

## TOWARDS SUSTAINABLE INSURANCE: CHALLENGES, PRACTICES, AND PERSPECTIVES FOR DEVELOPMENT

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### ABSTRACT

In the context of the intensification of climatic, social, and economic risks, the insurance sector is increasingly expected to play a strategic role in the transition toward a sustainable development model. This article examines the integration of environmental, social, and governance (ESG) criteria into insurance activities, highlighting their effects on risk management, underwriting policies, investment strategies, and the overall performance of insurers. Through a review of recent literature and an analysis of international practices, the study demonstrates that the adoption of ESG criteria enhances financial resilience, improves governance, and supports product innovation tailored to emerging societal needs. The article also emphasizes persistent challenges, including the complexity of ESG reporting, the risk of greenwashing, and the heterogeneity of regulatory frameworks. Finally, a case study provides concrete evidence of how the structured integration of ESG criteria can generate measurable economic, social, and environmental impacts, thereby confirming that sustainable insurance represents a key driver of long-term value creation.

**Keywords:** Sustainable insurance; ESG integration; Risk management; Long-term performance

### 1.0 INTRODUCTION

In a context marked by climate urgency, widening social inequalities, and heightened expectations for transparency and ethical conduct, the financial sector is undergoing a profound strategic shift. Within this transformation, the insurance industry—given its central role in risk management and its position as a major institutional investor—is increasingly expected to contribute actively to the transition toward a more sustainable economic model. It is against this backdrop that the notion of sustainable insurance, also known as responsible insurance, has gained prominence, seeking to embed environmental, social, and governance (ESG) considerations across all decision-making processes, including underwriting, claims management, and investment activities.

Long focused primarily on economic performance, the insurance industry is now confronted with new imperatives: the need to protect portfolios against climate-related risks, to promote a low-carbon economy, and to adopt more inclusive and ethical practices. Moreover, regulatory requirements are increasingly stringent, particularly with the introduction of the Corporate Sustainability Reporting Directive (CSRD), which requires companies to disclose standardized and verifiable non-financial information on their environmental, social, and governance (ESG) performance, as well as the Sustainable Finance Disclosure Regulation (SFDR), which obliges

financial actors to specify how they integrate sustainability-related risks and impacts into their investment decisions. In addition, the EU Green Taxonomy and other European sustainability directives are pushing insurers to reassess their operational models and to produce ESG information that is relevant, reliable, and comparable.

Against this backdrop, a central question emerges: to what extent can insurance companies rely on the foundations and current practices of sustainable insurance to overcome the challenges they face and effectively mobilize the necessary levers of action in order to enhance their sustainable performance and anticipate future developments in the sector? This reflection is part of a broader transformation of the insurance industry, affecting product design, investment strategies, and relationships with policyholders.

This article aims to explore the foundations, current practices, and future perspectives of sustainable insurance through an analysis of recent developments, the challenges encountered, and the actionable levers available to insurance companies in pursuit of sustainable performance.

## 2.0 CONCEPTUAL FRAMEWORK: TOWARD SUSTAINABLE INSURANCE

### 2.1 Definition and Principles of Sustainable Insurance

Economic activities are widely recognized as a major driver of climate change and environmental degradation—two issues that pose critical challenges to global economic development. In this context, promoting a green economy and ensuring sustainable growth have become priority objectives for public policymakers worldwide. It is within this framework that green finance, and green insurance in particular, has emerged as a key lever for internalizing environmental costs and encouraging more sustainable behaviors.

Climate change has a profound impact on the insurance sector, which plays a crucial role in risk transfer and in maintaining the stability of the financial system. By way of illustration, in 2024, insured losses worldwide resulting from natural catastrophes reached approximately USD 137 billion<sup>1</sup>, according to Swiss Re's Sigma report. A similar estimate by Munich Re places these losses at around USD 140 billion<sup>2</sup>. This marks the fifth consecutive year in which insured losses from natural disasters have exceeded USD 100 billion<sup>3</sup>. By comparison, total economic losses related to natural catastrophes in 2024 amounted to approximately USD 318–320 billion, meaning that insurance coverage accounted for only about 40–43% of the total<sup>4</sup>. These figures highlight a growing vulnerability to climate-related risks and underscore the urgency for insurers to demonstrate innovation and adaptive capacity.

Against this backdrop, insurance companies are facing increasing expectations to integrate environmental, social, and governance (ESG) criteria into their risk management models and

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<sup>1</sup> <https://www.swissre.com/institute/research/sigma-research/sigma-2025-01-natural-catastrophes-trend.html>

<sup>2</sup> <https://www.munichre.com/en/company/media-relations/media-information-and-corporate-news/media-information/2025/natural-disaster-figures-2024.html>

<sup>3</sup> <https://www.insurancejournal.com/magazines/mag-features/2025/01/27/809388.htm>

<sup>4</sup> <https://www.munichre.com/en/company/media-relations/media-information-and-corporate-news/media-information/2025/natural-disaster-figures-2024.html>

investment policies. ESG criteria constitute a set of non-financial indicators used to assess the performance of a company, project, or investment across three interdependent dimensions: environmental, social, and governance. First introduced in a United Nations report in 2004, these dimensions now play an increasingly central role in the analysis of an entity's overall risk profile and in the evaluation of its impact on society and the environment. The environmental dimension relates to a company's ecological footprint, including waste management, energy consumption, water use, greenhouse gas emissions, and biodiversity preservation—issues that are particularly critical in a context of increasing climate-related natural disasters. The social dimension focuses on a company's relationships with its employees, customers, and society at large, taking into account working conditions, respect for human rights, diversity, and the social impact of products and services, all of which directly influence stakeholder trust and loyalty, especially in the insurance sector. Finally, the governance dimension assesses internal management and control mechanisms, with particular attention to decision-making transparency, the composition and independence of governing bodies, executive remuneration policies, and the quality of engagement with stakeholders.

To support the effective application of ESG criteria, the United Nations Environment Programme (UNEP) launched the Principles for Sustainable Insurance (PSI) in 2012, with the aim of guiding insurers in integrating ESG risks and identifying sustainability-related opportunities (UNEP FI, 2012). The Principles for Sustainable Insurance constitute a global initiative led by UNEP to embed ESG considerations into the strategies and operations of the insurance industry. This voluntary framework, adopted by numerous insurers, reinsurers, and regulators worldwide, is built around four core principles: integrating ESG issues into decision-making processes, particularly in risk management, underwriting, pricing, and investment; working closely with clients, partners, and stakeholders to promote sustainable practices and better manage long-term risks; supporting public policies by collaborating with governments and institutions to enhance resilience to ESG-related risks; and demonstrating transparency by reporting on progress in implementing the principles. Through these commitments, the PSI seek to promote a more resilient, responsible, and sustainable insurance sector, contribute to the reduction of systemic risks related to climate change, social inequalities, and governance failures, support the ecological and social transition, and help close the protection gap, particularly in regions most exposed to natural disasters.

This evolving context has fostered a shift in the concept of insurance, moving from a traditional model toward an approach centered on green or sustainable insurance. Sustainable insurance represents a strategic approach that integrates all activities across the insurance value chain, including stakeholder relationships, within a responsible and forward-looking framework. It is based on the identification, assessment, management, and monitoring of risks and opportunities related to ESG issues, with the objective of risk mitigation, innovation promotion, performance enhancement, and contribution to environmental, social, and economic sustainability. Green insurance occupies a central position within the PSI framework by promoting innovative insurance solutions that contribute to climate change mitigation, adaptation to environmental risks, and ecosystem preservation. Consequently, the development of green insurance is not merely a commercial imperative but also a fundamental pillar of any national sustainable development strategy.

## **2.2 Insurance as a Strategic Actor in the Sustainable Transition**

The insurance sector occupies a major strategic position in the transition toward a sustainable economy, not only through its ability to manage and transfer risks, but also as an influential institutional investor capable of directing substantial volumes of capital toward projects with high environmental and social impact.

As a primary risk manager, insurance plays a decisive role in mitigating the effects of major risks—whether climatic, health-related, or technological—by mobilizing financial resources to protect individuals, businesses, and governments from the economic consequences of such events. This function lies at the core of socioeconomic resilience, as it enables societies to absorb shocks and recover from severe disruptions (Geneva Association, 2022).

Moreover, insurance promotes prevention by integrating ESG criteria into underwriting policies. By selecting clients and projects aligned with sustainable development objectives, insurers encourage less risky and more sustainable behaviors. For instance, specialized insurance products offer reduced premiums to companies that adopt emissions management measures or clean technologies, thereby indirectly contributing to the reduction of physical risks and the protection of assets. This proactive approach reflects a risk management strategy that goes beyond mere loss compensation and fosters sustainable economic choices (PwC Switzerland, 2025).

Beyond their operational functions, insurance companies are also leading institutional investors. They manage sizable asset portfolios, which gives them significant influence in channeling financial flows toward projects with positive social and environmental outcomes. According to analyses of responsible investment strategies, many global insurers now integrate ESG criteria into their investment decisions in order to mitigate climate-related risks and enhance long-term risk-adjusted returns (Enhancing Sustainability..., 2025).

These practices may take the form of supporting green assets, excluding investments in controversial sectors such as fossil fuels, or allocating capital to sustainable projects including renewable energy and resilient infrastructure. In several markets, insurers also participate in initiatives designed to support the transition to clean technologies by providing tailored insurance products and innovative coverage for climate-related projects (Aon, 2025).

By combining risk management, insurance operations, and responsible investment, the sector actively contributes to the transformation of economies toward a more sustainable model. This includes promoting insurance products that encourage the adoption of sustainable practices at the microeconomic level and mobilizing capital for investments aligned with climate objectives, such as carbon neutrality and adaptation to the impacts of climate change.

This dynamic demonstrates that insurance is not merely a mechanism for protecting against financial losses, but also an active driver of the sustainable transition, facilitating innovation, incentivizing responsible behaviors, and influencing how financial markets allocate capital toward activities consistent with ESG principles.

### **3.0 OVERVIEW OF THE ADOPTION OF ESG CRITERIA IN THE INSURANCE SECTOR**

#### **3.1 International Practices: A Progressive but Heterogeneous Adoption**

Despite growing awareness of environmental, social, and governance (ESG) issues, the adoption of these criteria within the insurance sector remains highly heterogeneous at the global level. This variability can be explained by differences in regulatory frameworks, market maturity, and the degree of pressure exerted by stakeholders.

In Europe, the integration of ESG criteria has progressed significantly due to binding regulations and ambitious policy initiatives. The regulatory framework, notably including Solvency II and the Sustainable Finance Disclosure Regulation (SFDR), has fostered a more systematic adoption of ESG practices by insurers (DLA Piper, 2022).

In the United States, the adoption of ESG criteria has also advanced, although the regulatory environment remains less centralized than in Europe. Historically, the United States has been a pioneer in developing insurance products aimed at holding companies accountable for environmental risks, particularly through pollution liability insurance since the 1980s. American insurers have also developed products that encourage sustainable behaviors, such as policies for electric or hybrid vehicles and usage-based pricing programs (“Pay As You Drive”), which aim to reduce policyholders’ carbon footprints.

In Asia, the adoption of ESG criteria has progressed more slowly, but certain markets—particularly China—have demonstrated notable momentum. Ning and Yuan (2023) show that the development of green insurance products contributes to reducing environmental risks and supports the transition toward more sustainable industrial practices. Pollution liability insurance and coverage related to renewable energy and carbon sequestration have enabled the emergence of a modern green insurance ecosystem, supported by public policies combining insurance legislation with environmental regulation (Ning & Yuan, 2023; Belgacem, 2025). The use of big data and digital platforms further enhances trust and reduces risks for both insurers and their clients (Belgacem, 2025).

In Germany, the regulatory framework governing environmental insurance is particularly robust. Since 1991, environmental liability insurance has been mandatory for high-risk industries and is accompanied by strict supervision and financial guarantees designed to ensure adequate compensation for damages (Insurance Europe, 2023). This model—combining legal obligations, administrative oversight, and financial guarantees—represents an advanced example of ESG integration within the insurance sector.

Overall, while the adoption of ESG criteria in the insurance sector is progressing globally, it remains characterized by regional disparities: Europe often leads due to a strong regulatory framework, North America advances dynamically but with less standardization, and Asia is experiencing rapid development driven by public policies supporting the green transition (DLA Piper, 2022; Aranca, 2024; Ning & Yuan, 2023; Belgacem, 2025; Insurance Europe, 2023).

### 3.2 ESG Practices in Insurance Underwriting

The integration of environmental, social, and governance (ESG) criteria in insurance extends beyond responsible investment and increasingly influences underwriting policies, directly affecting decisions to accept or reject insured risks. Accordingly, some insurance companies have adopted explicit exclusion policies, refusing to cover highly carbon-intensive projects such as coal-fired power plants or oil drilling in environmentally sensitive areas, in order to

align their underwriting portfolios with energy transition objectives and climate commitments (UNEP FI, 2024).

At the same time, other insurers are developing incentive-based products designed to promote sustainable behaviors. For instance, some programs offer reduced motor insurance premiums for electric or hybrid vehicles, or preferential pricing in health insurance for policyholders who adopt healthy lifestyles, such as regular physical activity or balanced nutrition (Zielke Research, 2025).

Among major reinsurers, Swiss Re has committed to a more selective underwriting policy by setting net-zero targets for its underwriting activities, with the aim of increasing the share of premiums derived from companies aligned with a 1.5°C emissions reduction pathway by 2050. Since 2018, Swiss Re has progressively excluded reinsurance coverage for fossil fuel-related risks that are not aligned with these objectives (Swiss Re, 2023).

Similarly, several international insurers have implemented ESG scoring frameworks to assess the sustainability of their underwriting portfolios. These frameworks involve analyzing corporate clients' ESG risks and may result in premium adjustments, specific coverage conditions, or the rejection of risks deemed incompatible with sustainability commitments. Such practices illustrate the evolution of underwriting policies toward a broader and more systematic consideration of ESG factors, particularly those related to climate, social responsibility, and governance (UNEP FI, 2024).

### 3.3 Responsible Investment in Insurance Portfolios

As major institutional investors, insurers are increasingly directing their financial portfolios toward sustainable assets in order to integrate ESG factors into their investment decisions. This shift responds not only to long-term risk-adjusted return considerations, but also to regulatory expectations and stakeholder demands for sustainability. Recent analyses of ESG investment strategies indicate that European insurers employ a combination of approaches, including the exclusion of controversial sectors, ESG integration, thematic sustainable investment, and impact investing, to better align their portfolios with climate and social objectives.

Large insurance groups such as AXA, Generali, and Munich Re have announced significant commitments to increase the share of ESG-classified assets in their portfolios and to progressively reduce their exposure to coal and non-aligned hydrocarbon activities. Generali has pledged to substantially increase the proportion of sustainable assets in its portfolios, while Munich Re has communicated plans for the gradual phase-out of coal-related investments in its direct investment activities.

This shift toward responsible investment is supported both by regulatory frameworks—such as Articles 8 and 9 of the SFDR in Europe, which promote transparency and the classification of sustainable financial products—and by a global movement toward sustainable finance that encourages insurers to demonstrate the ESG impact of their portfolios in order to attract investors and clients sensitive to sustainability issues.

### 3.4 Commitment and Transparency: New Requirements

Transparency in sustainability matters has become a central requirement for insurers seeking to maintain the trust of stakeholders, including regulators, clients, investors, and civil society. An increasing number of insurance companies publish non-financial reports that integrate ESG indicators aligned with internationally recognized frameworks, such as the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and the Principles for Responsible Investment (PRI).

These reports provide detailed information on how climate and social risks are incorporated into decision-making processes, net-zero commitments, emissions reduction targets within investment and insurance portfolios, and the concrete actions implemented to address sustainability challenges. The adoption of such reporting standards is also encouraged by international governance frameworks, including the United Nations' Principles for Sustainable Insurance (PSI), which promote the systematic integration of ESG risks across all insurance activities.

Enhanced transparency enables insurers not only to comply with increasingly stringent regulatory requirements, but also to strengthen their credibility and reputation in an environment where stakeholders expect clear, measurable, and comparable communication of ESG performance. This trend is reflected in the growing number of insurance products and financial portfolios assessed according to published standards and evaluated by globally recognized ESG rating agencies

#### **4.0 BENEFITS AND CHALLENGES OF SUSTAINABLE INSURANCE**

##### **4.1 Expected Benefits of Sustainable Insurance**

The integration of environmental, social, and governance (ESG) criteria has become a strategic imperative for the insurance sector. This approach goes beyond mere regulatory compliance or reputational considerations and aims to strengthen risk management, enhance financial performance, and promote long-term sustainable value creation. In a context marked by the intensification of climate, social, and governance-related risks, sustainable insurance emerges as a key lever for resilience and stability for insurance companies.

##### **4.1.1 Improved Risk Management**

The integration of ESG criteria into insurers' practices significantly enhances the identification, assessment, and management of emerging risks that are often insufficiently captured by traditional actuarial models. These risks include the increasing frequency and severity of climate-related natural disasters, social risks linked to labor conditions and human rights, and governance failures that may undermine the financial soundness of insured firms. By incorporating these non-financial factors, insurers gain a more comprehensive and forward-looking view of their risk exposure.

Recent academic literature highlights the central role of ESG in strengthening risk management frameworks within the insurance sector. Through a systematic review of existing studies, Sood and Özen (2024) show that the adoption of ESG practices improves Enterprise Risk Management (ERM) frameworks by promoting an integrated assessment of financial and non-

financial risks. This holistic approach enhances insurers' ability to anticipate extreme events and increases the resilience of their portfolios.

Empirical evidence further confirms that ESG integration contributes to reducing the risk profile of insurance-related portfolios. Elouerkaoui and Hamdouni (2024) demonstrate that ESG-oriented portfolios exhibit lower volatility and reduced downside risk, particularly during periods of financial turbulence. These findings suggest that ESG integration improves risk diversification and strengthens insurers' financial stability in the face of systemic shocks.

Studies conducted in emerging markets corroborate these conclusions. Belgacem's (2025) analysis of the Saudi insurance sector reveals a positive relationship between insurers' ESG engagement and their financial performance, alongside a reduction in operational and regulatory risk exposure. The author emphasizes that ESG practices enable insurers to better manage environmental, legal, and reputational risks in a rapidly evolving institutional environment.

Finally, integrating ESG criteria into underwriting and pricing processes improves the accuracy of risk assessment. By adjusting premiums and technical provisions according to the environmental, social, and governance exposure of policyholders, insurers optimize capital allocation and enhance long-term portfolio stability. This forward-looking and dynamic approach to risk management positions ESG as a fundamental pillar of modern risk management strategies in the insurance sector.

#### **4.1.2 Strengthening Reputation and Brand Image**

The adoption of environmental, social, and governance (ESG) criteria by insurance companies represents a key strategic lever for strengthening reputation and consolidating brand image. In an environment where stakeholder trust is a major determinant of competitiveness, ESG initiatives enhance perceived corporate value, improve the quality of customer relationships, and increase attractiveness to a broad range of stakeholders.

Recent research shows that ESG initiatives positively influence consumer trust and corporate reputation. For example, an empirical study conducted in Thailand demonstrates that the implementation of ESG practices has a statistically significant effect on brand trust and customer engagement, with trust playing a crucial mediating role between the two variables. This highlights the importance of coherent ESG engagement in building strong and lasting customer relationships (Tripopsakul & Puriwat, 2022).

In the insurance sector, the importance of reputation and trust is also reflected in broader dimensions of organizational performance. The impact of ESG strategies on insurers' reputations can be associated with sustainability premiums, meaning a greater willingness among customers to accept responsible products aligned with societal expectations, thereby strengthening brand value and consumer preference (Carannante, D'Amato & Staffa, 2024).

Moreover, ESG practices are closely linked to organizational reputation and market valuation. Studies in related financial sectors show that exposure to ESG-related reputational risk can influence firm valuation, underscoring the strategic importance of managing ESG reputational risks from both investor and customer perspectives (Ernst, Kunz, Fischer, et al., 2025).

In addition, organizational reputation in the ESG context can be reinforced through digital initiatives and service quality improvements, which enhance customer trust and brand perception, particularly for insurance companies seeking differentiation in competitive markets (Aboalghanam & Alzghoul, 2025).

However, managing ESG reputation requires strategic consistency. Initiatives perceived as opportunistic or incoherent may undermine stakeholder trust and damage brand value. The literature therefore suggests that, to fully benefit from the positive impact of ESG on reputation and branding, insurers must not only adopt sustainable practices but also ensure transparency, authenticity, and systematic integration into their business models.

### **4.1.3 Access to New Markets**

Insurance companies can leverage the integration of ESG criteria to develop innovative products tailored to contemporary societal challenges and to access new high-potential market segments. These products include green insurance solutions covering risks related to renewable energy, ecological transition, and environmental disasters, as well as inclusive microinsurance solutions designed for low-income or unbanked populations. Such strategic initiatives not only expand the customer base but also enhance insurers' social impact and corporate responsibility (Sood & Özen, 2024; Desalegn, 2023).

Scientific literature confirms that these innovative products promote portfolio diversification and strengthen insurers' attractiveness among clients sensitive to ESG issues. A recent systematic review highlights that integrating ESG criteria into the development of sustainable insurance products represents a significant opportunity to generate new revenue streams and expand into underexploited markets (Sood & Özen, 2024). This approach also enhances insurers' ability to meet growing societal expectations regarding positive impact while creating a competitive advantage (Belgacem, 2025).

In emerging economies, sustainable, inclusive insurance plays a crucial role in promoting financial inclusion. Microinsurance literature shows that such products improve access to financial services for disadvantaged populations, reducing their vulnerability to economic and climate shocks while stimulating the growth of local insurance markets (Cheraga, 2024).

Furthermore, innovation in ESG products directly contributes to customer satisfaction and loyalty. Clients in emerging markets, who increasingly demand insurance solutions tailored to their specific needs, tend to develop greater trust in insurers offering sustainable products (Desalegn, 2023; Belgacem, 2025).

Thus, ESG products go beyond regulatory or ethical compliance and become genuine drivers of economic and social performance. The strategic integration of ESG into the design of new insurance products strengthens insurers' positions in high-potential markets while enhancing long-term value creation and fostering sustainable and inclusive growth in the sector (Sood & Özen, 2024; Cheraga, 2024).

### **4.1.4 Improved Long-Term Financial Performance**

Strategic engagement by insurance companies in environmental, social, and governance (ESG) criteria has become a key lever for ensuring sustainable financial growth and enhancing resilience to economic uncertainty and external shocks. The systematic integration of ESG practices into insurance strategies not only supports compliance with societal and regulatory expectations but also stabilizes revenues and improves crisis absorption capacity, whether economic or environmental in nature (Altuntas et al., 2025).

Empirical evidence confirms that insurers with stronger ESG performance achieve superior financial indicators, such as higher return on assets (ROA) and greater operational efficiency, reflecting more stable and predictable long-term performance (Altuntas et al., 2025). Moreover, studies in the MENAT region indicate that ESG integration is positively correlated with financial performance, with the effect moderated by local institutional quality, highlighting the importance of a supportive regulatory environment in maximizing ESG-related financial benefits (Gok et al., 2023).

Additionally, ESG practices help reduce costs associated with non-financial risks, such as litigation, regulatory sanctions, and reputational losses. They also facilitate access to financing and enhance insurers' attractiveness to institutional investors, thereby strengthening their capacity to invest in sustainable initiatives and support long-term growth (Belgacem, 2025).

Ultimately, coherent ESG integration optimizes risk management and capital allocation, consolidating insurers' sustainable financial performance while enhancing their competitiveness in an increasingly uncertain and regulated economic environment (Altuntas et al., 2025; Gok et al., 2023; Belgacem, 2025).

#### 4.2 Key Challenges to Overcome

Despite the substantial benefits associated with integrating environmental, social, and governance (ESG) criteria in the insurance sector, the widespread and consistent adoption of these practices remains constrained by several structural and organizational challenges.

One of the major obstacles lies in the complexity of ESG reporting and data collection. While reporting frameworks such as GRI, SASB, TCFD, and CSRD exist, their application remains fragmented and varies across countries and rating agencies, making performance comparison and reliable assessment of actual sustainability difficult (Alshadadi, Deshmukh & Kaid Zaid, 2024; Impact Economist, 2025). This lack of universal standards and methodological variability complicates the integration of ESG data into insurers' traditional management systems (Altuntas, Yilmaz & Demir, 2025).

Greenwashing risk represents another significant challenge. In the absence of robust control and audit mechanisms, some companies may project a sustainability image that is not reflected in their actual practices, undermining sector credibility and eroding investor and customer trust (Alshadadi, Deshmukh & Kaid Zaid, 2024).

Data quality and accessibility also remain major constraints. The information required to rigorously measure and compare ESG indicators is not always available, particularly for small and medium-sized insurers and in emerging markets where disclosure requirements are limited (Impact Economist, 2025).

Moreover, ESG integration often involves trade-offs between short-term profitability and long-term sustainability. Certain ESG strategies may reduce immediate financial returns or require substantial upfront investments, potentially discouraging insurers from fully committing resources to sustainable projects without clear long-term return guarantees (Altuntas, Yilmaz & Demir, 2025).

Internal training and expertise represent another critical challenge. Many insurance professionals still lack specialized skills to analyze ESG indicators, interpret non-financial data, and integrate these dimensions into daily decision-making, thereby limiting the effectiveness of ESG strategies and the quality of reporting (Alshadadi, Deshmukh & Kaid Zaid, 2024).

Finally, regulatory disparities across countries further complicate coherent ESG adoption. The absence of international harmonization of standards and reporting obligations forces insurers operating across multiple jurisdictions to comply with diverse requirements, increasing compliance costs and slowing the implementation of consistent ESG practices at the global level (Belgacem, 2025; Impact Economist, 2025).

## **5.0 CASE STUDY: AXA AND THE STRATEGIC INTEGRATION OF ESG CRITERIA**

### **5.1 General Context**

AXA is among the leading insurance groups worldwide and, over the past decade, has positioned itself as a reference player in integrating environmental, social, and governance (ESG) criteria. In response to increasing climate risks, growing regulatory pressure, and heightened stakeholder expectations, the group has adopted a comprehensive approach aimed at placing sustainability at the core of its business model. This strategy relies on a close alignment between underwriting policies, investment allocation, and long-term risk management.

In 2023, AXA reported having invested more than €26 billion in green and socially impactful assets while strengthening its commitments to the energy transition, notably through a scheduled phase-out of thermal coal by 2030 in OECD countries and 2040 globally (AXA Sustainability Report, 2023). These orientations reflect a clear willingness to actively contribute to the transition to a low-carbon economy while protecting the group's financial strength.

### **5.2 Integration of ESG Criteria in Underwriting**

One of the pillars of AXA's ESG strategy lies in the systematic integration of environmental and social criteria into its underwriting policies. The group has gradually excluded from its insurance coverage projects and activities with high carbon intensity, such as coal-fired power plants or certain forms of high-environmental-risk oil extraction. This selectivity not only reduces exposure to climate and regulatory risks but also encourages insured companies to adopt more responsible practices.

At the same time, AXA has developed incentive-based products aimed at promoting virtuous behaviors among policyholders. For example, preferential auto insurance rates are offered for electric or hybrid vehicles, while some health insurance plans include reward mechanisms

linked to prevention, physical activity, or the adoption of healthier lifestyles. These initiatives illustrate the insurance sector's ability to act as a lever for transforming individual and collective behaviors in line with sustainable development goals.

### 5.3 Responsible Investment Policy

As a leading institutional investor, AXA also exerts significant influence on the direction of financial flows. The group has adopted a responsible investment policy based on integrating ESG criteria into asset analysis and selection, with the objective of gradually aligning all indirect investments with these criteria by 2030. This approach combines exclusion strategies, ESG integration, and impact investing.

AXA thus finances numerous projects related to renewable energy, climate-resilient infrastructure, and microfinance initiatives targeting vulnerable populations. These investments not only contribute to the energy transition and social inclusion but also strengthen the long-term stability of the group's portfolios by reducing exposure to stranded assets and extra-financial risks.

### 5.4 Observed Results and Impacts

The integration of ESG criteria into AXA's overall strategy has generated measurable impacts both financially and in terms of climate and social risk management. According to the AXA Group Sustainability Report (2023), the group invested €26 billion in green and socially impactful assets, covering renewable energy, sustainable infrastructure, and social housing. This strategic reallocation of capital was accompanied by a complete divestment from thermal coal, in line with the commitment to a full exit by 2030 in OECD countries and 2040 globally.

From a prudential perspective, incorporating climate risks into underwriting and investment policies has helped strengthen the group's financial resilience. AXA reported a solvency ratio exceeding 215% in 2023, well above European regulatory requirements, reflecting better anticipation of systemic risks and proactive management of climate exposures (AXA, 2023). These results are consistent with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), which emphasizes that integrating climate scenarios into risk management enhances insurers' financial resilience in the medium and long term (TCFD, 2023).

The effects of this strategy are also visible on the extra-financial front. AXA ranks among the highest-rated insurers by ESG rating agencies, with scores in the top quartile of the sector for climate governance and social responsibility. According to the Principles for Responsible Investment (PRI), signatory insurers that have integrated measurable ESG objectives, such as AXA, show an average reduction of 20–30% in exposure to high climate-risk assets compared to non-committed peers (PRI, 2023).

### 5.5 Key Lessons from the AXA Case

The AXA case demonstrates that the systematic integration of ESG criteria in the insurance sector can go beyond mere regulatory compliance to become a comprehensive strategic lever. ESG is embedded across all decision-making processes—from underwriting to pricing,

portfolio management, and reporting—with internal committees dedicated to assessing environmental and social risks and applying strict exclusion criteria for high-impact sectors, thereby reducing the risk of greenwashing and improving transparency.

Moreover, adherence to international frameworks such as the TCFD and the Principles for Responsible Investment (PRI) structures the ESG strategy according to globally recognized standards, facilitating comparisons with other players, reinforcing institutional investor confidence, and optimizing the management of climate and social risks.

Furthermore, AXA demonstrates that insurance can play an active role in transitioning toward a more sustainable and inclusive economy, through incentive products such as sustainable mobility or health prevention, and impact investments that help reduce negative externalities, promote financial inclusion, and support vulnerable populations, while enhancing brand image and stakeholder trust.

Finally, this case illustrates how a structured ESG approach can serve as a replicable model for the entire sector, combining governance, quantitative reporting, and alignment with international standards, showing that ESG is not merely a communication tool or regulatory requirement but a central strategic factor capable of strengthening financial resilience, directing investment flows toward sustainable projects, and consolidating the insurer's role as a key actor in economic, social, and environmental transition.

## 6.0 CONCLUSION

Integrating environmental, social, and governance criteria in the insurance sector is no longer a voluntary or purely reputational endeavor but has become a strategic imperative in the face of profound changes in the economic and societal environment. Through risk management, underwriting, and institutional investment functions, insurance holds a structuring power to support the transition toward a more sustainable and resilient economy. The analysis shows that insurers adopting coherent ESG strategies benefit from better management of non-financial risks, greater stability of long-term performance, and enhanced stakeholder trust. International practices, however, reveal uneven adoption, largely conditioned by regulatory pressure, the maturity of financial markets, and the availability of reliable ESG data. Despite persistent challenges—such as complex standards, implementation costs, or trade-offs between short-term profitability and sustainability—sustainable insurance appears as an essential driver of shared value creation. The presented case confirms that operational integration of ESG criteria can produce measurable impacts on both financial performance and the social and environmental contribution of insurers. Ultimately, the insurance sector's ability to reconcile economic performance with societal responsibility will depend on its capacity to integrate ESG criteria systematically, transparently, and measurably. In the long term, this transformation constitutes not only a competitive advantage but also an essential condition to ensure the sector's sustainability in the context of increasing global risks and stricter regulation.

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