# Dutch Climate Risk Barometer 2023

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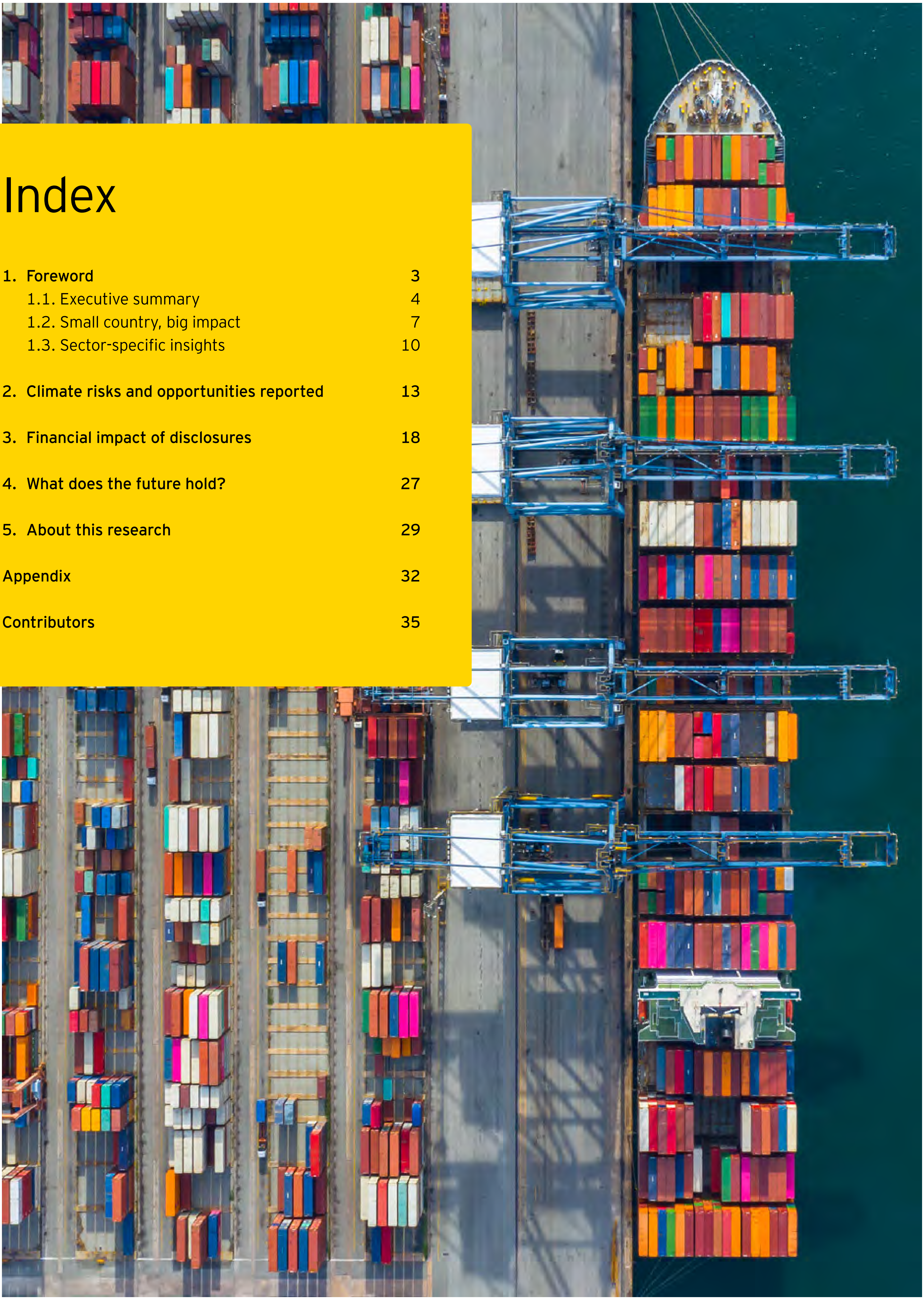
# Index





# 1. Foreword

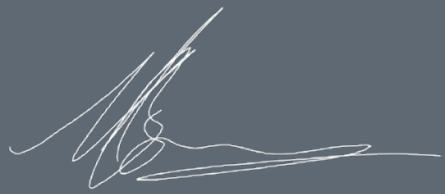
**Climate change is here and now** – it demands urgent action to address climate-related risks and to minimize impacts on society and the environment. While the global mean temperature has already soared to almost 1.2 degrees Celsius (°C) above pre-industrial levels, the window for action to cut emissions by 55% by 2030 is closing rapidly for the EU. The worsening physical impacts of climate change are already resulting in increasingly disruptive costs for companies and governments. Because organizations in different sectors will experience varying impacts, it is crucial for companies to assess where their vulnerabilities lie. Simultaneously, the necessity to decarbonize in such a short period of time means that with every passing year, the challenge becomes harder than ever before.

> “Climate change is here and now

**Dutch companies have the potential to exert substantial influence over the climate change reporting landscape.** Its citizens have a high standard of living, with a trade-focused economy that relies heavily on global value chains. This means that many Dutch companies are accountable for significant scope 3 emissions. At the same time, climate-related risk management and reporting is becoming increasingly regulated. What used to be voluntary disclosures in line with the recommendations of the Taskforce on Climate-Related Financial Disclosures (TCFD), are soon to become mandatory disclosures under the EU's Corporate Sustainability Reporting Directive (CSRD). Specifically in relation to scope 3 emissions, we see existing and upcoming guidance and regulations – with the TCFD and CSRD leading the way – compelling companies to provide greater transparency and achieve a higher quality of reporting, as well as associated targets and action plans.

In line with the increase in regulatory pressure, our EY survey of today's climate reporting landscape shows that there is an upward trend in companies reporting their scope 3 emissions – and setting accompanying reduction targets and strategies. Nevertheless, **to drive substantial action on climate change, climate reporting in all respects still needs to become more robust.** It needs to go further in illustrating commitment by key market players, through demonstrating their acknowledgement of the reality and urgency of climate change. Moreover, companies are obliged by the latest regulatory frameworks to take a holistic approach towards climate risk management and adaptation, requiring a fundamental change in the way organizations perceive and conduct business in relation to the natural environment and society. In achieving all this, key first steps for companies would be to identify their biggest impacts and inefficiencies, to get a better understanding of their value chain emissions, and to start developing effective strategies and targets.

In recent years, EY Netherlands has helped many organizations develop ambitious and realistic climate strategies, ensuring long-term climate resilience. We expect that the need for these services will only increase over the coming years. **As we observe in our practice – and as the results of this survey bear out – the maturity of organizations' responses to climate change varies greatly. This means there is significant scope for mutual learning.**



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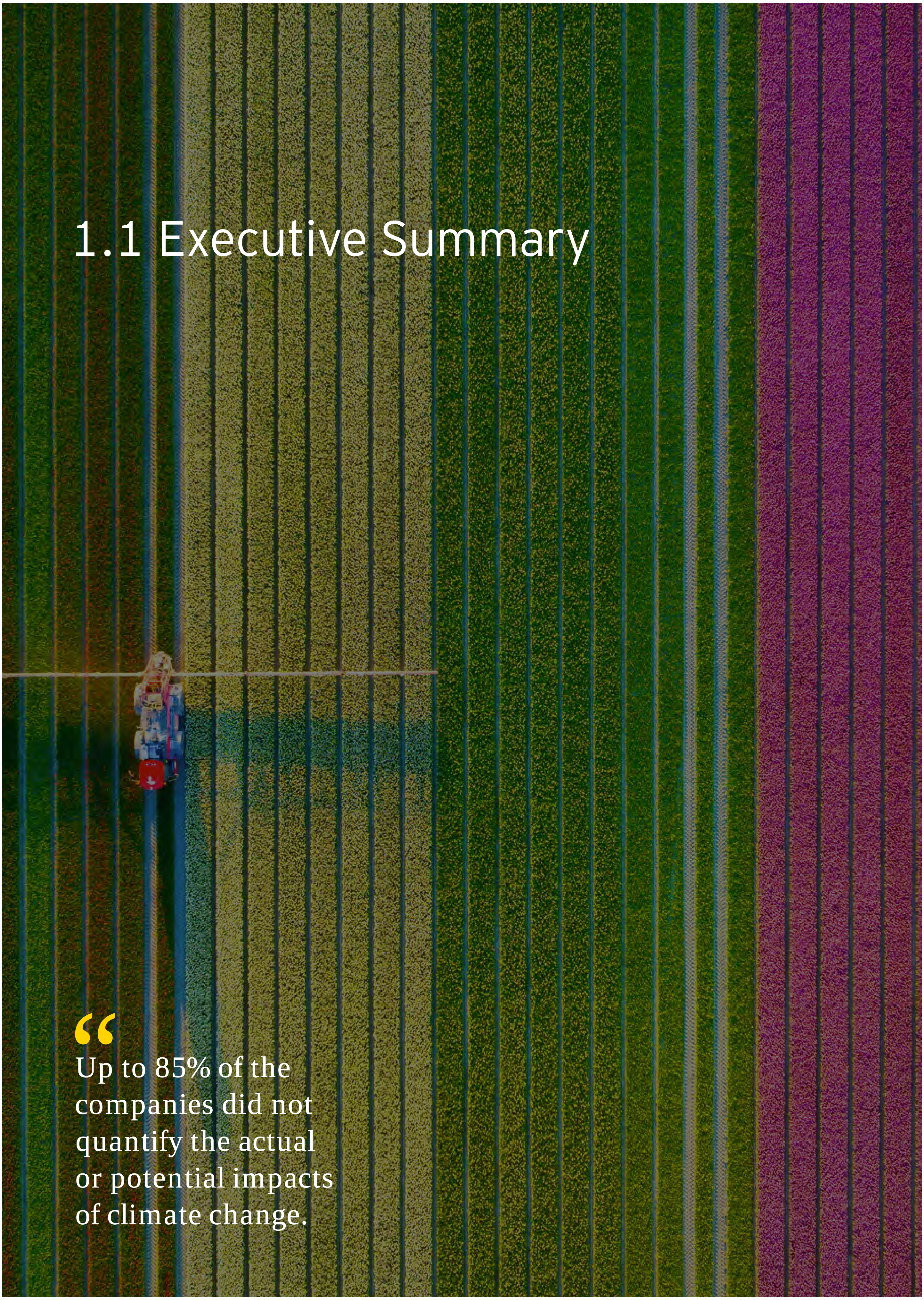


# 1.1 Executive Summary

> “Up to 85% of the companies did not quantify the actual or potential impacts of climate change.

## Coverage and quality

This year's assessment examined the climate risk reporting practices of 78 companies operating in the Dutch market. The outcomes of this assessment show progress in climate risk reporting, both in terms of quality and coverage. On average, companies returned a quality score of 44% and a coverage score of 89%. This represents an improvement of 5% in quality compared to the findings of the 2022 Dutch Climate Risk Barometer, while coverage achieved a notable 9% increase relative to the previous year's report. It is encouraging to witness this advancement as it indicates that companies and sectors are taking climate risks and reporting more seriously year by year. However, the overall quality score of 44% still falls short of the mark and is clearly insufficiently robust.

## Sector-Specific insights

The sector-specific analysis reveals that the highest performing sectors in terms of climate disclosures are Banks, Insurance, and Real Estate, with quality scores of 54%, 53%, and 52% respectively, and all with outstanding coverage scores.
The leading performance of these sectors can, on the one hand, be attributed to the nature of their business, which for the Real Estate business in particular already requires consideration of climate risks. For the Financial and Insurance sector the increasing regulatory pressure can be a trigger for action.

## Climate Risks and Opportunities Reported

There are a few key observations regarding the use of scenario analyses and the disclosure of climate-related risks and opportunities.

- First, while 34% of companies disclosed information on their use of climate-related scenario analyses, up to 85% of companies did not quantify the actual or potential impacts of climate change on their business. These results fall seriously short of the goals of the TCFD recommendations, as companies clearly do not yet fully address the systemic risks posed by climate change.

- Second, approximately 74% of companies disclosed climate-related risks, most of which are transition risks – as opposed to physical risks. This has to do with the type of scenarios employed in their risk analysis. The assumption of 1.5-2°C warming by the end of the century implies significant transition risks in the short-term. Physical risks tend to materialize over longer time-horizons, usually falling outside standard corporate risk management.

- Finally, of the companies sampled in 2023, nearly 58% disclosed climate-related opportunities. The main trend observed was that companies reporting on climate-related opportunities tended to be more advanced in overall climate reporting, while also scoring better on the TCFD pillars. This underscores the link between progressive climate reporting and the recognition of potential benefits in the transition to a sustainable economy.

### Disclosures of climate-related financial impacts

Understanding how climate-related risks and opportunities influence the future financial position is important to companies. There are several key observations regarding the disclosure of climate-related financial impacts. First, 49% of the assessed companies incorporated information on the financial impact of climate-related risks and opportunities in their financial statements. This percentage is significantly higher than the global results, which may be attributed to emerging European sustainability legislation. Second, there is a considerable difference in the disclosure of climate-related financial impacts, with 37% of companies opting for qualitative disclosures and 12% for quantitative disclosures. Although companies are improving their coverage of these disclosures, quantifying the financial effects remains a challenging task. Additionally, there is also a noticeable difference between the assessed sectors. Financial institutions demonstrate a notable proficiency in providing quantitative disclosures of climate-related financial impacts, potentially influenced by scrutiny from stakeholders such as the European Central Bank (ECB) and De Nederlandsche Bank (DNB).

### What does the future hold?

The CSRD will have an immense impact on climate-related reporting. Companies in scope of this EU regulation will be required to disclose climate-related information that goes beyond TCFD standards. The Climate Change and Sustainability Services department of EY Netherlands supports companies in developing climate strategies, setting up decarbonization pathways, and setting in motion comprehensive sustainability transformations.

> “Companies [...] will be required to disclose climate-related information that goes beyond TCFD standards.

## Key figures 2023

**44%** Quality

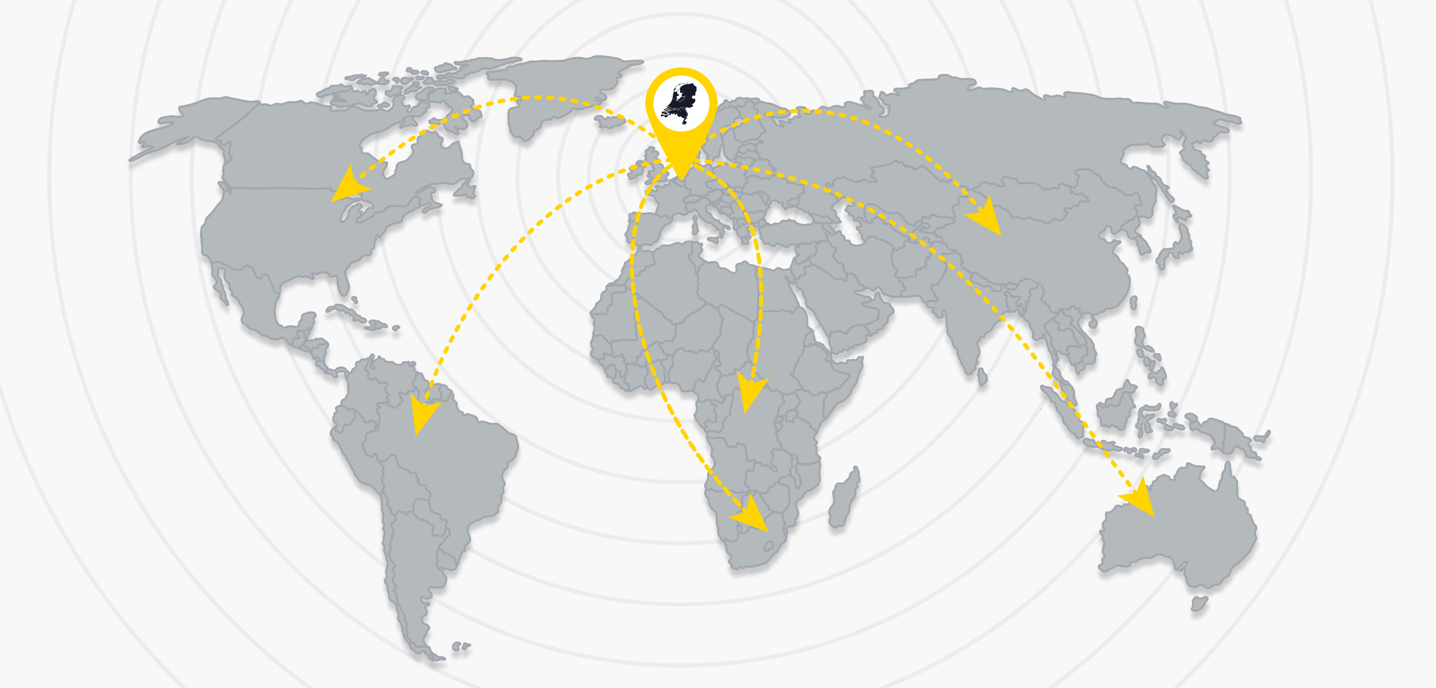
**89%** Coverage

**78** companies in scope

# 1.2 Small country, big impact

> Value chain emissions are on average 11 times higher than operational emissions.

Picture: **'The Dutch market has a global impact through its companies' value chains'**



## Dutch influence extends beyond national boundaries

Being a global player means that the impact of the Dutch market reaches much further than its geographical borders, giving the Dutch market a significant opportunity to help reduce global emissions. According to the Carbon Disclosure Project (CDP), **value chain emissions are on average 11 times higher than operational emissions and account for over 70% of all emissions.**[1] As regulation around scope 3 emissions grows, even small countries like the Netherlands can make a large impact by regulating and limiting their scope 3 emissions. **The Netherlands has already emerged as a key contributor to the advancement of Environmental, Social, and Governance (ESG) practices.** Several illustrative examples include:

- **The Netherlands has established itself as a pioneer in advancing the circular economy,** which focuses on reducing waste and optimizing resource utilization. Through a series of strategic policies and initiatives, the Dutch government actively encourages businesses and industries to embrace circular practices, encompassing resource-efficient design, recycling mechanisms, and the revitalization of products through remanufacturing.[2]
- In the realm of renewable energy, the Netherlands has made notable progress as it has **doubled the share of energy from renewable sources between 2008 and 2019.**[3] The government has set a goal of generating almost 100% of all energy through renewable methods by 2050.[4]
- Several Dutch seaports team up with businesses to **foster the production of sustainable biofuels.** These endeavors underline the country's commitment to facilitating greener alternatives and reducing the environmental impact of industries reliant on conventional fuels.[5]
- Finally, Dutch banks were instrumental in developing the **carbon accounting guidelines for financed emissions which is the global leading practice**. In 2015, ASN Bank initiated the Partnership for Carbon Accounting Financials (PCAF) and formed this partnership aimed at facilitating transparency and accountability of the financial industry to the Paris Agreement.

1 Transparency to Transformation: A Chain Reaction - CDP
2 Which countries are leading the change in circular economy? - Construcía (construcia.com), | Rijksoverheid.nl
3 International Energy Agency
4 Central government encourages sustainable energy | Renewable energy | Government.nl
5 17 companies join action to make shipping more sustainable with biofuel | Port of Rotterdam

In the modern interconnected business landscape, Dutch enterprises are deeply linked to international operations encompassing sourcing, trading, investments, and the exchange of goods and services. This active engagement underscores that the Dutch business arena extends beyond national boundaries, permeating global trade and commerce.

This wide-reaching influence goes beyond the Netherlands' borders, giving the Dutch market a great chance to help reduce global emissions. By cutting down on greenhouse gas (GHG) emissions, the Dutch market can help slow down global warming. As GHG emissions surge, the Netherlands is committed to reducing their GHG emissions by 49% by 2030, compared to 1990 levels, and by 95% by 2050.[6]

## Shaping Sustainability: Regulatory Trends

The increasing pressure from scientists, regulators, investors, and other stakeholders underscores the urgency for companies to accelerate their sustainability efforts. Emission gap studies concluded that even with the implementation of governmental policies and realization of current pledges, global temperatures will continue to rise up to 2.4-2.6 °C above pre-industrial levels.[7] What is more, the scenario studies of the IPCC's (International Intergovernmental Panel on Climate Change) most recent synthesis report indicate that we may see a temperature increase of as much as 2.5 to 4°C by the end of this century, which is well above the targets of the Paris climate agreement.[8]

These reports emphasize the need for swift action to mitigate the worst effects of climate change. While regulatory action alone may not be sufficient to address global warming, the emergence of international governmental regulations is a promising development.

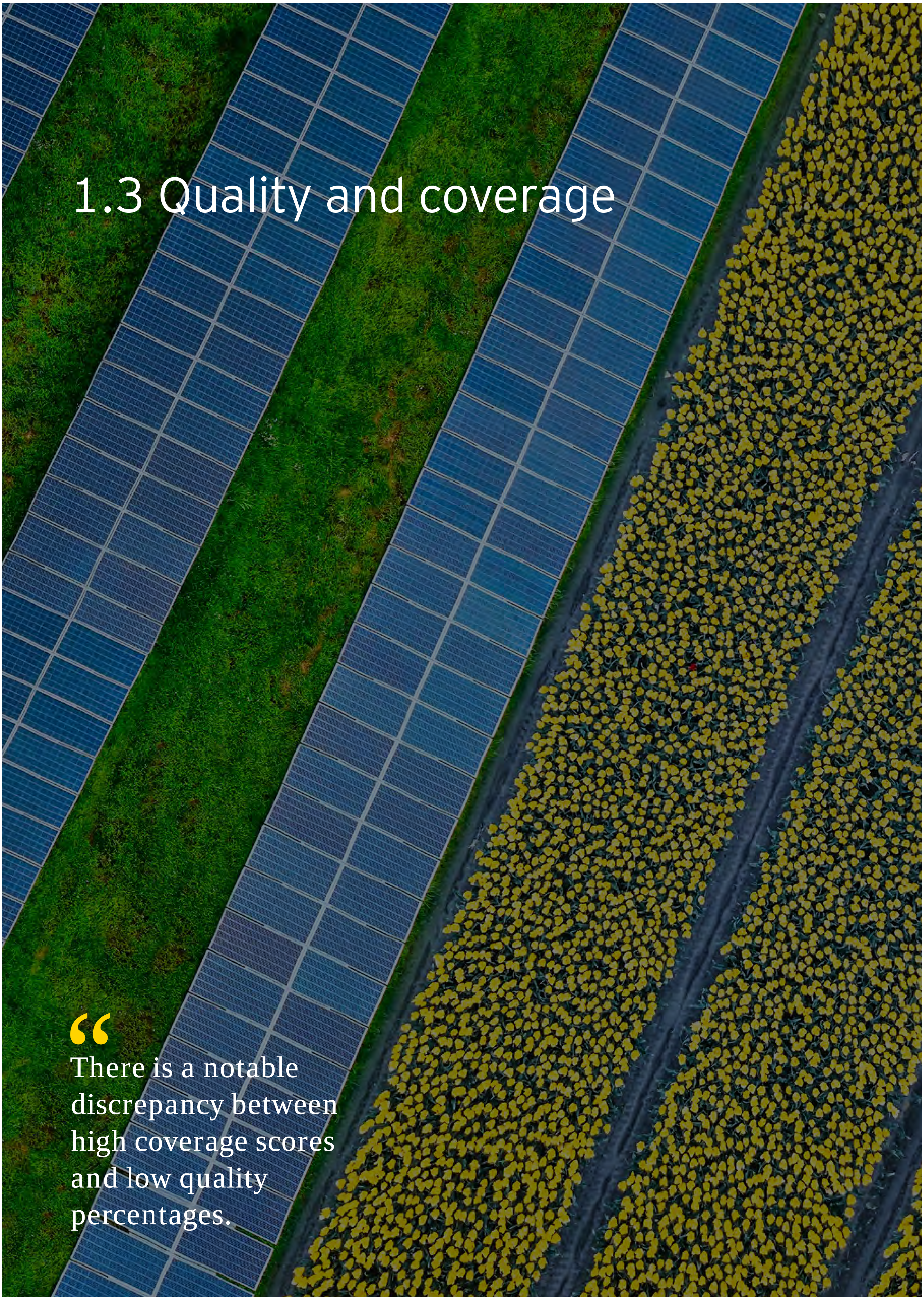
In the past few years, the European Union has developed several regulations under the Green Deal, aimed to prevent global warming exceeding 1.5 °C degrees. The most significant regulatory developments include CSRD, Sustainable Finance Disclosure Regulation (SFDR), EU Taxonomy, and the International Financial Reporting Standards (IFRS) S2. Especially the upcoming CSRD demands extensive disclosures on ESG information from companies, including conducting climate risk scenario analysis.

## The Global and the Dutch Barometer

The objective of this Climate Risk Barometer is to dive deeper into the Dutch market. It serves as a sister document to the EY Global Barometer. While the Global Barometer includes some Dutch companies, the Dutch Barometer covers an additional 44 companies within the country, bringing the total to 78 companies analyzed. As stated above, while the Netherlands is small in size, this country holds significant influence in the global market. This report aims to enable companies gain a deeper understanding of the local and global market, competitor behavior, and the industry standard.

6 Climate policy | Climate change | Government.nl
7 UNEP Emissions Gap Report 2022
8 IPCC AR6 SYR

# 1.3 Quality and coverage



> "There is a notable discrepancy between high coverage scores and low quality percentages.

## The Task Force on Climate-Related Financial Disclosures

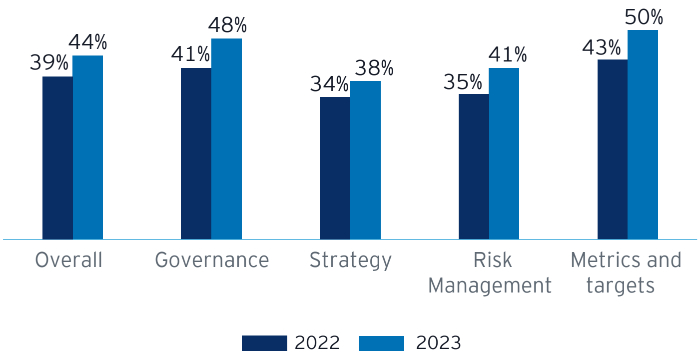
To comprehensively assess climate reporting within selected companies, we employ the assessment methodology of the TCFD. Taking the TCFD as a basis for this research allows for a systematic analysis of how companies incorporate climate risks and opportunities into their overall risk and opportunities framework, and how thoroughly they do so. This section provides insight into the quality and coverage of corporate climate-risk reporting.

TCFD is committed to facilitating market transparency. Starting in 2017, the TCFD released a set of recommended climate-related financial disclosures to aid companies in disclosing more meaningful information. The TCFD focuses on the core elements of a company: governance, strategy, risk management, and metrics and targets. The TCFD has reported a steady increase in Climate-Related Financial Disclosures since 2017. According to the TCFD, the average number of recommended disclosures addressed per company has increased each year.[9] However, the level of disclosures seen in TCFD reporting still falls short of appropriately addressing all 11 TCFD-recommended disclosures. While the adoption of TCFD is improving, there is still a significant push needed to boost the number of companies disclosing according to these standards. To lift the veil of overall adherence to TCFD, it is relevant to investigate the coverage and quality of companies' disclosures.

**Quality** refers to the extent to which a company's disclosures fulfill the recommendations of the TCFD. For each disclosure recommendation, companies were given a rating from 0 to 5, based on the quality of their disclosure. The scores are expressed as a percentage of the maximum score that companies can receive when they disclose all 11 TCFD recommendations. Therefore, quality is more concerned with the thoroughness and attention to detail companies apply when acknowledging climate-related risks. **The quality scores of this research reached 44% this year,** which is higher than in the previous reporting year (39%) but is still far behind the average coverage scores.

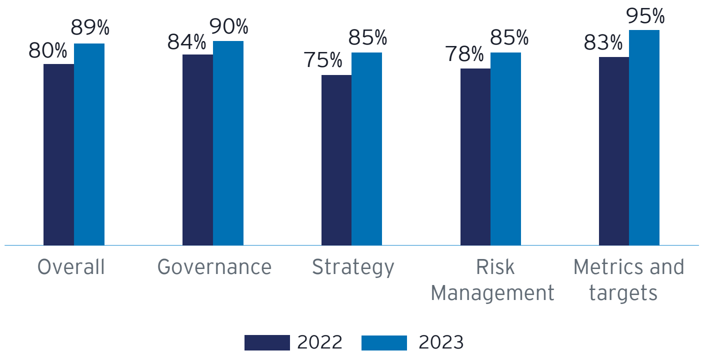
While there has been a perceptible push for more rigorous climate-related risk analysis within companies, leading to an improvement in quality results when compared to the findings of the previous year's report, the overarching outcome remains underwhelming.

**Figure1.** Quality per TCFD pillar year over year




**Coverage** refers to the degree to which a company presents data that aligns with each of the 11 TCFD disclosures, irrespective of the quality of that data. Consequently, a company would be considered to have high coverage if it incorporates information that corresponds to each category, regardless of the scores assigned to individual categories. The total percentage of coverage among the analyzed companies in this year's Dutch Barometer was **89%**.

**Figure 2.** Year over year Coverage per TCFD pillar

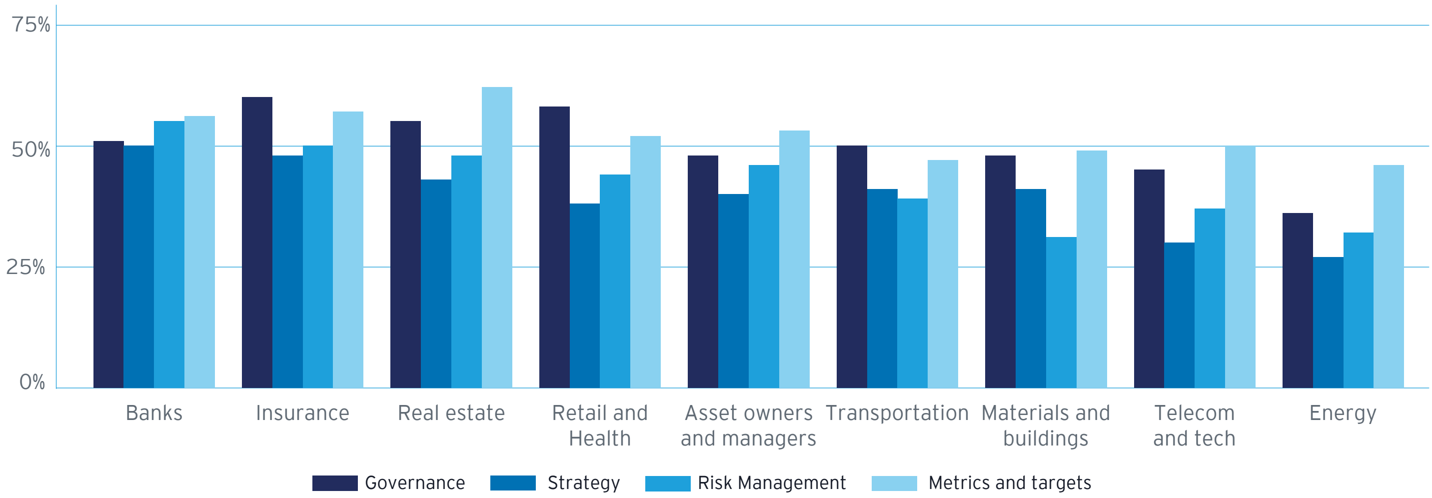



9 TCFD Report Finds Steady Increase in Climate-Related Financial Disclosures Since 2017 | Task Force on Climate-Related Financial Disclosures (fsb-tcfd.org)

The expansion in coverage compared to last year's results (on average 80% in the previous reporting cycle) serves as an indication that company executives are prioritizing climate risk reporting. The distinctive trend of transitioning from voluntary to mandatory climate-related disclosures provides a plausible explanation for the observed surge in companies addressing climate-related disclosure requirements. Notably, frontrunners like the TCFD and the CDP have established robust standards. Consequently, many of the emerging mandatory regulations, such as the CSRD, are closely interlinked with these frameworks, leading to a proliferation of acknowledged TCFD elements within companies' disclosure practices. Given the material nature of these subjects, the structural alignment, and preparatory efforts for CSRD naturally lead to an elevated standard of reporting quality for both CSRD and TCFD.

There is a notable discrepancy between high coverage scores and low-quality percentages. On the one hand, this could be attributed to the fact that climate risk reporting is a relatively new phenomenon for companies, as prior reporting focused on financial information. Companies may lack a clear understanding of how to appropriately assess and report on climate-related risks and opportunities, not to mention the lack of best practice examples. Another explanation could be that some companies may not prioritize climate reporting, especially given that the disclosure of climate-related risks and opportunities is not yet mandatory for most companies. Consequently, companies allocate too few dedicated resources for this purpose, with climate risk reporting often relegated to the status of 'nice to have' and not a 'must-have' priority for a company and its employees. Also, there is a possibility that organizations still predominantly perceive climate reporting as a compliance exercise for standards and ratings, rather than as an enlightening instrument to steer the business and stay resilient and competitive.

**Figure 3.** Quality score per pillar by sector 2023



# 2. Sector-Specific Insights

"Climate risk reporting is maturing."

**The landscape of climate risk reporting is rapidly gaining momentum as an essential component of corporate transparency. An evident shift can be observed, with an increasing number of companies dedicating efforts to identify and report climate-related risks in alignment with the TCFD framework.**

## Drivers of Improvement

Two main factors are driving improvement in climate risk reporting practices:

- First, the climate risk reporting landscape itself is maturing, prompting more and more companies to recognize the importance of disclosing climate-related information. As stakeholders increasingly demand transparency regarding climate-related risks, coupled with the emergence of more stringent climate reporting regulations, it has become evident that climate risk reporting is a pivotal focus area.

- Second, the motivation behind the improvement in scores can also partly be attributed to companies' anticipation of the forthcoming mandatory reporting required by the CSRD, particularly under the European Sustainability Reporting Standard (ESRS) E1 on Climate Change. These guidelines encompass all TCFD strategy disclosures and introduce additional obligations, necessitating the acknowledgement of environmental and societal impacts while referencing the 1.5°C scenario.

Breaking down the analysis of climate reporting per business sector yielded insight into the unique opportunities and challenges that each sector faces. In the subsequent section, we delve deeper into the performance of individual sectors, dissecting how they are faring in terms of disclosing climate-related risks and opportunities. As the momentum behind climate risk reporting continues to grow, it is imperative for companies to not only meet regulatory requirements but also embrace the responsibility of transparently addressing climate-related risks. The level of maturity in climate reporting is advancing. It encompasses not only climate-related targets but also increasingly links them to company strategy, governance, and overall risk management. Moreover, it highlights the all-encompassing nature of the risks and opportunities posed by climate change. This assessment not only accentuates the progress made in this regard, but also encourages ongoing efforts to ensure a resilient and sustainable future for businesses and the natural environment alike.

## Sector-Specific Analysis

Our wide-ranging examination of sector-specific climate risk reporting practices brought certain trends and patterns to light. The key insights of the sector-specific analysis are as follows:

- The financial sector, and specifically the banking sector, emerges as a frontrunner in climate risk reporting, with a quality score of 54%, paired with an admirable coverage rate of 97%.

- This is followed by the insurance and real estate sectors, achieving quality scores of 53% and 52% respectively, and both producing a perfect coverage rate of 100%.

- Finally, the energy sector emerged as the outlier with a 35% quality score, showing a 7% decrease in reporting quality compared to its prior year results, while improving by 6% with a coverage score of 87%.

## Financial sector is leading climate disclosures

Banks:

**54%** Quality

**97%** Coverage

Energy:

**35%** Quality

**87%** Coverage

The financial sector is clearly leading the way with respect to overall sector coverage and quality, and upon closer inspection, the two TCFD pillars they score highest on are Risk Management and Metrics and Targets. There are multiple factors that can explain why the financial sector – and especially banks – appear to stand out when it comes to general disclosure practices and specifically climate-related disclosures.

Financial market participants face especially high levels of scrutiny from regulators and government institutions. For instance, banks periodically undergo rigorous evaluation by the ECB. Moreover, it is widely acknowledged that financial institutions have primary and substantial influence over monetary flows, which means they play a significant role in directing investments and finance to achieve overarching sustainable development goals. For this reason, the financial sector is already subject to a myriad of stringent regulations, which have also been significantly expanded in recent years. A prime example of this trend is the SFDR, which came into force in March 2021, expanding mandatory sustainability-related disclosures for financial market participants. Another example is the EU Taxonomy regulation, introduced as part of the EU Green Deal package, effective as of January 2022. This regulation aims to steer direct investment toward the economic activities most needed to realize the EU's green transition.

In response to the heightened scrutiny within the financial sector, certain voluntary commitments have also been established. The Dutch financial sector has committed itself to the Climate Agreement for several years, requiring financial market participants to mandatorily disclose the climate impact of their investments and financed positions. Additionally, there are voluntary commitments that companies operating within the financial sector can choose to adopt. For instance, Banks, Financial Asset managers, and Insurance companies have each established separate Net Zero Alliances over the past few years.

Alongside the above, the nature of business of financial markets cannot be overlooked. It inherently requires the consideration of a wide range of risks, necessitating rigorous data collection, various scenario analyses, and informed target-setting. Therefore, data maturity and availability are generally more advanced for financial sector players, given that a relevant amount ESG data is being measured. The data requests from banks to their suppliers and investees will push ESG data collection up- and downstream to other sectors as well. This will enforce richer and more transparent disclosure of climate-related risks.

> “The financial sector is clearly leading the way with respect to overall sector coverage and quality.

Insurance companies assessed in this Climate Barometer excelled in the Governance pillar, with an average quality score of 60% (see graph below). This underscores a commitment to internal frameworks and processes, with insurance companies, like banks, requiring a diverse array of risk assessments and scenario analyses in their daily operations.

The real estate sector records the highest scores in the Metrics and Targets pillar of the TCFD recommendations, hinting at a strategic emphasis on setting quantifiable climate-related goals. Governance remains a close second in terms of quality, showcasing the industry's increasing ambitions to embed climate risk management into all levels of a company's governance structure. This should come as no surprise, as this sector is already impacted by shifting consumer preferences and the physical impacts of climate change, such as rising prices and a decline in the popularity of certain regions. The growing frequency and severity of extreme weather events, such as wildfires, floods, and severe storms make it increasingly difficult for the real estate market to manage costs associated with damage control and to upkeep the condition of properties each year. Rising temperatures mean an increasing need by tenants for air conditioning – and therefore, electricity – as well as heightened water use, and these costs fall not only on the tenants but also on the real estate industry itself.

Finally, as can be seen in the table below, the energy sector's performance trails the other sectors in all TCFD pillars, and the sector's average quality has fallen by 7% compared to prior year results. While this may seem surprising, considering the crucial role of the energy sector in driving the green energy transition, this outcome can be attributed to a number of factors.

First, the energy sector is in a particularly difficult position, as it has large-scale infrastructure in place – mainly designed for non-renewable energy carriers, with a specifically developed natural gas infrastructure in the Netherlands. Building new infrastructure and replacing the existing requires a significant amount of time and money, while the sector is increasingly under pressure to act fast in developing the structure for and increasing the amount of renewable energy supply. This pressure comes not only from the government and society, but also from ongoing mandatory regulations being imposed on them such as the CSRD and the EU Taxonomy.

Most importantly, the sector calls for time to build infrastructure suitable for generating and transporting renewable energy, as well as monetary support via government subsidies, loans, or investors due to the high initial investment costs associated with such projects. All the while, the issue of long-term storage of renewable energy remains unresolved. These factors contribute to a sense of unwillingness to drive the change and transition away from fossil fuels, especially in the Netherlands with its solid infrastructure and locked-in costs for natural gas in place. This attitude is reflected in the sector's TCFD disclosures as well when it comes to quality, although a 6% increase can be observed in their coverage of TCFD recommendations, which is still a notable improvement. It indicates that the sector continues to expand the number of climate-related issues under consideration.

With a wealth of industry knowledge, EY's decarbonization support equips businesses to address the complexities of climate change. Our tailored services encompass carbon footprint analysis, evaluations of product and service life cycles, and the establishment of science-backed objectives for sustainable emissions reduction.

Table 1: **Overview of quality and coverage results per sector (2022 vs. 2023)***

| Sector | Quality 2022 | Quality 2023 | Coverage 2022 | Coverage 2023 |
|---|---|---|---|---|
| Banks | 44% | 54% ▲ | 82% | 97% ▲ |
| Energy | 42% | 35% ▼ | 81% | 87% ▲ |
| Financial Asset Owners & Managers | 40% | 45% ▲ | 83% | 87% ▲ |
| Insurance | 38% | 53% ▲ | 80% | 100% ▲ |
| Materials and Buildings | 37% | 41% ▲ | 78% | 87% ▲ |
| Real Estate | 41% | 52% ▲ | 80% | 100% ▲ |
| Retail Health and Consumer Goods | 36% | 47% ▲ | 77% | 86% ▲ |
| Telecommunications & Technology | 40% | 40% | 82% | 91% ▲ |
| Transportation | 37% | 44% ▲ | 78% | 82% ▲ |

**For more information on the methodology and the sample sizes per sector, please refer to the About This Research section.*

# 3. Climate Risks and Opportunities reported

“4 out of 5 companies have not quantified their climate-related risks.

## Climate scenarios

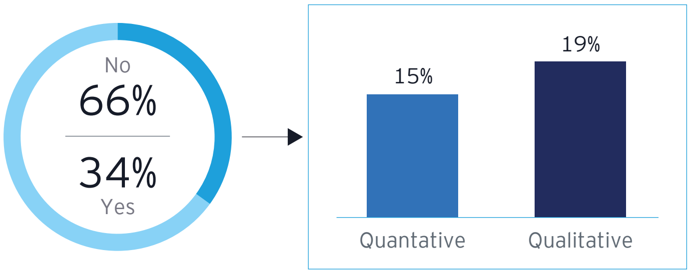
A key aspect of the TCFD's recommendations is the incorporation of scenario analysis into risk management practices for companies, stakeholders, and society at large to get a better understanding of climate-related risks and opportunities. This analytical tool enables companies to assess the potential impacts of various climate-related scenarios on their operations, strategies, and financial health. By conducting scenario analyses, companies can identify both their vulnerabilities in a changing climate as well as their prospects for innovation and growth arising from the transition to a low-carbon economy. This process not only enhances risk management, but also provides a more holistic understanding of the opportunities associated with adopting sustainable practices, better equipping companies to thrive in a business landscape altered by climate change.

## Benefits and use of scenario analysis

Conducting a scenario analysis offers valuable insights for companies. By exploring diverse potential futures, businesses can identify and prepare for a range of outcomes, enhancing their adaptability and resilience. This process fosters strategic decision-making, promotes risk mitigation, and reveals new opportunities.

This year's assessment found that 34% of the companies disclosed information on their use of scenarios, both qualitative (19% of companies) and quantitative (15% of companies). This, however, means that up to 85% of companies assessed have not yet quantified the risks within their scenario analysis. Moreover, 66% of companies failed to mention whether they used qualitative or quantitative methods to assess the climate risks, and 41% did not disclose any information about whether scenario analysis was part of their risk assessment methodology. By definition, this creates a yawning gap in the transparency and accountability of their climate risk assessments. These results fall seriously short of the goals of the TCFD recommendations, as companies clearly do not yet fully address the systemic risks posed by climate change, the very reason for which the TCFD was originally established.

**Figure 4.** Did the company mention they conducted scenario analysis? If yes, what was the type of scenario analysis?




## Commonly referenced scenarios

Within the group of companies using scenario analysis, the majority referenced the Net Zero by 2050 Scenario, RCP 2.6, RCP 8.5, and SBTi. These scenarios were also the most commonly referenced ones on a global level, according to EY's 2023 Global Climate Risk Barometer.

- Net Zero by 2050 refers to the scenario in which as a society, a balance is reached between the greenhouse gases emitted and those removed from the atmosphere by 2050, effectively halting net emissions and combatting climate change[10].

- RCP, or Representative Concentration Pathway, is a concept introduced by the IPCC to depict possible future trajectories of carbon dioxide emissions and atmospheric concentrations over the 21st century. These pathways encompass a range of scenarios, from best to worst case, detailing how carbon emissions could influence various sectors worldwide.

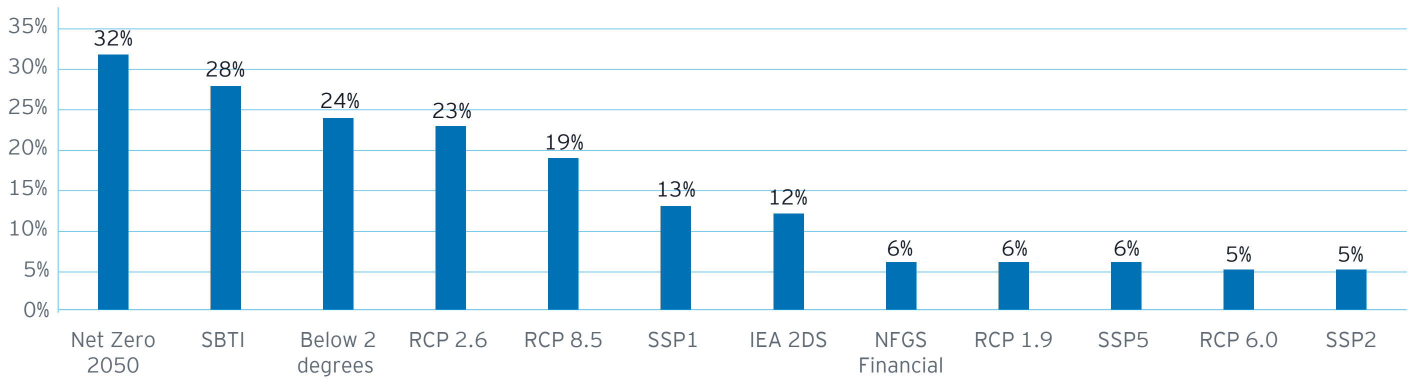
  - RCP 2.6 offers a prominent example for curbing anthropogenic greenhouse gas emissions. This path requires robust global climate policies, cooperation among nations – including developing ones – and potential climate finance. It envisages global carbon emissions peaking around 2020 and atmospheric concentrations tapering off by mid-century.[11]

  - RCP 8.5, on the other hand, represents the direst emissions outlook. Emissions rise sharply, peaking around mid-century and stabilizing at 30 gigatons by 2100 (compared to 8 gigatons in 2000). This scenario forecasts an alarming acceleration in atmospheric carbon dioxide concentrations into the next century.

- The SBTi scenario complements the IPCC's goals by helping companies adopt Science Based Targets aligned with the 1.5˚C and well below 2˚C (WB-2˚C) ambitions. It draws from reputable sources like the Integrated Assessment Modeling Consortium (IAMC) and the International Energy Agency (IEA), offering pathways for emission reduction. By leveraging these pathways, companies can craft science-based targets (SBTs) that are not only scientifically robust, but also informed by the latest insights from leading experts in the field of climate science and energy economics. A growing number of Netherlands-based companies set SBTi reduction targets; these collective efforts can greatly assist our small country in minimalizing its greenhouse gas emissions – especially with regard to scope 3 emissions, resulting in a substantial and meaningful impact[12].

When it comes to selecting climate scenarios, there are a few points worth keeping in mind. First, although widely popular, the RCP scenarios are starting to become rather outdated, as they were first developed in 2010,[13] and significant advancements have been made in climate scenario modeling since then. Second, it is important to note that the TCFD recommendations do not prescribe the use of specific scenarios. Rather, it requires companies to employ at least one scenario consistent with 2˚C or below. This, in turn, erodes the ease of comparability between companies due to the different scenarios used, which should certainly be harmonized in the future. Finally, the arguably more alarming issue is that 4 out of 5 companies have not quantified their climate-related risks at all.

**Figure 5.** Types of scenario analysis used




10 Net Zero Emissions by 2050 Scenario (NZE) – Global Energy and Climate Model – Analysis - IEA
11 IPCCWG3_AR5_chapter6.pdf
12 SBTi-manual.pdf (sciencebasedtargets.org)
13 Achievements and needs for the climate change scenario framework | Nature Climate Change

## Risk analysis

Roughly 74% of the companies within the 2023 Dutch Climate Risk Barometer disclosed climate-related risks, with a relatively balanced distribution of risk types across sectors. The types of climate risks that were analyzed by companies can be categorized into two types of risks according to the TCFD recommendations: transition risks and physical risks.

- Transition risks pertain to the challenges companies face while transitioning to a low-carbon economy, including regulatory and policy changes, market shifts, technological developments, and reputational risks.
- Physical risks, on the other hand, are the direct impacts of climate change, such as extreme weather events and rising sea levels, that can harm businesses and their assets. Physical risks can in turn be broken down into two categories: acute and chronic physical risks.

**The most apparent trend we identify from our analysis is that organizations more commonly disclose transition risks, as opposed to physical risks.** The reason for this has to do with the scenarios used, or in the case of companies that did not use climate scenarios, the general timeframe employed in corporate risk assessments. A 1.5˚C (or even 2˚C) world would imply significant transition risks in the short term (the next 1-7 years), while physical risks tend to materialize over longer-term horizons which often fall outside of Enterprise Risk Management systems, that typically model risks one to three years into the future, five at most.

Therefore, it comes as no surprise that the **most prominent risks, mentioned by over half of the companies analyzed, are market risks and risks related to current regulation** – both of which are transition risks. Market risks encompass shifting customer demand, rising costs of input materials, market volatility, and evolving availability of alternative products or services. Current regulatory concerns naturally stem from the surge in climate-related voluntary and mandatory regulations in recent years, such as the TCFD, CSRD or the EU Taxonomy. The TCFD and CSRD requirements in particular prompt the use of low degree scenarios when defining climate risks, driving companies to focus on risks associated with shifts in markets, regulations, and technologies, resulting in a wider adoption of scenarios that assume lower emission trajectories.

> “Organizations more commonly disclose transition risks, as opposed to physical risks.

**Figure 6.** Does the company report on climate risks?

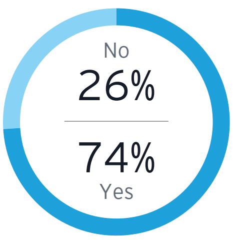
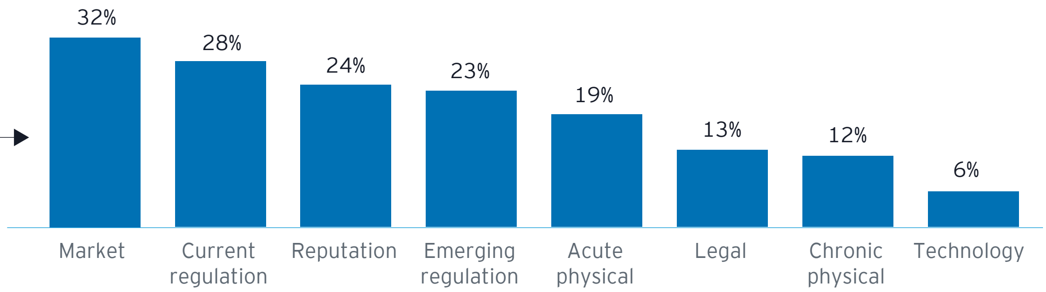


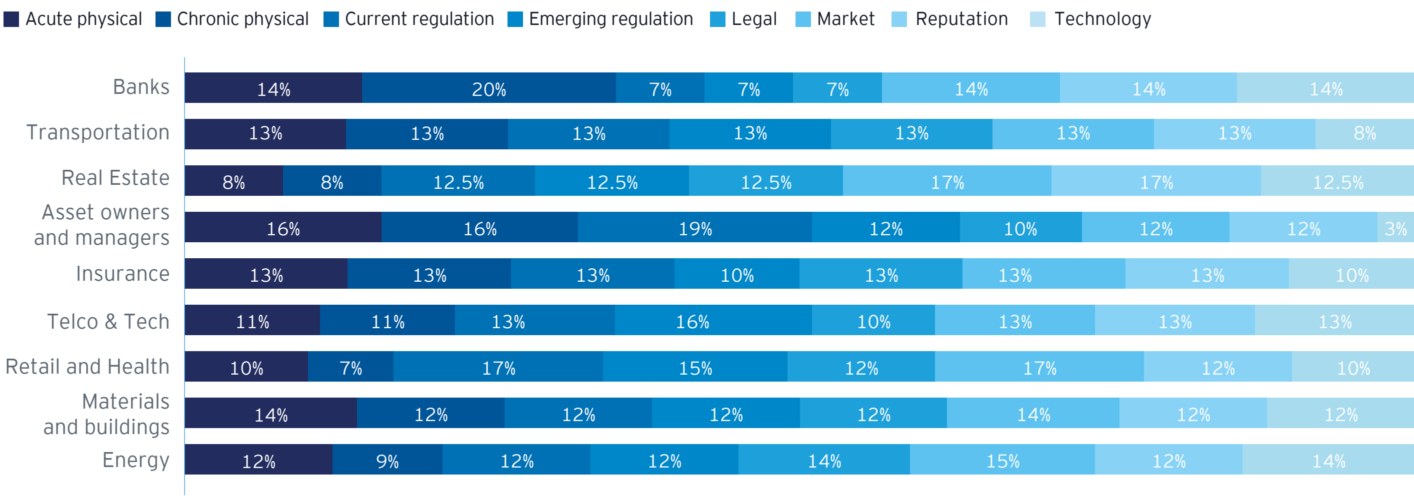

**Figure 7.** Common risk types reported



Secondly, fewer than half of the companies' reports highlight acute physical risks. Physical risks of climate change encompass both acute events such as droughts, flooding, wildfires, and sea level rise, as well as chronic challenges that stem from long-term shifts in temperature patterns and environmental conditions. Sectors that prominently address physical risks are Financial Asset Owners and Managers, and Materials and Buildings, along with Banks and Insurance Companies. This outcome is also in line with the developments we see in the world today: the physical impacts of climate change are already intensifying around the globe, and these sectors are the ones currently bearing the bulk of the damages incurred by floods, wildfires, and extreme weather events. Due to the nature of their businesses, taking into consideration natural disasters and accounting for extreme weather events when evaluating and estimating risks has long been part of the norm in these sectors, as well as allowing for longer time horizons in their risk assessments.

These results highlight the substantial influence of the transition policies implemented on a regional and global scale. These policies are reshaping industries and markets by prompting the implementation of measures for mitigation and adaptation, leading to more prominent transition risks evident across sectors.

**Figure 8.** Common risk types mentioned by sector



## Opportunity analysis

Of the companies sampled in 2023, nearly 58% disclosed climate-related opportunities. Figure 11 illustrates the types of opportunities disclosed, categorized by sector. It shows that companies reporting on climate-related opportunities tend to be more advanced in their overall climate reporting, attaining higher scores in the assessment. In contrast, companies with lower overall scores did not often include any climate-related opportunities in their reports, underscoring the link between progressive climate reporting and the recognition of potential benefits in the transition to a sustainable economy.

Most companies have recognized the growing potential within products and services as a response to climate change. This trend can be attributed to factors like rising consumer demand for sustainable solutions, as well as the business community's need for solutions to decarbonize, coupled with evolving regulatory frameworks demanding an increasing awareness of environmental responsibility. Additionally, many companies have highlighted alternative energy source opportunities, which not only promise carbon footprint reduction but could also offer financial advantages via energy efficiency and reduced electricity costs. This makes it a compelling choice for businesses looking to align their operations with both environmental and economic goals.

It is evident that companies need to broaden their perspective on climate change to encompass opportunities. Currently, the focus is geared towards anticipating negative impacts rather than harnessing efforts to transform challenges into positive prospects. Another key finding from the assessment is that companies reporting on climate-related opportunities tend to be more advanced in their overall climate reporting. Notably, assessed companies with lower results did not mention any opportunities at all, whereas the strongest reporting companies consistently commented on climate-related opportunities, underscoring the link between progressive climate reporting and acknowledgement of potential benefits. At EY, we collaborate with our clients conducting sound evaluations of climate risks and opportunities, spanning both quantitative and qualitative dimensions.

Our EY Climate Analytics Platform (CAP) solution facilitates comprehensive examinations and precise quantification of climate-related financial risks. Furthermore, we also provide assistance in crafting climate strategies.

**Figure 9.** Does the company report on climate opportunity?


**Figure 10.** Common opportunities reported

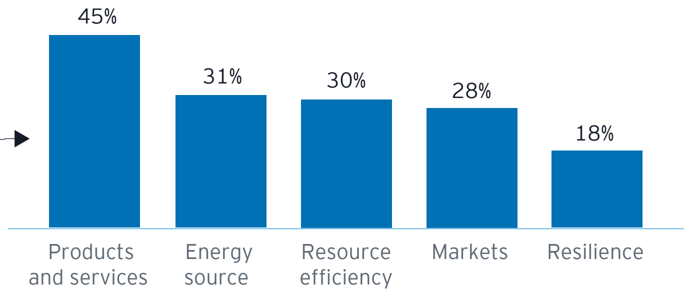
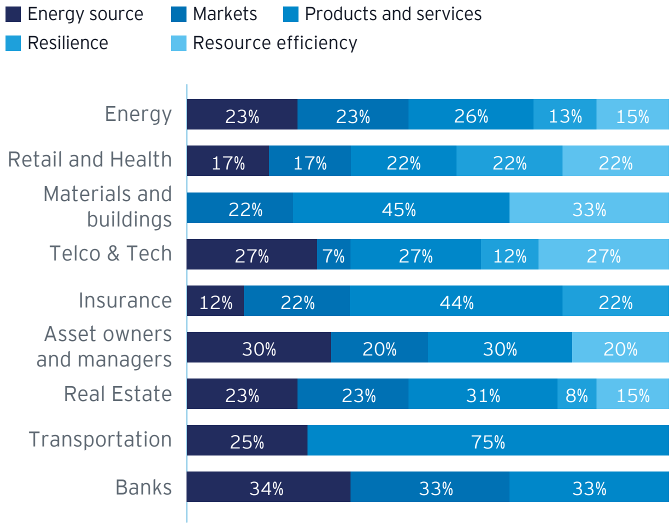
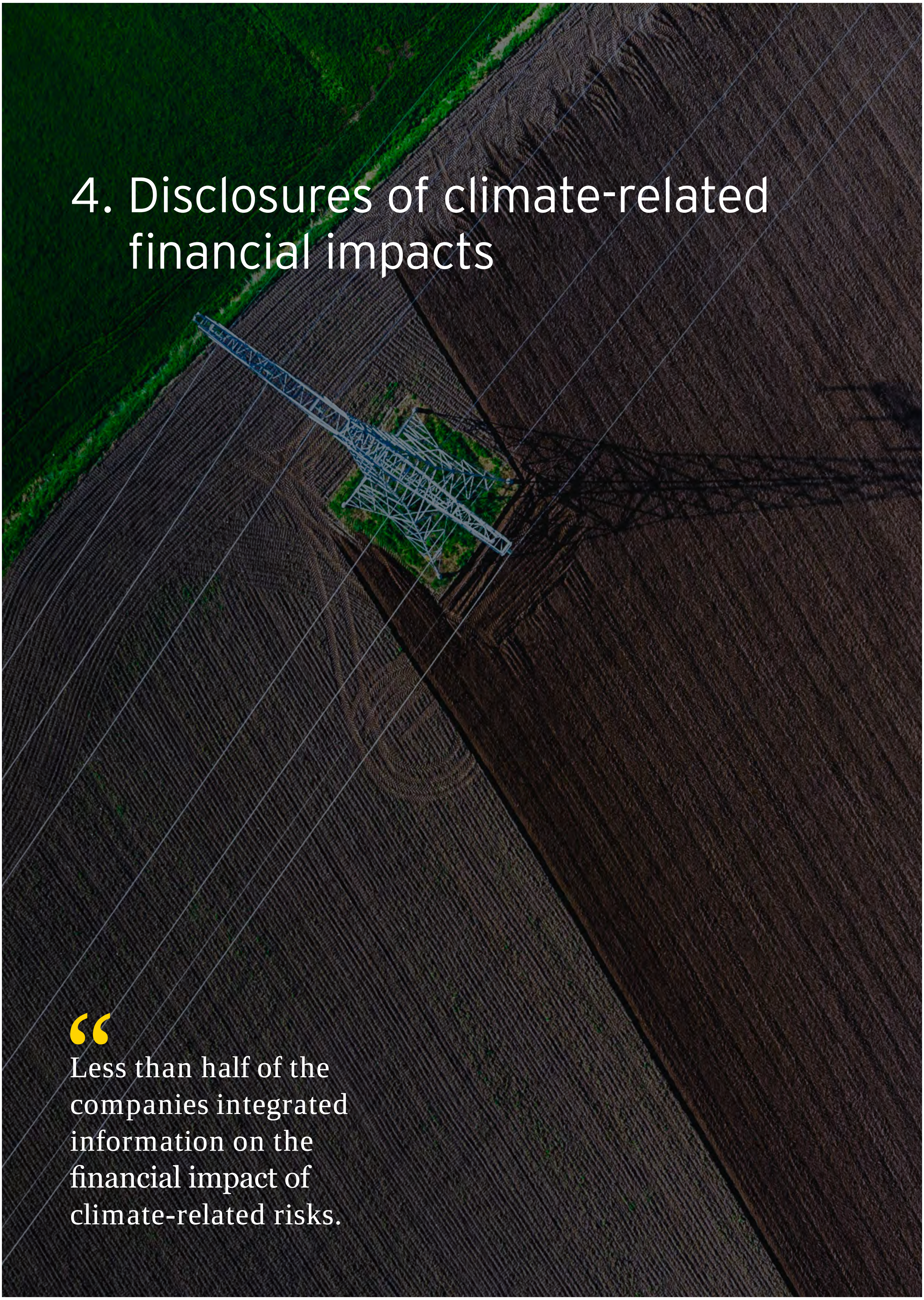



**Figure 11.** Opportunities reported by sector





# 4. Disclosures of climate-related financial impacts

“

Less than half of the companies integrated information on the financial impact of climate-related risks.

Non-financial information such as ESG data is increasingly integrated in reporting on financial information. The integration of these data types within reports enables stakeholders to gain a holistic understanding of a company's overall performance, risk exposure, and contribution to society and the environment. There is a growing need among stakeholders to gain a clearer insight into how climate-related risks and opportunities might affect a company. This clarity also empowers companies to make more informed financial decisions, which is one of the main objectives of the TCFD.

## Climate-related financial impacts

Less than half of the companies (49%) sampled in the 2023 Dutch Climate Risk Barometer integrated information on the financial impact of climate-related risks and opportunities in their financial statements. This percentage is higher than the Global Climate Risk Barometer result of 32%. Moreover, zooming in on EU-based companies, the global results show that 54% of companies in EU member states integrated information on the financial impact of climate-related risks and opportunities. A potential explanation for the significantly higher scores of Dutch and other European companies compared to global companies could be that European sustainability legislation is rapidly emerging. This already requires companies to report on sustainability risks and opportunities that affect or will affect their financial performance and cash flow, including the (potential) financial impacts of these risks and opportunities.

The types of disclosures varied among the companies assessed. An example of how companies included qualitative climate-related financial disclosures is the description of the potential impact of climate-related risks and the costs incurred to pro-actively manage such risks. On the other hand, quantitative disclosures include impacts of climate-related risks in the cash flow forecasts. Approximately 37% of companies disclosed their climate-related financial impacts in a qualitative manner, while only 12% disclosed quantitative information.

> "Quantifying the financial effects of climate-related risks is still a challenge.

There is no significant difference between this distribution of qualitative and quantitative information and that found by the 2023 Global Climate Risk Barometer (24 % qualitative and 8% quantitative). Although companies are improving coverage of climate-related financial impact disclosures, quantifying the financial effects is less frequently done. The TCFD has also noted this trend as a challenge. The Task Force has developed several tools to assist companies in identifying climate-related risks and opportunities and their potential financial impacts. This can help companies gain greater insight into the financial impacts of climate-related risks and opportunities. In turn, this offers them the ability to account for them in their financial statements.

**Figure 12.** How companies report financial impact of climate risks and opportunities

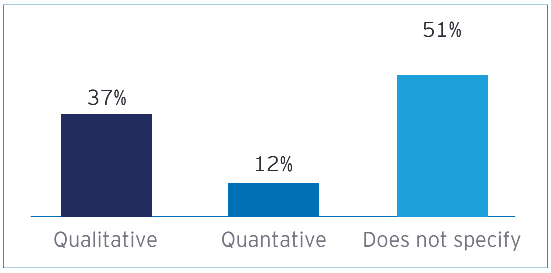
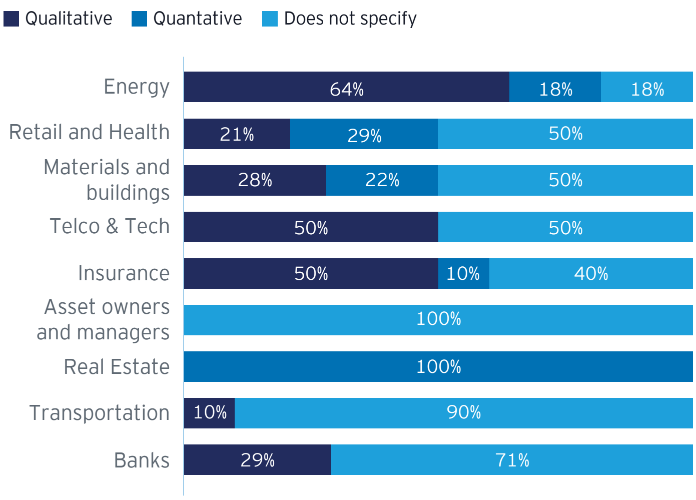


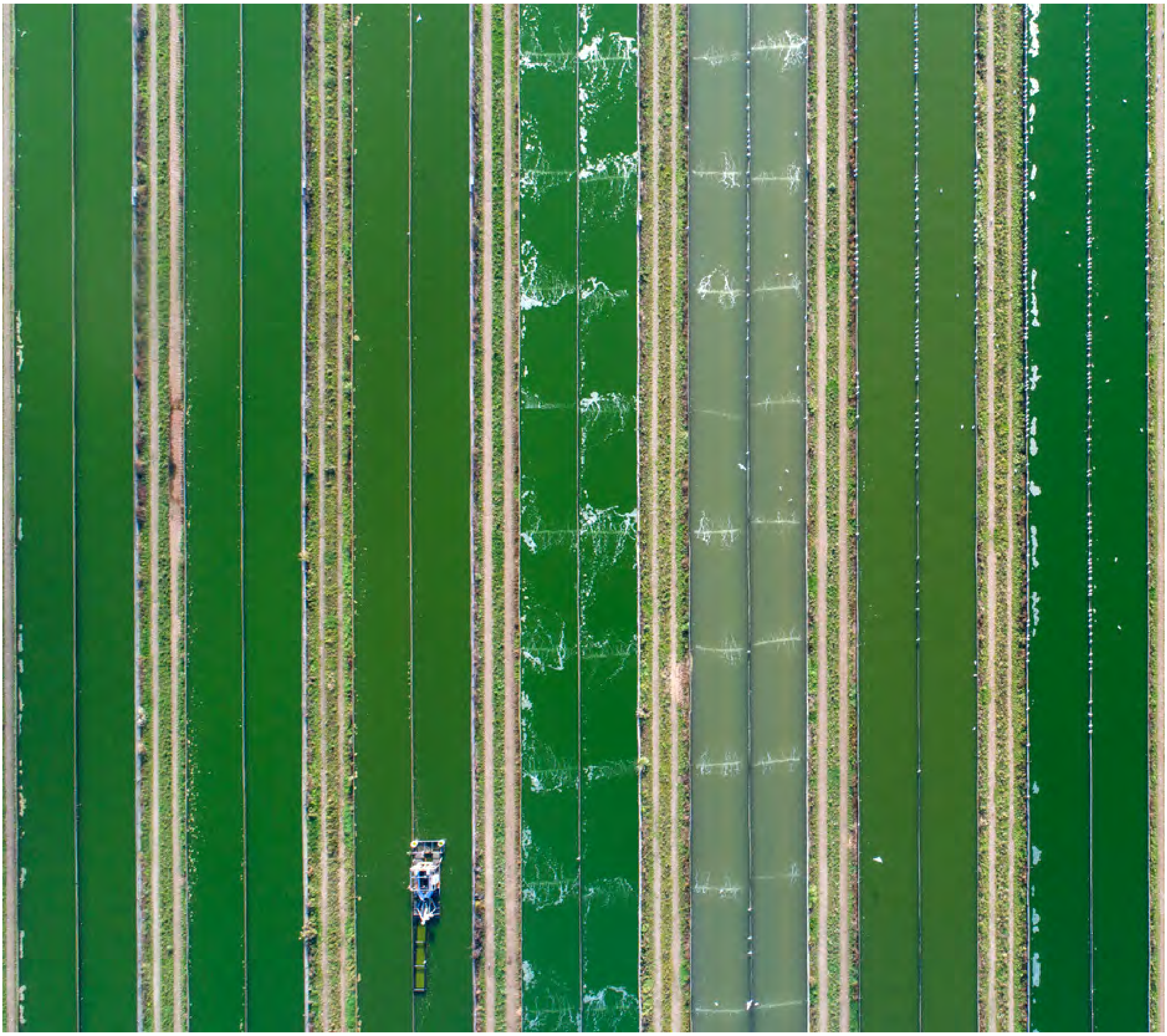

**Figure 13.** Financial impacts by sector



## Differences between sectors

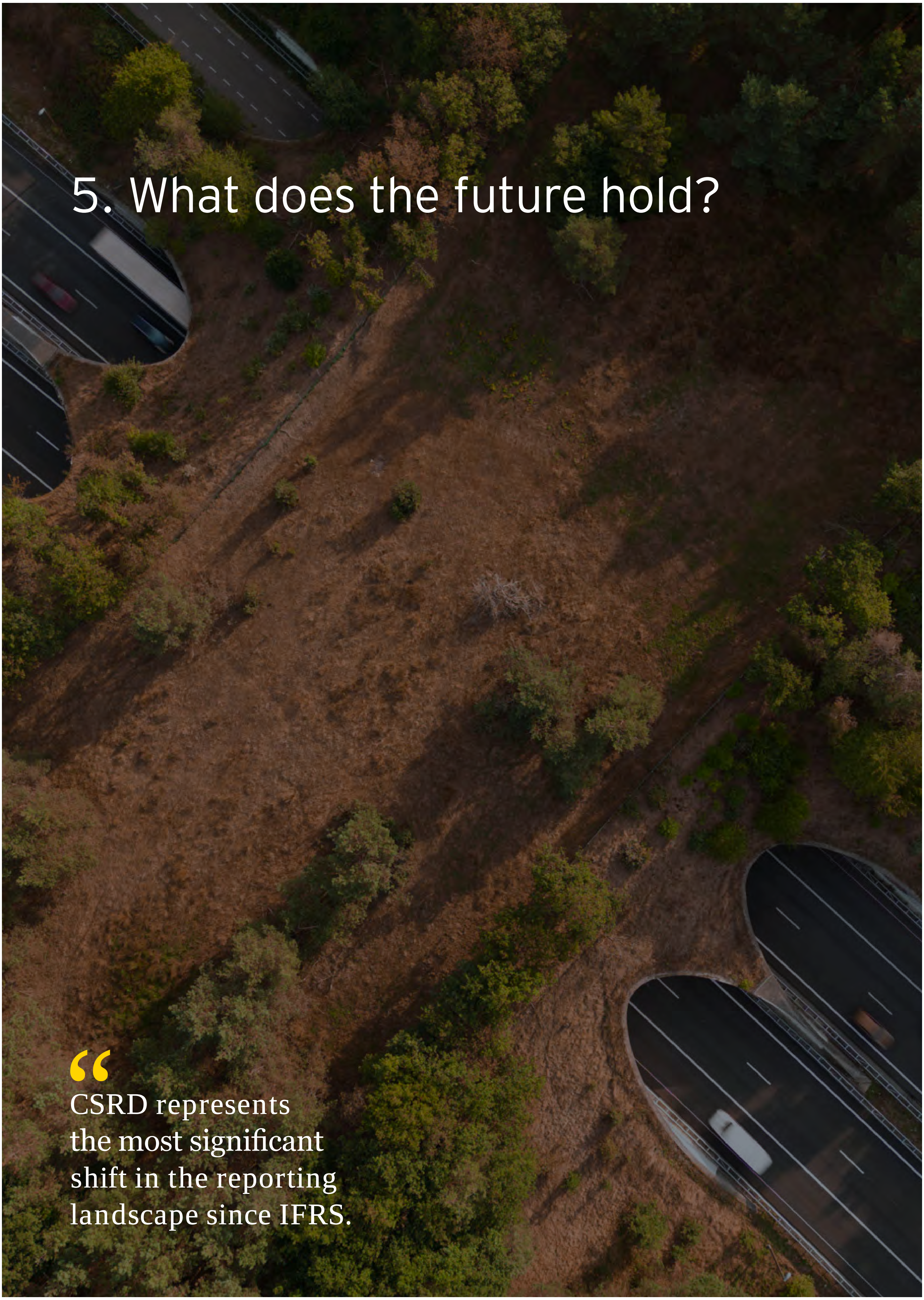
Our assessment yielded significant differences between the assessed sectors in terms of the disclosure of climate-related financial impacts. The strongest performing sectors in this area were Energy, Insurance and Real Estate. This is also consistent with the overall sector results. When comparing the different approaches to disclosure, the sector that performed best in terms of quantitative disclosures is Insurance.

In contrast, Financial Asset Owners & Managers, Banks, and Transportation performed less well in disclosing climate-related financial impacts. The results of the poorly scoring banking sector may seem odd, as this sector scores very well overall. It is important for the financial sector to integrate climate risks in its credit risk classification, to prevent unexpected credit losses due to climate change. However, it appears that the sector does not always (yet) make proper use of adequate assessment tools and climate data to thoroughly address climate risks and their associated financial impact.[14]



14 Climate risk data challenges facing the banking sector | Bloomberg

# 5. What does the future hold?



> "CSRD represents the most significant shift in the reporting landscape since IFRS."

### Navigating the Future: Insights from the Dutch Climate Risk Barometer and the Transformative Impact of CSRD on Corporate Reporting

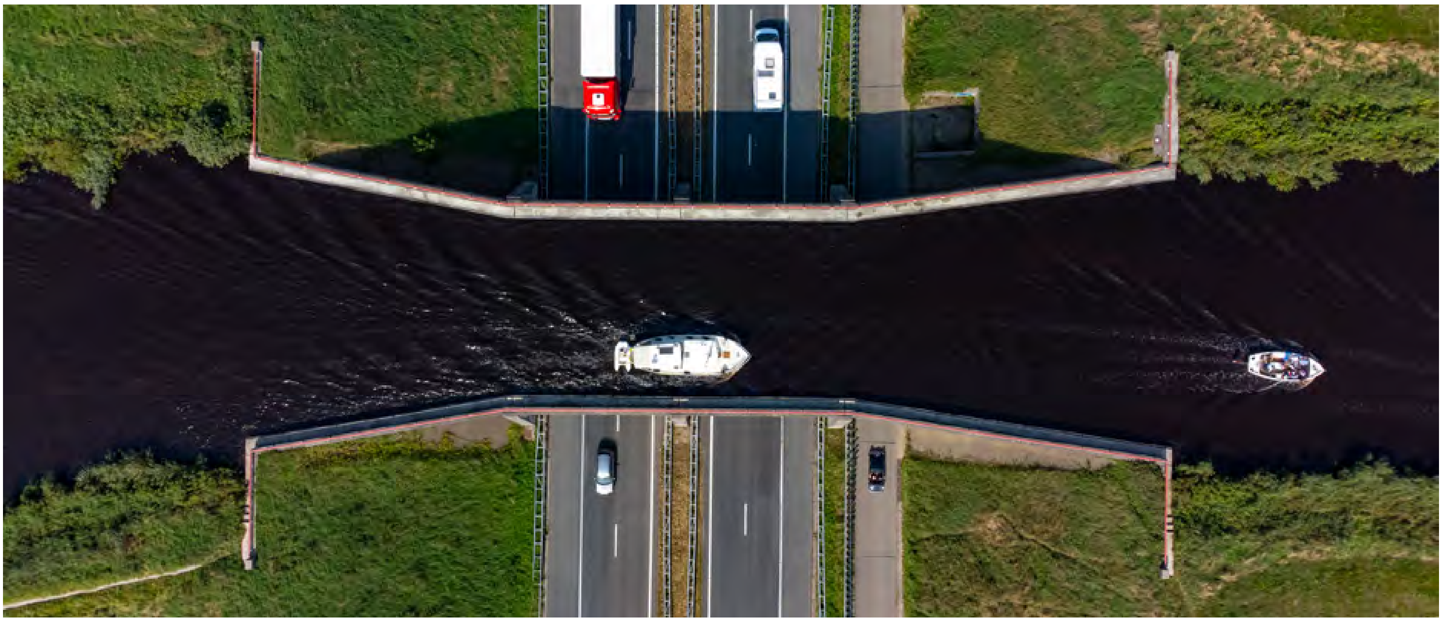
The Dutch Climate Risk Barometer provides a vivid picture of the current climate reporting landscape. However, as the corporate sustainability landscape rapidly changes, we expect many more developments in the future for organizations.

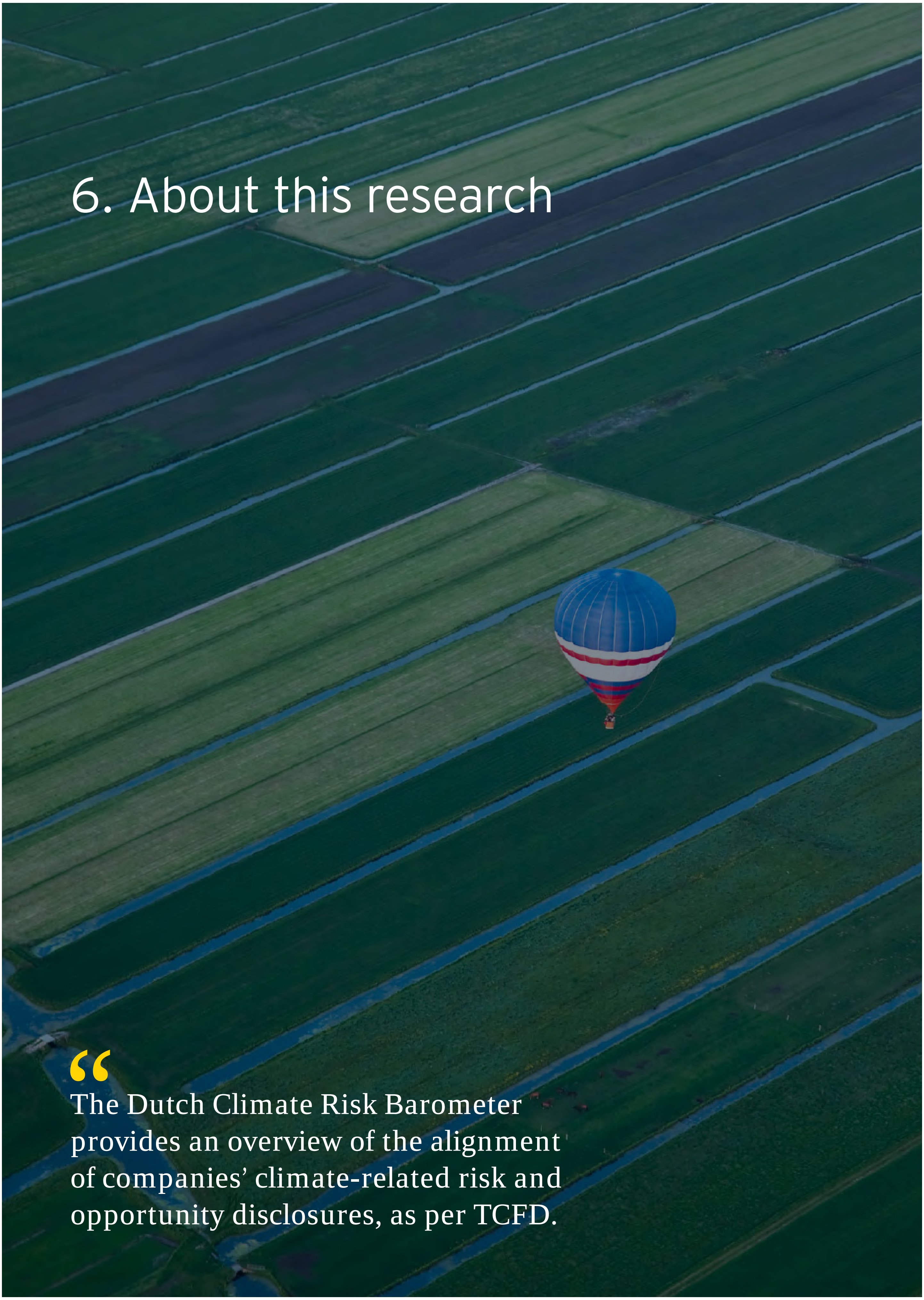
For sectors that continue to lag behind – particularly those in the Energy and Transportation industries with lower scores in coverage and quality – the years ahead will be pivotal. It is imperative for these sectors to develop robust strategies that enable the shift towards a more sustainable future. All sectors must continuously move forward and explore the climate-related risks and opportunities for their business models. As this research has shown, mature climate-related reporting enables organizations to be more resilient and make informed decisions. We expect that the Energy and Transportation sectors will accelerate their climate journeys, pushed by regulations, stakeholder pressure and helped by innovation over the coming years.

Regulation deserves emphasis when looking into the future. The CSRD constitutes a substantial leap forward from the disclosures recommended by the TCFD. The TCFD framework solely focuses on climate-related topics, specifically on how climate risks and opportunities affect organizations' financial performance and operations. The CSRD, however, encompasses environmental, social and governance topics and thus goes beyond solely climate-related information. Even the environmental requirements entail more reporting disclosures than just the TCFD recommendations – although all TCFD recommendations are incorporated in the ESRS' cross-cutting and topical standards. For example, companies will be required to report on climate transition risks and conduct climate scenario analyses, but also extensive requirements are in place on other material topics, such as circular economy, pollution, and biodiversity.

Companies that report aligned with TCFD, even if only partially, will be better positioned to address the more elaborate reporting obligations introduced by the CSRD. This advantage arises both from these companies' earlier initiation of data gathering processes as well as awareness of climate-related impacts, risks, and opportunities related to day-to-day activities and long-term strategic planning. Additionally, in some cases these companies have already established governance structures dedicated to managing these impacts and risks.

The CSRD represents the most significant shift in corporate reporting since the adoption of IFRS, requiring companies to allocate substantial time and resources to ensure compliant implementation. EY supports numerous companies to prepare for the CSRD, which will affect nearly 50,000 companies in the EU in the upcoming years. This annual barometer is one of the many things EY does to monitor organizations' progress with respect to climate-related reporting. We will keep monitoring this, both at the global and Dutch market level, while continuously supporting our clients every step along the way of their journey towards transparent reporting and sustainable operations.





# 6. About this research

> "The Dutch Climate Risk Barometer provides an overview of the alignment of companies' climate-related risk and opportunity disclosures, as per TCFD.

The Dutch Climate Risk Barometer provides an annual overview of the alignment of companies' climate-related risk and opportunity disclosures, as per the recommendations of the TCFD. The TCFD recommendations can be divided into four core elements of recommended climate-related financial disclosures: Governance, Strategy, Risk Management, and Metrics and Targets. These core elements include 11 pillars in total, which have served as the basis of our assessment methodology.

## Scope and data

For this year's Climate Risk Barometer, a total of 78 Dutch companies were assessed – exactly the same number as last year albeit a different sample. Nine different sectors, including both financial and non-financial entities, were examined. The same scoring matrix from last year's Barometer has been used. The assessment is based on an organization's public information from 2022, encompassing annual reports, integrated reports, sustainability reports, and any other information that is publicly accessible.

Table 2: **Number of companies per sector assessed in Dutch Climate Barometer 2023**

| Sector | Number of companies |
|---|---|
| Banks | 7 |
| Energy | 11 |
| Financial Asset Owners & Managers | 10 |
| Insurance | 4 |
| Materials and Buildings | 10 |
| Real Estate | 4 |
| Retail Health and Consumer goods | 14 |
| Telecommunications & technology | 8 |
| Transportation | 10 |
| **Total** | **78** |

## Scoring method

Companies were assessed based on two different metrics: the coverage and quality of their disclosures.

**Coverage**

Companies were scored (in percentages) on the basis of the number of 11 TCFD recommendations they have addressed. A score of 100% indicated that the company has disclosed some level of information about all the recommendations, regardless of the quality of the information.

**Quality**

For each TCFD disclosure recommendation, the companies were scored from 0 to 5 based on the quality of the disclosure. Ultimately, the scores were expressed as a percentage of the maximum score that companies could achieve if they disclosed all 11 recommendations at best. A score of 100% indicated that the company disclosed all the recommendations, and the quality of the disclosures met all the requirements of the TCFD (i.e., gaining a maximum score of 5 for each of the 11 recommendations). The following scoring system has been used to determine the quality of the disclosures:

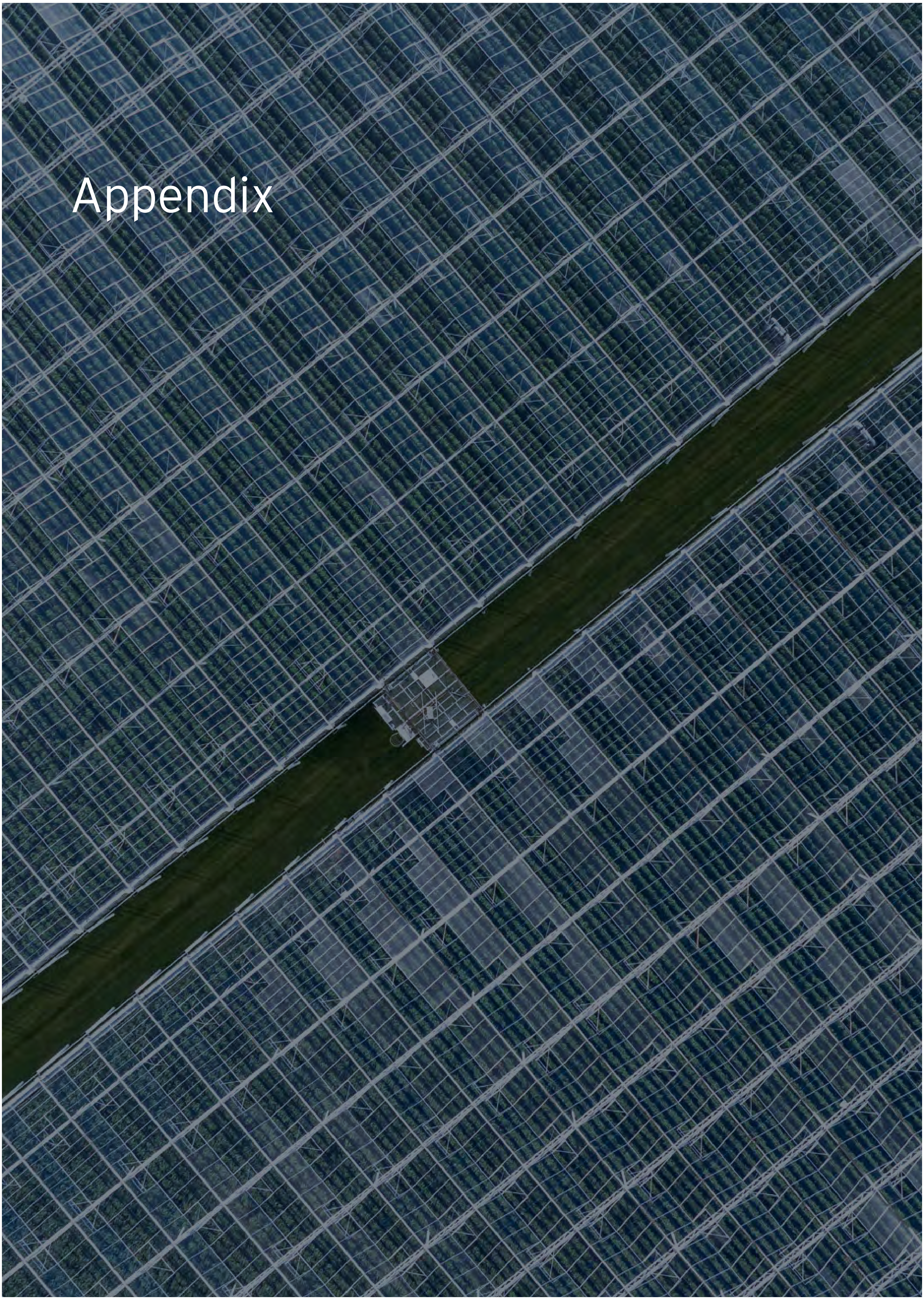
0 – No consideration given
1 – Underdeveloped
2 – Basic
3 – Developing
4 – Well-developed
5 – Market leading

> “For this year's Climate Risk Barometer, a total of 78 Dutch companies were assessed across nine different sectors.

## Limitations

There are some limitations to our assessment methodology that should be taken into account when reading this Climate Barometer. We excluded rating agency responses, such as those from the CDP, from our data analysis due to limited accessibility during the compilation of this publication. As a result, our assessment relied on available information, including annual reports and other publicly accessible data, as applicable. The decision to omit rating agency responses may have contributed to the underperformance of certain sectors, as some companies often furnish more comprehensive data in their responses to rating agencies than in their regular disclosures. When comparing the results of this year's Climate Barometer to those of the previous year or to the Global Barometer results, we also employed their scores excluding CDP to ensure a fair comparison. In addition, this research relied solely on external disclosures of companies (i.e. annual and sustainability reports) and did not further verify the accuracy of these statements, which, as a consequence, could lead to inaccurate information or misinterpretation and influence the assessment results.

# Appendix



## Abbreviations

| | |
|---|---|
| CDP | Carbon Disclosure Project |
| CSRD | Corporate Sustainability Reporting Directive |
| DNB | De Nederlandsche Bank |
| ECB | European Central Bank |
| ESG | Environmental, Social, Governance |
| ESRS | European Sustainability Reporting Standards |
| EU | European Union |
| GHG | Greenhouse Gas |

| | |
|---|---|
| IAMC | Integrated Assessment Modeling Consortium |
| IEA | International Energy Agency |
| IFRS | International Financial Reporting Standards |
| IPCC | Intergovernmental Panel on Climate Change |
| RCP | Representative Concentration Pathway |
| SBTi | Science-Based Targets initiative |
| SFDR | Sustainable Finance Disclosure Regulation |
| TCFD | Taskforce on Climate-related Financial Disclosures |

## Glossary

| | |
|---|---|
| **Climate-related Opportunity**[15] | Refers to the potential positive impacts related to climate change on an organization. Efforts to mitigate GHG emissions and adapt to climate change can produce opportunities for organizations, through resource efficiency and cost savings, the adoption and utilization of low-emission energy sources, the development of new products and services, and building resilience along the supply chain. Climate-related opportunities will vary depending on the region, market, and industry in which an organization operates. |
| **Climate-related Risk**[16] | Refers to the potential negative impacts of climate change on an organization. Physical risks emanating from climate change can be event-driven (acute) such as increased severity of extreme weather events (e.g., cyclones, droughts, floods, and fires). They can also relate to longer-term shifts (chronic) in precipitation and temperature and increased variability in weather patterns (e.g., sea level rise). Climate-related risks can also be associated with the transition to a lower-carbon global economy, the most common of which relate to policy and legal actions, technology changes, market responses, and reputational considerations. |
| **EU Green Deal** | The European Green Deal is a package of policy initiatives proposed by the European Commission aimed at setting the EU on the path to achieving the green transition of the European Union, with the ultimate goal of reaching climate neutrality by 2050. The Green Deal was launched by the European Commission in December 2019 and approved in 2020. |
| **EU Taxonomy** | The EU Taxonomy is part of the EU Green Deal package, and it is a binding regulation that aims at directing investments toward the economic activities that are most needed for realizing the green transition. It is a classification system that defines an EU-wide, scientifically enforceable language on the environmental sustainability of economic activities and investments, in order to support the EU's green transition and curb greenwashing. |
| **Governance**[17] | Refers to "the system by which an organization is directed and controlled in the interests of shareholders and other stakeholders. Governance involves a set of relationships between an organization's management, its board, its shareholders, and other stakeholders. Governance provides the structure and processes through which the objectives of the organization are set, progress against performance is monitored, and results are evaluated." |
| **Greenhouse Gas GHG Emissions Scope Levels**[18] | **Scope 1** - refers to all direct GHG emissions.<br>**Scope 2** - refers to indirect GHG emissions from consumption of purchased electricity, heat, or steam.<br>**Scope 3** - refers to other indirect emissions not covered in scope 2 that occur in the value chain of the reporting company, including both upstream and downstream emissions. Scope 3 emissions could include: the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g., transmission and distribution losses), outsourced activities, and waste disposal. |
| **Metrics and Targets**[19] | Refers to the metrics and targets used to assess and manage relevant climate-related risks and opportunities. |

15 TCFD, Recommendations of the Task Force on Climate-Related Financial Disclosures, 2017
16 TCFD, Recommendations of the Task Force on Climate-Related Financial Disclosures, 2017
17 OECD, G20/OECD Principles of Corporate Governance, OECD Publishing, Paris, 2015
18 IPCC, Climate Change 2014 Mitigation of Climate Change, Cambridge University Press, 2014
19 TCFD, Recommendations of the Task Force on Climate-Related Financial Disclosures, 2017

| | |
|---|---|
| **Paris Agreement** | The Paris Agreement entered into force on 4 November 2016 after adoption by 196 Parties at the UN Climate Change Conference (COP21) in Paris, France, on 12 December 2015. It is a legally binding international treaty on climate change. Its overarching goal is to hold "the increase in the global average temperature to well below 2°C above pre-industrial levels" and pursue efforts "to limit the temperature increase to 1.5°C above pre-industrial levels."[20] |
| **Risk Management[21]** | Refers to a set of processes that are carried out by an organization's board and management to support the achievement of the organization's objectives by addressing its risks and managing the combined potential impact of those risks. |
| **Scenario Analysis*** | A process for identifying and assessing a potential range of outcomes of future events under conditions of uncertainty. In the case of climate change, for example, scenarios allow an organization to explore and develop an understanding of how the physical and transition risks of climate change may impact its businesses, strategies, and financial performance over time. |
| **Sector[22]** | Refers to a segment of organizations performing similar business activities in an economy. A sector generally refers to a large segment of the economy or grouping of business types, while "industry" is used to describe more specific groupings of organizations within a sector. |
| **Strategy[23]** | Refers to an organization's desired future state. An organization's strategy establishes a foundation against which it can monitor and measure its progress in reaching that desired state. Strategy formulation generally involves establishing the purpose and scope of the organization's activities and the nature of its businesses, taking into account the risks and opportunities it faces and the environment in which it operates. |
| **Sustainability Report[24]** | An organizational report that gives information about economic, environmental, social, and governance performance and impacts. For companies and organizations, sustainability —the ability to be long-lasting or permanent—is based on performance and impacts in these four key areas. |
| **Value Chain[25]** | Refers to the upstream and downstream life cycle of a product, process, or service, including material sourcing, production, consumption, and disposal/recycling. Upstream activities include operations that relate to the initial stages of producing a good or service (e.g., material sourcing, material processing, supplier activities). Downstream activities include operations that relate to processing the materials into a finished product and delivering it to the end user (e.g., transportation, distribution, and consumption). |

20 UNFCCC, Paris Agreement, 2015
21 TCFD, Recommendations of the Task Force on Climate-Related Financial Disclosures, 2017
22 TCFD, Recommendations of the Task Force on Climate-Related Financial Disclosures, 2017
23 TCFD, Recommendations of the Task Force on Climate-Related Financial Disclosures, 2017
24 TCFD, Recommendations of the Task Force on Climate-Related Financial Disclosures, 2017
25 TCFD, Recommendations of the Task Force on Climate-Related Financial Disclosures, 2017

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