



Sustainability report 2023

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Contents

Edi	itorial		04		
Exe	ecutiv	e Summary	05		
1	Introduction				
	1.1	Structure and sources of the report	12		
2	Embedding sustainability in companies				
	2.1 2.2 2.3	Strategic direction	. 17		
3	Susta	ainability of own operations	26		
	3.1 3.2	Carbon footprint and saving resources			
4	Investments				
	4.1 4.2 4.3	Emissions of German insurers Investing based on sustainability concepts Supporting activities	. 37		
5	Susta	ainable and climate-friendly underwriting of risks	40		
	5.1 5.2 5.2.1 5.2.2 5.2.3	Sustainable property and casualty (P&C) insurance	. 44 . 46 . 47		
6	Trans	sparency, research and knowledge transfer	52		
Аp	pendi	x: Key facts about the sustainability positioning's implementation	57		
Sol	urces	and links (mostly in German)	58		

Editorial

2023 is well on track to be the hottest year on record: in the first three quarters, temperatures were 1.4 °C above the pre-industrial average. It is about time we slam the brakes on emissions, because while we are starting to experience global warming's impact on extreme weather events and natural hazards, there are other consequences we can hardly imagine, yet.

The implications of a growing freshwater scarcity, the ramifications of regions that are home to millions of people becoming uninhabitable, the effect of losing economic safety nets when private insurance is no longer affordable – these are all warnings scientists have given us this year.

The Paris Agreement is the most ambitious global project to try and put the brakes on emissions yet. And it seems to be working, too: we are no longer on a 4°C path. That being said, with the political measures adopted so far, we are still heading for temperatures that are too high. We will need more innovation and creativity to meet our key challenges – that is what the United Nations have concluded in their latest status report on the Paris Agreement. We need to make the switch to renewables in our energy supply, stop using unmitigated fossil fuels and put an end to deforestation. Inflation and wars limiting the necessary political and economic capital to do that, need to be contained.

Both on the European and on the German level, politicians are working on ambitious climate action. Companies are being confronted with a plethora of rules and regulations designed to introduce sustainability on all levels and to make it quantifiable. Time will tell to what degree these rules and regulations will in fact make business more sustainable and if they still allow the required amount of innovation and creativity.

Insurers want to be partners for the sustainable transformation, leveraging their considerable investments, their influence on policyholders' and the insurers' own business operations. That is what the sustainability positioning we introduced in early 2021 and updated in 2023 stands for. This year's update is geared towards a sustainable reduction in indirect emissions caused by insurers' business operations and investments. On top of that, we intend to make a bigger contribution to safeguarding biodiversity as the foundation of human life and the economy through our investment and underwriting practices.

This year's report is our third, and we are proud to say our efforts to integrate sustainability into business processes, products and claims management continue to make good progress. The report shows exactly where we, the insurers, are today, and it invites you, our readers, to join the debate with us so that we may implement the sustainable transformation in a joint effort.

Nover Rolly

Norbert Rollinger and Jörg Asmussen Berlin, November 2023

Executive Summary

The third sustainability report of insurers operating in Germany documents the sector's progress in implementing its sustainability roadmap. The sustainability positioning introduced in 2021 and updated in 2023 gives a detailed description of how insurers intend to contribute to the goals set out in the Paris Agreement and the Sustainable Development Goals (SDGs) of the UN.

The report is based on information obtained in a series of surveys among GDV's member companies: an investment survey as of 31 December 2022, a survey on sustainability governance, climate change scenarios, own business operations and sustainability in P&C insurance as well as a survey on sustainable products offered in the life insurance business.

Hosted on the members' portal of the GDV, the surveys were directed at all member companies of the German Insurance Association. Insurers of all sizes participated in large numbers so that we were able to achieve a very high market coverage (85% of total investment volume in the investment survey; 86% of gross premium income in the sustainability survey; and 70% market coverage in the life insurance survey). Therefore, the report paints a comprehensive picture of the German insurance sector's sustainability positioning.

One thing becomes clear in the 2023 sustainability report: three years after the roadmap's introduction, the sector is well positioned across the board. Many insurers have made the GDV's positioning the starting point for their own sustainability strategy and they are increasingly using performance indicators to monitor its execution.

Insurers have continued to embed the core principles of the strategy in their different lines of business, particularly in life insurance, and they have built up expertise in the process: insurance companies accounting for 83% of the market have trained employees in sustainability topics, 62% of the market have hired sustainability experts to support their various lines of business. About 40% of the market have incentivized their employees to contribute to sustainability goals. This has led to advances in all areas of the GDV's positioning covered in this report:

Investments: The ratio of assets managed according to ESG criteria has gone up to 90% (from 88% in the previous year). Insurers accounting for 90 % of the sector's total investment volume have aligned their investment decisions with the net-zero goal (vs. 85% the year before) and also have defined exactly what year they want to get there. Companies accounting for 70 % of investments have set milestones with clearly defined emission targets that have to be reached by predefined dates.

In 2022, insurers financed about 23 million tons of CO₂ (scopes 1 and 2) through investments in 292 billion euros worth of listed stocks and bonds. The sector was able to raise both the market coverage and the total volume of investments for which the corresponding CO₂ emissions were identified. Scaled to the previous year's market coverage, emissions would have dropped to 18.1 million tons of CO2.

The carbon footprint per one million euros invested was 79 tons in the reporting period (vs. 71 tons in the previous year). The year-over-year rise can be explained by two factors: one, after the Covid-19 pandemic, emissions went up across the globe (with data becoming available with a certain time lag); and two, the number of investments for which emissions data are available was higher in the reporting period than in the prior year.

Investments in renewable energies resulted in a rise of avoided CO2 emissions to 9.2 million tons (vs. 8.6 million tons in the previous year).

Own business operations: Scope 1 and 2 emissions were more or less flat year-over-year at 0.17 million tons of CO2, which means, emissions did not rise back to pre-pandemic levels in the first post-Covid year.

Insurers accounting for 55% of the market say they have reached net zero in scopes 1 and 2 through a combination of emissions reductions and carbon offsets. So, the sector seems to have already leveraged a considerable amount of reduction potential. Further efforts will be needed for the sector as a whole to reach the net-zero goal with regard to scope 1 and 2 emissions by 2025.

For the first time, insurers also identified scope 3 emissions for their own business operations, even if, on the whole, the availability of data can certainly still be improved. Conservative estimates see the sector's scope 3 emissions between 0.17 and 0.29 million tons of CO₂.

Consumption of electricity, water and paper was down, and the sector also produced less waste. However, the number of kilometres travelled for business has been up considerably again, which of course shows in scope 3 emissions.

Risk underwriting: Property & casualty insurers have updated their strategic direction and adapted both products and claims management processes accordingly. Insurers are stepping up their sustainability efforts across the board. Carriers accounting for more than 60% of the market focus on supporting energy-efficient buildings as well as the mobility and energy transitions. Almost one third of the market intends to support the circular economy.

Insurance companies underwriting innovative risks and business models that advance the transformation make up 74% of the market by now (up from 68% in the previous year). The share of insurers that include ESG criteria in their underwriting decisions has gone up considerably to reach 46% of the market (vs. 33%) in the prior year), and a further 26 % have plans to do it. Business lines with a more international profile, such as property, technical and transportation insurance, are leading the field when it comes to considering ESG criteria in underwriting decisions. Companies focus on both ecological and social aspects.

The share of insurers with exclusion policies was around 60% - almost as high as in the previous year (65%). That being said, insurance companies wouldn't live up to their responsibility as transformation partner if they simply backed out of all activities with a less than stellar sustainability performance. Rather, it remains important to enter into dialogue and support corporate policy holders, a task that 49% of the market are currently tackling.

Products: For property & casualty (P&C) insurers, claims management is important to advance the sustainable transformation: 81% of the market consider sustainability criteria in this area.

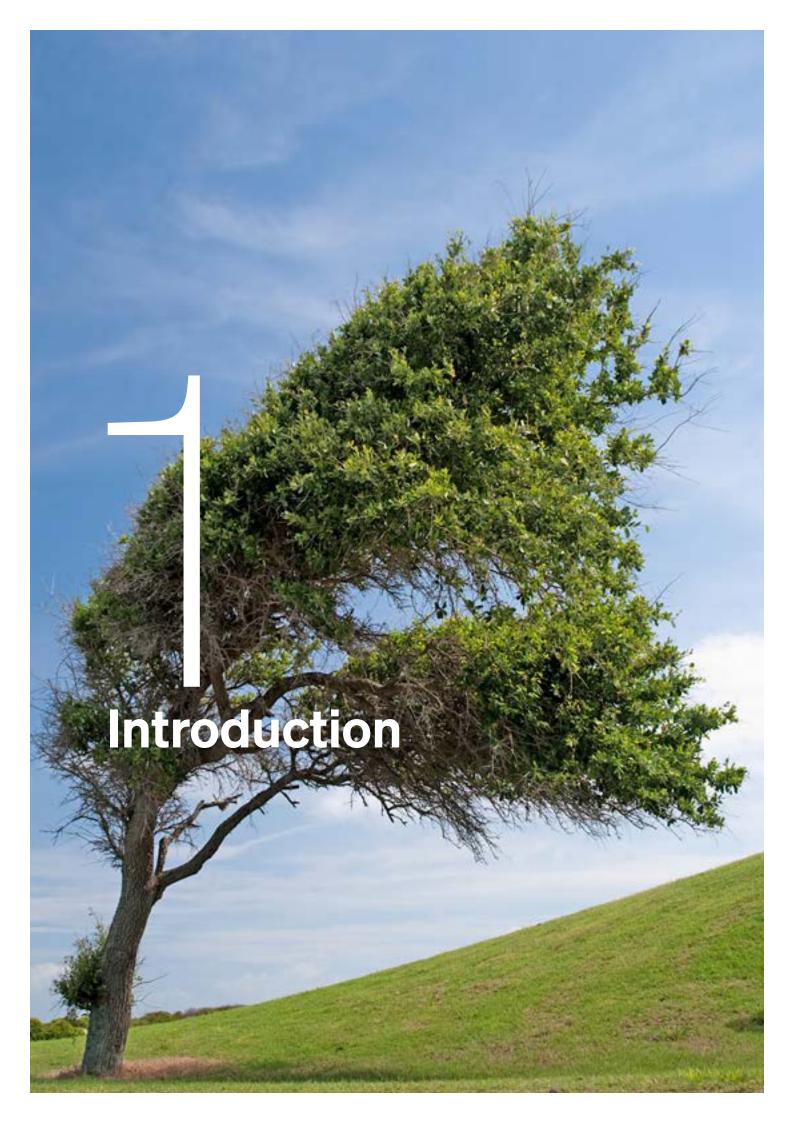
71% of the market observe the principle "repair over replace" and 63 % take energy efficiency into account when handling claims (vs. 66 % and 59 %, respectively, in the previous year). Claims settlements based on the "build back better" principle, i.e. using more resilient or more sustainable solutions after a loss event, have been going up from 26% in the previous year to 43% in the reporting period.

More than half the P&C market offers products explicitly labelled sustainable (vs. 45% in the prior year). In most cases, this translates to product terms and conditions offering benefits that go beyond the legal requirements, for example in terms of energy efficiency (55%), or particularly sustainable services or repairs (53%). Insurers increasingly partner with service providers that submit sustainability concepts or certificates. Incentives for policy holders to adopt more sustainable practices play an increasingly important role, too.

For the first time, there was a separate survey for life insurers inquiring about their offering of products with sustainability features. According to that survey, two thirds of the life insurance market do in fact offer such products. All in all, life insurance companies have provided information on more than 200 products with sustainability features in accordance with the EU Sustainable Finance Disclosure Regulation. Those products have very different ways of including sustainability aspects: in some cases, it is the guarantee assets that display sustainability elements, in others, clients can choose between different sustainable investment options. 20 products carry a reference to sustainability in their name.

Transparency: Most insurance companies report on their sustainability activities: 53 % are legally required to do so, a further 7% publish sustainability reports on a voluntary basis. Many insurers observe voluntary disclosure standards. In future, there will be common European sustainability reporting standards almost all insurance carriers will need to abide by. Insurers have started to prepare for the implementation of these standards, and 47% of the market have already made good progress. Coordinating the timelines of sustainability and financial reporting as well as identifying key elements of the value chain have proved to be the biggest challenges.

All things considered, these are strong signals that the sector will reach the goals set out in the GDV's sustainability positioning.



2023 is the year of the first Global Stocktake, an international review of the global progress made in implementing the Paris Agreement. The results are both alarming and encouraging: if the individual countries implement their climate plans global warming can be limited to 2.1°C to 2.9°C instead of the 4°C that had previously been projected.

hat's important now is to implement the plans and become even more ambitious because every tenth of a degree counts if we want to slow down global warming. We can achieve a lot if we pull together.

The transformation of both the economy and society will continue to require considerable efforts to get us to an emissions trajectory that reduces global warming to a bearable amount.

Safeguarding biodiversity which provides the natural foundation for both human life and our economy will require additional efforts, too. In late 2022, the signatory countries of the Global Biodiversity Framework set goals that absolutely must be reached by 2030 to halt or reverse the loss of species and ecosystems.

The European Green Deal, the German Climate Protection Act and the sustainability strategy provide the political framework for economic transformation.

Insurers play a central role because they are key enablers: without that transformation, i.e. if temperatures were to rise unchecked, the sector would no longer be able to provide insurance against extreme weather damage in many cases. Insurance companies help their clients master the transformation and adapt to those consequences of climate change that have already become inevitable.

In 2023, the insurance sector has updated its sustainability positioning, renewing its commitment to the Paris climate goals and the UN's Sustainable Development Goals (SDGs) in the process. The positioning focusses on how insurers can and will contribute to limiting global warming (SDG 13). Also, insurance companies want to make sure their investment and underwriting decisions contribute to safeguarding biodiversity as the foundation of human life and our economy, particularly with regard to regions worth protecting and economic activities that take a heavy toll on natural resources.

The GDV's sustainability positioning sets goals for the entire business model of insurers:

- → Reduction of emissions in own business processes: as a first step, insurers want to reach net-zero emissions in their own business operations by 2025, at least in Germany (regarding self-generated and purchased energy, so-called scope 1 and 2 emissions). By 2030, significant reductions in scope 3 emissions of operating processes are to be achieved. Insurers help their sales partners reach sustainability goals.
- → Alignment of investments with the Paris goals: Insurers set out to reach net-zero portfolios by 2050 and to achieve visible reductions of their investments' carbon footprint by 2025 already. On top of that, they plan to define specific interim targets. The Net Zero Asset Owner Alliance's (NZAOA) ambitious Target Setting Protocol that is being revised on a regular basis will serve as a frame of reference. In addition, carriers will base their investment decisions even more on ESG criteria (ESG: environmental, social, governance).
- → Underwriting of risks: ESG factors and sustainability goals of commercial clients, industry and agriculture are planned to get more important, too. In the long run, insurers will no longer add any commercial and industrial risks to their portfolios that negate the transition towards a sustainable and climate-neutral economy. Specifically, this would be the case, if clients didn't make any sustainability efforts of their own. Above all, insurers need to support businesses on the way towards climate-neutrality.
- → Insurers want to promote sustainable behaviour by clients and business partners through appropriate insurance products and claims management practices.
- → Insurers provide transparency and support the dissemination of knowledge about handling climate risks and adapting to climate change.

Sustainable development cannot succeed without considering the social dimension, as the UN's sustainability goals clearly show. In their role as employers, insurance companies are responsible for 204,200 employees (as of 31.12.2022). Promoting diversity and equal opportunities as well as raising the share of women in leadership positions and governing bodies is an important part of sustainable transformation and therefore also included in insurers' sustainability goals.

The fact that more than 90% of employees are paid according to collective bargaining agreements makes for excellent employment conditions in the insurance sector. The Arbeitgeberverband (AGV, employers' association) and the Bildungswerk der Versicherer (BWV, a training organisation for the German insurance industry) publish important indicators, such as development of employment, churn as well as basic and further training, on their websites.

Insurance companies contribute to Sustainable Development Goals 1, 10 and 3, i.e. No Poverty, Reduced Inequalities and Good Health and Well-being, respectively, by providing insurance against existential life risks such as diseases, the consequences of accidents or disability and by offering both private and occupational pension provision products.

Insurers are subject to strict legal requirements and operate under the watchful eye of the Federal Financial Supervisory Authority (BaFin) so that economic safety in the interest of policy holders and with regard to the stability of financial markets can be ensured. On top of that, a multitude of legal provisions are designed to promote the sustainability of the financial sector. In 2023, those legal requirements were updated and additional rules were implemented; take a look at some of them:

- → The Corporate Sustainability Reporting Directive (CSRD) was adopted on the EU level. It has yet to be transposed into German law, however. The number of companies publishing sustainability reports will continue to rise; the insurance sector is no exception here. The first reports for the 2024 business year will be published in 2025.
- → Companies subject to the CSRD will have to report according to European Sustainability Reporting Standards (ESRS) adopted in August 2023. The goal is to make important disclosures comparable across companies.
- → The EU taxonomy for sustainable activities was updated to include additional activities designed to help contain climate change. The taxonomy now includes 107 activities that account for almost two thirds of European CO₂ emissions. For the first time, the EU Commission also published a list of activities that contribute to the four other environmental goals.
- → The EU adopted a standard for green bonds. A uniform standard can boost the sustainable bond market. A lack of transparency and unclear standards often stood in the way of investments in the past.

The green bond standard is scheduled to enter into force in late 2024.

- → The European Union and the European supervisory authorities (ESA) have been publishing guidance on the interpretation of the Sustainable Finance Disclosure Regulation on a continuous basis. The aim is to provide transparency about products with the objective of sustainable investments or that promote ecological or social characteristics. The regulation is already being reviewed while at the same time important aspects of it are still being adapted.
- → EIOPA, the European supervisory authority for the insurance industry, has been tasked by the European Commission to look for signs that "green" or "brown" investments should be dealt with differently from a supervisory perspective. EIOPA has published a first methodology paper on the topic and continues its work on this basis. In another paper, EIOPA deals with risks for insurers that can result from a loss of biodiversity.
- → In Germany, the Act on Corporate Due Diligence Obligations in Supply Chains (Lieferkettensorgfalts-pflichtengesetz) entered into force in 2023. Large companies, including insurers, are required to re-

- port on their due diligence obligations in the past financial year. In August 2023, the federal authority responsible published relevant implementation recommendations for insurers.
- → On top of that, European supply chain or rather value chain legislation is being introduced: the Corporate Sustainability Due Diligence Directive. The details are currently being negotiated by the European legislative bodies.
- → The new Energy Efficiency Act requires companies whose energy consumption exceeds a predefined threshold and data centres to take certain measures. This law will apply to numerous insurers, too.

The insurers' sustainability positioning along with voluntary standards and legal requirements provide guardrails and encouragement for the sector to contribute to the sustainable transformation of the economy. Based on climate budgets, science shows us the goals that need to be reached. We have yet to get on track to reach the goals set out in the Paris Agreement.

Structure and sources of the report 1.1

The structure of the report is based on the sustainability positioning so that the status of each goal becomes clear. The information is derived from three surveys among the member companies of the GDV:

- → a survey on the asset allocation of investments as of 31.12.2022;
- → a survey on sustainability in insurers' business strategies and operations, the use of climate change scenarios in risk management and a sustainable direction in property & casualty (P&C) insurance;
- → and a survey on life insurance products with sustainability features, which was conducted in parallel with sustainability market research done by the BaFin.

Wherever it is possible and makes sense, this year's report builds on the topics of the 2022 sustainability report in order to illustrate the developments in the sector. Some additional topics have been included to reflect updates in the sustainability positioning.

The GDV's surveys were all hosted on the association's members' portal and were directed at all members of the GDV. The survey on life insurance products with sustainability features (the one conducted in parallel with a BaFin study) was conducted from 26 May until 23 June 2023, the GDV's sustainability survey took place from 22 June until 18 August 2023, and the investment survey was running from 31 January until 14 April, as usual.

Numerous actors in the German insurance market are corporate groups that decide on and implement strategic decisions on the group level. Such groups were allowed to fill out one questionnaire for several insurance companies. Since there was quite a number of corporate groups responding to the survey that way, one questionnaire reflects an average of 3.9 insurers. Unique identification numbers for each insurer prevented companies from being represented more than once.

This process has led to a very high market coverage. Based on a total of around 460 member companies that were able to take part in the surveys, the response rates were as follows (representing insurers of all sizes):

- → Asset allocation in investments: respondents account for 85% of the total investment volume of primary insurers.
- → GDV's sustainability survey: 202 primary insurers participated in the survey, accounting for 89% of the German market's gross premium income. That group includes 98 P&C insurers accounting for 87% of the market based on their business line specific gross premium income as well as 58 % of life insurers in the strict sense of the term, accounting for 86% of the market based on their actuarial reserves.1 On top of that, there were 16 reinsurers and corporate holdings that responded to the survey.
- → Life insurance survey: 42 companies with a combined market share of 70%.

Thus, the survey results reflect the developments of almost the entire German market. Those insurers that did not respond account for a very small share of the market based on their investment volume, gross premium income and actuarial reserves, respectively. Responses are represented cumulatively, based on the insurers' respective market shares, i.e. the reported data is weighted. For each individual answer, the maximum achievable value equals the combined market share of all insurers that answered that question in the respective market segment (i.e. maximum values are 89 % for the total sector, 87% for P&C and 86% for life, respectively). Regarding the shares that are missing to get to 100%, there is no information available. Not every company filled out all sections of the questionnaire, which is why the maximum value can also be lower than stated above. Wherever that is the case, there is a note alerting readers to this fact.

¹ In the P&C and life lines of business, market share is usually determined based on those different frames of reference. This report adheres to that practice.

Companies with bigger market shares being overweighted in this representation is justified by their outsize influence on sustainable development thanks to their bigger customer base. That is why this practice is deemed appropriate by the GDV to illustrate market trends and, by extension, developments within the insurance sector. Representations that deviate from this practice, in individual chapters of the report or in projections for the sector, are marked accordingly.

The method used to calculate premium income of participating companies has changed compared to the previous year. In the 2023 report, all the information is based on consolidated GDV statistics compiled from all the individual insurance companies mentioned in the questionnaires, whereas in the previous year, some of the information was based on estimates: with corporate groups it was not always clearly differentiated which individual group company a piece of data pertained to. So, this year's survey is more granular. Regarding the sector as a whole and the P&C segment, coverage is slightly lower this year than it was in 2022, whereas it is higher year-over-year in the life insurance segment. This needs to be taken into consideration when comparing the two years.



Insurers adapt to and prepare for climate change and the sustainable transformation. Depending on their size and business model, they adapt their organisational structure and train employees so that they are able to reach their sustainability goals. Scenario planning helps them to analyse the impact climate change has on their investments and the insurance business.

he sustainability positioning calls upon companies to establish appropriate governance structures and an optimised sustainability management (point 7). Because this is the only way sustainability goals can in fact be addressed and reached. The 2022 report already showed that companies were adapting their governance structures in order to implement their own strategies and meet legal requirements (Solvency II implementing regulation, transparency according to the Taxonomy and Sustainable Finance Disclosure Regulations, product development processes as well as advising clients in accordance with the Insurance Mediation Directive). It is safe to assume companies have continued to adapt, because the Corporate Sustainability Reporting Directive (CSRD) will require them to analyse sustainability risks and implications and to manage responsibilities, reporting channels and data flows. Also, many insurers have launched projects designed to contribute to the sustainable transformation of both society and the economy.

This is why the GDV has asked its member companies a lot of questions about sustainability governance again in this year's surveys: section 2.1 sheds light on insurers' strategic positioning, section 2.2 shows how they embedded sustainability in their organisational structure and processes. The GDV also asked its members about their experience with climate change scenarios in risk management. The answers are summarised in section 2.3.

The results presented in this chapter are based on information provided by insurers with a combined share of 85% of the sector's gross premium income and 83% of the P&C and life insurance segments. Regarding the shares that are missing to get to 100%, there is no information available.

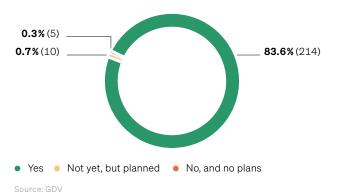
Year-over-year comparisons are drawn wherever it makes sense. In these cases, it is important to keep in mind the slightly higher participation of 90% of the market (based on gross premium income) in 2022.

2.1 Strategic direction

Almost all participating insurers (84%) have already developed a sustainability or ESG strategy (ESG: environmental, social, governance) that goes beyond mere risk considerations (figure 1). A further 0.7%, especially smaller companies, have plans to introduce such a strategy. Those that neither have a sustainability strategy nor plan to develop one are few and far between: 0.3% of the market.

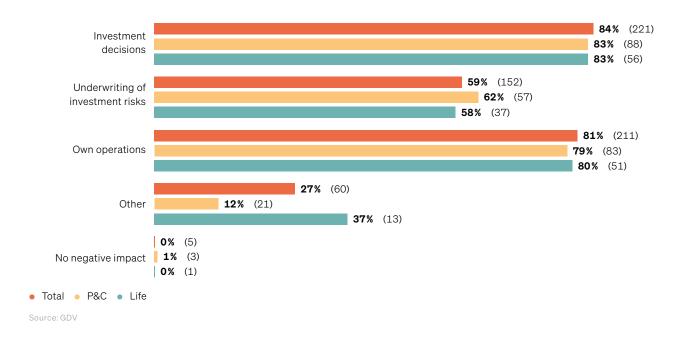
Companies with sustainability strategies that go beyond looking at risks

Figure 1 · Responses in % of the sector's total gross premium income (in brackets: # of insurance companies); achievable maximum: 85%, no information on remaining 15%



Consideration of own sustainability impact

Figure 2 · Responses in % of the sector's total gross premium income (in brackets: # of insurance companies); multiple answers possible; achievable maximum: 85%, P&C: 83%; Life: 83%



When it comes to sustainability strategies, it is important to know whether companies only look at their own exposure or rather take a more holistic approach and consider negative implications their own business activities might have for sustainability factors (figure 2). This is something companies will increasingly need to report on in future. With very few exceptions, the surveyed insurers do consider their impact on sustainability aspects when making investment decisions (e.g. through ESG-based or sector-specific exclusions or limits). Compared to the previous year, the share of insurers that consider the sustainability implications of their own operations (e.g. selecting service providers or arranging energy supply) has gone up slightly (from 80 % to 81%). Same with risk underwriting: the share of insurers considering the sustainability implications of their decisions in this department rose from 58% to 59%. In property & casualty insurance this value went from 59% to 62.5%).

While there were still distinct differences between life and P&C in this regard, both segments are more or less on par in 2023. What remains true is this: Insurers follow a multi-tiered approach to accommodate sustainability as well as ESG aspects. The share of carriers that do not see any negative impact of their business activities on sustainability factors has fallen to 0.3% in 2023.

Insurers' sustainability strategies contain concrete targets. 77% of the market take their cues from the GDV's sustainability positioning, 62% use the Paris Agreement's 1.5 °C target as a benchmark (figure 3).

Contribution to the SDGs

The UN Sustainable Development Goals (SDGs) that are relevant to the strategies of insurance companies are more or less the same as in 2022: the one that has been mentioned most frequently by far is Climate Action (SDG 13), followed by Good Health and Well-being (SDG 3) as well as Decent Work and Economic Growth (SDG 8), tied with the same number of mentions. Fourth place is also occupied by two goals that were stated in equal numbers: Affordable Clean Energy (SDG7) and Responsible Consumption and Production (SDG 12); after that, coming in sixth, is yet another pair with an equal number of mentions: Quality Eduction (SDG 4) and Gender Equality (SDG 5). This goes to show that insurers' strategies include both the environmental and the social dimension of sustainability, the latter referring to both the insurers' workforce and the products they offer.

A little over half the market have aligned their strategy to some of the UN Sustainable Development Goals (see box).

The EU taxonomy for sustainable business activities has become a much more important source of input for the strategic goals of companies, too – especially in life insurance. Just shy of 50 % of the total market have set themselves investment goals based on the EU taxonomy (vs. 40% in 2022). Among life insurers the number has gone up to 55% (vs. 35% in the prior year). Only in the P&C segment is the taxonomy also applicable to the core business of insurers. Just like in 2022, about a third of that market segment uses the taxonomy as strategic guardrails. Biodiversity is explicitly used as a strategic goal by only 10% of the market. SDGs 14 and 15, that are especially relevant to this goal, i.e. Life Below Water and Life on Land, respectively, were mentioned in four questionnaires as a source of strategic orientation.

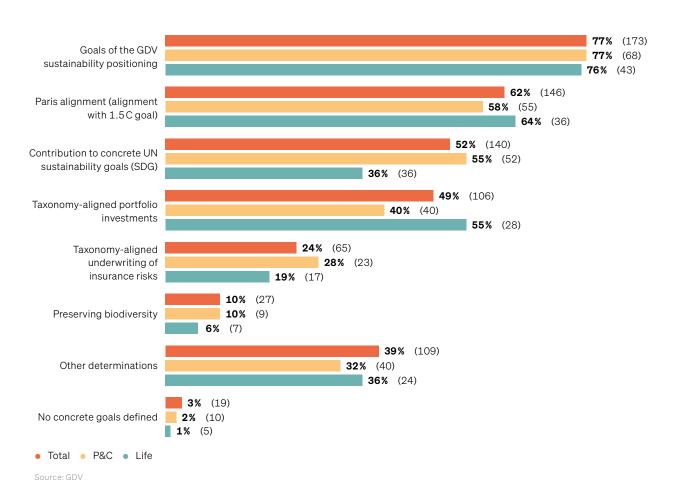
The vast majority of insurance companies already adheres to external sustainability standards on a voluntary basis in order to reach their goals, e.g. the Principles for Responsible Investments (PRI), the UN Global Compact or the Principles for Sustainable Insurance (PSI). This goes to show that there is no single universally relevant market standard but rather a number of standards for different segments of the insurance business that are being observed by insurers. The following chapters dedicated to the individual segments present those standards in more detail. Only 4% (especially smaller insurance companies) say they didn't observe any external standard.

2.2 Organisational structure and methods

Sustainability falls within the purview of senior management, as we have already seen in the reports of 2021 and 2022. In most insurance companies (84%) the en-

Goals of sustainability strategies

Figure 3 · Responses in % of the sector's total gross premium income (in brackets: # of insurance companies); multiple answers possible; achievable maximum: 85 %, P&C: 83 %; Life: 83 %



tire top team is accountable for implementing the sustainability strategy.

Sometimes, responsibility also falls to an additional senior executive (CEO or CFO: 15% each, CRO: 12%) or a special group of executives (16%). This demonstrates how important sustainable transformation is to insurers. Only one of the surveyed companies delegated the responsibility for implementing the sustainability strategy to managers below the top tier.

It is only logical and reasonable, however, that the units that take into account the implications of their own operations on sustainability are being included when it comes to implementing sustainability strategies: almost all insurers include their investment department (85% vs. 89% in the prior year when participation was

higher though), operational organisation is increasingly invited in (84 % vs. 76 % in the prior year) and, depending on the business line, underwriting and product design also get a seat at the table when it comes to implementing strategy (figure 4).

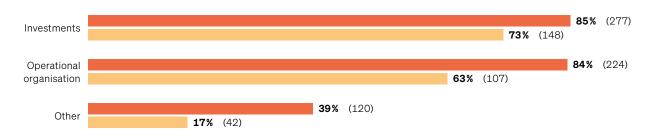
The following chapters of this report will explore the activities of those departments in more detail. Many companies also include functions such as HR, IT, marketing and sales, risk management and compliance – some even include all departments. This is another aspect that demonstrates how comprehensive and holistic the sustainability approach of many companies is.

To make sustainability progress measurable, insurers increasingly use key performance indicators (KPIs):

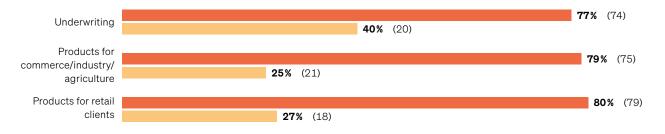
Part of the implementation process

Figure 4 \cdot Responses in % of the sector's total gross premium income (in brackets: # of insurance companies); multiple answers possible; achievable maximum: 85%, P&C: 83%; Life: 83%

... corporate units



... property & casualty



... life insurance



59% of the market do so in some units, 15% use sustainability KPIs in all units covered by the strategy.

A further 9% of companies intend to introduce KPIs in the time to come, because they want to be able to better monitor their progress towards sustainability goals. Insurers tend to include more and more units in the implementation of their strategy. However, KPIs have not been identified for and might not make sense in all units.

Therefore, it is not to be expected that every unit without exception will use KPIs in future.

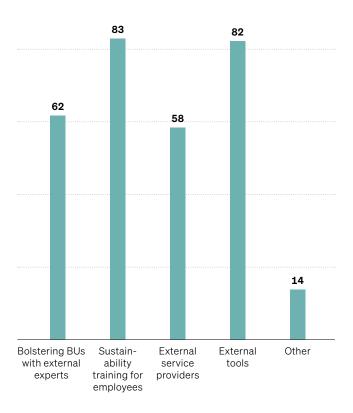
In the vast majority of cases (74%), there are dedicated sustainability units or officers who coordinate the activities of the different business units. More often than not they are set up as staff units within central corporate units such as business development, corporate communications or operational organisation. Insurers accounting for 71% of the market have additional resources at the ready to implement the strategy. Figure 5 illustrates what kind of resources there usually are: 62% of insurers bolstered relevant business units with additional experts (vs. 36 % in the prior year), 83 % provided their employees with targeted sustainability training (73 % in the previous year). External tools are being used at companies accounting for 82% of the market; 58% use external service providers (this was not subject of a separate question in 2022). A further 6% have plans to deploy more resources, 5% (11 insurance companies) do not use any additional resources and have no plans to do so in the future.

The AGV's (employers' association) <u>training survey</u> confirms the importance of capability building. Sustainability-related training is offered in all areas of expertise that are relevant to people working in the insurance industry. The most widespread topics would certainly be investment and risk management, two areas that are directly relevant to the core business. 50% of insurers that participated in the AGV's survey also offer training in reflecting on one's own behaviour.

Insurers accounting for 40% of the market incentivise their employees to reach sustainability goals. This was part of the survey for the first time, this year. As expected, it is mostly monetary incentives in the form of variable compensation components linked to sustainability-related targets, that are employed. And these incentives are not always limited to senior management and executives but also apply to parts of the workforce. Some insurers also offer non-monetary incentives, such

Use of (additional) resources for the sustainability strategy

Figure 5 \cdot Responses in % of the sector's total gross premium income; multiple answers possible; achievable maximum: 85%



Source: GDV

as subsidised bicycles, public transport passes or electric or hybrid vehicles for senior staff.

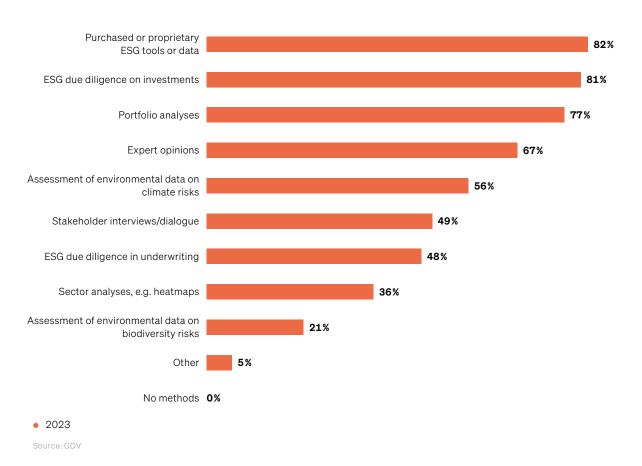
Actively involving employees in the selection of fundraising campaigns can provide additional motivation for supporting sustainability.

Many insurers work with independent sales partners. As shown above, sales units take an active part in supporting the sustainability strategy in many companies. Also, external partners such as insurance agencies can make sustainability efforts more credible in the eyes of clients. This is why the objective to help sales partners reach their sustainability goals was added to the GDV's sustainability positioning in 2023. It has been the first time that the GDV survey collected data on sustainability in sales.

A little more than half the market actively supports independent sales partners in reaching sustainability goals. A further 8% plan to start doing so soon. The support comes mainly in the form of training and IT tools. Insurers often focus on supporting their sales teams

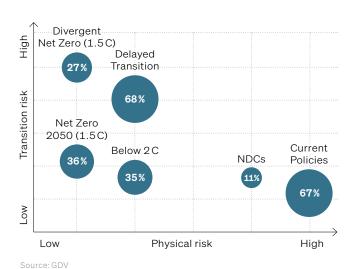
Methods to identify sustainability factors

Figure 6 \cdot Responses in % of the sector's total gross premium income; multiple answers possible; achievable maximum: 85%



Clear preference for two NGFS climate change scenarios

Figure 7 · Responses in % of the sector's total gross premium; income; multiple answers possible; achievable max: $85\,\%$



with the legal requirement to ascertain clients' sustainability preferences. But they also offer training to become sustainability advisers. Some insurers also provide help with preparing climate balance sheets. The GDV has developed some <u>guidance</u> on how insurers can support sales partners in reaching ESG goals and taking a comprehensive approach to the whole spectrum of social, environmental and governmental aspects.

As far as methods are concerned, insurance companies employ different approaches for managing sustainability factors and their implications (figure 6). In most cases (81%) they perform the so-called ESG due diligence before making investment decisions. Carriers accounting for almost half the market (46%) also use this instrument when deciding what insurance risks to underwrite. Apart from that, portfolio analyses (77%), expert opinions (67%) and so-called sector analyses (36%) are used on a regular basis, too. To top it off, insurers have intensified their use of ESG tools and ESG

data (82% vs. 72% in the prior year) that they either acquired from external providers or in fact developed themselves. On this basis, 56% of the market analyse relevant environmental data on climate risks and 21% assess biodiversity risks.

Half the companies (49%) are also looking to open a dialogue with relevant stakeholders.

Forward-looking analyses based on climate change scenarios that have become a regulatory requirement in 2022 constitute a particular method. The following section shows how far this requirement has been implemented, yet.

2.3 Using climate change scenarios in risk management

In their role as risk bearers and investors, insurance companies have to proactively identify and assess the physical and transition risks associated with climate change. Sustainable finance also means long-term economic stability. This is why risk management requirements have been raised: since 2022, companies have been required to evaluate material climate change risks based on scenario analyses that examine possible developments.

The insights are meant to inform business planning and strategy and be reported to the financial supervisory authority BaFin (i.e. in the "Own Risk and Solvency Assessment - ORSA").

In 2022, sustainability reports showed for the first time how insurers implement the regulatory requirements. Insurers accounting for 85% of the market (based on gross premium income) have filled out the thematic questionnaire for this year's report, which means there are yet again detailed insights: how are the implications of climate change examined? In what areas and time frames are those implications considered material?

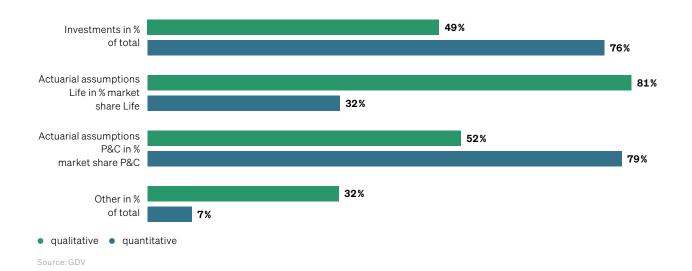
Practically all insurers that participated in the surveys have already done scenario analyses. Only very few, i.e. less than 1% of the market, have taken advantage of regulatory exemptions (e.g. no material risks identified, low risk profile or foreign corporate parents doing the analysis).

The GDV provided initial implementation recommendations in 2022 and has published a comprehensively updated and extended version of its paper containing possible approaches for the implementation of regulatory requirements in 2023. The updated GDV paper is being used almost market-wide now (82% vs. 43% in the previous year).

Regulators have called upon insurers to analyse the impact of two long-term climate change scenarios: one with temperatures rising less then 2°C and one with temperatures rising more than 2°C. The Network for Greening the Financial System (NGFS), an internation-

Assessing climate change implications: qualitatively and quantitatively

Figure 8 · Responses in % of the sector's total gross premium income; multiple answers possible; achievable maximum: 85%; P&C: 83%; Life: 83%



al coalition of financial supervisory authorities with a particular interest in sustainable finance, has developed narratives for six possible scenarios. They differentiate based on not only the extent of the rise in temperatures but also the political measures to support the transformation. This entails different physical and transition risks in each case.

The NGFS provides the economic metrics relevant to each scenario, and the GDV's paper offers an in-depth examination of each scenario.

The survey has shown that those NGFS scenarios have become somewhat of a standard: insurers making up 81% of the market use them. Other scenarios insurers use are based on studies done by the Potsdam Institute for Climate Impact Research or the Bank of England. Two of the NGFS scenarios have been used most frequently by far (figure 7): the "Delayed Transition" scenario and the "Current Policies" scenario are each being used by more than two thirds of the market. The "Delayed Transition" scenario is based on the assumption that political decision-makers will initially continue to drag their feet on further climate action and then take decisive measures abruptly to reach the climate goal after all. Transitory risks are higher in this scenario. "Current Policies" on the other hand assumes that there won't be any further political measures to limit the rise in temperatures at all. This scenario focusses on the physical implications of global warming. A little over one third of the market works with the "Net Zero 2050" and "Below 2°C" scenarios. A little over a fourth of the market uses the "Divergent Net Zero" scenario that is based on the assumption that the climate goal will be reached by taking non-systematic, drastic measures.

Insurers look for implications of global warming in all areas of their core business (figure 8). Quantitative assessments have gone up year-over-year in investments (76 % vs. 65 %) and the actuarial assumptions of P&C insurers (79 % vs. 67 %). Qualitative analyses, on the other hand, went down in both cases (prior year numbers: 67% in investments and 64% in P&C actuarial assumptions). It looks like insurers used the insights derived from the qualitative analyses of the previous year to work out a more quantitative perspective on the effects.

Life insurers have intensified their analyses, strengthening their focus on quantitative analysis (81 % vs. 61 %). On top of that, about a third of the market look at other topics with a qualitative approach. That includes the impact of their own business strategies as well as other types of risks, e.g. reputational risks or climate litigation.

Climate change affects business on different time scales which is why the survey asked about short-term implications within the next five years as well as medium-term consequences to be expected between 2028 and 2050 and long-term effects from 2050 until 2100.

Many insurers didn't provide any long-term considerations because the widely used NGFS data doesn't offer any economic projections for that time frame. Which reflects a systematic uncertainty regarding the question of how far the economic transformation will have progressed by then and whether the transition might even be mostly completed then. Especially when it comes to transition risks, models need to be based on sufficiently plausible assumptions to generate usable information.

Implications for investments

When analysing the implications of climate change for investments, a clear majority of the market (57%) at least differentiates between asset classes. Some (42%) make an additional differentiation between economic sectors. A fourth of the market (26%) drills down to individual assets. Practically all insurers analyse stocks and corporate bonds where the risk of "carbon bubbles" and "stranded assets" is talked about the most. A large part of the insurance sector also includes sovereign bonds (62%) and real estate (57%) in their risk analysis

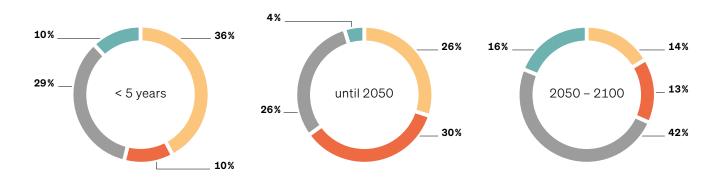
The reason transition risk is relevant to investments is that the transformation of the real economy brings not only new prices, products and manufacturing procedures but also affects the valuation of a company on the capital market. A majority of respondents (46%) expects implications for their investments in the shortterm already, and 10 % of them rate these implications as "material" (figure 9a). Medium-term, i.e. looking at the period until 2050, 30% of the insurance market expect material implications. Long-term, which is to say after 2050, 27% still anticipate a material impact, even though many insurers didn't say anything about their expectations for that time frame. 16% don't expect there to be any impact beyond 2050.

Regarding physical risks (figure 9b), insurers expect few short-term implications for their investments (e.g. negative impact of natural hazards on real estate or production processes). Medium- and long-term, 34% and 24%, respectively, do anticipate implications, though, and in both time frames 13% of the market rate these implications as material.

Short- and medium-term, carriers expect global warming to cause more transition risks on their investments

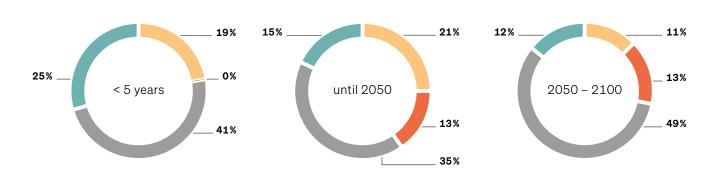
Transition risks for investments

 $\textbf{Figure 9a} \cdot \textbf{Answers in \% of total market share (based on gross premium income)}$



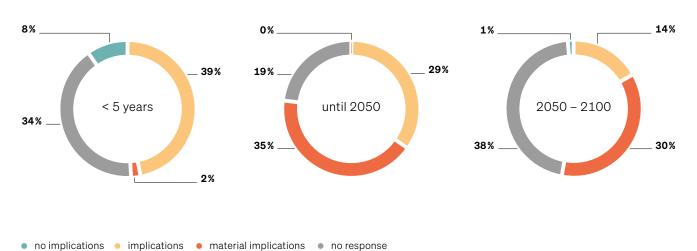
Physical risks for investments

Figure 9b · Answers in % of total market share (based on gross premium income)



Physical risks for actuarial assumptions P&C

Figure 9c · Answers in % of P&C market share (based on gross premium income)



than physical risks. Long-term, however, both risk categories are deemed to be equally relevant. This is consistent with the "delayed transition" scenario which is based on the assumption that global warming and its consequences will continue for the time being and that temperatures might temporarily rise by more than 1.5 °C before the goal of limiting global warming to that amount will be reached.

Implications for property & casualty insurance (P&C)

In property and casualty insurance, the focus is on physical risks, such as a higher frequency of extreme weather events, and their actuarial implications (figure 9c). Short-term, 41% of this market segment (P&C insurers) expect impacts on physical risks, but only 2% consider them material. Some of the impacts that are not yet rated as material in the short-term, will likely grow to become material in the medium-term, though. About 64% of P&C insurers anticipate (material) impacts in the time frame until 2050. Less than 1% don't expect any impacts. As far as the period after 2050 is concerned, many insurers haven't made any assessments, which would explain why the percentages are lower than for the time frame until 2050. Practically all insurers that have provided estimates for that time frame expect impacts on physical risks, and 30% consider those impacts material.

Life insurance

In the life insurance segment (no figure), about 40% of the market didn't provide any detailed opinion about the implications of climate change over time. This might have to do with the fact that in this segment the implications are mostly being analysed on a qualitative level. A little over one fourth, i.e. the majority of companies that gave detailed answers, expect neither transition risks (e.g. more cancellations as a consequence of the economic transformation) nor physical risks (e.g.

due to climate-related changes of health hazards and mortalities).

Medium- and long-term, a little less than one quarter of companies do anticipate the transition to have impacts, but in either time frame, only 2% consider those impacts material. Regarding physical risks, 19% expect impacts in the medium-term and 29% expect impacts in the long-term. But, again, only very few companies rate those impacts as material.

Assessing the impact of global warming and mitigating political measures helps insurers identify potential risks and take action where necessary. As we have shown at the beginning of this chapter, insurers have already developed strategies to handle sustainability risks and to contribute to the transformation. In this context, 57% of the market say that based on their analyses there was no need to take action (14%) or at least no need to take action beyond what has already been done or planned (43%). A smaller share of companies (4%) will introduce new measures based on the insights they gained from scenario analysis.

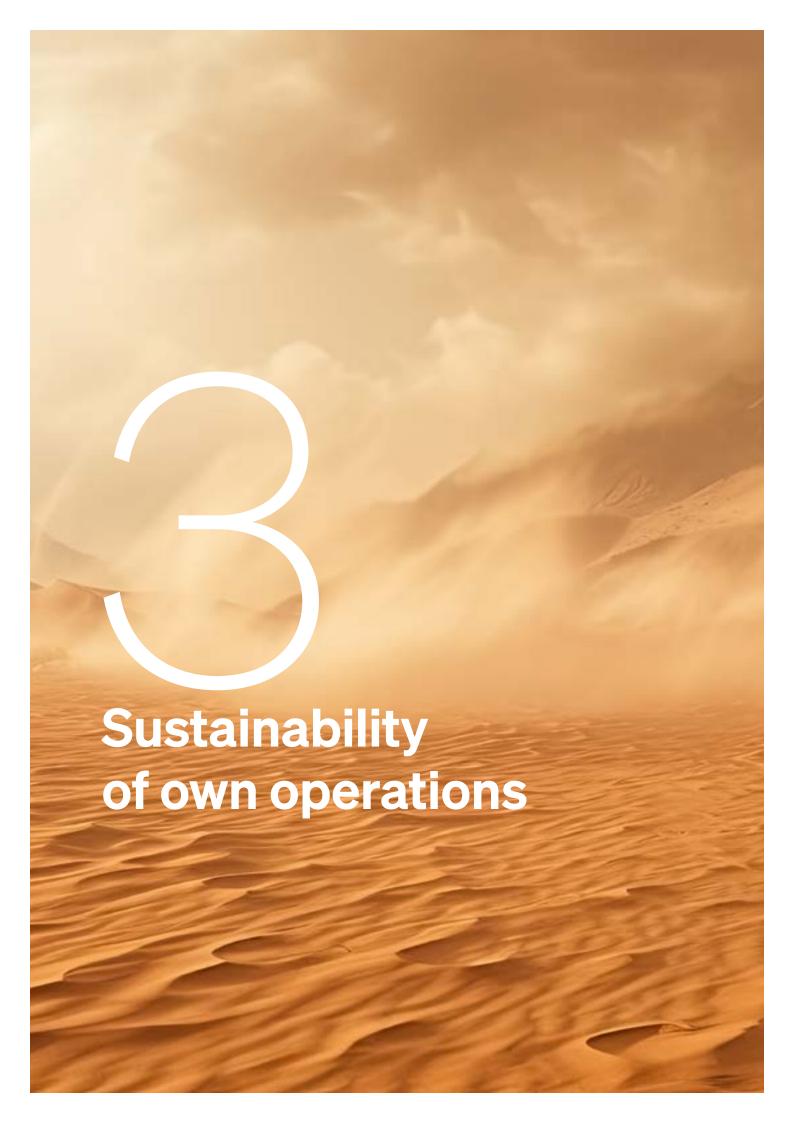
Even though scenario analysis seems to suggest there is little direct need for insurers to take action at this point, those analyses do help companies validate and update their ESG strategies, and they highlight the importance and general need to act. This is why 75 % of the market plan to update their scenarios, especially NGFS scenarios. On top of that, insurers intend to improve (64 %) or extend (39 %) their quantitative assessments. 61 % want to improve and extend their data, and a little less than one third (29 %) of the companies surveyed intend to add more scenarios to their analyses.

SUMMARY

The 2023 surveys show that insurers continue to make visible efforts to embed sustainability in their governance - both because of regulatory requirements and to implement their sustainability strategies. Almost all participating companies have strategies to achieve ecological and social sustainability goals. Across the market, corporate functions such as investments and operational organisation are being included in implementing those strategies; same with business areas that are relevant to the respective insurance lines.

Governance transition requires considerable resources: across the industry, employees are trained in sustainability topics and a great many companies hire additional personnel. External tools and service providers support ESG-related processes, such as the due diligence when making investments or underwriting risks. About 40% of the market have incentivized their employees to reach sustainability goals. And about half the market supports their independent sales partners with sustainability-related matters.

Insurers' internal risk analyses based on climate change scenarios show quite impressively how relevant climate action is both socially and economically: in the medium-term, i.e. in the period from 2028 until 2050, more than one third of the market expect transition risks to have material impacts on their investment portfolios. The share of P&C insurers anticipating physical risks to have material implications for actuarial assumptions is a little higher still. Overall, however, many insurers believe the strategies and measures they have already put in place will be sufficient to adequately address those risks in the future.



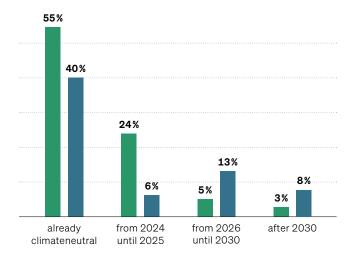
Sustainability starts at the heart of the company: for the first time, relevant indirect CO₂ emissions in operating business processes (scope 3) were measured, too. This information complements the data on self-generated energy and acquired energy sources (scope 1 and 2) as well as further environmental metrics.

3.1 Carbon footprint and saving resources

By 2025, insurers intend to reduce scope 1 and 2 emissions from self-generated energy as well as acquired energy sources at German locations and offset remaining emissions (target: net-zero emissions). However, in the financial services sector, scopes 1 and 2 are a rather small source of emissions. Which is why the updated sustainability positioning includes the added goal to achieve a significant reduction of indirect emissions (scope 3) by 2030. This report contains the first stocktaking of the sector's indirect emissions caused by operating business processes. Financed emissions, which are also part of scope 3, are presented in chapter 4.

Net zero in business processes - insurers' goals

Figure 10 · Responses in % of the sector's total gross premium income; remaining share to reach 100%: no information



Scopes 1-2
 Scopes 1-3

Source: GDV

Data on 2022 was collected through the GDV's survey for this sustainability report, same as in the year before. Participation was flat year-over-year at 89% of the market. After Covid-19, the past financial year was more or less back to normal. Mobile work has become a fixture of day-to-day work in companies. According to an express survey made by the AGV, 11% of respondents were "at the office all the time", 87% alternated between the office and working from home, and 2% worked exclusively from home (AGV 2023: Geschäftsbericht, p. 77). This also has implications for numerous environmental metrics.

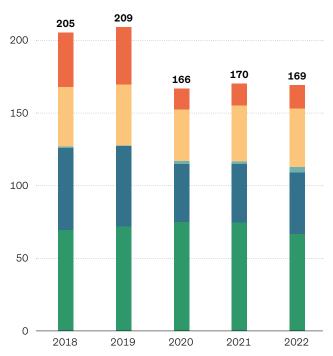
Most insurers take into account negative sustainability impacts of their own business processes, as chapter 2.1 has demonstrated. Carriers accounting for 84% of the market have included operational organisation when it comes to implementing their sustainability strategy (prior year: 76%). 63% of the market identified indicators of success, i.e. key performance indicators (KPIs). The survey results pertaining to business processes provide insights into the strategic goals regarding emissions:

- → In scopes 1 and 2, 55 % of the market (based on gross premium income) achieved net zero (figure 10). In the previous year it had been 49%. A further 24% intend to reach net zero by 2025, another 8% want to get there by 2026.
- → Scope 1 to 3 targets were collected as a first indication, too. Companies's definitions of which scope 3 emissions to include can vary. Also, in some cases data availability is still limited. Therefore it is probably safe to assume that the informative value is still rather low across the industry. Taking these limitations into account, about 40% of the market currently say that they have reached net-zero emissions. About one fourth of the market want to reach that goal by 2030. Insurers accounting for one third of the market didn't give any information here.

Scope 1 and 2 emissions have reached a plateau

Figure 11 · CO₂e emissions caused by own business processes in thousand tons (scopes 1-2)

Tons of CO₂e in thousand



- Acquired electricity (market-based)
- Acquired district heating and steam (market-based)
- Direct emissions of volatile gases
- Direct emissions from combustion processes in stationary devices
- Direct emissions from combustion processes in mobile devices

Source: GDV

However, insurers still have a long way to go before they reach that goal. In 2022, the sector as a whole still produced over 169.000 tons of CO₂ equivalent in scopes 1 and 2, according to the market-based approach (figure 11). So, the insurance sector's emissions were more or less unchanged compared to the previous year, whereas total emissions in Germany were down 1.9% according to data published by the <u>Umweltbundesamt</u>, Germany's main environmental protection agency.

The emissions from the insurance sector's biggest source, i.e. combustion processes in stationary devices such as heating systems, were down considerably compared to 2021 (-12%). The second biggest source are emissions from combustion processes in mobile devices which include, above all, company cars and leased vehicles. These emissions were up 7%.

The third large source of emissions is acquired district heating and steam. Emissions have gone up by $5\,\%$ year-over-year there. For one, the fact that offices were used more again should have caused additional demand. For another, insurers have been affected by the $4.4\,\%$ rise in emissions in the German energy sector.

Emissions from acquired electricity have gone up, too (\pm 13.3%), even though insurers have reduced their energy consumption the second year in a row (\pm 7.7% compared with 2021). However the lion's share of insurers' electricity consumption is already covered by green energy (\pm 89%) and doesn't cause any scope 2 emissions. The share of self-generated renewable energy is still low (\pm 9.5% vs. 0.4% in the prior year).

According to the GHG protocol, the indirect scope 3 emissions include a plethora of business processes, which is why before the survey was conducted, a working group identified possible GHG protocol subcategories for the operations side of things in order to make the results of the GDV survey comparable. Those categories were selected on a holistic level for the entire sector based on hypotheses about emission volume, the companies' sphere of influence as well as relevancy for stakeholders. Individual companies might have made different choices here. The aim was a holistic view of the sector. Emissions that are normally categorised as scope 1 or scope 2 should not be "reduced" simply by shifting them in favour of unreported scope 3 emissions. Examples would be allocating IT services from (reported) own data centres into the (currently unreported) cloud or mobile working arrangements. Figure 12 provides an overview.

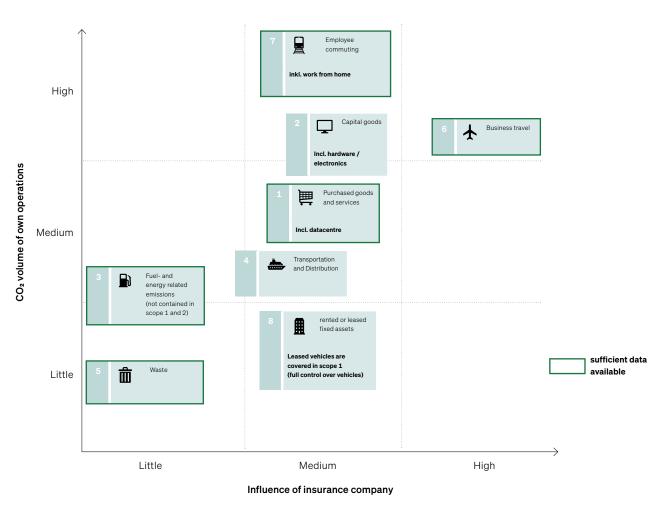
Seeing as there is still insufficient data, the working group also debated methods of data collection and common estimation procedures for individual categories. Emissions from commuting and mobile work, for instance, are difficult to capture for reasons of data protection. Plus, external data centres very rarely disclose their emissions – something that might change, however, with the legal requirements of the German Energy Efficiency Act that has come into effect in November 2023.

This explains why the submitted data was expectedly spotty. None of the disclosing companies was able to submit data for all scope 3 categories that were part of the survey.

There were not enough individual reports on the categories "rented or leased fixed assets", "capital goods (incl. hardware/electronics)" as well as "transportation

Scope 3 categories for insurers' operating processes – the survey categories

Figure 12 · Assessment of the individual GHG protocol categories by volume, sphere of influence, evaluation of stakeholders as well as data availability



Source: GDV

and distribution (upstream)"; so, these categories were not taken into account. Based on the available data, a first indicative projection was made allowing a global take on the sector. According to this, scope 3 emissions are within the range from 170,000 to 287,000 tons of CO₂ equivalent – which more than equals the amount of scope 1 and 2 emissions.

Mobility in the form of employee commuting and business travel causes the largest share of scope 3 emissions (figure 13). Fuel- and energy-related emissions come in third. This figure is usually generated automatically based on identified scope 1 and 2 emissions.

On top of that, relevant emissions from building the production facilities and from the transportation of renewable energies are also included. All things con-

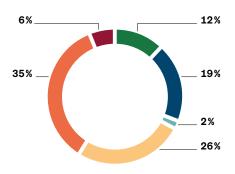
sidered, it is safe to assume that reported scope 3 emissions will be significantly higher in future, when more data will be available.

Further environmental metrics

The GDV surveys captured further environmental metrics of insurers (for an overview, see table 1). After the end of Covid-19 restrictions, business trips and travel have gone up again. That being said, at 447 million kilometres they are considerably lower than before the pandemic. Year-over-year, this is an increase of about a third (figure 14). The length of individual trips by car (the most important means of transport) has remained almost unchanged (+2% year-over-year). Air travel has shown the biggest year-over-year increase: it has actually quadrupled. Insurers are working to reduce emissions by changing travel policies and

Mobility is the strongest driver of scope 3 emissions

Figure 13 · Breakdown of scope 3 emissions from business operations



- Purchased goods and services (e.g. outsourced data centres)
- Fuel- and energy-related emissions beyond scopes 1 and 2
- Waste
- Business travel
- Employee commuting
- Work from home

Survey on sustainability of own operations Source: GDV

switching to lower-emission modes of transport, as shown by the measure they intend to take (see below).

Something that has gone down significantly is paper consumption: insurers used up 16,300 tons in aggregate or 101 kilograms per full time equivalent (FTE) vs. a total of 21,300 tons or 125 kilograms per FTE the year before. The digitalisation of office operations and client communications has proven to be effective here. Water consumption and waste generation of insurers have gone down markedly as well, despite employees returning to the office in 2022 after the shelter-in-place and work-from-home practices of the Covid period. This kind of consumption largely defies centralised control. The reductions show that employees are aware of sus-

tainability issues and resource consumption now and support mitigation efforts.

Reduction and offsetting

Asked about their top 3 measures to reduce carbon emissions, most insurers said they switched to sustainable energy sources. This was the number one measure again. It involves extending the use of green energy and sustainable district heating as well as generating renewable energies within the companies.

Insurers are pushing their own mobility transition to address a large source of emissions: the second favourite measure was advancing electric mobility, for example by using more electric company vehicles or by offering charging points at company locations. Third, albeit with fewer mentions, is adapting business travel

Operational ecology of insurers

Table 1 · Metrics refer to full-time equivalents (FTEs) or back office FTEs (FTE BO)

Merkmal	Einheit	Art	2019	2020	2021	2022
Scope 1-2 market-based	tCO ₂ e	Projected	208,518	166,287	169,806	169,331
Scope 1-2 market-based	tCO₂e per FTE	Mean	1.12	0.89	0.90	0.80
Scope 3 high case	tCO₂e	Projected	-	-	-	286,298
Scope 3 low case	tCO₂e	Projected	-	-	-	169,660
Electricity consumption	kwh per FTE BO	Mean	3,524	3,142	2,880	2,384
Waste volume	t per FTE BO	Mean	0.22	0.20	0.17	0.14
Water consumption	m³ per FTE BO	Mean	13.99	11.42	9.24	8.54
Total paper consumption	kg per FTE BO	Mean	117	105	125	101
Car	km per FTE	Mean	2,136	1,405	1,469	1,454
Train	km per FTE	Mean	716	193	129	382
Airplane	km per FTE	Mean	810	169	101	389

policies. Numerous companies modernise their buildings (#4 in the ranking of measures) and address energy efficiency (#5). Some want to reduce emissions from commuting, e.g. by subsidising public transport passes or supporting car pool arrangements.

Digitising business processes and reducing paper consumption continue to count among insurers' favourite measures, albeit with a little fewer mentions than the year before. And those measures have indeed resulted in a reduction of paper consumption (see above).

These voluntary measure are now complemented by the requirements of the Energy Efficiency Act (German: Energieeffizienzgesetz, EnEfG) that has recently come into force. Companies with an electricity consumption of more than 2.5 GWh need to identify economic cutbacks, those that consume more than 7.5 GWh are required to set up an energy or environmental management system. While the survey results indicate that this law should apply to more than half of insurance companies, very few of them have in fact introduced such management systems so far.

The EnEfG also contains regulations for data centres with a nominal electric power capacity above 300 kW: they are required to reach a redefined Power Usage Effectiveness (i.e. a maximum PUE of 1.5 from 2027), source half their energy from renewable sources from 2024 and meet new disclosure requirements towards the federal government. Data centres that will go into operation after 2026, must not exceed 1.2 PUE and are required to increasingly reuse waste heat.

The bottom line is insurers are still going to have to identify ways to avoid and reduce emissions. That being said, for the time being net-zero emissions will not be possible without offsetting activities by creating and using carbon sinks. This can be done either within an insurer's value chain or outside of it. When it comes to investments, it can be done within the value chain, as explained in chapter 4. With operational business processes, the focus is on avoiding and reducing carbon emissions. Insurers who want to remove CO₂ emissions from the atmosphere, need to go outside their own value chain and buy CO₂ credits or support relevant measures directly.

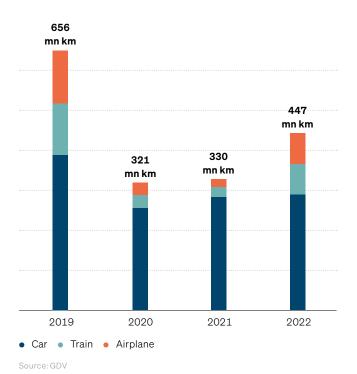
The market for those credits is not regulated, yet. There are, however, voluntary quality standards that address critical aspects regarding those credits.

- → One would certainly be making sure that the underlying CO₂ volume of such credits is not being claimed more than once ("double counting"). International regulations in the Clean Development Mechanism, which is part of the Kyoto protocol, are designed to prevent this from happening. The Paris Agreement contains new rules (called "Corresponding Adjustments") for the period after 2020, but those rules have not been implemented, yet. So, during the past few years, providers of carbon credits have developed their own transition measures to address the problem of double counting.
- → Another critical aspect is determining the volume of (negative) carbon emissions assigned to credits (i.e. certificates to be bought and sold). The concern is above all inflated assumptions when the proceeds from selling credits are used for preserving carbon sinks, e.g. to protect against deforestation. Again, it is the providers themselves who have developed standards here. An ad-hoc survey from the beginning of this year has shown that insurers don't seem to be using such credits.

In general, though, the buyers of credits should be aware of this and other critical aspects concerning

Business trips and travel

Figure 14 · kilometres travelled on business in millions (projections)



Carbon offsetting

Table 2 \cdot Credits by type and place of accounting

Cancelled carbon credits, total	133,327 t CO₂e		
By type of project			
Carbon removal/capture (biogenic and technological)	19%		
Carbon reduction (e.g. through cookstoves)	66%		
Unknown (e.g. offset flights)	14%		
By place of accounting of credits			
Projects in the EU (creditable for EU countries)	1%		
Projects outside the EU (possibly creditable for non-EU countries)	43%		
Accounting at the buyers of credits (qualifying as corresponding adjustments in accordance with Article 6 of the Paris Agreement)	44%		

carbon credits and accounting for underlying emissions. The GDV has developed an overview of relevant aspects. However, buyers currently also depend on those standards to be transparent and effective and on the standard-setters to guarantee compliance with the standards.

Companies will be required to disclose the carbon credits they use in their sustainability reports. The GDV sustainability survey was based on the draft new reporting requirements regarding carbon credits that were available at the time. The survey results show that insurers have developed different strategies for using carbon credits. Some already use them to implement net-zero goals while others still dispense with credits altogether.

All in all, carbon credits for around 133,000 tons of CO₂ (table 2) were purchased and retired in 2022. That is 79% of scope 1 and 2 emissions.

Two thirds of the credits' volume were generated through projects to reduce CO2 emissions, a further 19% through carbon removal or capture. 87% of those projects took place outside the EU. About half of them can clearly be allocated to the buyers of the credits

based on the accounting documents. When it comes to credits purchased from offsetting providers for emissions caused by business travel for example, both the type of credit and the way it is being accounted for are unknown in many cases.

SUMMARY

Insurers' efforts to establish more climate-responsible, resource-saving business processes are making further progress. Scope 1 and 2 emissions were more or less flat year-over-year in the reporting period. Which means, emissions did not rise back to pre-pandemic levels in the first financial year post-Covid. The consumption of electricity, water and paper as well as the generation of waste even went down. What went up, however, was the number of kilometres travelled on business, even though it did not rise to the pre-Covid level again. Especially the metrics that are hard to control centrally show that insurers and their employees are in fact pulling together to make their processes more resource- and emissions-saving.

The first scope 3 survey still revealed considerable data gaps. But even those limited data reveal that total emissions caused by the own operational processes of insurers have at least doubled. In the coming years, both a more comprehensive data availability and measures by insurers will lead to higher scope 3 emission readings, because measures such as converting the fleet of company vehicles as well as investments in energy-efficient equipment and buildings are fully recognised, from a scope-3-emission perspective, in the first year. So, the reductions achieved in some categories of greenhouse gas accounting will be offset by increases in other categories.

The e-mobility ramp-up, the mobility transition, climate-neutral heating, high standards for instruments such as carbon credits as well as a high-quality market for the permanent removal of CO₂ from the atmosphere as currently planned by the EU will provide an important framework for insurers.

Women in leadership and diversity 3.2

Insurers are aware that diversity is an important driver of a company's economic success, good corporate culture and attractiveness as an employer. In light of the high share of women in insurance (48%) and the fact that they are still under-represented in leadership and governance bodies (table 3), the "Arbeitgeberverband der Versicherer" (AGV, employers' association of insurers) has continued its activities on the theme "women in leadership & culture".

The AGV industry advisory board made up of both male and female executives raises the theme's visibility across the industry and supports companies to gradually raise the share of women starting from the top. Wage transparency, equal pay and inclusive corporate culture were at the centre of the summer meeting 2023.

- → Every two years, the convention of female top executives brings together the female leaders of the industry.
- → "Fit for Leadership", a leadership coaching initiative for female candidates has counted among the most important projects since 2017. With the help of external service-providers, a leadership programme for female talents has been developed to support companies without the necessary capacity to set up their own diversity programmes.
- → Digital formats such as INSURWOMEN@NET-WORKS as well as inspiring web talks with female

board members enhance visibility, provide encouragement through role models and make networks grow. That network for female executives and career-minded women facilitates a digital exchange on professional and personal topics that can help career advancement.

→ The network of diversity experts founded in 2021 and made up of decision-makers from 22 companies and corporate groups has continued the exchange of good practices and current issues.

The GDV survey for this sustainability report shows that insurers accounting for 50% of the market (121 insurance companies) have signed the "Charta der Vielfalt" (Diversity Charter). Carriers representing 35% of the market (78 insurance companies) have completed the "Beruf and Familie" (Career and Family) audit.

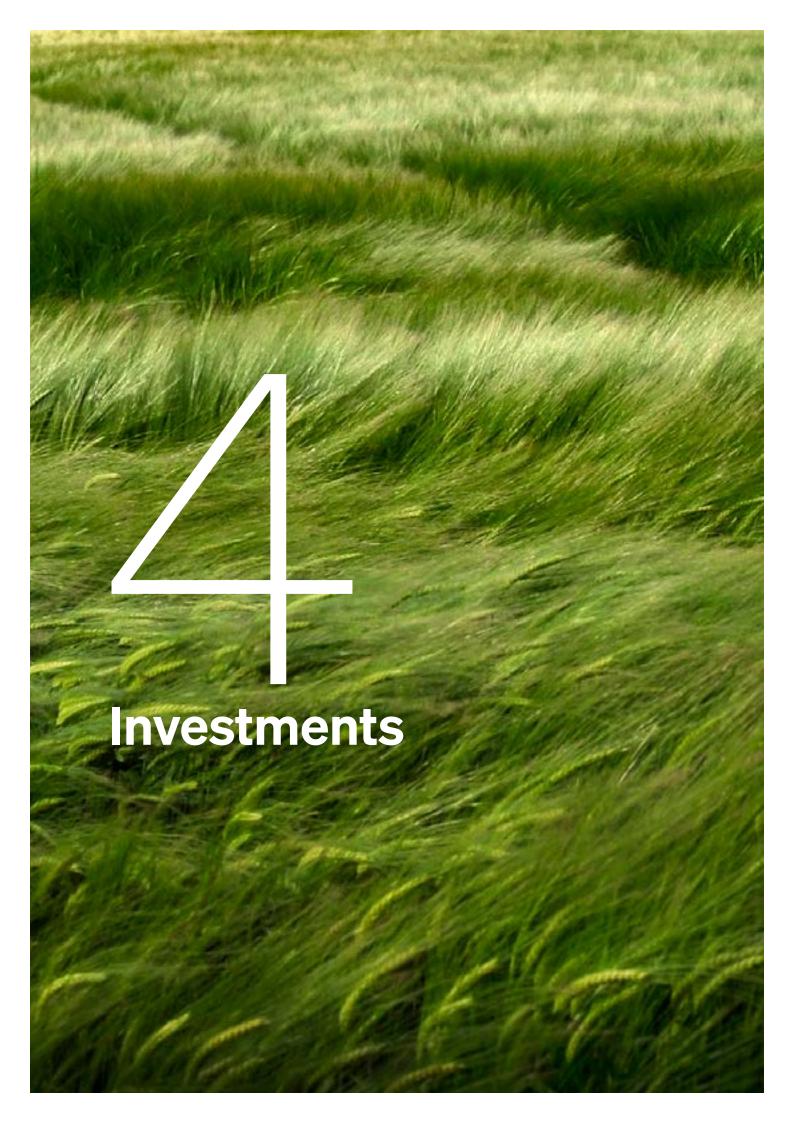
The various efforts are starting to have a positive effect that is reflected in the numbers. In 2022, the share of female board members was 15.6 % (vs. 13.2 % the year before) and there were 21.9 % women on executive level 1 (vs. 18.8% the year before), according to the "Managerinnen-Barometer" (female executives barometer) compiled by the German Institute for Economic Research (DIW) (see table 3). More than 30% of internal roles on leadership levels 1 through 4 are filled by women.

The AGV publishes current statistics about the percentage of women in leadership positions on its website in the interest of transparency and as a benchmark for insurance companies.

Percentage of female executives by leadership level (back office)

Table 3 · in %

	Leadership level 1	Leadership level 2	Leadership level 3	Leadership level 4	Leadership levels 1 bis 4
2012	10.6	21.3	30.3	26.5	24.5
2017	14.8	23.3	32.7	34.2	27.3
2020	17.5	25.0	35.1	39.2	29.2
2021	18.8	25.9	35.6	36.3	29.8
2022	21.9	26.9	36.4	38.5	31.1



Insurers want to make a significant contribution to sustainable transformation through their sizeable total investment volume of 1.9 trillion euros. Each year, about 300 billion euros are invested or reinvested; that is about 1.2 billion euros per trading day.

nsurers intend to make their investment portfolios climate-neutral by 2050. This is a goal they have set themselves in their sustainability positioning. The updated version of that positioning published in early 2023 also stipulates that insurers set interim goals for their journey towards climate-neutral portfolios (point 9 of the positioning). Another newly added goal is for insurers to try and consider the influence they wield through their investments on safeguarding biodiversity as foundation of human life and the economy, especially in areas worthy of protection (point 8). Further important objectives are a better alignment of investments to sustainability concepts (point 10) as well as supporting recognized voluntary initiatives (point 11). After all, voluntary standards and capability building can provide orientation and help insurers develop and implement sustainability strategies.

Chapter 2 has shown that investment plays a key role in insurers' sustainability strategies: about 90 % of those that participated in the GDV survey consider sustainability aspects in their investment decisions, increasingly using sophisticated approaches such as ESG integration or standards-based screenings. This chapter takes a closer look at the implementation of those strategies. The information is based on a survey about the status of investments as of 31 December 2022 that insurers accounting for 85% of the sector's investment volume participated in (vs. 86% in the previous year). The high participation leads to insights that are representative of the whole market. Unlike in the other chapters, the following data is capital weighted and refers to the insurers that took park in the survey.

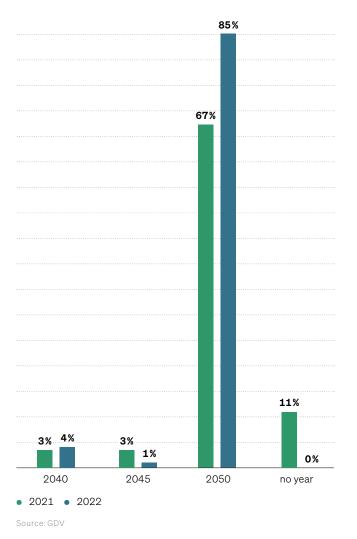
4.1 **Emissions of German insurers**

Carriers representing 90% of the sector's investments (vs. 85% in the prior year) strive for net-zero portfolios (figure 15). It is encouraging that, unlike the year before, all of them have identified clear targets by what year exactly they aim to reach net zero. In the overwhelming majority of cases, that year is 2050. Almost 70 % (vs. 52% in the prior year) of insurers have already set milestones with clearly defined emission targets that have to be reached by predefined dates.

To reach that goal, insurers must determine the carbon footprint of companies and other asset classes they are invested in. So far, it has been above all publicly traded

Target years for net-zero investments

Figure 15 · Responses in % of investment; remaining percentage to reach 100 %: no defined target



companies (shares and bonds) that disclose their carbon footprint; however, methods to determine the footprint of other asset classes are being developed. Transformation schedules of investment targets will become more important, too, for insurers to derive decarbonisation schedules for their portfolios.

The carbon footprint of insurers' investments has been determined for the second time now (for information about methodology, see below). Insurers disclosed the carbon footprint for 292 billion euros worth of publicly traded stocks and bonds in their investment portfolios. In absolute numbers, around 23 million tons of CO₂ emissions were (co-)financed by the insurers' investments (vs. 22 mn in the prior year). Scaled to the previous year's market coverage, emissions dropped to 18.1 million tons of CO₂. The carbon footprint per one million euros invested grew from 71 tons to 79 tons of CO₂ (carbon footprint in accordance with the EU Sustainable Finance Disclosure Regulation, SFDR). This increase compared to 2021 is primarily due to data becoming available with a time lag. Some of the available data for 2022 reflects the economic recovery of 2021 and the corresponding rise in emissions. What's more, data quality improved as a result of the new reporting reguirements (SFDR), so that the current report includes emissions that hadn't been captured before.

For the purposes of this report, "carbon footprint" is used as per the definition laid down in the Regulatory Technical Standards (RTS) for the SFDR (see box below).

The metric reported by insurers in the GDV survey refers to publicly traded bonds and stocks for which CO₂ data is available. Also, for reasons of data availability, only scopes 1 and 2 are included. The GDV does not share the European Supervisory Authorities' (ESA) view that the carbon footprint should be determined in relation to the total investment volume, a preference the ESA had stated during the SFDR review consultation. Based on that calculation, the average carbon footprint of German primary insurers would only be 20 tons of CO₂ equivalent per one million euros invested. The GDV believes, a metric based on that calculation is not very meaningful and could even be misleading. Following the ESA's calculation, it would be possible to influence the carbon footprint simply by shifting the allocation in favour of asset classes with lower emissions (e.g. sovereign bonds).

The carbon footprint will remain subject to considerable volatility. A linear trajectory is not to be expected. The reason for this is not only changes in the underlying data but also extensions of the investments to be included. For instance, next year the carbon footprint of real estate investments is to be included in the metric for the first time. What's important for insurers to reach their net-zero goals is investment targets with a successful long-term decarbonisation strategy, not the absolute value of the carbon footprint as of a particular date.

Calculation of the carbon footprint

Since March 2021, financial market participants with more than 500 employees have been required to disclose if and how they take into account negative implications of their investment decisions (EU SFDR). For the purposes of its member surveys, the GDV uses the term "carbon footprint" as defined in the delegated regula-

tion supplementing the SFDR, where the metric is calculated with the formula indicated below:

Insurers accounting for 75% of the sector's investment volume, submitted information about their portfolios to the GDV based on that definition.

 $\sum\nolimits_{n}^{i} \left(\frac{\text{current value of investment}_{i}}{\text{investee company's enterprise value}_{i}} \times \text{investee company's Scope 1,2 and 3 GHG emissions}_{i} \right)$

current value of investments (€ M)

Part of the CO₂ emissions come from investments in companies of the fossil fuel industry. The current list of financial sector firms invested in companies with coal-related oil and gas activities compiled by the NGO Urgewald contains eleven German insurance companies or groups. That list was updated to include companies with oil- and gas-related activities. The reported investments account for about 0.9% of the total investment volume. In absolute numbers, the investments in companies with coal-related activities alone dropped by a third (0.35% of investments). Classic long-term investors as they are, insurers have probably held those investments in their portfolios for quite some time. It is safe to assume that a significant share of those insurers has meanwhile defined and published concrete schedules to divest those assets.

Avoided emissions

The carbon footprint based on scope 1 and 2 emissions is offset by a positive contribution of insurers: they realised 1,556 solar and wind energy projects (vs. 1,607 projects the year before, a decline that is due to a change in the underlying data) and their pro rata share of generated electricity rose to 21.2 billion kWh (vs. 20.4 bn kWh in the previous year). Based on the emissions caused by Germany's electricity mix, 9.2 million tons of CO₂ emissions were avoided that way (vs. 8.6 mn t CO₂ in the prior year).

4.2 Investing based on sustainability concepts

In their sustainability positioning, insurers also committed to aligning investments more closely with sustainability concepts. This year's survey among GDV members has shown that 90% of investments are being managed according to sustainability criteria by now (vs. 88% in the prior year). 56% of investments are based on external ESG standards and ratings (vs. 60% a year earlier). Proprietary approaches cover 44% (vs. 33% in the previous year).

Insurers use a variety of methods to implement their sustainability and ESG strategies (figure 16): the biggest share of investments is being managed based on negative or exclusion lists (78% vs. 65% in the prior year) followed by standards-based screenings (62% vs. 42% in the prior year) and ESG integration approaches (58% vs. 31% the year before). Engagement with portfolio companies plays an important role, too: 22% (vs. 19% in the prior year) of investments are being managed based on engagement approaches. Best-in-class strategies and positive lists, on the other hand, are less widespread. Methods and approaches to take into ac-

count sustainability aspects in investment have been disseminated much more strongly in the course of 2022.

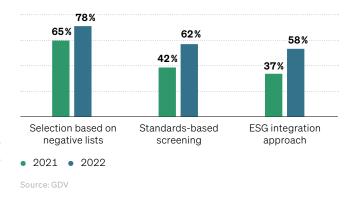
Insurers also increasingly use sophisticated approaches such as ESG integration, standards-based screenings or engagement.

The exclusion criteria applied by companies lead to a higher coverage across the board compared to the previous year:

→ All insurers working with negative lists say they exclude the manufacturing and sales of controversial weapons (100% vs. 95% the year before).

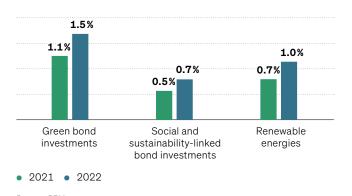
Sustainability is an integral part of insurers' investment practices

Figure 16 · Share of investments managed based on different concepts in %; relative weightings on a present-value basis; multiple responses possible



Positive development of sustainable investments

Figure 17 · Share of sustainable investments in %; relative weightings on a present-value basis; multiple responses possible



- → 95% (vs. 86% the year before) exclude investments in companies earning a significant revenue share with coal-related activities (exploration, production, processing etc.).
- → 61% (vs. 58% in the prior year) exclude companies with revenues from oil and tar sands.
- → There has been a particularly significant development with regard to two social criteria. At the end of 2022, 68% (vs. 48% in the prior year) of respondents applied explicit exclusions based on human rights violations while 65% (vs. 46% the year before) explicitly excluded child labour. Those are also categories that are included in standards-based screenings and ESG integration strategies that are increasingly being used, too. These methods require, for instance, that investments be based on the UN Global Compact or on minimum ESG score thresholds. It is then not absolutely necessary to define explicit exclusions.

The share of investments with a decidedly positive sustainability contribution has gone up year-over-year but is still on a relative low level (figure 17):

- → The share of green bond investments rose by about 40% to 1.5% (vs. 1.1% the year before); social bond investments increased to 0.7% (vs. 0.5% in the previous year.
- → The share of investments in renewable energies improved significantly, too, and reached 1.0 % (vs. 0.7 % the year before).

→ Sustainable investments in the sense of Article 2 (17) SFDR reached a share of 9.5% (vs. 4.5% in the prior year). Since Article 2 (17) SFDR does not provide a clear and unambiguous definition of sustainable investments, however, a more detailed interpretation of the changes in that area is difficult.

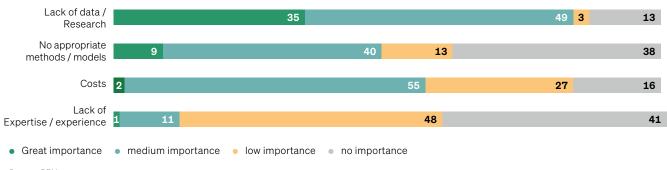
All respondents intend to increase their share of sustainable investments. However, some obstacles still remain when it comes to taking into account sustainability and ESG criteria in investment decisions. As shown above, 90% of investments are already being managed based on sustainability criteria. Regarding the remaining 10%, most insurers consider a lack of data and research to be the main problem (figure 18). What they don't agree on is the availability of methods and models: a little less than half the insurers say a lack of methods and models played a medium to large role, whereas 38 % do not consider this a problem at all. After all, managing the remaining investments based on ESG criteria as well, comes down to costs for 84% of respondents even if the overwhelming majority of insurers say the issue is of medium or low importance.

A lack of expertise, on the other hand, is not much of an obstacle any longer. This has to do with the fact that insurers have dealt with sustainability-based investment practices quite extensively in recent years and have built up considerable expertise in this area by now.

When it comes to explicitly sustainable investments, 42% complain about a lack of standardised definitions (at the time of the survey, i.e. as of spring 2023), and 24% decry a lack of relevant investment opportunities.

Obstacles to considering sustainability criteria

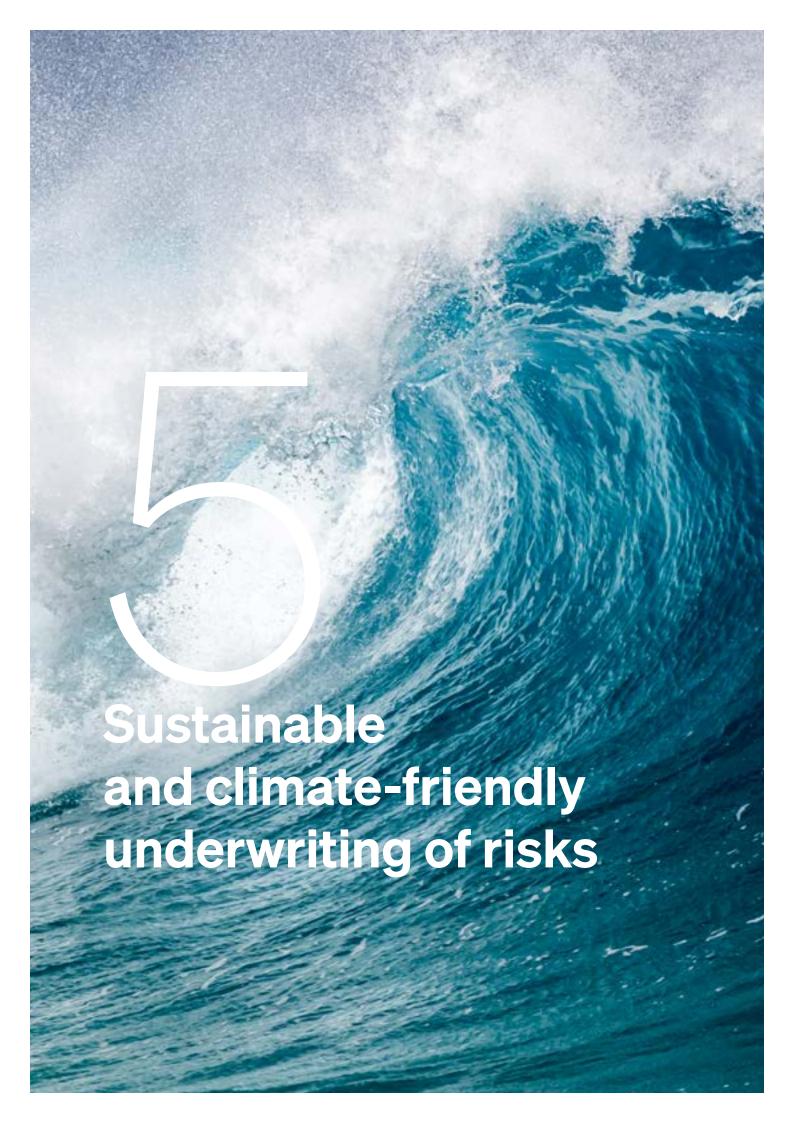
Figure 18 · in % of respondents (capital weighted)



4.3 Supporting activities

Many insurers adhere to voluntary standards by now and have joined initiatives to build, use and refine capabilities and methodological skills together. Making such initiatives more widespread is another goal set out in the sustainability positioning (point 11). This is why the GDV joined the UN's Principles for Responsible Investment (PRI) as a Supporting Partner in February 2021 and the Net-Zero Asset Owner Alliance in April 2021. Insurers accounting for 90 % of the sector's investment volume are signatories to the PRI, and carriers representing 61% of investments are members of the Net-Zero Asset Owner Alliance (NZAOA) with clearly stated CO₂ reduction targets and journeys.

On top of that, the GDV provides information and material members can use to develop their own sustainability strategies and employ in their investment decision processes. That includes, among others, an overview of relevant UN conventions as non-binding guidance for future exclusions and a non-binding questionnaire for granting corporate loans that incorporates sustainability factors now. GDV members were offered numerous webinars and workshops about topics such as taxonomy, disclosure and biodiversity, and the association also invited external experts to speak at these events, among them people from NGOs.



Dealing with risks is at the core of the insurance business. And sustainability aspects play an increasingly important role there. Property & casualty insurers contribute significantly to the transformation, both through their product design and premium structure and through claims management. Life insurance policies with ESG features offer customers access to sustainable investments.

ne of the GDV sustainability positioning's goals is to get sustainability aspects embedded in risk underwriting processes and gradually integrate ESG criteria into the underwriting guidelines of insurers by 2025 (point 15). Long-term, insurers don't want to take on any commercial and industrial risks any more that might neglect the transformation toward a sustainable and climate-neutral economy (point 16). The positioning's updated version of 2023 underlines how important it is to support businesses on their way to climate neutrality in accordance with scientific insights in order to reach the Paris goals. This requires methods and metrics to identify insured greenhouse gas emissions. Safeguarding biodiversity as foundation of human life and the economy should play are more central role when underwriting risks and talking to policy holders.

As far as product design is concerned, the GDV sustainability positioning has set the goal of extending the supply of sustainable products and integrating sustainability criteria into claims management. In funded pension provision, insurers intend to offer more sustainable products. This chapter shows how insurers are progressing: section 5.1 looks at the strategies and methods of property and casualty insurers, section 5.2 shows how the range of sustainable products is coming along. The report also addresses protecting against natural hazards.

98 property and casualty (P&C) insurers representing 87% of th P&C segment based on gross premium income took part in the GDV survey. The following survey results are reported as shares of business-line-specific gross premium income. Year-over-year, the number of respondents increased while the market coverage decreased by about five percentage points.

Therefore, when making year-over-year comparisons it is important to remember that the achievable maximum values for individual answers were lower in the

reporting period than in the year before. For 13 % of the market, there is no information available.

Also, this is the first year that data about the supply of sustainable pension products are available. Respondents were 42 companies representing 70 % of the market based on their actuarial reserves.

5.1 Strategic direction and implementation

Property & casualty (P&C) insurers have embedded sustainability in their business strategies: almost all respondents (82%, i.e. 81 insurance companies) have developed strategies that go beyond looking at sustainability risks, and a little less than 1% (7 insurance companies) still plan to do so. Not surprisingly, the share of companies where the corporate functions (risk) underwriting and product design are involved in strategy implementation is similarly high (see chapter 2, figure 4).

The insurers were asked about their strategic direction based on the transformation areas of the German sustainability strategy. Climate change adaptation was included as an additional significant contribution made by insurers, because the EU taxonomy for sustainable economic activities explicitly talks about the responsibility of insurers in this context, too. Energy-efficient buildings, the mobility transition and the energy transition are mentioned as strategic focus areas by about two thirds of the market (figure 19). Compared to the previous year, the focus of respondents has shifted a bit: the share of insurers focussing on promoting and insuring energy-efficient buildings has gone up markedly from 51% to 66%. Correcting for the slightly lower participation in the reporting period, the mobility transition seems to be just about as important to the sector as the year before (64 % vs. 68 % in the previous year). The energy transition as an explicit point of reference for the strategic direction seems to have lost in importance (64% vs. 71% in the previous year). However, 31% now want to help establish a circular economy, compared with only 17% the year before. Another issue that lost part of its appeal is the focus on nature-based solutions and biodiversity (19% vs. 28% in the previous year).

The GDV believes that dealing more thoroughly with sustainability and looking for suitable performance indicators for individual business lines has had the effect that insurers now view their effective contribution a little differently, depending on the individual business model. At the same time, a particular strategic orientation is no longer necessary now that transformation areas are becoming part of the "normal" insurance business, e.g. when the energy transition turns formerly innovative photovoltaic systems or heat pumps into common insured objects.

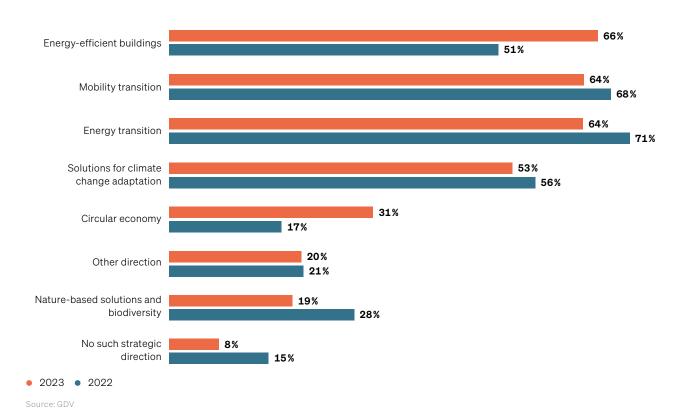
P&C insurers representing 62% of the market consider their own sustainability implications when underwriting insurance risks (see chapter 2.1). They use various methods to exert a positive influence on sustain-

able development when underwriting insurance risks (figure 20). The development is shaping up to be similar to the one in investments: an evolution from exclusion criteria that are relatively easy to implement to using more differentiated and elaborate concepts. However, the knowledge of the concepts and their execution is not quite as advanced yet as it is in sustainable investments (see chapter 4.2). Also, the methods are not equally suited to all areas and product lines of the insurance business. The WWF/Deloitte report "Underwriting our Planet" (2023) detailing the levers insurers have highlights the role of the underwriting practice in commercial insurance.²

Especially in engineering and transportation insurance, agricultural insurance and environmental liability insurance the authors of that report see great potential for change. In other lines of business, such as commercial and private building or vehicle insurance, product design and claims management provide more of a lever according to the report (see chapter 5.2).

Transformation areas are part of the strategic direction

Figure 19 · Responses in % of market share P&C insurance; multiple responses possible, maximum values 2022 92 %, 2023 87 %; no data on the remaining share to reach 100 %



² The GDV was a member of the advisory board for that report.

What insurers say most often is that they support sustainable transformation by insuring innovative risks and business models (74% of the market vs. 68% the year before). Quite often, however, for such innovations there is no information on losses, which means insurers, working with their clients, first need to collect data and experience about risks and potential risk prevention. This is how they do their part to get innovations to market and make sure those innovations can be used safely in future. Examples would be building and connecting offshore windfarms, recycling plants as part of a circular economy or setting up hydrogen infrastructure (for more information, see the GDV's Naturgefahrenreport 2023 (natural hazard report), p. 52).

Sustainability aspects and dialogue in risk underwriting

More than half the market (48 insurance companies) have identified certain economic activities they decline to insure because those activities are hard to reconcile with sustainable development. A further 8% (19 insurance companies) still plan to do so.

- → Almost all insurers that have defined exclusion criteria do not insure the manufacturing and distribution of controversial weapons (66%).
- → 62% of the market exclude coal-related activities. 61% exclude oil and other fossil fuels. Year-over-year, the percentage has decreased slightly, but the total number of insurers working with such exclusions has gone up. Which means the changes could be due to differences in data collection and the slightly lower participation.
- → More than half the insurers see to it that the insured companies do not allow child labour, don't violate labour and human rights, and don't engage in controversial business practices (57% each, almost flat year-over-year). This goes above all for companies with international activities.
- → 42% the same as the year before exclude activities that jeopardise ecosystems. The reduced focus of the strategic direction is therefore not to do with a diminished care in the due diligence on insured activities or objects.

The market share of insurers with an ESG review process they use to perform sustainability checks on companies before underwriting risks grew from 33 % to 46 %. 27% of the market still plan to introduce an ESG review process. A fifth of the market monitor ESG metrics, while 57 % have plans to do so in the future. These

methods are not alternatives to exclusions but are used by many companies in combination with exclusions.

In all companies with ESG review processes (46%), that review is performed as an additional process step by the existing underwriting unit, sometimes with the help of other units (17%). The insurance segments where ESG review are the most widespread are commercial and industrial insurance, particularly property, technical and transportation insurance (41% each vs. 35% in the previous year). In these lines of insurance, carriers often operate on an international level, too. Commercial liability and legal insurance are also frequently subject to ESG reviews (38% and 35%, respectively). Carriers representing 37% of the market have integrated private property insurance in their reviews.

Social aspects and business practices play a slightly larger role than ecological criteria in ESG reviews:

- → The aspects to be reviewed by most insurers are human rights (37%), workers' rights as defined in the Global Compact (36%) and controversial business practices (31%).
- → Animal welfare (29%), environmental protection (28%) and alignment with the Paris Goals (27%) are being reviewed a little less often.
- → All insurers with ESG reviews use proprietary data and most of them also conduct internet research (41%). Geographic information systems also play an important role. ESG ratings were used much more often compared to the previous year (22% vs. 7%). Own questionnaires for insurance brokers or applicants, on the other hand, have hardly been used at all, so far (5% each).

Insurance companies wouldn't live up to their responsibility as transformation partner if they simply backed out of all activities with a less than stellar sustainability performance. Which is why the sustainability positioning identifies the dialogue with and support of policy holders as an important task (point 17 of the positioning). Insurers representing 49% of the market (38 insurance companies) have already established this dialogue as part of their underwriting process, and a further 12% (18 insurance companies) plan to do so. That share was flat year-over-year, but the absolute number of insurers increased. So, this dialogue seems to have become a fixture of market practice in relevant business lines.

Supporting activities

Carriers adhere to external standards in their insurance activities and build up knowledge as well as methodological expertise (point 18 of the positioning). 28 P&C insurers representing 52% of the market have signed the UN's Principles for Sustainable Insurance (PSI). The GDV joined the PSI in 2021 as a Supporting Institution, which means member companies will benefit from the network's results irrespective of their size.

In 2021, the Net-Zero Insurance Alliance (NZIA) was founded as part of the PSI. NZIA members publicly commit to cutting the emissions of their (re-)insurance portfolios to net zero by 2050. In January 2023, the first Target-Setting Protocol was published, which interested companies may use for their own business strategy. However, in May 2023, the Attorneys General of Republican US states voiced antitrust concerns regarding the joint action of the Alliance in a letter to the members of the NZIA. In some US states, accounting for ESG aspects is also increasingly being legally sanctioned. In light of this considerable legal uncertainty numerous insurers have terminated their NZIA membership.

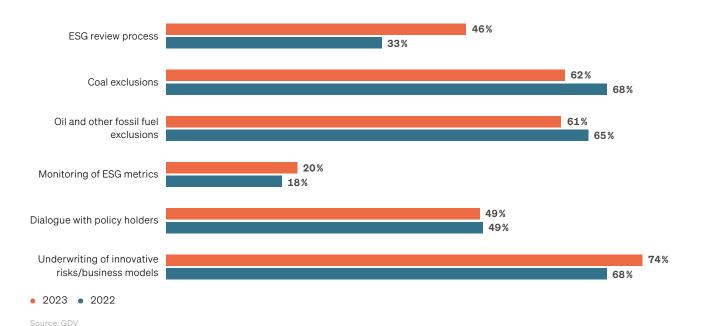
Within the GDV, insurers cooperate with both peers and stakeholders to develop a common understanding of important sustainability aspects. For example, the GDV cooperates with the Gesamtverband der Versicherungsnehmenden Wirtschaft (association of corporate policy holders). And within the GDV, there is a working group that looks at how agricultural insurers can contribute to more sustainability and the necessary adaptation to the consequences of global warming.

5.2 Supporting sustainability through products and claims management

Insurance conditions and claims handling can be designed so that they support sustainable changes in business and society. However, there is no clear definition of what constitutes "sustainable" financial products or investments. The EU Taxonomy directive on sustainable economic activities only covers a limited part of the economy where transformation is particularly urgent. The environmental goal "climate change mitigation" for example only covers economic activities with very high emissions for now. For these activities, the taxonomy defines ambitious criteria to determine when they can be considered sustainable (or taxonomy-aligned as it is officially called). With a view to the climate goal, activities with already low emissions are not included in the

How insurers support sustainability through risk underwriting

Figure 20 · Responses in % of market share P&C insurance; multiple responses possible, maximum values 2022 92 %, 2023 87%; no data on the remaining share to reach 100 %



taxonomy. The taxonomy considers insurance products in the context of the environmental goal "climate change adaptation". They need to fulfil specific criteria there. Chapter 5.2.1 explores that aspect of sustainable insurance products.

What's more, there are no definitions and transparency requirements regarding sustainability aspects for P&C insurance products. In order to do justice to the wide variety of sustainability concepts and the evolving product landscape, the sustainability reports of the past years already included a wider overview of sustainability aspects that play a role in insurance conditions and claims management of the P&C business. Chapter 5.2.2 of this year's report continues in that vein.

Regarding insurance investment products, the SFDR regulates how to inform about the sustainability characteristics of such products. Clients often have a very personal understanding of sustainability. Based on the information about financial market participants and products they are supposed to decide whether those entities and products fit with their own understanding of sustainability. However, a GDV study from 2022 shows that the everyday understanding does not necessarily align with regulatory requirements or the ESG criteria used in the financial sector. Chapter 5.2.3 of this report addresses life insurance products with ESG features for the first time.

Clients trusting that "sustainable", "green" or "ESG" products are in fact effective is essential for them to buy those products which in turn cannot be effective if too few people purchase them. "Greenwashing" allegations undermine that trust.

Greenwashing

Just like it is not clearly defined what sustainable financial products look like, there is no standard definition of greenwashing either. Which is why the European Commission has called upon the European Supervisory Authorities (ESA) to jointly come up with measures against greenwashing by 2024. In a first step, the ESA collected data on greenwashing in the winter of 2022. Financial market participants were invited to say what they consider to be greenwashing and how big of a risk it is to them. Based on that information, the ESA came up with the following definition of greenwashing published in its interim report in the summer of 2023:

"a practice whereby sustainability-related statements, declarations, actions, or communications do not clearly and fairly reflect the underlying sustainability profile of an entity, a financial product, or financial services. This

practice may be misleading to consumers, investors, or other market participants."

At first blush, this seems to be an apt definition of greenwashing. However, those rules are often difficult for financial market participants to apply because there is a large number of rules with detailed requirements that were not coordinated in terms of content and timing. The ESA point out those regulatory obstacles and the lack of a definition of sustainable financial products very clearly in their progress reports.

While the ESA are working on those measures, the EU Unfair Commercial Practices Directive is currently being amended to address greenwashing. On top of that, the European Commission has proposed cross-sector rules for green advertising messages in the Green Claims Directive. That directive stipulates that "green" advertising statements will need to have a scientific basis and be verified by an independent accredited organisation in future.

Given these developments, it is important for insurers to address the risk of greenwashing. What's more, in their roles as investors or as sellers of unit-linked products insurers can be affected by greenwashing themselves and unwittingly disseminate misleading information. Therefore, the GDV survey asked insurers if they have processes in place to address the risk of greenwashing when providing information to clients and receiving information from other financial market participants. The result: a clear majority of more than 58% of the market do have processes for providing information and a further 6% have plans to introduce such processes. In life insurance, 63% have processes for their role as sellers of insurance investment products (5% plan to introduce them). When it comes to receiving information from other financial market participants, 36% of insurers already have such processes and 15% plan to introduce them. Life insurers are a bit further along: 43% of them already have processes in place to handle misleading incoming information, and a further 13% plan to introduce them.

Only 1.3% of the market have no plans whatsoever to review information they give out and 7.3% have no plans to systematically check information they receive. Possible reasons for this could be that those insurers don't offer any products marketed as sustainable and also don't buy any explicitly sustainable products such as green bonds. Generally, it depends on a company's individual set-up if greenwashing risks can materialise at all, which is why some companies might not need any processes to protect against them.

5.2.1 Climate change adaptation and protecting against natural hazards

According to the EU Taxonomy Regulation, insurance against climate related perils is a sustainable economic activity that contributes to adapting to the consequences of climate change if all of the following conditions are met:

- → leadership in modelling and pricing climate risks,
- → the product design must offer risk-based rewards for policy holders to take preventive measures,
- → innovative insurance coverage solutions for relevant climate-related perils where the demands and needs of policyholders require so,
- → data sharing,
- → high level of service in post-disaster situation.

At the same time, the insurance may not cause a significant harm to the environmental goal "climate change mitigation". A significant harm would be caused by insuring the extraction, storage, transportation or manufacture of fossil fuels or insurance of vehicles, property and other assets dedicated to such purposes. Besides, insurers must not significantly violate the taxonomy's minimum protection criteria. Property and casualty (P&C) insurers subject to CSRD reporting requirements (see

chapter 6) will have to disclose to what degree their activities are taxonomy-aligned in future.

A GDV working group has developed non-binding guidelines for its member companies and continually refined the way those criteria can be interpreted and applied. Insurers representing 43% of the market (vs. 33% in the previous year) said in the GDV sustainability survey they already offered taxonomy-aligned products.

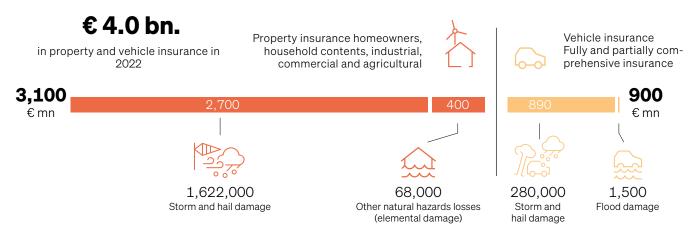
Insurance companies in Germany have been insuring natural hazards for decades; over a period of 50 years they have paid more than 200 billion euros for insured damage. In 2022, natural hazard-related claims expenses of P&C insurers were 4 billion euros (figure 21).

Damage from natural disasters such as heavy rain and floods can be insured through elemental insurance. Even today, only 52% of houses in Germany are covered by this important add-on to homeowners insurance. When it comes to risk assessment, insurers use the GDV's proprietary zoning system for floods, backwater and heavy rain (ZÜRS). The 2022 data on business in force (figures 22a and 22b) shows that even buildings with a higher flood risk (ZÜRS flood risk classes 3 and 4) are being insured according to their share.

As global warming makes extreme weather events more frequent, more prevention and climate change adaptation is needed. Without any further measures, premiums for homeowners insurance might double within

Natural hazards losses of 2022 at a glance

Figure 21 · Claims expenses in property and vehicle insurance in million euros



Flood risk

Figure 22a · Address allocation by ZÜRS Geo 2023 flood risk classes (FRC) (ZÜRS Geo: Zonierungssystem für Überschwemmungen, Rückstau und Starkregen, i.e. zoning system for floods, backwater and heavy rain)



Homeowners - other natural hazards (elemental)

Figure 22b · Policy allocation by flood risk classes



Statistical occurrence of flooding:

FRC 1: not affected by flooding originating form larger bodies of water according to current data

FRC 2: Fewer than one flood every 100 years, particularly areas that could be flooded during extreme flood events

FRC 3: 1 flood every 10 to 100 years

FRC 4: at least 1 flood every 10 years

Source: GDV, Naturgefahrenreport 2023;

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the next ten years according to GDV estimates. Which is why the GDV calls for a quick implementation of the following measures:

- → Climate-adapted planning, building and refurbishing: prevention should be embedded in state building regulations (Landesbauordnungen).
- → Building freeze in flood zones: every year, about 1500 new houses are built in flood-prone areas.
- → Stopping the sealing of surfaces: building permits should be predicated on a climate risk assessment in future.
- → National natural hazard portal to improve risk awareness among the population.

In light of extreme natural disasters and potential limits to private insurance capacity, the government should step in and cover losses that exceed a predefined threshold (stop loss provision) through a public-private partnership. Other European countries already have such arrangements. In the eyes of the GDV, such a provision would be reasonable for exceptional disasters with losses of well over 30 billion euros. The Ahr valley flooding of 2021, which caused 9.1 billion euros worth of losses making it the most severe and the most expensive natural disaster for German insurers so far, would not have triggered the stop loss provision.

5.2.2 Sustainable property and casualty (P&C) insurance

In 2022, P&C insurers paid out 58 billion euros in claims. The segments with the highest payments were vehicle insurance with 26.1 billion euros, property insurance with 17.7 billion euros and general liability insurance with 5 billion euros. This illustrates that product terms and conditions as well as claims management are powerful levers for a sustainable transformation. Insurers increasingly use further levers, too, of course.

Claims management

By embedding sustainability aspects in claims management, insurers can nudge resource-efficient and eco-friendly behaviour. Not surprisingly, it is also the lever that is being used most often: 81% of the market (based on gross written premiums) had sustainability criteria embedded in their processes (vs. 80 % the year before; see figure 23). In almost all aspects covered by the GDV survey, the percentage of insurers taking them into account has gone up year-over-year (figure 24):

- → Short distances: to cut down on business travel, 76% of insurers relied on digitalisation (e.g. for expert opinions or claims settlement; 79% in the previous year, albeit at a higher participation) and regionality (65% vs. 60% the year before).
- → Circular economy: the strategic importance of this concept is reflected in claims management processes,

as shown in figure 24: 71% (vs. 66% the year before) prefer repairs over replacements. The share of insurers that support recycling instead of disposing damaged or destroyed objects rose from 29 % in the prior year to 37% in the reporting period. And the percentage of carriers offering policy holders incentives to choose more sustainable alternatives such as used parts for repairs went up from 20 % to 35 % year-overyear. However, when weighing sustainability against economics, as insurers invariably must, repairs are still more expensive in many cases, for example because they require a higher amount of work. In other cases, there are standards and laws that require parts to be fully replaced even if they are only slightly damaged. These are obstacles hindering the transition to a circular economy.

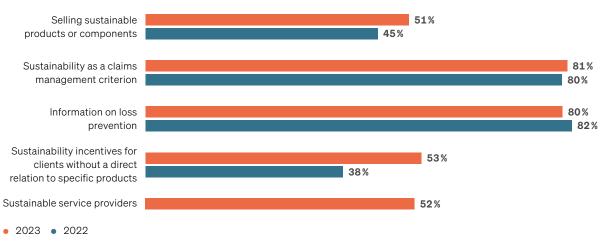
→ More sustainable or resilient replacements: 63% (vs. 59% the year before) look to choose energy-efficient replacements. The share of insurers settling claims based on the "build back better" principle has gone up considerably, too: from 26% to 43%. What is still relatively rare is repairs or replacements that are specifically adapted to climate change (no figure, 13% vs. 12% the year before) and a preference for materials made from renewable resources (14% vs. 11% in the previous year).

- → Environmental protection: resource-efficiency is of central interest to 50 % (vs. 52 % the year before), and 7% (vs. 12% in the prior year) look to preserve biodiversity. Also 7% of the market (vs. 4% the year before) compensate CO₂ emissions in a loss event.
- → Innovation: 20% (vs. 31% the year before) aimed to support sustainable innovation when restoring damage.

Many insurers cooperate with service providers and craftsmen or are directly associated with such businesses to better restore damage. More than half the market looks to sustainability when choosing service providers³, 24% have plans to do so in future. The most important aspects fall into the S and G categories in ESG: good governance at the contracted businesses, regionality as well as good conditions for employees. 43% of insurers have service providers show them sustainability concepts, 35% even require sustainability certificates. The most important ecological sustainability aspects for insurers are sustainable methods of repair (43%), resource-efficiency and exemplary environmental standards (33% each).

P&C insurers' sustainable offerings

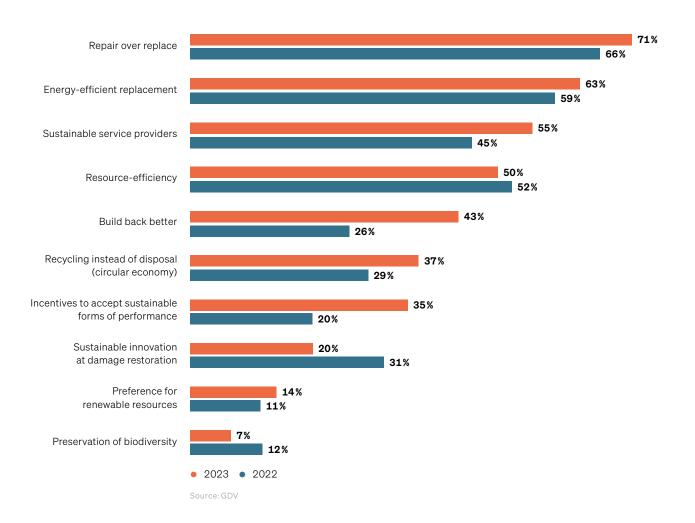
Figure 23 · Responses in % of market share P&C insurance; multiple responses possible, maximum values 2022 92 %, 2023 87%; no data on the remaining share to reach 100 %



³ Regarding this question, contracted and affiliated service providers were lumped together in the GDV survey of 2023 and treated separately in 2022 making a year-over-year comparison impossible.

Sustainability concepts in claims management

Figure 24 · Responses in % of market share P&C insurance; multiple responses possible, maximum values 2022: 92%, 2023: 87%; no data on the remaining share to reach 100%



Products

In the medium- to long-term, innovative insurance conditions can contribute to sustainable changes in both business and society. Because in most cases new conditions only apply to new policies or when existing policies are amended. Putting sustainable aspects in the conditions turns them into a contractual agreement with clients who opt for those product features. These conditions may mean higher insurance premiums, because sustainable alternatives often are still more expensive than conventional ones or because they offer clients a higher level of insurance.

In the last year, carriers have increasingly been implementing their plans to sell products with sustainable features or components (figure 23): the corresponding market share went up from 45 % to 51 %. A further 32 % (vs. 44 % the year before) still plan to launch such an

offer. The following aspects characterise sustainable products from the insurers' perspective:

- → For 55% of the market (49% in the prior year) those products entail a particularly sustainable compensation that goes above and beyond legal requirements, e.g. energy-efficient devices, methods or renewable materials. For 53% (vs. 25% the year before) sustainable insurance products comprise particularly sustainable services or repairs, and for 41% (vs. 20% in the prior year) they also offer advice about sustainable solutions.
- → 41% of the market offer premium rebates for sustainable behaviour on the part of policy holders (vs. 29% in the previous year). Premium levels are a function

⁴ The share of positive responses is higher than the share of companies saying they already offer sustainable products. It is possible that insurers whose products are still in the planning stage responded here, too.

of an insured risk's probability of occurrence. It is as of yet unknown whether sustainable behaviour will change that probability and if premium rebates do in fact promote sustainable behaviour.

- → 34 % of insurers consider sustainable investment an element of sustainable insurance products (vs. 28% the year before). P&C insurers had about 198 billion euros worth of assets under managements in 2023, which serve to guarantee the payment of insured benefits.
- → Less often, insurers pay a certain contribution to environmental (26 % vs. 21 % the year before) or social projects (9% vs. 12%) per policy. Carbon offsets for client activities connected to an insurance product, e.g. kilometres driven (13 % vs. 16 % the year before), or in a loss event (6 % vs. 3 % the year before) are also less widespread.

Within the GDV, multiple working groups are developing non-binding model clauses, provisions and guidelines for sustainable product features. Here are a few examples:

- → Terms and conditions for bicycle insurance: People who rely on their bike for their daily commute can get reimbursed for repair costs and are entitled to a replacement bicycle in the event of a breakdown.
- → A model clause for household contents insurance offering resource-efficient repairs in an insured event.
- → Model clauses for homeowners insurance policies covering, for example, the additional cost of qualified energy consulting and the use of eco-friendly building materials.
- → A model clause for personal liability insurance supporting repairs of damaged objects.

Additional measures

More and more insurers offer their clients incentives for sustainable behaviour that are not linked directly to an insurance product: the share of carriers doing that rose from 38 % to 53 %. A further 16 % have plans to do it. Like the year before, the focus of these incentives is on supporting the mobility transition (38 % vs. 37% in the previous year), e.g. by offering subsidised rates for charging electric vehicles or mobility sharing. 20% offer consulting services on how to protect against the consequences of climate change and on adaptation measures (vs. 16% in the prior year). Insurers representing about 10% of the market offer products supporting an accelerated energy transition (11% vs. 6% the year before) or provide individual consulting on sustainable behaviour, such as how to reduce greenhouse gas emissions (10 % vs. 5 % the year before).

The most sustainable solution, however, is preventing damages from happening in the first place. The most expensive loss events in homeowners and household contents insurance are caused by damaged water pipes, storm and hail as well as fire. Fire is also responsible for the most expensive loss events in commercial and industrial insurance. Besides dangers to life and health, such events also always have a considerable environmental impact through emissions and extinguishing agents, for example. Almost all respondents inform their clients about damage prevention or have plans to do it. They also offer individual consulting and disseminate general information on their own website or on other websites. In addition, they use podcasts, Youtube and social media channels to get the word out.

5.2.3 Life insurance products

As discussed in section 5.2, the SFDR is supposed to make sustainability information on financial products more comparable. However, the rules are not adapted very well to life and pension insurance products with guarantees - products that are widespread in Germany. The reason is that with these products, the premiums paid by policy holders go into a mutual investment and, to a large extent, become part of the insurers' guarantee assets. That enables collective risk sharing, but it also makes it hard to attribute sustainable investments to individual insurance products, let alone individual clients. However, ESG-related product information has so far referred to those mutual investments.

Which is why there are currently big differences in the way insurance companies inform about the sustainability features of their life insurance products.

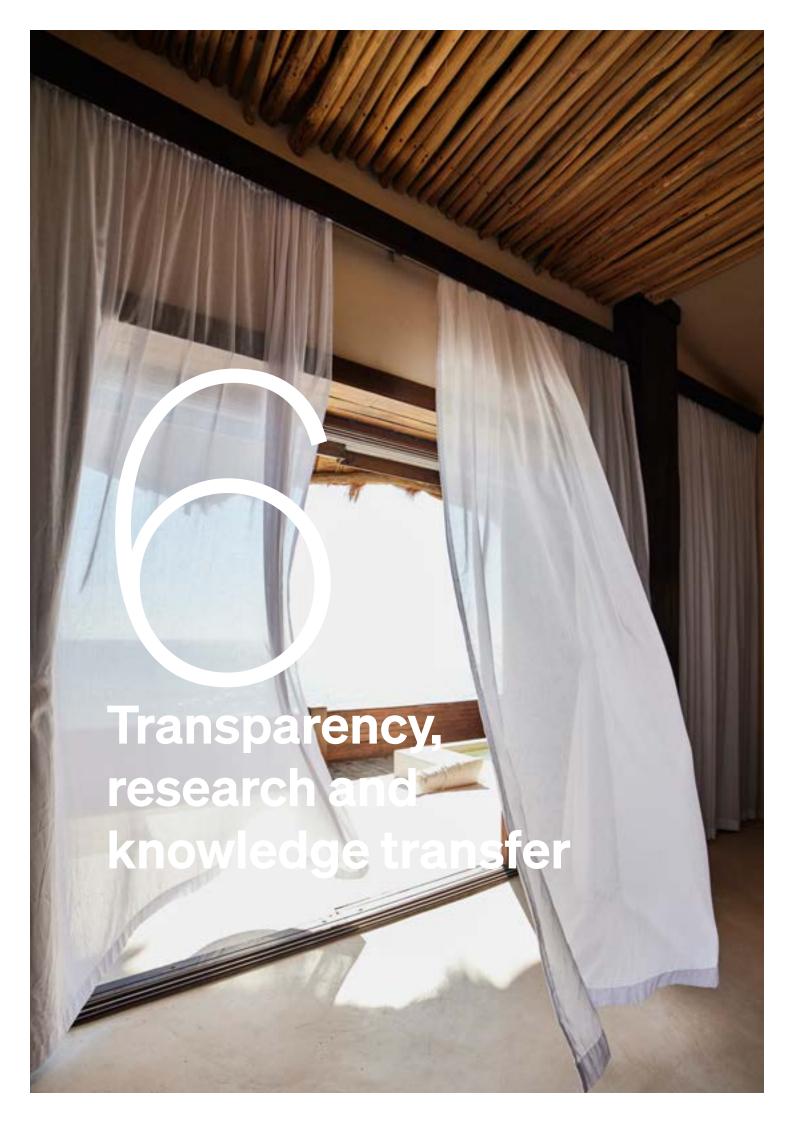
Life insurers that participated in the GDV survey say they offer about 200 products with sustainability characteristics which they inform about in accordance with Article 8 of the SFDR. The products on offer range from traditional insurance policies to unit-linked and hybrid products. Only about 20 products carry a reference to sustainability in their name. Clients who want to use sustainable products for their old-age provision already have a broad range of options to select from, especially seeing as the share of investments that are managed based on ESG criteria is rising (see chapter 4). Because

of insurers' cautious naming practices, though, clients need to dive deeply into product information or enlist competent support when making their selection.

In future, insurers may, on a voluntary basis, apply new BaFin rules that are designed to do justice to the specificities of German products. In July 2023, BaFin published the Merkblatt zur Auslegung der Offenlegungsverordnung (SFDR) für Produkte von Lebensversicherern, Pensionskassen und Pensionsfonds mit ESG-Bezug, an circular on how to interpret the SFDR for ESG-related life insurance and various old-age provision products. It contains, among others, an approach where investments are attributed to ESG-related products virtually and marked accordingly by the insurers. If certain investments are explicitly not supposed to receive any premiums, they are marked accordingly and excluded for ESG-related products. The book value of the assets must be equal or greater than the claims arising from them (actuarial reserves). In general, only newly made sustainable investments are allowed to be allocated to ESG related products using the new approach. All other investments will be allocated on all products proportionately. The correct implementation of these rules is being reviewed by auditors once a year.

Additional product information will be introduced for policy holders. The SFDR-aligned product information will then refer to the investments that have been attributed to the respective insurance products. This will provide the necessary data to calculate product-specific quota for ecological investments. Investments marked as sustainable must under no circumstances be counted twice.

It is too early to tell how many insurers will make use of the attribution model for new products and how interested clients will respond to the offer.



All parties – politicians, businesspeople and consumers – need comprehensive, reliable and easy-to-use information so that they can act in a sustainable and climate-neutral way. That being said, the new European reporting standards do have their difficulties when it comes to implementing them.

n their sustainability positioning, insurers have committed to being transparent about their sustainability activities (point 23), which is also the purpose of this sustainability report. Since 2023, anybody who is interested can also subscribe to the "Sustainability News" e-mail newsletter that informs about current regulatory developments, studies and opinions of the GDV. What's more, insurers contribute to building up knowledge about climate change, strengthening public awareness of the risks posed by natural hazards and extreme weather events and how to manage those risks (point 24).

Transparency of insurers

The majority of the German insurance market is already required to publish a sustainability report according to the EU Non-financial Reporting Directive: 53% of the market (149 insurance companies) said so in the GDV survey. A further 7% (41 insurance companies) publish a sustainability report on a voluntary basis. How they go about compiling and publishing that report is currently not subject to any standardization. There are, however, voluntary standards and good practice approaches. Numerous insurers use one or more of these guidelines (multiple responses were possible): 36% of the market (100 insurance companies) abide by the standards of the Global Reporting Initiative (GRI), and 21% (71 insurance companies) use the Deutscher Nachhaltigkeitskodex (DNK) that calls itself "The Sustainability Code" in English. 32% (64 insurance companies) take their cues from the Task Force on Climate-Related Financial Disclosures (TFCD) when it comes to publishing information on their climate action.

In future, the reporting requirements will be based on uniform European standards replacing the multitude of voluntary standards used right now. The extraordinarily swift codification of disclosure requirements in the new Corporate Sustainability Reporting Directive (CSRD) details high-level reporting requirements and

widens the circle of companies that will need to publish a report in future.

The structure, contents and granularity of sustainability reports are detailed in the mandatory European Sustainability Reporting Standards (ESRS). One of the biggest challenges is striking the right balance between costs and practicality for reporting companies on the one hand and the value for investors and other stakeholders on the other. Legislators have tried to master that balancing act by underlining the materiality approach, granting flexibility on some voluntary disclosures and enabling a so-called "phase-in".

Companies that are already required to submit a report will need to compile their 2024 report based on the new rules (2024 reports will be published in 2025). From the 2025 business year at the latest, more than 99% of the market should be required to publish CSRD-aligned reports, according to market analyses performed by the GDV. Seeing as those requirements are often met on a central corporate level in insurance groups, the GDV estimates that its member companies will publish a total of 76 CSRD reports in 2026. That same year all capital market-oriented small and medium-sized enterprises (SMEs) will start being required to publish CS-RD-aligned reports, too. Only then will there be a comprehensive information base.

In light of the extensive and partly new requirements to collect detailed data, e.g. CO2 emissions, biodiversity impact or metrics on working conditions, companies need to be quick to build new processes and internal reporting channels. How are they handling this?

The CSRD is meant to elevate sustainability reporting to the same level as financial reporting. Which begs the question, who will be responsible for creating CSRD reports at insurance companies? At 44% of the market (137 insurance companies), creating those reports currently falls under the remit of sustainability officers, at

31% (81 insurance companies) it is the accounting department that is responsible.

Companies that will in future report according to the ESRS are in most cases already very far along with their preparations: 47% of the market (141 insurance companies) have set up project groups and an implementation workstream or are even all but done with their preparations. 27% (78 insurance companies) are still at the beginning or are doing preliminary studies.

With preparations under way, insurers are now able to gauge how easy or difficult it will be to fulfil the requirements on the new reporting elements. For almost all elements, the share of companies that find it challenging is larger than the share of those that find it easy. 58% (167 insurance companies) consider the synchronicity with the annual report particularly difficult. Compiling the annual report often follows a tight schedule as it is, and in future the CSRD report will need to be included on top of everything else. 61% (175 insurance companies) consider identifying and reporting on significant value chain elements a challenge, 47% (137 insurance companies) say the materiality assessment is challenging.

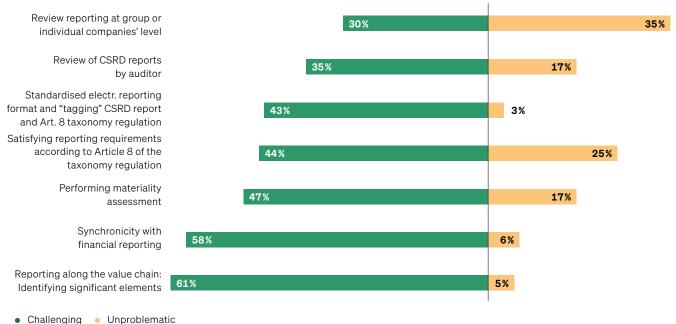
The latter two requirements are central elements of CSRD reports, however, and therefore need to be implemented early. Which is why the GDV has decided to do a deep dive on them this year.

- → For one, the GDV provided its members non-binding guidance on how to design a process for a company-specific materiality assessment right after the European Commission had published the cross-sector ESRS in the summer.
- → For insurers, ascertaining how material the sustainability impact of their products might be ("impact materiality") is even more difficult than for manufacturing companies. Therefore, the GDV is currently taking a closer look at how the ESRS defines the value chain, with the aim of providing its members with important basic insights for a pragmatic and yet comparable implementation of the reporting requirements.

The CSRD also stipulates that the information in future sustainability reports be machine-readable and included in a database that is accessible across the EU (European Single Access Point, ESAP). However, no details on the machine readability of CSRD reports have been provided so far. Which is why many insurers (43%, 107

CSRD brings challenging new reporting requirements

Figure 25 · Responses in % of the sector's total gross premium income; multiple responses possible; maximum values: 85%; remaining share to reach 100%: no information



insurance companies) consider satisfying the requirements problematic.

A swiftly introduced ESAP would give investors access to current, standardised financial and sustainability data of all European companies within the European Union – reliable, comparable and across national and language borders. However, European legislators agreed the ESAP won't be provided before summer 2027 and will then be introduced gradually until 2030. From the insurers' perspective, that is too late as it would severely limit the ESAP's benefits for the transformation. In other words: this delay means that, regrettably, it won't be possible to realise ESAP's big potential.

TransVer Day and TransVer Award

TransVer Day gives insurers the chance to take stock publicly and engage with their stakeholders. The Trans-Ver Award to the tune of 5,000 euros goes to an initiative or a project that intends to make an impressive contribution to the transformation. In 2022, the award went to the "Klimadelegation" (Climate Delegation) association. For more than ten years, that association has brought young people together and, in its role as "mouthpiece of the youth" and as experts, it has gotten the word out at international conventions. It is also thanks to the Climate Delegation that adolescents managed to get a seat at the table as recognised negotiating partners at international climate conventions such as the COP 27.

Research, data and services related to natural hazards

Every year, the GDV Natural Hazards Report gives a detailed account of damages to buildings and vehicles as well as in commerce and industry. 2023 was no exception: the many pictures of storm damage, floods, forest fires, dried-out fields and unusually large hailstones in Germany and all of Europe have shown that we are already witnessing the consequences of climate change. The Natural Hazards Report 2023 focuses on shaping spaces of the future: How will our lives change in a world that is getting warmer and warmer? How can and do we want to live in heated cities and drought-plagued rural areas? Climate-adapted building, sustainable business, not going against nature any longer but living in harmony with it.

In 2023, a <u>Data service</u> was added to the Natural Hazards Report, offering access to all interactive charts, tables and maps. With this offer, insurers support government agencies and research institutions in their work on natural hazards, prevention and climate adaptation.

Insurance companies continue to offer an easy tool anybody can use to get information on their individual flood risk. The so-called <u>Hochwasser-Check</u> shows the risk of heavy rain and river floods for all locations. Just enter your address, and you will get information on your individual risk with just one mouse click.

In light of the growing likelihood of extreme weather events such as heavy rain, ever more densely developed cities are becoming a problem. Soil sealing prevents rain water from soaking into the ground. In the event of extreme rain, this can lead to floods causing serious damage. In its so-called <u>Versiegelungsstudie</u>, a study on soil sealing, the GDV analysed the average surface sealing degree in settlement areas of 134 cities. The GDV calls upon municipalities to take the risk of heavy rain more into account in city planning and landscaping. Unsealing surfaces needs to be put on the agenda, too.

Also, the GDV is currently working on a flash flood model to analyse where in Germany flood disasters such as the Ahr valley flooding of 2021 could occur.

The GDV data have been used in other projects, too:

- → In cooperation with the Deutscher Wetterdienst (DWD; literally translated: German Weather Service) the GDV provides detailed information on heavy rain and hail to support DWD research of those weather phenomena.
- → The German Environment Agency (Umweltbundesamt, UBA) is currently developing a climate damage register ("Klimaschadenkataster") where comprehensive information about the consequences of major natural perils is pooled and documented for the public. Information on insured damage is an important element of this project.
- → Wexikom, a research project sponsored by the German Federal Ministry for Digital and Transport and the DWD, intends to improve extreme weather warnings by tailoring them to different audiences; that also includes information on potential implications.
- → The GDV also supported "Costs Resulting from Climate Change in Germany", a study commissioned by the Federal Ministry for Economic Affairs and Climate Action. In this study, three German research centres the Institut für ökologische Wirtschaftsforschung, Prognos and the Gesellschaft für Wirtschaftliche Strukturforschung analysed the macro-economic costs as well as the intangible damage of climate-related extreme weather events in a systematic

and comprehensive manner. This data informed an overview of past extreme weather events in Germany. The results were published in 2023.

Research projects

The GDV has historically engaged in research funding. The Wissenschaftsförderprogramm des Deutschen Vereins für Versicherungswissenschaft (DVfVW), a research funding programme financed by the GDV, has agreed to sponsor a new two-year research project about sustainable investments of insurers in its theme category Sustainable Insurance & Finance earlier this year.

The project's title is: "Berücksichtigung von Nachhaltigkeit in der Kapitalanlage und Portfoliooptimierung in Solvency II-regulierten Versicherungsunternehmen" (Considering Sustainability in Investments

and Portfolio Optimisation in Insurance Companies Regulated by Solvency II), led by Prof. Marc Gürtler, Technische Universität Braunschweig. Another project in this category - "Wirkungsanalyse von Prämiensubventionen für Obst- und Weinbauern auf dem deutschen Frostversicherungsmarkt" (impact of premium subsidies for orchardists and winemakers in the German frost insurance market), led by Prof. Dr. Jörg Schiller at the Universität Hohenheim - has been finished by now. The results were published in a research paper.

The GDV's science cooperation programme awarded a research project on "Natural Hazard Insurance for Municipal Buildings" to Prof. Jörg Schiller at the Universität Hohenheim.

Appendix: Key facts about the sustainability positioning's implementation

Own business operations

	2022	2021	2020
Market share of companies with a sustainability strategy*	84% (214 comp.)	86% (182 comp.)	-
Market share of companies with dedicated sustainability organisations or agents	74% (217 comp.)	85% (178 comp.)	-
Carbon footprint of insurers (Scopes 1+2)*	0.17 mn t CO₂e	0.17 mn t CO₂e	0.21 mn t CO₂e
Carbon footprint of insurers (Scope 3)*	0.17 - 0.29 mn t CO₂e	•	
With sales supporting sustainability goals	51% (104 comp.)	-	-
Share of women on boards**	15.6%	13.2%	11.0%
Share of Top 60 comp. without any women on the board**	33%	47%	56%

Source: *Sustainability reports GDV, **AGV

Investments

Shares of insurers' total investments	2022	2021	2020
Assets managed based on ESG criteria	90%	88%	82%
Assets managed based on net-zero goals, of which with defined milestones	90% 70%	85% 51%	-
Sustainable investments (Art. 2.17 discl. reg.)	9.5%	4,5%	
Green bonds	1.5%	1,1%	0,7%
Investment in renewable energies	1.0%	0,7%	0,6%
Carbon emissions of publicly traded stocks and credits Carbon footprint of publicly traded stocks and credits	23 mn t CO₂ 79 t per €1mn	22 mn t CO₂ 71t per €1mn	-
Emissions avoided through investment in renewable energies	9.2 mn t CO₂	8,6 mn t CO ₂	4,6 mn t CO ₂

Source: Investment survey (as of 31.12.2021 and 31.12.2020)

Insurance and products

Market share of P&C carriers	2023	2022
that consider impact of own operations in risk underwriting	62%	59%
with ESG process in underwriting	46%	33%
with exclusions	57%	65%
that market certain products as sustainable	51%	45%
that already categorise their products as sustainable in accordance with the EU taxonomy	43%	33%
with sustainability as a criterion in claims management process	81%	80%

Source: Sustainability survey 2022

Sources and links

(mostly in German)



p. 10: Branchenzahlen Arbeitgeberverband der Versicherungsunternehmen in Deutschland e. V. (AGV) (Industry figures provided by the Employers' Association



p. 28: Umweltbundesamt 2023: UBA-Prognose: Treibhausgasemissionen sanken 2022 um 1,9 Prozent (Projection of the German Environment Agency for GHG emissions in 2022)



p. 10: Bildungswerk der Versicherer 2022: . Weiterbildungsumfrage 2022 (Training survey 2022)



p. 33: AGV-Kennzahlen "Women in Leadership and Culture" (Industry figures provided by the Employers' Association



p. 19: Bildungswerk der Versicherer 2022: Weiterbildungsumfrage 2022 (Training survey 2022)



p. 37: Urgewald 2023: Investing in Climate Chaos



p. 20: GDV 2023: Ratgeber "Nachhaltigkeit und Versicherungsvertrieb" (Guidebook for sustainability and insurance sales)



p. 37: Umweltbundesamt 2023: CO₂-Emissionen pro Kilowattstunde Strom stiegen in 2022 (Projection of the German Environment Agency for GHG emissions in the power sector in 2022)



p. 21: GDV 2023: Climate change scenarios in ORSA



p. 39: GDV / VÖB 2023: ESG-Leitfaden für Corporate Schuldscheindarlehen (ESG Questionnaire for German Schuldschein (corporate loans))



p. 27: AGV 2023: Geschäftsbericht (AGV's Annual report)



p. 42: WWF/Deloitte 2023: Underwriting our Planet



p. 43: GDV 2023: Naturgefahrenreport 2023 (GDV's Natural Hazard Report)



p. 55: GDV 2023: Naturgefahrenreport 2023 (GDV's Natural Hazard Report)



p. 44: NZIA 2023: Target-Setting Protocol 1.0



p. 55: GDV 2023: Datenservice zumNaturgefahrenreport(Data service to GDV's Natural Hazard Report)



p. 45: EIOPA 2023: Advice to the European Commission on Greenwashing. Progress Report



p. 55: GDV: Hochwasser-Check (GDV's flood check for homeowners)



p. 51: BaFin 2023: Merkblatt zur Auslegung der Offenlegungsverordnung (Zuordnungsansatz) (Circular for the voluntary application of SFDR requirements to German pension products)



p. 55: GDV 2023: Versiegelungsstudie (GDV's study on soil sealing in urban areas)



p. 53: : GDV-Sustainability-News



p. 56: Prognos 2022: Projektbericht "Kosten durch Klimawandelfolgen". Übersicht vergangener Extremwetterschäden in Deutschland. (Project report on past losses from extreme weather events)



p. 55: Klimadelegation e.V.



p. 56: Philippi, T. / Schiller, J. 2023: Abandoning Disaster Relief and Stimulating Insurance Demand Through Premium Subsidies

