize today's bureaucratic and inefficient system.

Biometric sensing (wearables) and AI are exponential enablers of managed care.

Large-scale whole genomic sequencing and machine learning allows us to better understand the root cause of cancer, heart disease and neurodegenerative disease and what can be done about it

Robotic surgeons can carry out an autonomous surgical procedure perfectly (every time) for pennies on the dollar

Each of us will be able to **regrow a heart**, liver, lung or kidney when we need it, instead of waiting for the donor to die

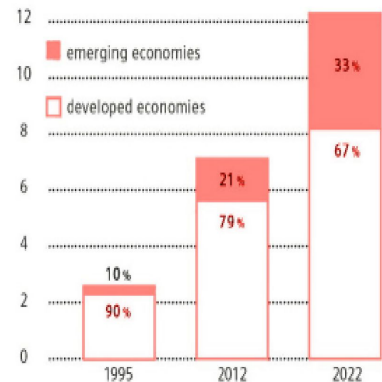
Healthcare Trends

- **Enhanced Data plays** - EMR, Digitalisation, Big Data, AI, Cloud Medicine, Augmented Reality in OR, Tele & Mhealth, Sensor Medicine & Home Care
- **Genomics**: All-Sequencing, Bio-Informatics, Integration of Genomic Data in personal EMR, Targeted and Personalised Medicine, empowerment of Pharmacogenetics, Genome Editing Techniques, Non-Invasive Cancer Screening
- **Nanomedicine**: Drug Delivery, Theranostics, Nanobiosensors, Nanobots
- **Medical Robotics**
- **Regenerative Medicine**: Cell Therapy & Gene Therapy, Stem Cell therapy, Tissue Regeneration, Bio-printing

Mega Outcome?!?! Public Health Funding & Data Crisis

- Personalised Medicine, Drug & Treatment Cost, Disease Load, Increased Demand and Expectation are leading Medical Cost Inflation
- Public Expenditure on Health as percentage of GDP will eventually reach global average of up to 15%
- In the coming 15 years we will see more and more Governments and Public Systems privatizing Healthcare Responsibilities and sharing platforms;
- Big Data and Digital Health, AI are the only tools that can help alleviate the burden - being cost effective yet ensuring quality driven care
- Data sharing platforms and Analytics are the only future

Global health expenditure (in trillion US\$) ⁵⁾



1.

Patient uploads his Genetic Data, Blood Tests and Scans

↓
Personalisation, Genetic Profiling and Cloud Medicine

2.

Diagnosis is made via multi-disciplinary discussion with specialists across the world

↓
Remote Access and Borderless Care

3.

Surgeon in NYC remotely controls robot to perform surgery on the patient in HK

↓
Robotic Surgery

4.

Patient recuperates at home with wearables transmitting vital signs in real-time to the physician

↓
Wearables and Continuous Monitoring

Borderless Healthcare Ecosystem

- ✘ Accessibility to quality healthcare everywhere
- ✘ Efficient use of medical resources
- ✘ Healthcare cost sustainability
- ✘ Flattening the Inequality-of-Care curve

However the following issues must be addressed:

- ✘ Privacy
- ✘ Regulation
- ✘ Liability

How Do We as Payers, Providers and Custodians of Data Address Challenges & Ensure Business Continuity

- Invest in compliance and training of teams
- Ensure Business Continuity Plans (BCP) are in place
- Analyse and manage internal and external risks dynamically
- Ensure technology stack is up to date
- Invest in your team and provide them with the appropriate tools



In health.



Q&A Session

Question:

What is a strategic way to be better prepared for a cyber attack?

Answer:

I believe that ensuring readiness against cyber attacks is not a one-time action but a continuous and dynamic effort. Our Chief Information Security Officer (CISO) is particularly concerned with infrastructure issues and cyber attacks.

Here are some recommendations to enhance our cybersecurity posture:

Conduct a Comprehensive Audit: Map out your current infrastructure and risks in detail. If you don't have an internal expert, hire a professional firm to perform this task. The audit should include penetration tests and risk mapping to identify gaps.

Appoint a Dedicated Expert: If you don't already have someone responsible for cybersecurity, appoint an individual with relevant knowledge and experience. This isn't just an IT issue; it's a board-level concern that can impact the entire organization's operation.

Implement Solutions: Once gaps are identified through the audit, bridge them by implementing appropriate technologies and solutions. This should cover both infrastructure (cloud or physical) and individual workstations.

Q&A Session

Answer (cont.):

Regular Training and Awareness: Conduct regular IT and cybersecurity awareness sessions for all employees. At our organization, we hold regular tests on this training. Employees who fail the test twice are given one more chance; failing again results in termination.

This is because human behavior significantly impacts cybersecurity risks. Actions such as inserting unauthorized flash drives or bringing unapproved hardware to the office can pose serious risks.

By following these steps, organizations can better understand their exposure and reduce cyber risks.

Conclusion:

From Mr. Jonathan Sternberg, we could learn that existing healthcare institutions will slowly be crushed as new business models with better and more efficient care emerge. Currently, biometric sensing (wearables) and AI are considered as exponential enablers of managed care. We also have current several healthcare trends in front of us in daily basis, such as enhanced data plays, genomics, nanomedicine, medical robotics, and regenerative medicine.

Personalized Medicine, Drug & Treatment Cost, Disease Load, Increased Demand and Expectation are leading Medical Cost Inflation.

In the coming 15 years we will see more and more Governments and Public Systems privatizing Healthcare Responsibilities and sharing platforms. Thus, big Data and digital health, and AI are the only tools that can help alleviate the burden - being cost effective yet ensuring quality driven care

As payers, providers, and custodians of data, we shall address these challenges and ensure business continuity through:

- Invest in compliance and training of teams
- Ensure Business Continuity Plans (BCP) are in place
- Analyze and manage internal and external risks dynamically
- Ensure technology stack is up to date
- Invest in your team and provide them with the appropriate tools

Last but not least, the human factor can be a significant factor for the disruption of Healthcare ecosystem. Hence, we have to investing in our team to train them to have the responsibility to ensure the privacy, regulation, and liability.

Road to Inclusive Insurance:

Exploring the Potential of Uninsured Community and How Big Data Could Play A Role



PAUL SETIO KARTONO

President of Society of Actuaries Indonesia
(Persatuan Aktuaris Indonesia, PAI)

Executive Summary:

Throughout the COVID-19 Pandemic and macroeconomic volatility, there are many people who lost their job and face economic disruption. The condition leads to coverage disruption since it might not be their priority to enroll for health coverage.

The world recorded that most uninsured people are in low-income families. People without insurance coverage have lower access to care than people who are insured. Those without insurance are more likely to delay or forgo care due to costs. Studies repeatedly demonstrate that uninsured people are less likely than those with insurance to receive preventive care and services for major health conditions and chronic diseases. Hence, uninsured people often face unaffordable medical bills when they do seek care. These bills can quickly translate into medical debt since most people who are uninsured have low or moderate incomes and have little, if any, savings

Road to Inclusive Insurance:

Exploring the Potential of Uninsured Community and How Big Data Could Play A Role (cont.)

It should be the focus of (the next) Government and Insurance Industry as the backbone of Indonesian economy sectoral to be able to provide more affordable coverage for the uninsured community. However, Insurance Industry as the provider of this service have to formulate about the extent of the guarantee that will be provided and how much premium should be charged. In this case, it is hoped that big data can provide insight to produce win-win solutions for all parties.

Inclusive Insurance and Role of Data

IIC 2024

Presented By:
Paul Setio Kartono,
FSAI, CFA, ASA, MAAA, FIIS



Disclaimer

This presentation is a self reflection and personal view and experience. It doesnt represent the company where presenter work or any organizations that presenter volunteer or lead.



The presentation is combination from various sources and may not representing experience



What is Inclusive Insurance

People who need protection the most are the one usually doesn't have any insurance protection against the risk



Low education and literacy

People who have limited access to education and literacy are not aware of the daily risks they are facing



Lack of trust in insurance

Insurance is still facing low trust issues, and low literacy adds the complexity



Lack of access / uninsured

Location in remote areas and difficult infrastructure. Also uninsured by normal insurance



Low income

Low income means low access to basic needs is a barrier to getting an insurance

Character Inclusive Insurance



Low Ticket Size



High Cost of Distribution



Unavailability of Statistics



Unique Solution required



Huge Potential

Use of Data in Inclusive Insurance



Design New Products

Examples of risk due to climate change, Product to cover extended warranty, late delivery of goods, change in commodity price



Pricing Strategy

Calculate the risk of loss of income with several parameters including correlation with weather indices etc



Acquire and Retain Customers

Data can be used to reward customers/insured, and use to distribute the product through communities



Improve Customer Experience

Data can be obtained prior to giving insurance. For example giving bloodsugar device to obtain data before underwriting



Claims Management

Use of AI to pay claims

Examples

bluezone

Products ▾ Resources ▾ About ▾ Contact [Get a quote](#)

Term Life Insurance for Type 2 Diabetes

Specialist Life Insurance made easy

Insureade

Forget Everything You Know About Insurance



Ant Financial's mutual-aid platform Xiang Hu Bao attracts 100 million users, boosts insurers' sales by 60 per cent in first year

- More than 10,000 people have obtained financial aid through the platform as of November
- About 60 per cent of its users come from third or lower tier cities, counties and rural areas



Source

Arisha Salman, et al The role of Data in inclusive insurance
IAA Micro insurance working group, Assessing Risk and Proportionate Actuarial Services in Inclusive Insurance Market
Websites of examples



Thank You



Conclusion:

From Bapak Paul, we learn that people who need protection the most are usually the one who doesn't have insurance. This is caused by their lack of education and literacy, lack of access, lack of trust in insurance, and low income, hence, buying an insurance protection is not a priority for them.

Inclusive insurance is crucial for people who currently lack access or funds to buy insurance. Those who need insurance the most often cannot obtain it. This is particularly evident in Indonesia's life insurance industry, where penetration is low at about 10%. However, those 10% often have multiple policies.

There are approximately 3.5 billion people worldwide without access to insurance. The lack of access is due to several factors:

- **Low Education and Literacy:** Many people, especially in Indonesia, have limited access to education, and insurance is not well introduced in the education system
- **Perception of Insurance:** Many people do not trust insurance or have had negative experiences
- **Affordability and Accessibility:** Insurance can be expensive, and rural areas often lack the infrastructure to support insurance services
- **Lack of Data:** Insurance companies struggle to price policies correctly due to a lack of statistical data.

When we are talking about inclusive insurance characters that need to be fulfill are low ticket size, unique solution, high cost distribution, huge potential, and unavailability of statistic. Inclusive insurance itself needs data to design new product, pricing strategy, acquire and retain customers, improve customer experience, and claim management.

There is a significant opportunity to expand insurance coverage, especially in underserved areas. Innovative solutions are required to cater to these markets, taking into account the specific needs of different communities, such as farmers or fishermen.

Better Together:

Finding the Right Balance between Artificial Intelligence and Human Touch



DONNY MIRZA ADHITAMA

Senior Data Scientist at BitHealth

Executive Summary:

Advanced analytics, machine learning, and artificial intelligence can improve underwriting processes, claims management, and overall decision-making in the insurance sector.

Insurers could leverage AI to craft tailored interactions, on which AI may address the fast-paced needs of modern consumers, enhancing claim processing speed, and underwriting efficiency.

However, technology will not magically work 'out of the box'. It still needs humans to learn, stay relevant, and serve as a backup when needed. There always be a place where interpersonal skills and judgment are needed, and that's where human touch could complete the works of AI

Re International Conference 2024 (IIC 2024) - July 25th, 2024

The Power Duo: AI x Human Collaboration

Exploring the Dynamics and Future of Collaboration

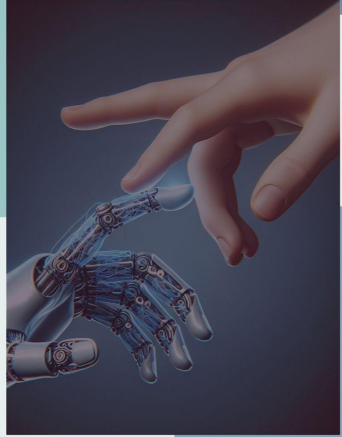
Donny Adhitama

BitHealth.co.id



LinkedIn

[linkedin.com/in/dm-adhitama](https://www.linkedin.com/in/dm-adhitama)



**"AI is neither good
nor evil.
It's a tool.
It's a technology
for us to use."**



Oren Etzioni

Part 1

Silicon Souls & Fleshly Feelings

AI First Mentioned

Unveiling the Pioneers and Milestones in AI History

Alan Turing's Publication

In 1950, Alan Turing introduced the concept of a test to evaluate a machine's intelligence, now known as the Turing Test.

IBM 701: The First AI-Driven Program

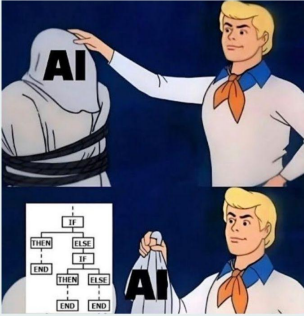
The IBM 701, launched in 1952, was the first computer to utilize AI techniques, marking a significant leap in AI development.

McCarthy Coined AI for the First Time

John McCarthy held a workshop at Dartmouth on "artificial intelligence" which is the first use of the word, and how it came into popular usage.

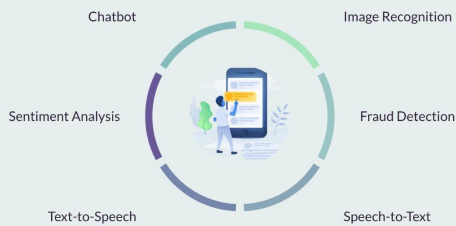


AI Then



AI Now

Exploring the Latest AI Capabilities (Yes, they are really good actually)



However, in some cases...



Figure 1: Natural adversarial examples from IMAGENET-A. The red text is a ResNet-50 prediction with its confidence, and the black text is the actual class. Many natural adversarial examples are incorrectly classified with high confidence, despite having no adversarial modifications as they are examples which naturally occur in the physical world.

9.11 and 9.9 which is bigger?

9.11 is bigger than 9.9. When comparing decimal numbers, you start by comparing the digits from left to right. Both numbers have the same digit in the units place (9), but in the tenths place, 1 is less than 9. Therefore, 9.11 is greater than 9.9.



Other AI Failures

AI Bias in Image Recognition

AI systems displayed biases in recognizing images, leading to inaccurate results.

AI Discrimination Against Humans

Instances where AI showcased unfavorable behavior towards human interactions.


AI Healthcare Failures

AI applications designed for medical purposes resulted in adverse outcomes like potential harm to patients.

AI thinks that Congress People look like criminals

AI falsely matched some Congress members with mugshots, highlighting bias concerns.






Intuition
Emotion
Consciousness
Creativity
Moral & Ethics
Etc...

The Human Touch

Exploring Human Characteristics in AI Collaboration



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9

<p>Decision-Making Impact</p> <h2>Intuition in Complex Decision-Making</h2>	 <h3>Improved Medical Diagnoses</h3> <p>Utilizing intuition to enhance accuracy and speed of medical diagnoses, leading to better patient outcomes.</p>	 <h3>Enhanced Market Trends & Investments</h3> <p>Applying intuitive insights to predict market trends and optimize investment decisions, improving returns and reducing risks.</p>
 <h3>Enhanced Artistic Direction</h3> <p>Leveraging intuition in artistic fields to innovate and create impactful works, fostering creativity and emotional connection.</p>	 <h3>Legal Research and Case Analysis</h3> <p>Examining through vast amounts of legal documents, case laws, and statutes to provide relevant information quickly.</p>	 <h3>Human Resources and Recruitment</h3> <p>Screening resumes, match candidates to job descriptions, and even conduct initial interviews through chatbots.</p>

Part 2

The Dance of AI and Human Interaction

Collaborative Decision-Making

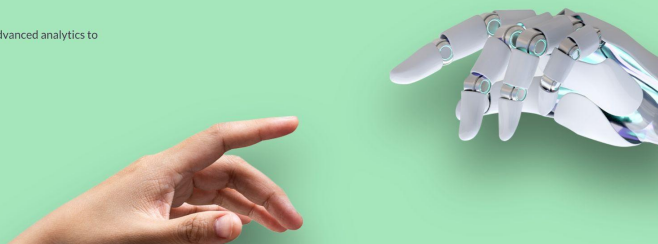
Enhancing Decision Processes with Human-AI Collaboration

Human Expertise

Humans leverage AI-generated insights to enhance their decision-making by combining data-backed information with their expertise.

AI Insights

AI systems offer data-driven insights and advanced analytics to facilitate decision-making processes.





1 AI Fairness & Bias

AI systems must be designed and trained to uphold fairness and avoid biases to ensure ethical decision-making.



2 Human Surveillance

Human judgment is essential to review and correct any biased decisions made by AI systems, maintaining ethical standards.



3 Privacy Protection

Ensure AI systems have strong privacy safeguards to protect personal data from unauthorized access and misuse.



4 Transparency & Accountability

Maintain transparency in AI operations and establish accountability mechanisms for responsible decision-making and scrutiny.

Enhancing Creativity & Innovation

Leveraging Human-AI Collaboration for Creative Excellence

AI Tools for Idea Generation

AI tools play a crucial role in generating novel ideas and innovative designs for various creative projects.

1

Synergy in Artistic Expression

Collaboration between AI and human artists results in the creation of art or music that blends AI-generated elements with human customization and style.

3

Human Creative Input

Humans bring their unique perspectives and creativity to refine and enhance the ideas generated by AI, adding a personal touch.

2

AI Augmenting Human Capabilities

Enhancing Human Performance Through AI Collaboration



AI Helps Hiring Processes



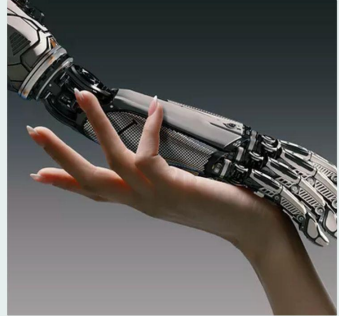
AI Assists Fraud Detection



AI Empowers Medical Diagnosis



AI Detects Subtle Product Defects



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15

Future Prospects of Human-AI Collaboration

Expanding Horizons Through Collaboration

Crisis Management

AI aiding in timely crisis response and resource allocation, enhancing overall efficiency.

Judicial Decisions

Utilizing AI to analyze vast legal databases, facilitating faster and more accurate decision-making.

Negotiations

Human-AI collaboration streamlining negotiation processes through data-driven insights and predictive analytics.

Sports Strategy

Enhancing team performance and strategy formulation by leveraging AI insights on player statistics and game dynamics.

Artistic Direction

AI contributing to creative processes by offering innovative suggestions and supporting artistic decisions.



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16

Part 3

Humans are Irreplaceable

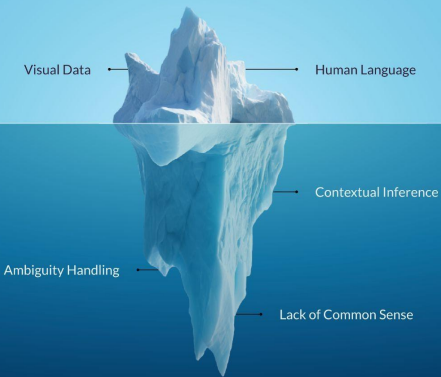
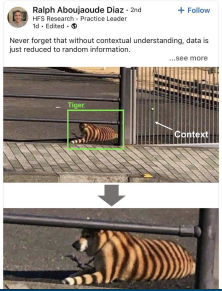
AI Lacks of Emotional Intelligence

AI struggles to understand and interpret human emotions accurately, impacting communication effectiveness.



AI Lacks Contextual Understanding

Challenges Stemming from Data Complexity



AI Lacks Moral & Ethical Judgments

Navigating the Challenges of AI's Ethical Decision-Making



- Need for Ethical Frameworks**
Establishing clear guidelines and frameworks for AI to make morally sound decisions.
- Human Supervision Importance**
Emphasizing the necessity of human supervision to ensure ethical AI decision-making.
- Enhancing Transparency**
Improving transparency in AI algorithms to understand and rectify ethical shortcomings.
- Accountability in AI**
Defining mechanisms to hold AI systems accountable for their ethical judgments and actions.

AI Lacks of...

Key Areas Where AI Falls Short Compared to Human Capabilities



Emotional Intelligence

AI systems struggle to understand, interpret, and appropriately respond to human emotions, limiting their effectiveness in various applications such as customer service and healthcare.



Creativity and Original Thought

AI lacks the ability to generate truly novel ideas, concepts, or artistic creations that require human-level imagination and creativity.



Ethical and Moral Reasoning

AI lacks the capacity for complex ethical decision-making and moral reasoning, leading to challenges in ensuring fair and just outcomes in critical situations.

Microsoft lays off an ethical AI team as it doubles down on OpenAI

Rebecca Berlan | Contributor | 7:52:05 PM GMT+11 | March 14, 2023 | [Comment](#)



WHERE WE ARE GOING



DON'T WORRY

AI IS STILL EVOLVING

Q&A Session

Question:

Can you provide a use case for GenAI in the insurance industry considering its rapid growth?

Answer:

Generative AI (Gen AI) is currently a hot topic. A common use case is a customer service chatbot, but, Gen AI chatbots are much more advanced than traditional ones. In the insurance industry, for example, these chatbots can handle a wide range of inquiries, from explaining regulations to providing details about different insurance programs.

In more specific applications, Gen AI can significantly streamline the claims process. Currently, claim procedures might involve a lot of manual, paper-based documentation. However, with Gen AI, this process can be automated. Users could simply upload a few required documents, and the AI would handle the rest.

Gen AI can parse through unstructured data in documents, extracting relevant information like identification details or proof of an accident. This capability reduces the need for manual processing and speeds up the entire claims process, providing customers with a faster and more efficient experience.

In summary, by leveraging Gen AI, the insurance industry can offer better and quicker services, improving overall customer satisfaction.

Conclusion:

From Bapak Dony, we could learn that AI is neither good nor evil. It's a tool. It's a technology for us to use.

Previously, AI could only do simple things, such as classifying what's true, false, positive, or negative. Now, it could do image recognition, speaker identification, speech-to-text, text-to-speech, sentiment analysis, chatbot, recommendation, etc.

It's true that initial expectations for AI are often very ambitious and even a little fantastical, such as flying cars and robots that can do all human tasks. However, technological developments often go in unexpected ways, and many AI applications evolve into practical and useful solutions in everyday life.

AI was built and trained by humans, so it has many places for mistakes if it did not get the right and comprehensive information. There's human touch that are hard for AI to have, such as intuition, emotion, consciousness, creativity, moral & ethics.

AI and Human need to interact each other to ensure an ethical consideration on the judgement of an AI, for human to make a collaborative decision-making using data-driven insight made by AI, Enhancing Creativity & Innovation, and there is still a lot of prospects of Human-AI collaboration

Despite the advancements and prospects of AI, humans are still irreplaceable. Because AI lacks Contextual Understanding, Emotional Intelligence, Moral & Ethical Judgement, and etc.

Cyber Security:

Better Defense, Better Measurement



SONNY ZULHUDA

Associate Professor,
International Islamic University Malaysia and
Expert in Cyber Law

Executive Summary:

As one of the critical national infrastructure (CNI) Insurance Industry become the backbone of modern society. As these critical systems are incredibly reliant on digital technology, they are also more vulnerable to cyber threats. If one of these critical systems is compromised, the consequences and ramifications are not only financial and legal, but also social and life-threatening.

The COVID-19 pandemic accelerated the adoption of remote work, and with it came an increase in remote access to critical infrastructure systems. While remote access is necessary for operational efficiency, it also introduces new vulnerabilities. We have seen cyber criminals exploit remote access systems to compromise critical infrastructure.

The cyber security threat landscape has evolved rapidly in recent years, with critical infrastructure being a prime target for malicious actors. One of the most significant challenges in critical infrastructure cyber security is the prevalence of legacy systems. These outdated systems were often designed without security in mind and can be difficult to patch or update. As a result, they are easy targets for cybercriminals.

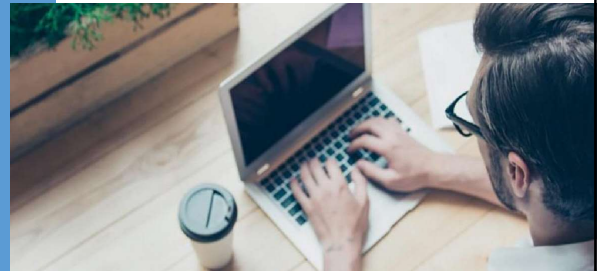
CYBER SECURITY: BETTER DEFENSE, BETTER MEASUREMENT

Sonny Zulhuda, PhD

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

INDONESIA RE INTERNATIONAL
CONFERENCE

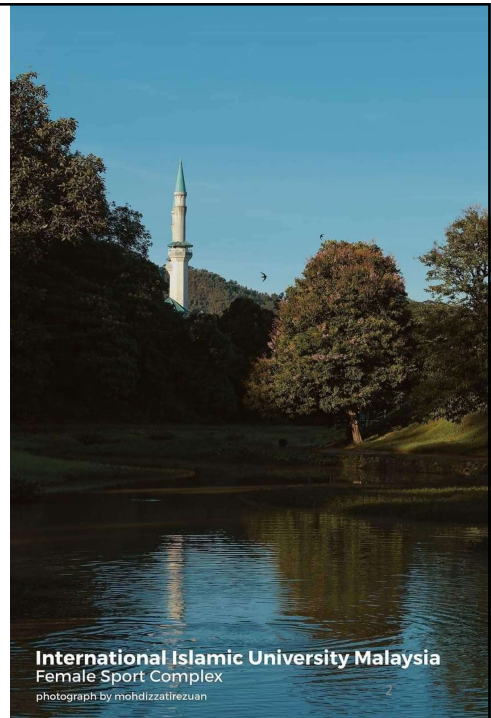
JAKARTA, 24-25 JULY 2024



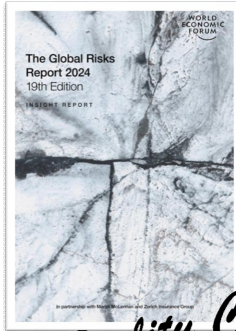
Key Discussions



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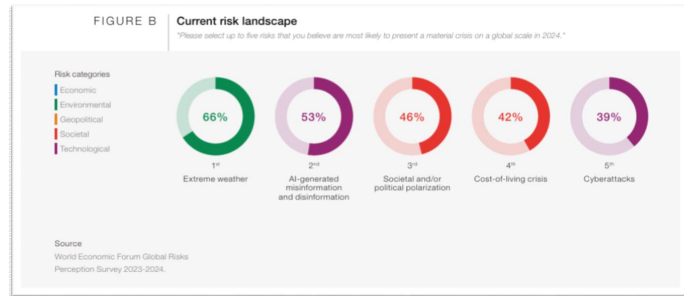


International Islamic University Malaysia
Female Sport Complex
photograph by mohdizzatirezuan



Reality Check!

- ✓ Attack or threat to cyber security has been top global risk cited in the past five years by the World Economic Forum (WEF)
- ✓ Cyber (in)security means the use of cyber weapons and tools to conduct cyber warfare, cyberespionage and cybercrime to gain control over a digital presence and/or cause operational disruption, including ransomware, data fraud or theft.



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3

FIGURE 2.30

Risk governance: Crime wave

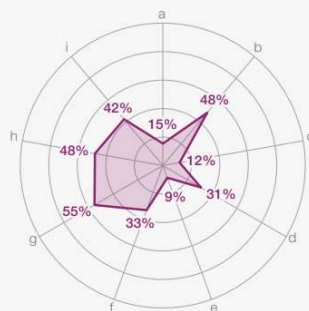
"Which approach(es) do you expect to have the most potential for driving action on risk reduction and preparedness over the next 10 years? Select up to three for each risk."

Approach

- a. Financial instruments
- b. National and local regulations
- c. Multilateral treaties and agreements
- d. Global treaties and agreements
- e. Development assistance
- f. Corporate strategies
- g. Research & development
- h. Public awareness and education
- i. Multi-stakeholder engagement



Share of respondents



Cyber insecurity

Risk categories: Economic, Environmental, Geopolitical, Societal, Technological

Source

World Economic Forum Global Risks Perception Survey 2023-2024.

sonnyzulhuda.com



The Truth about Cyber Threats...

- ✓ The consequence of Cyber Threat is a compromised Cyber Security. To the integrity and availability of the Digital assets (e.g. to the Critical Information Infrastructure) Example:
 - Confidentiality compromised – Illegal sale of 26 mil. Malaysian telco subscribers' data (2018)
 - Integrity disturbed – Ransomware attack to Indonesia's National Data Centre (Jun 2024)
 - Availability disrupted – Global outage of Windows-operated systems due to faulty security software updates (Jul 2024)
- ✓ Cyber Threat comes from either INTERNAL or EXTERNAL sources and fraudulent actions (e.g. for competition) or non-malicious motive (e.g. accident, negligence, disaster).
- ✓ RESILIENCE against Cyber Threat means capability to stand with major attacks or able to get back to business as soon as possible after a cybersecurity attack. This Resilience supported by all measures at all stages (Detect – Deter – Respond – Recover)

sonnyzulhuda.com

5

Cyber Risks in the Financial Institutions

Data breaches still haunt Indonesia as BSI becomes latest victim

The hacker group, which uses malicious software LockBit 3.0 that blocks user access to computer systems, claimed to hold BSI's data, including its customers' and employees' contact details, financial documents, card details and passwords of the customers.

Nur Janti (The Jakarta Post)



Potential data breach at iPay88 still under probe, says Bank Negara

THE STRAITS TIMES

8,500 phishing cases in Singapore in 2022; more than 80% spoofed a bank or financial service

The 'pinjol' trap: The horrors of payday loans in pandemic-stricken Indonesia

Many Indonesians are drowning in overbearing loans and intimidation attacks after taking out on loans to survive.

Jakarta • 14 September 22, 2022

Maybank warns of new fake banking website created to steal customer details

By ANGELIN YEOW

Singapore bank faces regulatory action over 'unacceptable' digital service outage

Hours-long disruption to DBS' online banking services is the second such incident in just over a year, notes Singapore's industry regulator, which says the bank has "fallen short" in ensuring system availability and quick recovery.



Police Arrest EDCCash CEO over Cryptocurrency Fraud

Translator: Ricky Mohammad Nugraha Editor: Laila Afifa

20 April 2021 23:09 WIB



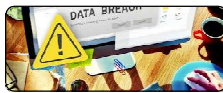
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Key Legislations in Malaysia on Data Governance



Personal Data Protection Act 2010

- Upholds privacy, protects data of individuals
- Confers a set of rights of data subject



Computer Crimes Act 1997

- Protects the security of computer and computer system
- System security creates trustworthy work environment



Cyber Security Act 2024

- Mandates a national coordination on cybersecurity of critical infrastructure
- Includes both preventive and responsive measures against cyber threats



Communications and Multimedia Act 1998

- Promotes co-regulatory measures
- Penalises misuse of network facilities



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Cyber Security and the Critical Information Infrastructure

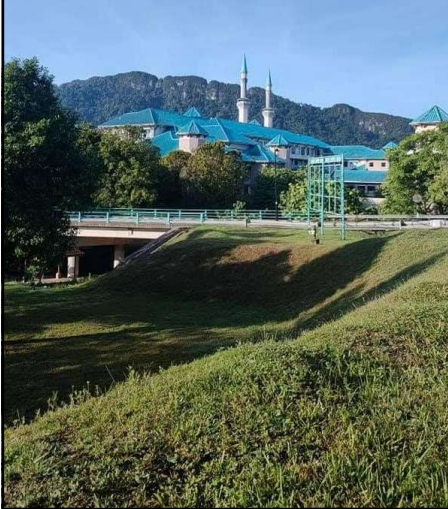
11 National Critical Information Infrastructure (NCII) sectors in Malaysia:

1. Government;
2. Banking and finance;
3. Transportation;
4. Defence and national security;
5. Information, communication and digital;
6. Healthcare services;
7. Water, sewerage and waste management;
8. Energy;
9. Agriculture and plantation;
10. Trade, industry and economy; and
11. Science, technology and innovation

Cyber Security Act 2024 [Act 854] s. 4

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Statutory Duties for the CNII Entities (Act 854) – Including the insurance and reinsurance sectors



1

PROVIDE information relating to the infrastructure.

- When required, must disclose to assist the NCII sector lead.
- Outcome: Cyber leadership, Collective responsibility. Transparency

2

IMPLEMENT the Codes of Practice (CoP).

- To implement the measures, standards and processes as specified.
- Outcome: Measurable steps on cybersecurity standards

3

CONDUCT cyber security risk assessment and audit.

- Must conduct within the prescribed period.
- Outcome: Preventive act, accountability, continuous improvement

4

NOTIFY cyber security incident.

- Must notify cyber security incident in prescribed period & manner.
- Outcome: Transparency, consumer protection, speedy response.

5

PARTICIPATE in cyber security exercises

- To assess the readiness in responding to threat or incident.
- Outcome: Readiness, agility, resilience

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9

Key Takeaways for Financial Institutions

01

The digital transformation dictates that insurance & reinsurance industries must also transform starting with its digital leadership vision

02

To prevail in the digital economy, insurance/reinsurance industries must roll-out strategic plan on the use & management of their data assets

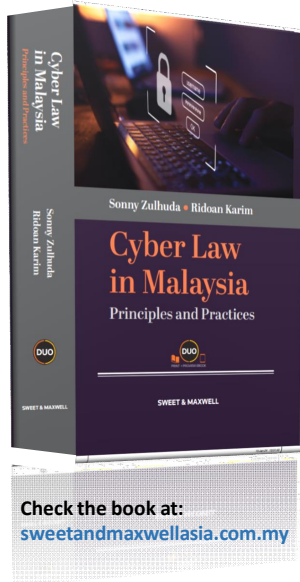
03

Data risks should be managed with governance: Due diligence, Cyber Security Compliance, and Strategic Risk Management

04

Understanding the key legal and regulatory framework and risks landscape is key to a successful data governance

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THANK YOU

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Q&A Session

Question:

How the regulators convinced that the shared data customers in respond to the new regulation pertaining to the credit scoring for policy holders?

Answer:

When it comes to credit scoring, two key legislations come into play: the Personal Data Protection Act (PDPA) of 2010 and the Credit Reporting Agencies Act, also from 2010. Generally speaking, across all industries, consumers' data is protected under the PDPA.

For an insurance company, which we refer to as the data controller, any processing of consumer data must have clearly defined purposes. These purposes should be detailed in privacy policies, service level agreements, or consumer contracts. Each purpose must be directly related to the business. For instance, if you have 10 purposes for data use, all must pertain to the insurance business.

A common issue arises when data controllers use data for unrelated purposes, such as product research or analysis. Such purposes are not valid legally, and customers can complain, leading to these clauses being struck from contracts.

Regarding credit scoring, if companies want to use data for specific scoring purposes, it is crucial to include these purposes in the data processing documentation. This ensures transparency and informs customers about how their data is being used. The goal of personal data protection is to safeguard customers' dignity and uphold their rights. This transparency helps build trust between businesses and consumers.

Conclusion:

We don't want the technology we develop become the master and we become the servant. so we need a good measurement and defense. We shall remember that there are key factors from the law:

- Law helps change the behavior of people, and it became the standard
- The law doesn't play
- The law keeps changing

From Dr. Sonny Zuhuda's presentation. First, about deciphering cyber threat and cyber security. Second, on Governance and Compliance with Malaysian Law as study case, and lastly, about key takeaways for insurance/reinsurance.

Also, there are four takeaways for financial institutions regarding cyber risks:

- Insurance & reinsurance industries must transform starting with its digital leadership vision
- Insurance/reinsurance industries must roll-out strategic plan on the use & management of their data assets
- Data risks should be managed with governance: Due diligence, Cyber Security Compliance, and Strategic Risk Management
- Understanding the key legal and regulatory framework and risks landscape is key to a successful data governance

There are four takeaways for financial institutions regarding cyber risks:

- Insurance & reinsurance industries must transform starting with its digital leadership vision
- Insurance/reinsurance industries must roll-out strategic plan on the use & management of their data assets
- Data risks should be managed with governance: Due diligence, Cyber Security Compliance, and Strategic Risk Management.
- Understanding the key legal and regulatory framework and risks landscape is key to a successful data governance.



Fifth Panel Discussion

Indonesia's Green Taxonomy: *Ways to Achieve Economic Resilience and Global Sustainability*

Content:

- Promoting Green Investment: Adapting to Climate Change, Contribute to Sustainability
- Redefining ESG Strategies: Finding the Right Balance, Promoting Green Transition, and Supporting Societal Shifts to Sustainability

Moderator Introduction

ROBBI YANUAR WALID

Director of Risk Management, Compliance, Human Capital and
Corporate Secretary of Indonesia Re



Sustainability has become a crucial consideration in financial sector both financing and investment. Proper management of natural resources and environmental conditions is essential for supporting the economy sustainability.

The financial sector can act as a catalyst in accelerating the implementation of economic activities that positively impact to the environment, thereby building a more resilient economy.

Furthermore, it needs all stakeholder's support in understanding the business activities that align with the Green Taxonomy.

The Green Taxonomy aims to classify sustainable financing and investment activities. It serves as the foundation for all stakeholders engaging in sustainable economic activities, categorizing those that support environmental protection, management, and climate change mitigation and adaptation. This is aligned with the government's aims to encourage innovation and investments in sustainable economic activities.

Promoting Green Investment:

Adapting to Climate Change, Contribute to Sustainability



IGNATIUS DENNY WICAKSONO

Head of Business Development 2
Indonesia stock Exchange

Executive Summary:

Green investment is crucial for long-term success, and understanding the factors that drive green finance and firm development is critical. The business plans to actively pursue green investment opportunities. Green investment awareness, access to green money, government participation, and green capital mobilization strategies all had a significant impact on firm adoption.

It is important to all stakeholders to outline the key qualities, drivers, and metrics of a green brand in order to attract new green investment. The recommendations focus on the government's critical role, the legal framework, green financing diversification, and green capital mobilization mechanisms. It is critical to increase corporate awareness of how to access and use these technologies, as well as to improve green investment communication.



Promoting Sustainable Investment in Indonesia Capital Market

“One Step Towards More Sustainable Investments in Indonesia Capital Market”

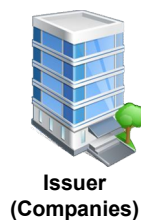


The ESG Advantage in Capital Market



ESG is good for business

- ✓ Triple Bottom Line
- ✓ Benefit from Sustainability Megatrend
- ✓ More innovation
- ✓ Reduced cost and increased efficiency
- ✓ Long term profitability
- ✓ Improved reputation and stronger stakeholder relationship
- ✓ Increase customer demand
- ✓ Increased liquidity
- ✓ Reduce operation risk
- ✓ Reduced negative externalities
- ✓ Regulatory compliance



**Issuer
(Companies)**



Consider Issuers' ESG performances for investment decision & Stewardship and Becoming More Active Investors



Investors

Integrate ESG Aspect

- ✓ Improve return in the long-term
- ✓ Reduce investment risk
- ✓ Do good for better future
- ✓ Doesn't need to sacrifice return
- ✓ Extra tools for investing



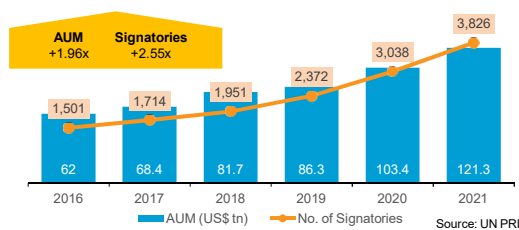
Many Investors Initiatives That Focuses on ESG Investing



The PRI focuses on incorporating ESG issues into investment practice.

- Principle 1:** We will **incorporate** ESG issues into investment analysis and decision-making processes.
- Principle 2:** We will **be active** owners and incorporate ESG issues into our ownership policies and practices.
- Principle 3:** We will **seek appropriate disclosure** on ESG issues by the entities in which we invest.
- Principle 4:** We will **promote** acceptance and implementation of the Principles within the investment industry.
- Principle 5:** We will **work** together to enhance our effectiveness in implementing the Principles.
- Principle 6:** We will each **report** on our activities and progress towards implementing the Principles.

AUM and Signatories of Global Fund in Principle for Responsible Investment (PRI)



Asia Investor Group on Climate Change (AIGCC)

Initiative to create awareness among Asia's asset owners and financial institutions about the risks and opportunities associated with **climate change** and **low-carbon investing**.



Global Impact Investing Network (GIIN)

Reducing barriers to impact investment by building critical infrastructure and developing activities, education, and research that help **accelerate the development of a coherent impact investing industry**.



Global Sustainable Investment Alliance (GSIA)

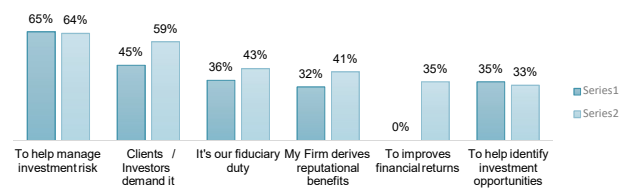
international collaboration of national forum for **responsible investment**.



International Corporate Governance Network (ICGN)

investor-led organization established in 1995 to promote effective standards of **corporate governance** and investor stewardship to advance efficient markets.

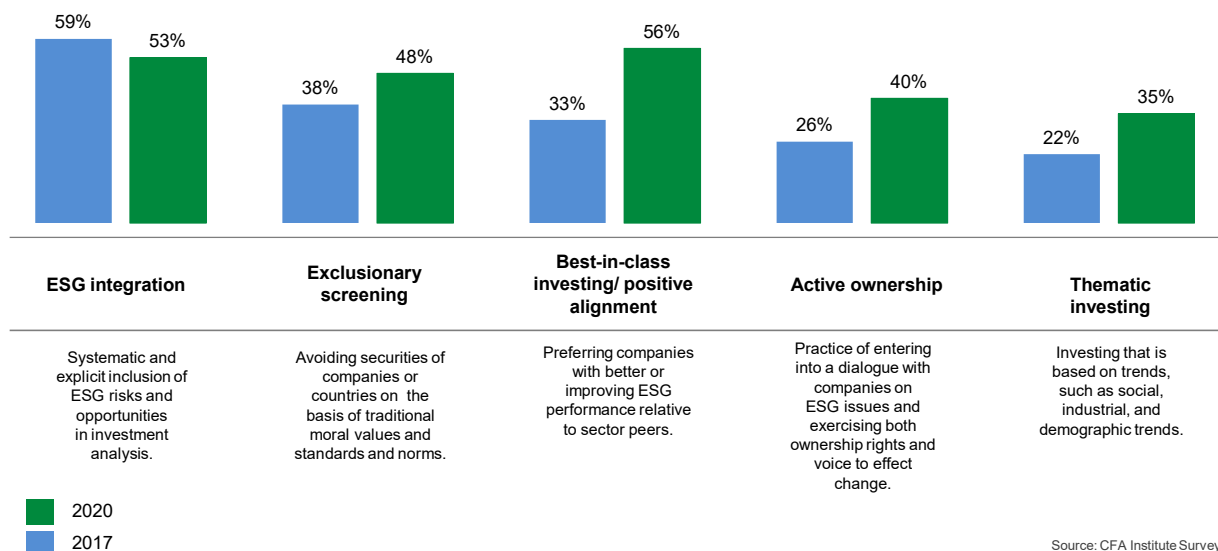
Why Take ESG Issues Into Consideration In Your Investment Analysis/Decisions?



Source: Future of Sustainability in Investment Management: From Ideas to Reality (CFA Institute, 2020)

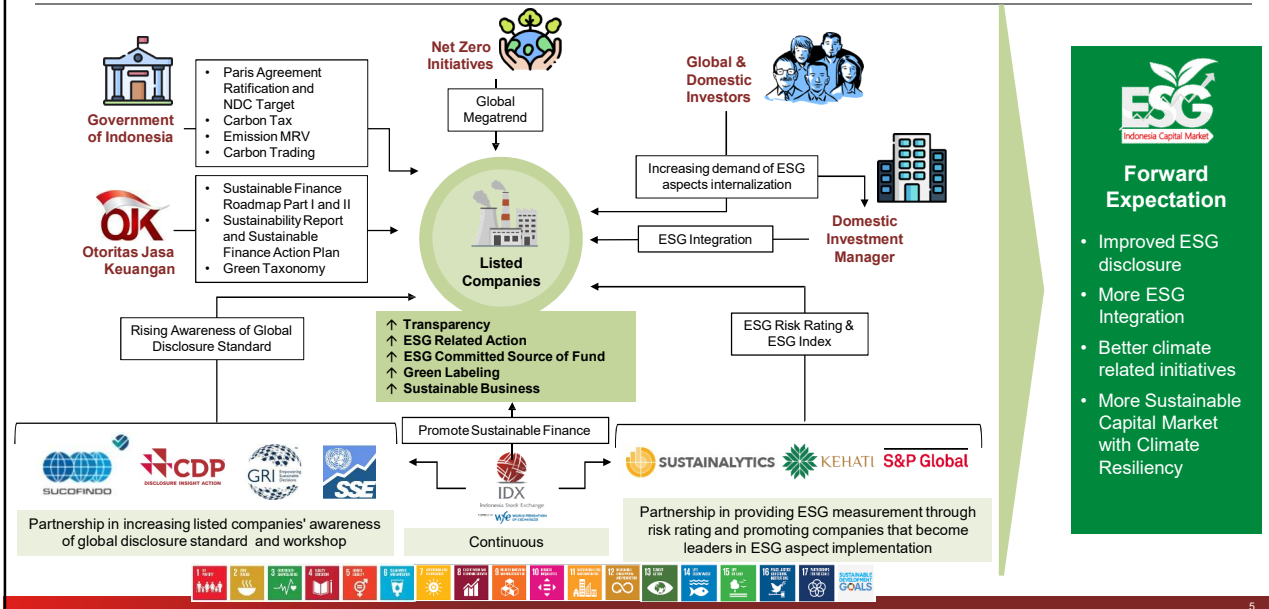
3

Methods of Considering ESG Issues



4

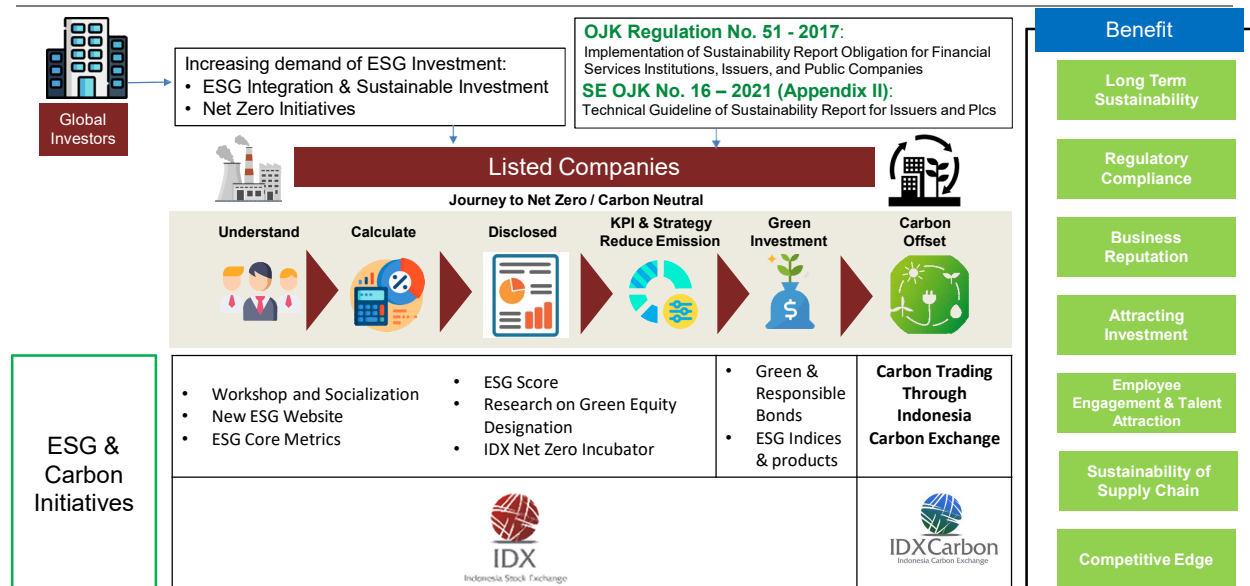
Current Landscape & Initiatives Towards Better Sustainable Investment Ecosystem



5

Capital Market Initiatives in Decarbonization and Net Zero for Listed Companies for Attracting Investors

Sustainability Report Regulation Disclosure

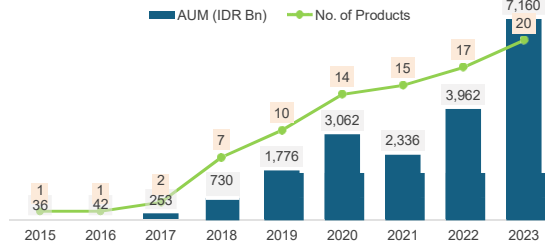


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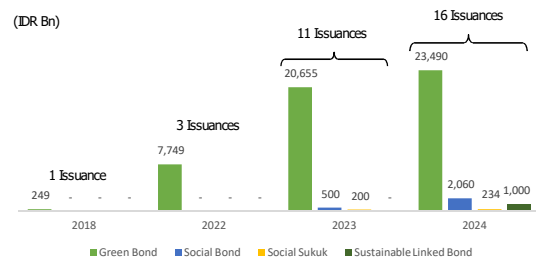
Key Figures of ESG Development in Indonesia Capital Market



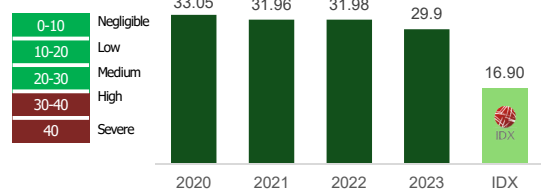
Growth of ESG Passive Funds (Equity) in Indonesia



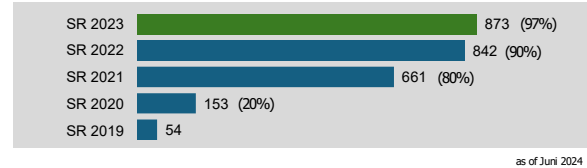
Growth of GSS Bonds/Sukuk at IDX



IDX80 Listed Companies ESG Rating is improving (Sustainalytics)



Sustainability Report Submission



as of Juni 2024

IDX Has Provided 5 ESG Indices

- ☐ IDX ESG Leaders
- ☐ IDX LQ45 Low Carbon Leader
- ☐ SRI-KEHATI
- ☐ ESG Sector Leaders IDX KEHATI
- ☐ ESG Quality 45 IDX KEHATI

7

IDX have listed 5 ESG Index to Bring Guidance for ESG Investing and Promote Companies with Good ESG Practices



	IDX ESG Leaders	SRI-KEHATI	ESG Sector Leaders IDX KEHATI	ESG Quality 45 IDX KEHATI	IDX LQ45 Low Carbon Leaders
ESG Aspect	E,S,G	E,S,G	E,S,G	E,S,G	Environment
ESG Scoring	Sustainalytics	Yayasan KEHATI	Yayasan KEHATI	Yayasan KEHATI	Carbon Emission Disclosure SR
Launch	14 Des 2020	8 Jun 2009	20 Des 2021	20 Des 2021	11 Nov 2022
ESG & Factor Methods	ESG Integration	Exclusionary Screening, Integration	Exclusionary Screening, Best In Class	Exclusionary Screening, Integration, Quality	Exclusionary, Best in Class
Number of Constituents	15 - 30	25	Unfixed	45	≤ 45
Weighted	FF-Mcap + ESG Tilt Factors	FF-Mcap	FF-Mcap	FF-Mcap	FF-Mcap, Carbon Intensity Tilt
Cap	15%	15%	15%	15%	15%
Major Evaluation	March, September	May, November	May, November	May, November	January, July
Minor Evaluation	June, December	February, August	February, August	February, August	April, October

8

IDX ESG Index Performance



Year	IDX80	LQ45	IDX30	IDXESGL	SRI-KEHATI	ESGQKEHATI	ESGSKEHATI	IDX-LQ45 LCL
2014	27.07%	23.66%	24.13%	26.97%	24.88%			
2015	-13.78%	-11.86%	-10.16%	-5.36%	-11.48%			
2016	14.16%	11.69%	14.97%	6.36%	10.88%	9.86%	11.66%	
2017	17.80%	22.02%	24.39%	26.72%	27.52%	21.52%	21.84%	
2018	-6.71%	-8.95%	-8.83%	-10.49%	-4.27%	-5.26%	-5.70%	
2019	2.65%	3.23%	2.42%	5.31%	5.78%	4.50%	4.69%	
2020	-5.70%	-7.85%	-9.31%	-7.04%	-7.76%	-8.20%	-8.32%	18.24%**
2021	-2.58%	1.56%	-1.03%	-4.12%	-1.09%	0.74%	-1.71%	6.66%
2022	-0.68%	0.62%	-1.80%	3.08%	14.00%	11.57%	12.73%	1.91%
2023	1.81%	3.56%	1.45%	11.00%	4.79%	5.44%	4.34%	6.48%
Total	34.03%	35.75%	36.23%	52.44%	63.25%	40.17%	39.52%	33.29%
Average	3.40%	3.58%	3.62%	5.24%	6.32%	5.02%	4.94%	8.32%

*) IDXESGL is launched at 14-Dec-2020. ESGQKEHATI and ESGSKEHATI are launched at 20-Dec-2021. Prior to launch is backtested performance. IDX-LQ45 LCL is launched on 11 Nov 2022.

**) IDX-LQ45 LCL base date in 2 Nov 2020. Yearly return based on the base date.

9

New Responsible Bonds Regulation – 2023

Enabling new Responsible Bonds Type



Previous Regulation		Current Regulation	
POJK 60/2017	Regulation	POJK 18/2023	
21 December 2017 (now replaced by POJK 18/2023)	Date of Release	5 October 2023	
Bond	Type of Securities	Bond and Sukuk	
Public Offering	Type of Offering	Public Offering & Without Public Offering	
Environmental Expert	Verification	Independent Party	
Min 70%for KUBL	Use of fund/proceed	100% KUBL/KUBS/Waqf Asset Optimization Project	
Green Bond	Instrument	<ol style="list-style-type: none"> 1. Green Bond/Sukuk (EBUS) 2. Social Bond/Sukuk (EBUS) 3. Sustainable Bond/Sukuk (EBUS) 4. Sustainable Linked Bond/Sukuk (EBUS) 5. Waqf Sukuk 6. Other Sustainability Based Bond/Sukuk (EBUS) 	
OJK: 75%Registration fees for Green Bonds IDX: 50%Listing Fee for Green Bonds	Incentives	OJK: 75% Registration fees for Green Bonds IDX: 50% Listing Fee for Green Bonds	

10

POJK 18/2023 : The Entire Use of Proceeds from the Issuance



KUBL

- renewable energy;
- energy efficiency;
- pollution prevention and control;
- Management of biological natural resources and sustainable land use;
- conservation of terrestrial and aquatic biodiversity;
- environmentally friendly transportation;
- sustainable water and wastewater management;
- climate change adaptation;
- products that can reduce resource use and produce less pollution;
- environmentally sound buildings that meet standards or certifications recognized nationally, regionally or internationally; and/or
- business activities and/or other environmentally friendly activities.



KUBS

- basic infrastructure services that are affordable both in terms of access and price;
- access to essential services;
- affordable housing;
- job creation, and programs designed to prevent and/or reduce
- unemployment, including small and medium enterprise financing and micro financing;
- food security and sustainable food systems;
- Socioeconomic improvement and empowerment; and/or
- business activities and/or other activities other social insights.

IDX Officially Launched Indonesia Carbon Exchange to Support Government and Companies Initiatives Toward Decarbonization and Net Zero - 26 September 2023



Carbon Unit

- PTBAE PU (Allowance)
- SPE-GRK (Offset)

- Price transparency
- Liquidity
- Easy and simple
- High Liquidity
- Efficient & low cost

Key Features

Settlement	T+0
Trading Participant	Direct Trading
Clearing	Yes
Risk-Management	Pre-Validation / pre-funded

68



Total Registered User

Trading Value (Buyer) Composition

85%



Listed Companies (including subsidiaries)

24%



Financial Institution (including banks)

17%



BUMN/ BUMD (including subsidiaries)



Current Statistics

Listed Project:



Geothermal Lahendong Unit 5 & 6
857.849 tCO₂e

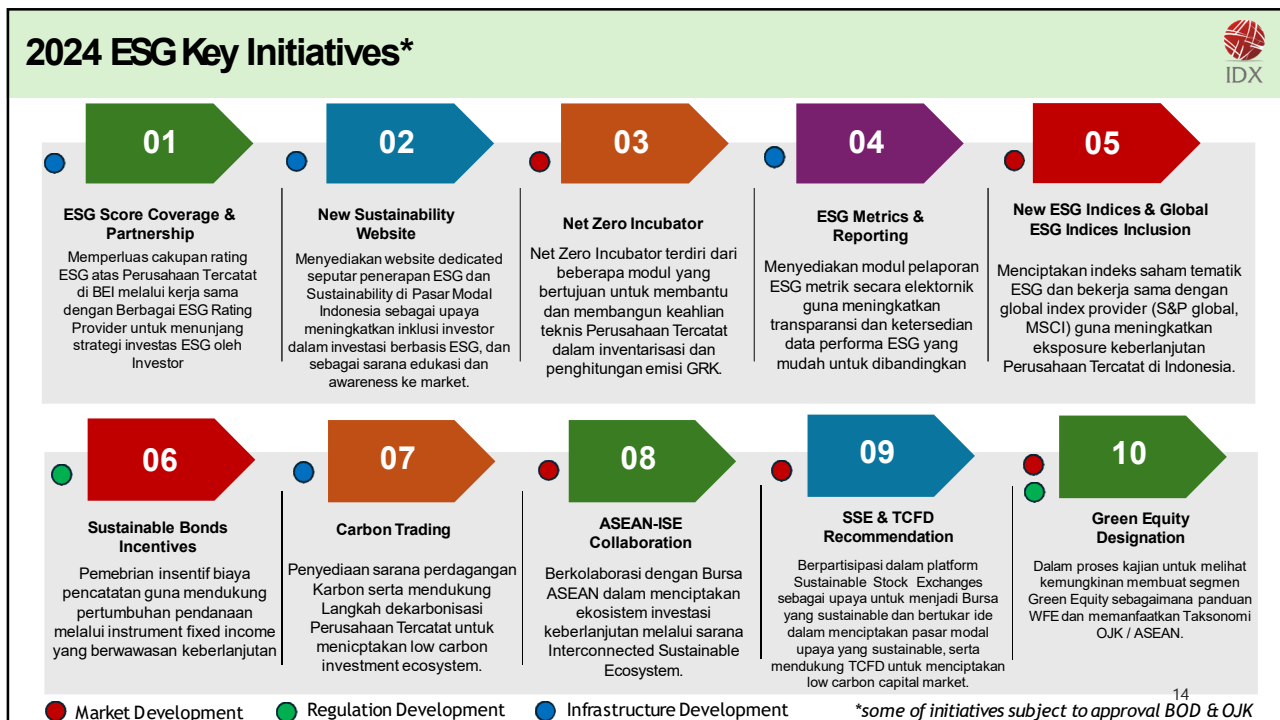
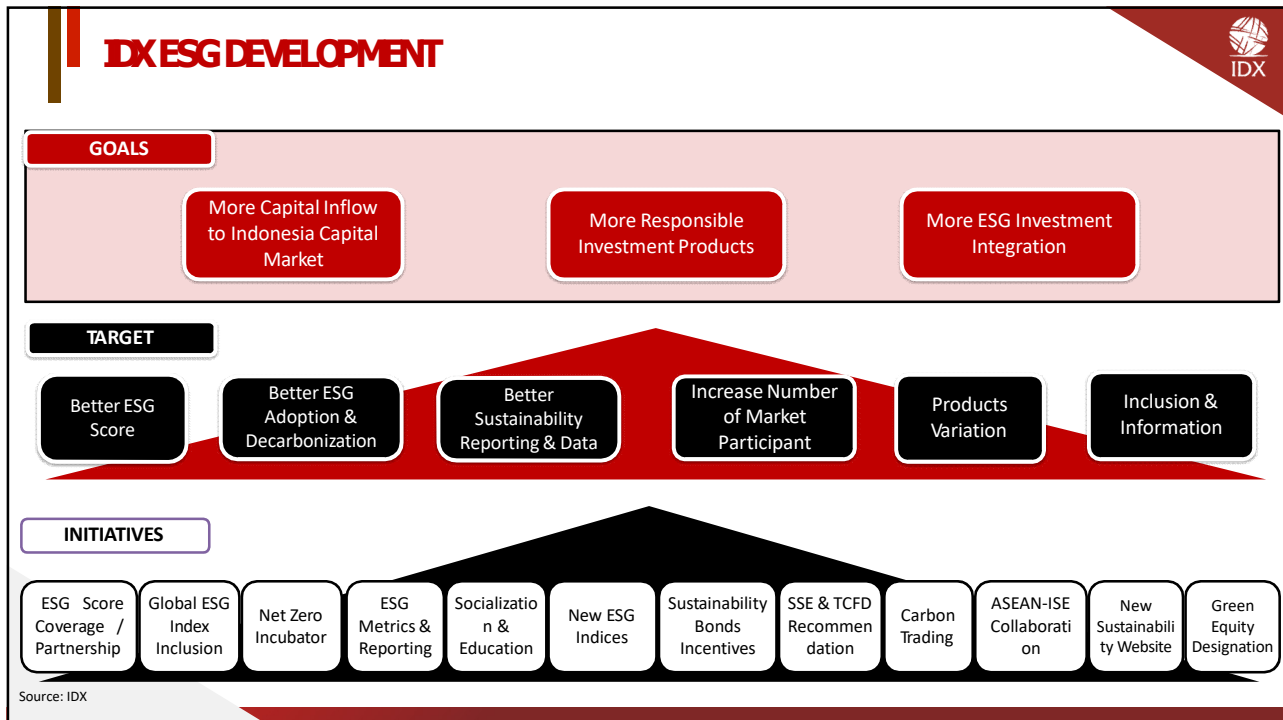


PJB UP Muara Karang PLTGU Muara Karang
900.000 tCO₂e



Indonesia Power PLTM Gunung Wugul
12.932 tCO₂e

- Registry: Indonesia Registry (SRN-PPI)
- Traded Volume: **608.990 tCO₂e**
- Retired Volume: **417.750 tCO₂e**
- Type: IDTBS (Indonesia Tech Based Solution)
- Closing Price (11 Jul 2024) : Rp 58.800



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Q&A Session

Question:

There are several gaps in sustainable finance such as industry's low awareness, absence of std in national scale, and untapped biz opportunity. How to overcome it?

Answer:

We see quite a gap in sustainable finance, especially across various industries. However, in the capital market, there are already regulations in place. For example, regulations POJK 551 and POJK 16 cover not only the capital market but also financial institutions. These institutions are required to integrate ESG (Environmental, Social, and Governance) factors into their RKAT.

While the capital market has made progress, other industries are still lacking the push needed to adopt these practices. However, with the recognition of the carbon economy and carbon pricing, this gap is lower. Carbon pricing will directly impact companies' bottom lines, making it crucial for industries to consider ESG factors.

Neglecting ESG was previously manageable, but with the introduction of carbon pricing, more industries will feel its impact. This increased awareness and financial implication will drive broader adoption of sustainable practices.

Q&A Session

Question:

What are the possible challenges of carbon exchange market in Indonesia, considering some lesson learned from implementation in other countries?

Answer:

Maybe I can share some insights on Indonesia carbon market. We have two types of carbon markets: the compliance carbon market and the voluntary carbon market. The compliance carbon market is mandatory for high-emission companies selected by the Indonesian government to join and reduce their emissions. The voluntary carbon market allows any company that wants to reduce emissions to generate carbon credits and sell them. Companies looking to offset their emissions can buy these credits.

The first challenge for the compliance carbon market, despite the NDC targets set by the Indonesian government for five sectors, is the calculation and standardization of emissions. Currently, only one subsector, coal-fired power plants, has implemented this methodology. Other subsectors, such as those from the energy and industrial sectors, are not yet covered. Developing a standardized methodology for calculating carbon emissions remains a significant challenge for Indonesia.

Secondly, there is the issue of "green inflation." Imposing carbon pricing on certain sectors can lead to increased prices, which are often passed on to end customers. The Indonesian government must carefully manage this to avoid significant price hikes while still maintaining ambitious decarbonization goals.

Q&A Session

Answer (cont.):

The voluntary carbon market in Indonesia faces its own challenges. Despite the potential for generating 3,000 trillion rupiah in carbon credits, implementation is difficult. As Cecilia mentioned, the issue of greenwashing has made companies hesitant to buy carbon credits. They fear being accused of greenwashing if they purchase carbon credits instead of directly reducing their emissions. This has led to an oversupply in the market, with many projects available but few buyers.

Additionally, Indonesia's carbon market is not yet open to the international carbon market. We are still waiting for the ministry to take action on this. These are the key issues currently facing Indonesia's carbon market

Conclusion:

From Bapak Denny, we learn that ESG may benefit us in capital market, mainly because investors consider issuers' ESG performance for investment decision. Investors believe that integrating ESG aspect on business might lead to several advantages like improve return in the long-term, reduce investment risk, and contributing to better future.

Companies need to integrate ESG into their operation cause it's beneficial for their business and help reduce risk.

What is ESG for investors?

Firstly, as an ESG investor, you need to integrate ESG aspects of listed companies before investing, considering their ESG performance. Secondly, you need to become an active investor, meaning you are not only an investor but also a shareholder who can influence the company's direction through your intuition and communication.

Capital market initiatives also benefit us in several aspects, including long term sustainability, regulatory compliance, business reputation, attracting investment, employee engagement and talent attraction, sustainability of supply chain, and competitive edge.

Bapak Denny also inform us that IDX has officially launched Indonesia Carbon Exchange to support Government and company's initiatives towards decarbonization and net-zero on 26 Sep 2023, with these following goals:

- More capital inflow to Indonesia Capital Market
- More responsible investment products
- More ESG investment integration

Redefining ESG Strategies:

Finding the Right Balance, Promoting Green Transition, and Supporting Societal Shifts to Sustainability



CECILIA TSE

Climate and Sustainability Lead
AON APAC

Executive Summary:

In redefining your ESG strategy to promote the transition to a low-carbon economy, it is important to understand our risks, opportunities, and value chain and engage with customers with sustainable and climate-related solutions to promote growth and innovation.

In commercial lines, such products would protect businesses against increased physical risks and promote the adoption of carbon-reducing technologies.

The key is to embed purpose in underwriting processes, as well as in policies whilst managing uncertainties.

Indonesia Re

Redefining ESG Strategies

Cecilia Tse

Sustainability and Climate Lead, Aon APAC

Better Decisions for a Better World



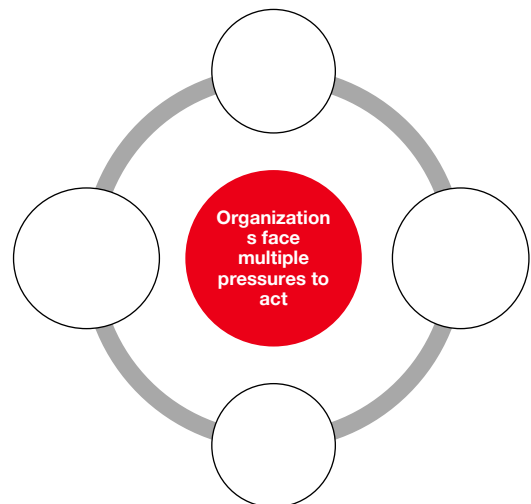
Climate and Sustainability as core strategic concerns

The changing landscape is presenting pressures on organizations

- According to the International Panel for Climate Change global emissions need to fall by 43% by 2030 to limit temperatures rising to 1.5 degree Celsius to avoid a range of climate impacts.
- Main cause of global heating is a rise in carbon in the atmosphere.
- We have the warmest 10 years on record this century.
- The number of climate related disasters has doubled in 2000-2019 compared to 1980-1999.
- Asia most disaster-prone region, Aon Climate and Catastrophe Report shows insurance gap one of largest in the world with 9% losses covered by insurance in 2023.

Industry being required to address:

- ▣ Impact on environment
- ▣ Impact from environment



Starting the transition

E

- Alignment with United Nations SDG goals
- GHG emissions
- Climate Change impacts
- Renewable energy
- Waste/ Water
- Clean Tech
- Investment portfolios
- Meeting regulatory targets for sector
- Fossil fuel dependencies

S

- Anti-modern slavery
- Human Rights
- Diversity Equity and Inclusion
- Employee Engagement
- Human Capital
- Supply chain diversity
- Working conditions
- Fair trade
- Health Care
- Contribution to wider community

G

- Governance oversight
- Board composition
- Code of conduct
- Ethics and compliance
- Executive compensation
- Legal/ regulatory/ Litigation
- Reporting and Disclosures- ISSB/TCFD/ESG
- Supply Chain business ethics – Procurement / Responsible investment
- Transparency
- Risk management

Systematic integration of ESG criteria with business

- Risks and Opportunities
- Solutions
- Value

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Materiality Assessment

Example of Recommended Approach



- Climate Change
- Compliance
- Customer preference
- Diversity Equity and Inclusion
- Human Rights
- Cyber security and Data Protection
- Sustainable Services/ Products
- Strong governance
- Societal contribution

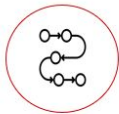
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Climate impacts:



■ Physical risk



■ Transition risk



■ Liability risk



Physical

Acute vs Chronic

- Increased severity of extreme weather
- Changes in precipitation patterns
- Extreme variability in weather patterns
- Rising mean temperatures
- Rising sea levels

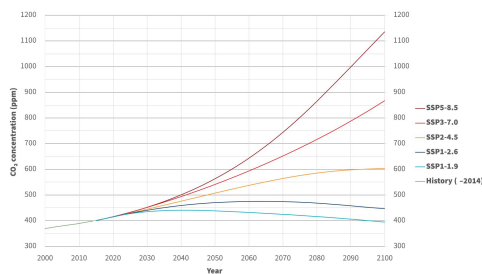
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Physical risk warming scenarios

Using models to project changes in chronic and acute risks



APAC

- Coastal flooding will see large increases in frequency.
- Fluvial flooding is expected to increase in frequency and intensity in some regions.
- Extreme rainfall will continue to increase in frequency and intensity.
- Severe convective storms may change in frequent and intensity.
- Extreme heats are projected to become more frequent and intense.
- Drought frequency is projected to increase.
- Wildfires will become more frequent.
- Tropical cyclones are expected to increase in frequency.

North America

- Extreme heat events are projected to become more frequent and intense.
- Severe convective storms may change in intensity.
- Fluvial flooding is expected to increase in frequent and intensity.
- Hurricanes are projected to become more intense (Cat 4+).
- Drought frequency is projected to increase.
- Wildfires will become more frequent.
- Coastal flooding will see large increases in frequency.
- Extreme rainfall will continue to increase in frequency and intensity.

EMEA

- Fluvial and pluvial flooding is expected in general to increase in frequency and intensity.
- Windstorms may change in a warmer climate, however there is uncertainty in this projection.
- Wildfires are expected to increase in frequency and duration.
- Severe convective storms are expected to become more frequent and damaging.
- Freeze events will become less frequent and shorter.

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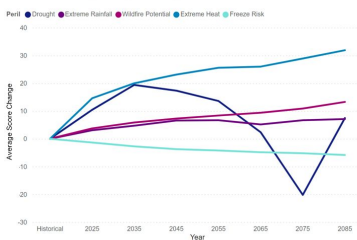
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Understanding Current and Future Physical Risks

Illustrative output

Drought
Extreme Rainfall
Extreme Temperature
Heat Stress
Freeze Risk
Wildfire

Portfolio Risk Projection (SSP2-4.5)



In 2045 under a 'medium' emissions scenario (SSP2-4.5), for the modeled set of locations, YMCA Calgary is most exposed to projected changes in extreme heat and drought.

Figure 1 shows the portfolio average change in hazard score by peril for multiple time horizons

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#	Hazard	Dunedin			Nelson			Seaview		
		Now	2040	2080	Now	2040	2080	Now	2040	2080
1	High winds	L	L	L	L	L	L	L	L	L
2	Inland and coastal flooding	L	M	H	L	L	M	L	M	H
3	Coastal erosion	L	L	L	L	L	L	L	L	L
4	Sea level rise	L	M	H	L	M	M	L	M	H
5	Susceptibility to liquefaction	M	M	H	M	M	M	M	H	H
6	Bushfire	L	L	L	L	L	L	L	L	L
7	Landslide	L	L	L	L	L	L	L	L	L
8	Transport disruption	M	M	H	M	M	H	M	M	H
9	Water/Wastewater Utilities disruption	M	M	H	M	M	H	M	M	H
10	Electricity disruption	L	L	M	L	L	M	L	L	M
11	Telecommunications disruption	L	L	L	L	L	L	L	L	L
12	High winds	L	L	L	L	L	L	L	L	L
13	Inland and coastal flooding	L	M	H	L	L	M	L	M	H
14	Coastal erosion	L	L	L	L	L	L	L	L	L
15	Sea level rise	L	M	H	L	M	M	L	M	H
16	Susceptibility to liquefaction	M	M	H	M	M	M	M	H	H
17	Bushfire	L	L	L	L	L	L	L	L	L
18	Landslide	L	L	L	L	L	L	L	L	L
19	Transport disruption	M	H	H	M	H	H	M	H	H
20	Water/Wastewater Utilities disruption	M	H	H	M	H	H	M	H	H
21	Electricity disruption	L	M	M	L	M	M	L	M	M
22	Telecommunications disruption	L	L	L	L	L	L	L	L	L

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7

Transition

Legislative and Policy

- Enhanced emission reporting
- Building regulations/codes/ carbon pricing

Reputation

- Increased stakeholder concerns
- Shift in customer preferences

Technology

- Substitution of lower emission/greener products

Market

- Cost to transition to lower carbon technologies
- Changing stakeholder behaviour
- Uncertainty in market signals

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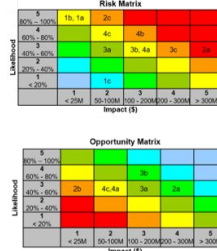
Transition risk drivers

Evaluate materiality of risk drivers to business models

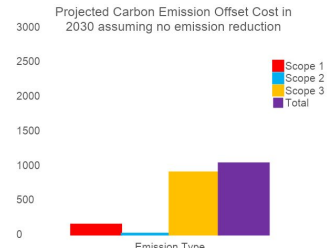
Indicative list of risk drivers

Risk #	Risk Name	Risk		Opportunity	
	Policy & Legal risks	2025	2030	2025	2030
1a	Pricing of GHG Emissions				
1b	Efficiency standards				
1c	Climate Change Litigation				
1d	Enhanced Emissions-Reporting Obligations				
1e	Increasingly Stringent Planning Requirements				
	Technology risks				
2a	Sub of Existing Tech to Lower Emission Options				
2b	Skill shortages impacting ability to install low carbon technology				
	Market risks				
3a	Change in customer demands				
3b	Increased cost of raw materials				
3c	Increased cost and availability of electricity				
3d	Cost of Capital				
3e	Emissions Offset				
	Reputation risks				
4a	Investment Risk				
4b	Stakeholder Risk				
4c	Employee Risk				

Illustrative matrices



Example analysis



#	Risk Name	Risk Articulation	Evaluation of Inherent Risk or Opportunity	Planned Action (Accept/ Avoid/ Pursue/ Reduce/ Share/ Transfer)	Residual Risk Score			
					2025		2030	
					I	L	I	L
1a	Pricing of GHG Emissions	Under the Below 2°C scenario, pricing of GHG emissions are expected to increase to reach \$64 to \$97 /tCO ₂ e by 2030 (NGFS Below 2°C), and under a 1.5°C Scenario pricing could reach between \$165 to \$454 by 2030 (NGFS NZ2050). This could impact operating costs. Carbon pricing could manifest as a range of policies such as environmental, planning and/or sector-wide taxes.	Inherent Risk - assuming no reduction in emissions • The overall inherent risk impact is \$XX M to expenditure on the P&L under all climate scenarios. Residual Risk - assumes meet its target of reducing Scope 1 emissions by 50% from a baseline of 2020 • Post Scope 1 reduction, the residual risk impact is lower, and by 2030 is less than \$XX m under all climate scenarios.	Actions: Reduce • Client intends to reduce Scope 1/2 emissions by 50% by 2030 from a 2019 / 2020 baseline. Continue to source 100% renewable electricity resulting in zero market-based Scope 2 emissions.	1	4	1	4
					(P&L)		(P&L)	

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Liability

Prosecution

Climate Litigation

Director

Duties



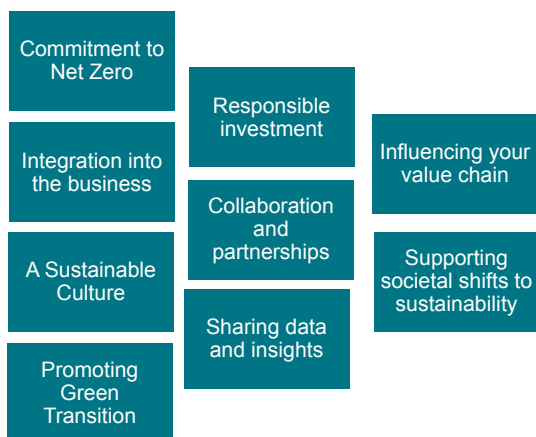
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Examples of transitioning

Responsible Investment	Climate Change/ Biodiversity	Governance	Process	People & Society
<ul style="list-style-type: none"> Exclusion criteria to reduce financed emissions of asset class/sector/geography 	<ul style="list-style-type: none"> Physical risks -modelling scenarios/data and analytics 	<ul style="list-style-type: none"> Role of Boards, ESG and Investment Committees setting the tone 	<ul style="list-style-type: none"> Due diligence on investments/ operations supporting responsible investment 	<ul style="list-style-type: none"> Human rights violations / Modern slavery/ Anti Money Laundering
<ul style="list-style-type: none"> Green Bonds linked to commitment to Net Zero 2050 targets 	<ul style="list-style-type: none"> Transition risks- changing the insurance products offered 	<ul style="list-style-type: none"> Skill set required to support transitioning 	<ul style="list-style-type: none"> Cyber, Privacy and Data Security, use of AI to protect people and business 	<ul style="list-style-type: none"> Workforce health safety and wellbeing
<ul style="list-style-type: none"> Support transition linked to lower carbon economy e.g. solar/ windfarm/ EV 	<ul style="list-style-type: none"> Liability - litigation and regulation (financed emissions/ greenwashing) 	<ul style="list-style-type: none"> Monitor ESG progress including metrics and targets 	<ul style="list-style-type: none"> Human Capital policies and guidelines consistent with strategies and values 	<ul style="list-style-type: none"> Talent sourcing and employee communication
<ul style="list-style-type: none"> Energy efficient Green Buildings e.g. green product certifications 	<ul style="list-style-type: none"> Role of government/ private public collaboration 	<ul style="list-style-type: none"> Disclosure and reporting –ISSB/TCFD/ GRI 	<ul style="list-style-type: none"> Procurement framework and value chain 	<ul style="list-style-type: none"> Leveraging after an event and building back better.
<ul style="list-style-type: none"> Agriculture and Land assets- adverse impacts on biodiversity/nature 	<ul style="list-style-type: none"> Insurance affordability/ availability and addressing protection gaps 	<ul style="list-style-type: none"> Ethics, corruption and Bribery prevention 	<ul style="list-style-type: none"> Guidelines, Process and Code of Conduct 	<ul style="list-style-type: none"> Investment into local communities

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From Transitioning to Transforming



Some Questions for Reflection

- 1 Where are you in your ESG journey?
- 2 Have you made net zero commitments?
- 3 If so, how are you tracking progress?
- 4 Do you know what are your key material ESG areas?
- 5 Do you have the resources to implement your new ESG strategy?

Thank you

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Q&A Session

Question:

There are several gaps in sustainable finance such as industry's low awareness, absence of std in national scale, and untapped biz opportunity. How to overcome it?

Answer:

When discussing ESG, in some countries, the "E" stands for economic, making it economic, environmental, social, and governance. Economic considerations are vital because they concern how wealth is generated within a country or local communities.

Economic factors are linked to social factors because, despite having environmental and governance plans, if a local community lacks basic needs like housing or jobs, the organization and community are failing.

Earlier, I talked about the social license to operate, which is how businesses can contribute to broader social goals. The social component is crucial, especially in helping communities adapt and manage retreats in response to climate change. For example, if a fishing village close to the coast faces climate change impacts, how do you relocate the community to safer locations while ensuring job opportunities? This involves various actors and partners, including government and local councils, working together in a public-private partnership ecosystem.

Q&A Session

Answer (cont.):

The social component is often overlooked and underappreciated. It's like the middle child of ESG, needing more attention than it currently receives. This aligns with our discussion this morning about the varying characteristics of nations and the challenges in standardizing ESG criteria between developed and developing countries.

Conclusion:

One of the key things we constantly consider is a business's social license to operate. This concept relates to how your business generates revenue and its existence, considering its environmental impacts on the community.

In the insurance sector, we absorb shocks from natural catastrophic events or climate change. More of these events are happening, and while new regulations are in place, relying on the past to inform the future is not always accurate for climate issues. The atmosphere and emissions are changing, and we must address the future.

To start the transition, you can consider several actions, such as responsible investment. Many insurers are excluding high-emission asset classes, sectors, and geographies. It's essential to understand the trajectory towards Net Zero, and tools like the Transition Performance Index (TPI) can help.

From Ms. Cecilia Tse, we learn that from transitioning to transforming, we need to ensure several aspects, such as, commitment to net zero, integration into business, sustainable culture, responsible investment, etc. Also, to ensure a holistic and sustainable transform, we shall reflect on some questions, such as:

- Where are we in our ESG journey?
- Have we made net-zero commitments?
- If so, how could we track our progress?

In conclusion, transitioning to ESG is about transformation.

It's essential to start somewhere, regardless of the initial step, and involve the entire organization.

Final Summary

Indonesia's economy has maintained a steady growth trajectory year after year. However, a crucial pillar of the financial system – the insurance industry – still faces several challenges. Despite recent progress, Indonesia's insurance penetration and density remain far below the global average and its regional peers. This low uptake translates to a large portion of the population being financially vulnerable in the face of unexpected events such as accidents, illnesses or property damage.

After the COVID-19 Pandemic and other several global challenges, insurance industry has learn to adapted their strategies because of changing customer habits and its challenges. Insurers now mainly focused on protecting businesses and their employees, checking in on trends such as cybersecurity, climate risks or employee well-being. On the other hand, global crises and economic uncertainty have affected stakeholders' priorities, resulting in an urgent need of significant transformation in insurance industry.

First thing first, we shall talk about data. Data engineering plays a crucial role in shaping operations, decision-making, and customer experiences in the insurance industry.

However, our challenges remain.

A primary one? Managing diverse data types, such as customer information, claims data, and policy details. We need to leverage more into the primary data sources for insurance companies and explore how they can tackle the integration of varied data types to extract meaningful insights.

Final Summary

(cont.)

From the first panel discussion entitled **‘Navigating Data Engineering Challenges in Insurance Industry’**, we could conclude that in navigating data engineering challenges, insurance industry should consider a multifaceted approach. From managing diverse data sources to ensuring data quality, implementing robust data governance, and leveraging advanced technologies, insurers should strive to create a seamless, efficient, and customer-centric environment. Because, in the end, as technology continues to evolve, Insurance companies will need to adapt and innovate to stay ahead in this shifting landscape.

After conduct a deep discussion about challenges in insurance industry, we embark into an interesting yet deep discussion about disruptive technologies, shifting demographics, rising customer expectations, increasing regulatory oversight and new competitive entrants represent serious challenges – even severe threats – to insurers. Staying relevant and viable demands that insurance companies make bold, strategic and urgent change.

To succeed, insurers must understand what’s possible and take decisive action to deliver value now and ignite long-term growth.

From strategy through implementation, our team of global professionals has the industry knowledge and technical skills to help insurers transform.

From the second panel discussion entitled **‘Business Transformation in Insurance: Empowering Growth, Delivering Durable Impacts’**, we might have a deeper understanding about the critical importance of transformation in the insurance industry. We have explored how insurance digital transformation, digital underwriting, and the implementation of IFRS 17 are reshaping the landscape.

Final Summary

(cont.)

Sustainable transformation requires more than just technological advancements; it necessitates a comprehensive overhaul of business strategies, operational processes, and customer engagement tactics.

By embracing these changes, insurers can not only enhance their competitiveness and operational efficiency but also deliver lasting value to their stakeholders in a dynamic market environment.

The first day of IIC 2024 closed with an interesting panel discussion entitled **‘Renewable Energy Insurance: Addressing Climate Risk’**. Consideration of climate change’s effects on insurance has focused primarily on physical impacts, namely property and crop damage. However, there’s also reason for concern about life and long-term carrier liabilities. The changing climate is poised to increase human mortality and morbidity, particularly in a high greenhouse gas emissions scenario. Chronic changes like elevated temperatures and prolonged drought — as well as acute events like increasingly frequent and severe hurricanes and wildfires — can significantly affect health and longevity.

Until recently, life and health insurers in developed economies limited their climate change focus to governance and disclosure. Now other dynamics are increasingly coming into play. We’ve experienced another summer of extremes: record heat, flooding in places not considered flood zones and large-scale wildfires. All have negatively affected health and cost lives. It’s not far-fetched to envision what’s happened elsewhere ultimately happening here.

In the end, we have to say that the climate change has the massive negative impact to our society if we don’t anticipate it properly. But still, beside the impact, we still have some opportunities to change the negativity into positivity.

Final Summary

(cont.)

The energy transition and carbon storage will help us to improve our product that align with market demand. To increase our readiness, we have to improve several sector in our urban planning leading to the emergence of new insurance products for the market.

The second day of IIC 2024 opened with an amazing panel discussion entitled **'The Future of Insurance: Enhancing Enterprise Data Center as Corporate Strategic Enabler'**. Insurers are currently looking to spark growth and transform operations for a more digital and customer-centric future. The path forward will be defined largely by corporate purpose, with products designed to boost consumers' financial well-being and protect against future shocks (including another pandemic). At the same time, the workforce will be refreshed with new skills and capabilities, leaner and more automated processes will become the norm, and capital will be deployed with more focus and creativity.

Purpose is also essential to shaping forward-looking strategies because of the disruptive societal trends – including climate change, geopolitical shifts and economic inequality – that are reshaping the insurance industry.

The future of insurance is a race against disruption. This data-driven transformation is not just about efficiency, it's about survival in an era defined by disruption and innovation.

The winners will be those who leverage their enterprise data center as a strategic enabler. This data hub, fortified by robust cybersecurity, will be the engine for AI-powered analytics and risk assessment. By harnessing this data effectively, insurers can create personalized offerings and adapt to a rapidly changing market.

Final Summary

(cont.)

Lastly, IIC 2024 was closed with an insightful panel discussion entitled **'Indonesia's Green Taxonomy: Ways to Achieve Economic Resilience and Global Sustainability'**. Recognizing the importance of a sustainable finance taxonomy, President Joko Widodo has announced the release of Indonesia's Green Taxonomy at the 2022 Financial Services Industry Annual Meeting (Pertemuan Tahunan Industri Jasa Keuangan). This builds on the government's efforts to attract more capital towards sustainable finance in Indonesia.

The Green Taxonomy aims to classify sustainable financing and investment activities and is intended to be the basis for all stakeholders carrying out sustainable economic activities. It further classifies activities that support environmental protection and management and climate change mitigation and adaptation in line with the government's Nationally Determined Contributions, with the goal of encouraging innovation and investments in sustainable economic activities.

Indonesia's Green Taxonomy is one of the first policy attempts to encourage the private sector to prioritize green investments and further incentivize businesses to comply with ESG-related regulation that can otherwise become barriers to accessing sustainable finance.

On this fifth discussion we have learned about the critical role of green investment for long-term success, emphasizing the importance of awareness, access to green finance, government involvement, and strategic mobilization of green capital. Additionally, we explored the need to redefine ESG strategies for supporting the transition to a low-carbon economy, understand risks and opportunities, and engage customers with sustainable solutions.

Final Summary

(cont.)

As Indonesian companies look to start their ESG journey and take comprehensive action across industries, it is imperative that they take a holistic and long-term value creation approach in line with their wider stakeholders' expectations, including institutional investors.

Although the Green Taxonomy aims to attract more investment towards sustainable economic activities, the primary purpose of the Taxonomy is to support financial institutions to better understand and distinguish green and sustainable economic activities from those that do not contribute significantly to advancing climate action and environmental protection.

Our discussions have highlighted the essential collaboration between the financial sector, businesses, and government in promoting the economy sustainability. ***As we move forward, it is clear that integrating these principles into our business models and investment strategies is not only beneficial for the environment but also for building a resilient and innovative economy.***

Through all those fruitful sessions, Indonesia Re hope that IIC 2024 could be a mean for the National Insurance Industry and all related stakeholders in the economic sector to identify, describe, and analyze existing issues in the insurance sector and the economy at national and global levels critically and in depth, including discussing alternative solutions to these issues.

In the end, we should growing through change, and remember that new threats present enormous new opportunities, and how we respond will define whether we are winners or losers.



THANK YOU

Stay connect with us!



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