Nordea
ASSET MANAGEMENT

Climate report 2023

Overview

About Task Force for Climate-related Financial Disclosures (TCFD)

2017: TCFD published a set of recommendations for climate-related financial disclosures, across the areas of Governance, Strategy, Risk Management, and Metrics and Targets. Nordea Asset Management was one of the first companies worldwide to commit to the TCFD recommendations.
2020: Nordea Asset Management (NAM) published the first TCFD aligned climate report.

This report has been aligned with the TCFD recommended disclosures.

Core elements of recommended climate-related financial disclosures[1]

Governance
The organisation's governance around climate-related risks and opportunities

Strategy
The actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning

Risk Management
The processes used by the organisation to identify, assess and manage climate-related risks

Metrics and Targets
The metrics and targets used to assess and manage relevant climate-related risks and opportunities

Nordea
Nordea is the largest financial services group in the Nordic region (approx. 10 million personal customers and 600,000 corporate customers[2]) and one of the biggest banks in Europe. We want to make a real difference – for our customers and for the communities in which we operate – by sharing our extensive expertise based on 200 years in the banking business.

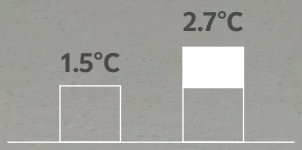
About Nordea Asset Management
Nordea Asset Management (NAM) is part of the Nordea Group. We are an active asset manager with a global business model, offering services to institutional clients in Europe, the Americas and Asia. We manage investments across the full spectrum of asset classes. Our third-party distribution franchise services a wide range of international fund distributors, including many of the leading global wealth managers. We distribute our products through banks, asset managers, independent financial advisors, insurance companies and family offices. Our client base is equally split between Nordea Group-related and external clients. With EUR 251bn (31 December 2023) in assets under management, we have been experiencing strong growth over the past decade.

1) Source: www.fsb-tcfd.org. 2) As at 31.12.2023.

At a glance

Where society is today

50 giga tonnes CO_2 from 2023 onward for a 50% chance of limiting global warming to 1.5°C[3]



National policies and actions put society on track for 2.7°C of warming.[4]

Where NAM is today

Global Initiatives

TCFD NAM is one of the first companies worldwide to commit to the TCFD recommendations

NZAM Founding member of Net Zero Asset Managers (NZAM) initiative:
- 315 signatories
- $57 trillion AuM[5]

Climate Action 100+
- Investor-led initiative to engage the world's largest corporate emitters of GHGs
- 173 companies assessed and engaged

NAM's commitment to net zero[6]

- Net zero emissions by 2050 or sooner across all assets under management
- Interim targets set for 2030, consistent with a fair share of a 50% global reduction in CO_2e.
- Prioritise real economy emissions reductions
- Increase investments in climate solutions
- Initiated our methane engagement campaign in collaboration with Environmental Defence Fund and other selected partners

567 Climate-related engagements in 2023

NAM targets – our way to Net Zero by 2050

1 50% reduction in WACI across listed equity and corporate bonds

2 Fund-specific 2030 carbon footprint reference objectives for select listed equity funds

3 80% of Top 200 company contributors to financed emissions to be Paris-aligned or engaged to become so (100% by 2030)

NAM Progress to date[7]

38% Reduction in weighted average carbon intensity (WACI)

81% 162 companies on our top 200 list were aligned or engaged on the topic of Paris alignment

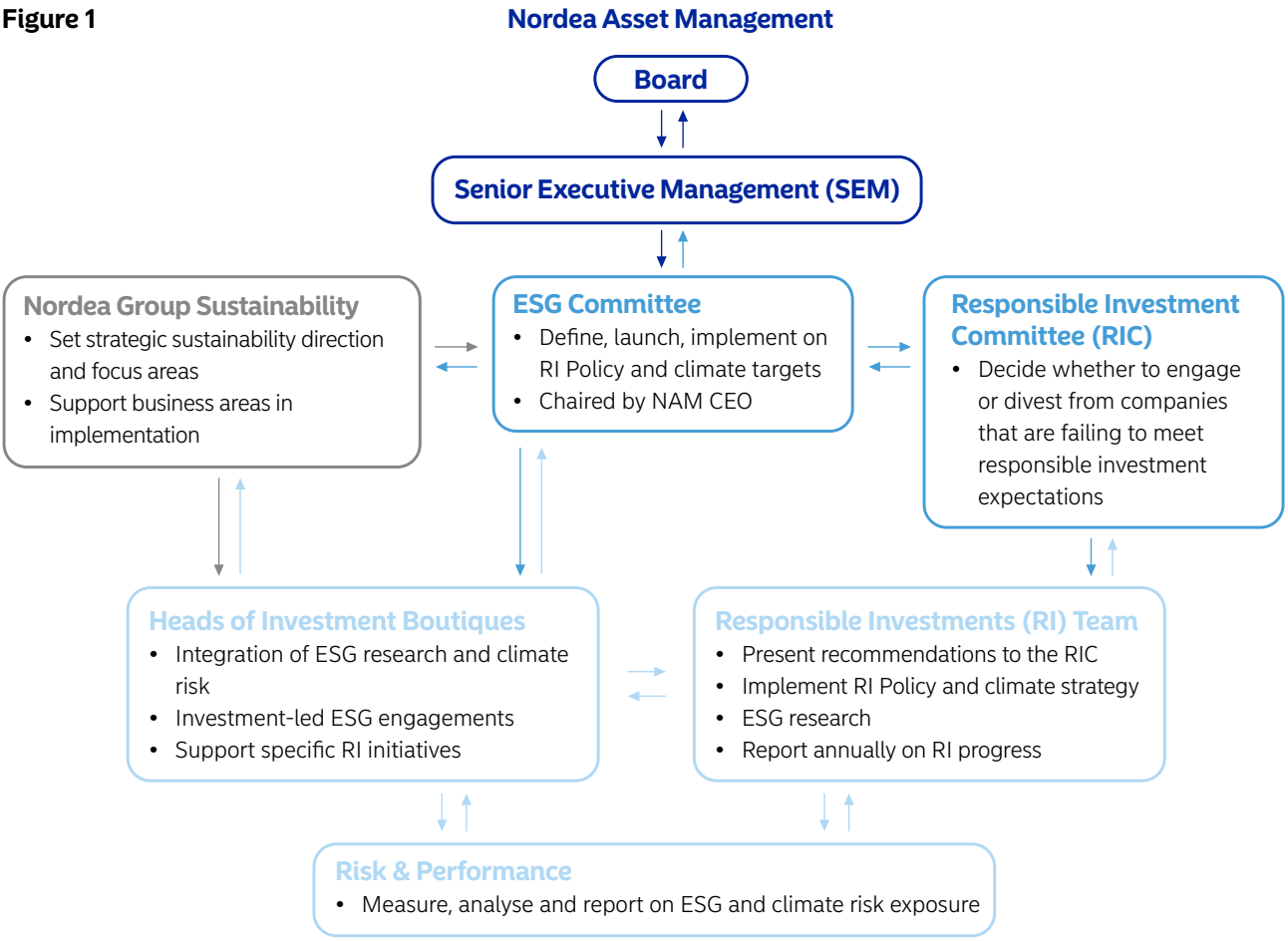
Our carbon footprint in 2023

37.0 Carbon footprint tCO_2e/M EUR invested (listed equity and corporate bonds)

3) UN Enviromental Programme (2023).
4) Climate Action Tracker figures as of December 2023.
5) Net Zero Asset Managers figures as of 31 December 2023.
6) The targets can be found in NZAM's Progress report, which presents targets set by all founding members.
7) Figures as of December 2023.

1. Climate governance

Figure 1



Climate Governance

Board and management oversight

Sustainability is embedded across Nordea's business strategy, backed by measurable targets, strong governance, and one of the broadest sustainability offerings in the market as of 2023. A net-zero emissions objective by 2050 across Nordea's lending and investment portfolios and internal operations was published in 2021. Group sustainability has the responsibility to support the business areas, such as NAM, in the implementation of this and other objectives.

At NAM, the commitment to climate-resilient investments comes from the top. The Board oversees the strategic direction and reviews the development of our ESG and climate policies, and is updated at least annually on their implementation. The Senior Executive Management team is kept well informed on climate-related matters and several are members of the ESG Committee, where oversight of the strategic delivery of NAM's climate commitments rests. Every quarter ESG Committee meets to monitor progress towards climate targets and decide on significant changes to our Responsible Investment policy and processes.

Additionally, our Responsible Investment Committee (RIC), created in 2009 and chaired by NAM CEO, meets every quarter to discuss whether to engage or divest from companies that are failing to meet responsible investment expectations.

The Heads of Investment Boutiques are responsible for integrating ESG risks, including risks arising from climate change, into the investment analysis and decisions. Various resources are available for investment teams to monitor climate risks and opportunities in the portfolios, including a climate dashboard in regular risk reports.

Climate is a key focus area for the Responsible Investment (RI) Team. Climate-focused workshops for investment teams and other functions are regularly conducted to increase knowledge and awareness of climate issues, and the analysis of climate related investment risks and opportunities is an important part of the product development work.

2. Climate strategy and our commitment to net zero

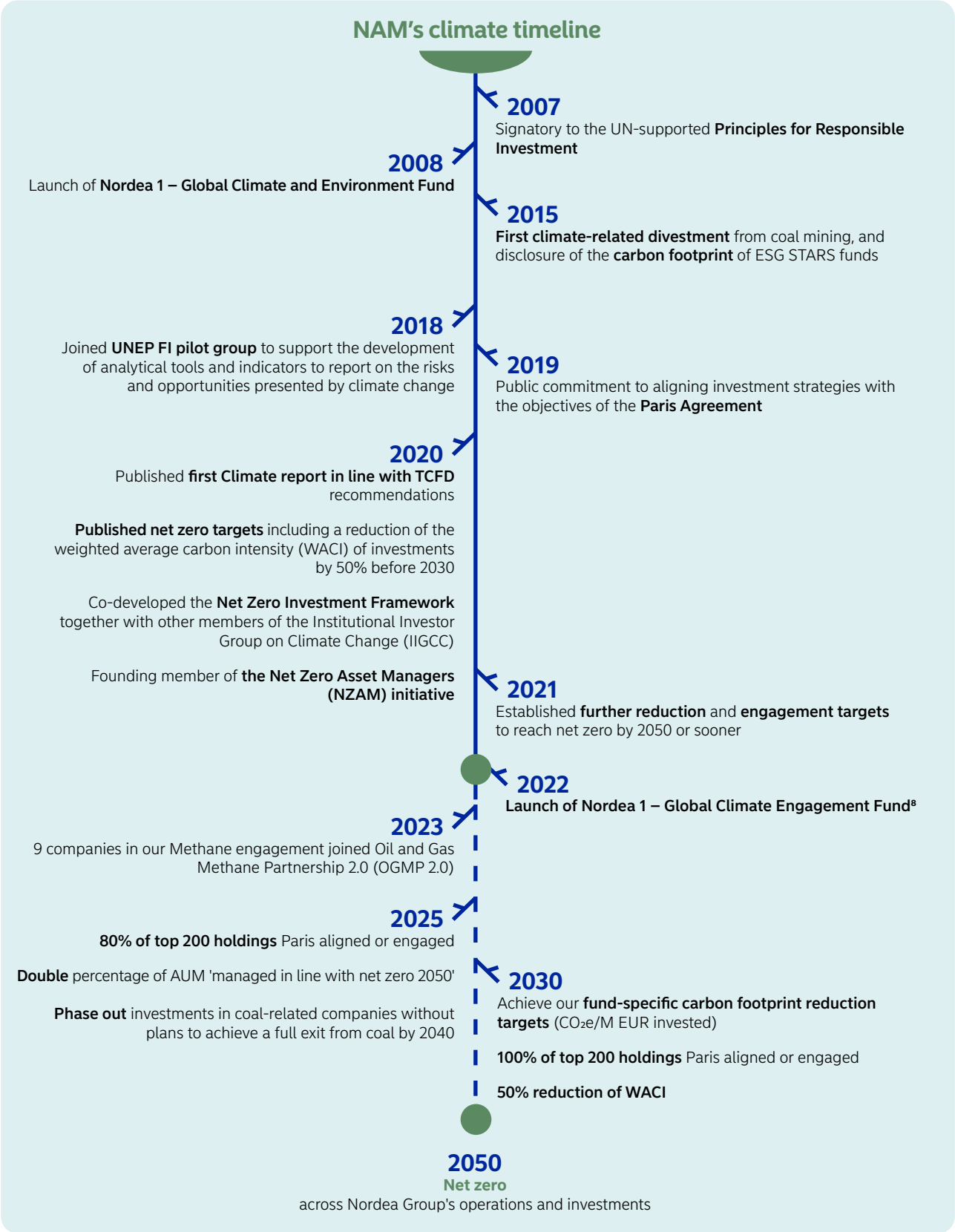
Climate change has been a strategic focus for NAM since we became a signatory to the UN-supported Principles for Responsible Investment (PRI) in 2007. In 2015, we implemented our first climate-related divestment from coal mining, and started analysing and disclosing the carbon footprint of our ESG STARS funds. In 2019, we publicly committed to aligning our investment strategies with the objectives of the Paris Agreement, and in 2020 we cemented this commitment by becoming a founding member of the Net Zero Asset Managers (NZAM) initiative, a global coalition of asset managers working for the achievement of net-zero greenhouse gas emissions by 2050. In addition, during 2020, we helped co-create the Net Zero Investment Framework (NZIF), a method for asset managers/owners to set climate targets consistent with the objectives of the Paris Agreement, and in November 2021, we released a set of additional climate targets, in line with NZIF guidance and our NZAM commitment.

In 2023, we continued enhancing our climate capabilities by developing new tools that enable transition analytics at both the company and portfolio levels. Additionally, we extensively engaged with our highest carbon footprint contributors to ensure they are meeting our expectations regarding Paris alignment.

Figure 2: NAM targets and commitments

NAM's climate journey

What we have achieved so far and where are we heading to?



8) The fund may not be available in certain jurisdictions.

Identifying risks and opportunities

As the largest asset manager in the Nordics[9], our investments cover all major asset classes, including listed and private equity, corporate bonds, green bonds, sovereign bonds, covered bonds, structured products and others. Through these investments, we are exposed to several types of climate-related risks and opportunities.

As is best practice, we categorise climate-related risks into two types:

1. Transition risks, which relate to the impacts associated with the transition towards a less polluting and greener economy. Some sectors of the economy face big shifts in asset values or higher costs of doing business as climate policies become stricter. In addition to policy risks, transition risks include risks related to technological developments, as well as liability risks.

2. Physical risks, which relate to impacts resulting from climate change, can result from adverse extreme weather events (acute risks) or long-term shifts in climate patterns (chronic risks). Physical risks may have both direct financial implications for organizations, due to damage to assets, and indirect impacts from supply chain disruptions and variations in resource availability.

Of these two risk types, transition risk is likely to have a more imminent and abrupt impact on our investments.

The climate commitments that the signatories to the Paris Agreement have so far made to address global warming are widely understood to be insufficient for limiting temperature increases to below 1.5°C. The world is continues to head for 2.7 degrees of warming with current policies and actions[10]. Despite this clear emissions gap, outcomes of COP27 reflected only modest progress on reducing emissions[11]. We therefore continue to expect increased political action to address these gaps in the years to come, exposing economies to heightened transition risk.

9) According to December 2023 AUM. 10) Climate Action Tracker. 11) World Resource Institute 08.12.2022: COP27: Key Takeaways and What's Next.

Figure 3: Risk horizons

Primary time horizon	Category	Primary drivers	Implications for NAM
1–10 years	**Direct transition risks and opportunities**	**Evolving regulations and expectations:** • Evolving regulations and standards for climate-related reporting and other communication • Increasing expectations and demand from clients to manage climate-related risks and opportunities	• We monitor and participate in all leading climate-related investor initiatives, to ensure our activities reflect best practice • We engage in dialogue with our customers and continue to increase our range of climate-related product offerings
	Transition risks and opportunities transmitted through investments	**Policy and legal:** • Higher carbon pricing and increased regulation and litigation. **Reputation:** • Negative stakeholder feedback **Technology:** • Obsolete technologies, capital expenditure requirements to accommodate new technologies **Market:** • Changing consumer demand, rising material costs, new entrant disruption	• We focus engagements on the most exposed companies and countries • We integrate climate risk metrics in our risk reporting • We restrict investments in companies whose business model is fundamentally unaligned with the objectives of the Paris agreement. • We identify companies in critical sectors with aggressive decarbonisation strategies
>10 years	**Physical risks**	**Physical risks of our investments:** • Acute: Increased severity and frequency of extreme weather events • Chronic: Rising sea levels, mean temperatures and weather pattern variability	• We identify which sectors/companies are most exposed to the effects of climate change

Scenario analysis

Our engagement with climate risks and opportunities spans all our investment strategies and timeframes. To better gauge these risks and their implications for our investments, we utilize two main analytical approaches: Climate-Value-at-Risk (C-VaR) analysis and climate alignment assessments.

Climate Value at Risk

Climate Value-at-Risk is designed to provide a forward-looking assessment to measure climate risks and opportunities across our investment portfolios under different climate scenarios, within a given time horizon, at a particular probability. NAM leverages a model developed by MSCI that is based on three pillars that combined create the aggregated Climate Value-at-Risk.

Transition risk

We use scenarios by the Network for Greening the Financial System which is considered the market standard for modelling the financial impact of climate scenarios. The so-called Divergent Net Zero 1.5°C Disorderly scenario, assumes a disorderly transition where most of the climate policies are not introduced until 2030, which means that emissions reductions need to be sharper and more drastic than in an Orderly scenario. The choice of a Disorderly 1.5°C scenario reflects the recognition of complexities, uncertainties and systemic barriers that make a smooth and coordinated shift less feasible. The Orderly scenario (Below 2°C) projects a less steep reduction in emissions, reaching net zero in 2100. This imposes a situation of higher transition risk due to a global delay of climate policies to limit global warming. The Below 2°C scenario gradually increases the stringency of climate policies, giving a 67% chance of limiting global warming to below 2°C. Finally, the Nationally Determined Contributions scenario (3°C) includes all pledged targets, and transition risks are low in this scenario as global efforts to halt global warming will be limited, but physical risks are naturally as its highest.

Under the Divergent Net Zero scenario the transition risk is higher across both asset classes than in a below 2°C scenario. This is because limiting global warming to 1.5°C requires more sudden action with higher emission abatement requirements which pose a significantly higher impact in the valuations of the companies invested in the form of increased input costs or changes in market demand for the company's products. Transition risk is notably lower in corporate bonds due to the fact that most transition costs materialize for companies in the medium term (10-30) years and the average value-weighted maturity for all investment grade corporate bonds was 7.9 years in 2023.[12]

Figure 4: Aggregated Climate VaR

Policy Risk	Technology Opportunities	Physical Risk
Regulatory and policy risk that arises from a low carbon transition and that may significantly impact business models, it captures the percentage of investment value at risk due to forthcoming climate policies	Accounts for additional profits through the development of new low-carbon technologies serving the transition	Business impact arising from abrupt weather phenomenon such as intensive storms, extreme heat and cold, floods, droughts and fires that may cause physical damage to property, disruption of value chains and/or resource scarcity
Transition Risk		Physical risk

Figure 5: Transition risk listed equity and corporate bonds

NAM									
31.12.2023	1.5°C: NGFS NZ2050			2°C: NGFS Delayed Transition Disorderly			3°C: NDC Hot House		
CVaR	Policy risk	Technological opportunities	Physical risk (average)	Policy risk	Technological opportunities	Physical risk (average)	Policy risk	Technological opportunities	Physical risk (average)
Listed equity (%)	–11.23	2.39	–1.42	–2.08	0,40	–1.98	–1.48	0.23	–2.89
Corporate bonds (%)	–1.41	0.01	–0.40	–0.08	0.00	–0.63	–0.08	0.00	–0.95

Data as of 31.12.2023. Data coverage: 99% for listed equities, 77% for corporate bonds. Source: Nordea Asset Management, ©2024 MSCI ESG Research LLC. Reproduced by permission.

12) Global Debt Report 2024.

Figure 6 displays the contribution of listed equity and corporate bond investments to transition risk across sectors in a 1.5°C Disorderly scenario. Any given sector's 'contribution' is determined by the transition risk of the company holdings within that sector as well as the relative exposure to the sector.
Our investments in carbon-intensive sectors such as Basic materials (mining, iron/steel etc) and Industrials (electronics, building materials, other manufacturing etc.) represent the largest contributions to policy risk. The contribution from Energy, while carbon-intensive, is modest, driven by our relatively small exposure to this sector.

Significant upside is seen in utilities, driven mainly by electric utilities. This is reflective of our efforts to identify electricity providers with large renewable electricity generation capacity and growth potential, as part of our Paris Aligned Fossil Fuel Policy. On an aggregate sector level, net transition costs are still expected to outweigh potential benefits across all sectors. Yet, there are numerous companies in our portfolios, across most sectors, for whom transition opportunities outweigh transition risks.

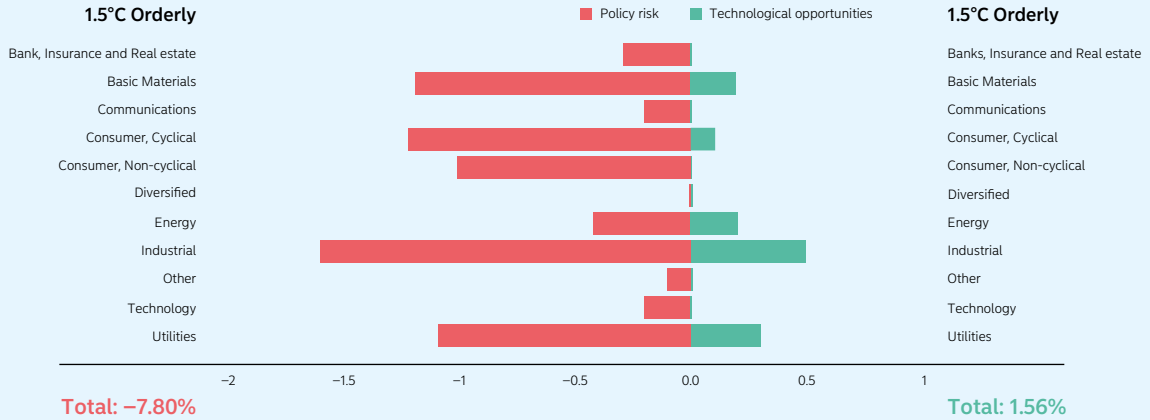
Physical risk and opportunities

For physical risks and opportunities, the CVaR model quantifies the expected change in costs to a company from business interruptions and damages to physical assets materialising from climate-related acute events and chronic changes such as extreme heat and cold, rainfall, flooding and tropical cyclones. Using the physical location of a company's facilities and a probability distribution of the annual costs of the manifestation of climate hazards, it provides an estimate of both the average cost as well as a more severe, 95th percentile 'aggressive' outcome that explores the less likely but more extreme impact potential of climate change.

While offering valuable insights into relevant climate risks, the CVaR model does not exhaustively address all dimensions of climate risk. Crucially, the model does not fully take into account companies' risk mitigation efforts, such as strategic plans for reducing carbon emissions or efforts to diversify away from fossil fuel dependency on a forward-looking basis.

For a more complete picture we need to understand how individual issuers are managing climate risks and opportunities. We achieve this by conducting climate alignment analysis of individual issuers in high-risk sectors.

Figure 6: Sector contribution to transition risk



Data as of 31.12.2023. Data coverage: 84%. Sector classification is based on Bloomberg Industry Classification System (BICS). "Agriculture, Food and Pharmaceuticals" has been separated out from Consumer, non-cyclical and Financials have been split into two: "Banks, Insurance and Real estate" and "other financials". Source: Nordea Investment Funds S.A., ©2024 MSCI ESG Research LLC. Reproduced by permission.

Climate alignment analysis

In order to gain a holistic understanding of the trajectory of our portfolio companies, we assess individual issuers using NZIF's maturity scale approach. NZIF introduces ten current and forward looking criteria with a binary yes/no outcome of which we use six KPIs, which can be combined to categorise companies into four categories; Aligned, aligning, committed to aligning or not aligning (see figure 7).[13]

As an example of the comprehensiveness of this approach, having a science-based target is one out of the six core alignment indicators, but on its own it is not sufficient to be categorized as 'aligning'. For that we also need to see adequate GHG disclosure and a supporting decarbonization strategy.

To identify the alignment status of all issuers in our investment universe we have built an in-house alignment assessment tool. For each of the six core criteria, we rely on data from credible third parties such as Transition Pathway Initiative, Science-Based Targets Initiative, CA100+ and CDP, which we compliment with proprietary data to indicate if the criterion is met.

The quantitative assessment is indicative of alignment, but is complemented by individual research into and engagement with companies to firmly establish alignment status.

This type of analysis is key to our net zero commitment and is incorporated into our issuer-level climate targets. In addition, it is a particular prerequisite for our implementation of the Paris-Aligned Fossil Fuel Policy.

Paris-Aligned Fossil Fuel Policy

In September 2020, we implemented a new approach to restricting investments in companies involved in fossil fuels, which we call the Paris-Aligned Fossil Fuel (PAFF) policy. The PAFF policy prohibits investments in fossil fuel companies that are not transitioning in line with the climate objectives of the Paris Agreement, while still enabling investments in companies that are leading the transition out of fossil fuels. Companies that can demonstrate this are put on the Paris-Aligned Fossil Fuel list (PAFF list). Companies that are not on the list will be excluded from funds adhering to the policy. More than 2000 companies are subject to this screening because they have significant fossil fuel involvement.

The PAFF policy is distinct from more traditional exclusion approaches that tend to be based primarily on sector classification or revenue thresholds. The latter approaches often ignore companies with ambitious plans to transition towards cleaner energy and it ignores the critical role that energy plays in the economy, while our approach is research-driven and based on the merits of the individual company.

13) Technically, NZIF's maturity scale has a fifth category, 'net-zero', reserved for companies that have already achieved a state of net-zero. We do not include this category in our analysis on the observation that no companies to date have reached this level of performance.

A note on Implied Temperature Rise metrics

Another often used alignment metric is the Implied Temperature Rise (ITR) metrics. At NAM we do not presently use ITR metrics for the purposes of reporting portfolio Paris alignment. ITRs can at times be useful as an indicator of a company's transition path, but while as a metric it is simple to understand, the computation required to construct it is not. The result of this modelling complexity is that it is sensitive to the methodological choices made by any given provider. This is also why those estimates can vary significantly across providers. In addition, ITR models do not account for the extent to which a company's products and services serve to help others avoid or reduce emissions, which is highly relevant when evaluating portfolios overweight in climate solution providers. At NAM we remain longer term optimistic, but presently cautious when using them in our own decision making.

Figure 7: Climate Alignment Assessment

Alignment KPIs	Threshold	Aligned	Aligning	Committed	Not aligning
1 Net-zero ambition	The issuer has a long-term decarbonization goal consistent with achieving global **net zero by 2050**	√		√	All other issuers
2 Short- & medium-term targets	The issuer has a short- or medium-term GHG target that is **consistent with 1.5°C** and covers material emissions	√	√		
3 Emissions performance	The issuer's current emissions **performance in line with its GHG target**	√			
4 Disclosure	The issuer **discloses scope 1, 2 and material scope 3** emissions	√	√		
5 Decarbonization strategy	The issuer explicitly sets out the measures that will be deployed to **deliver on GHG target and shift towards green revenues**	√	√		
6 Capital allocation alignment	The issuer clearly demonstrates that its **capital expenditures are consistent with achieving net zero** by 2050	√			
7 Climate policy engagement	The issuer has a **Paris-aligned climate lobbying** position and aligns its direct and indirect lobbying activities	KPIs 7-10 in NZIF are optional and not currently included in most investors' alignment assessments due to data availability issues. NAM currently include Climate governance components in the assessment of KPI 5: Decarbonization strategy.			
8 Climate governance	The issuer has clear **oversight of transition planning and executive remuneration** is linked to delivering targets and transition				
9 Just transition	The issuer considers the impacts from transitioning to a lower carbon business model on its **workers and communities**				
10 Climate risk and accounts	The issuer discloses transition risks through **TCFD Reporting** and incorporates such risks into its financial accounts				

3. Management of risk and opportunities

The dominant source of climate risk exposure for NAM is our investments in companies which are themselves exposed to climate risk. Managing our climate risk, therefore, involves integrating climate risk into our investment selection process, assessing the quality of climate risk management that we see from the companies we invest in, and using our influence to stimulate a strengthening of their risk management practices. In other words: climate risk management for NAM is both about selecting the right investments and managing those investments responsibly.

It was with these objectives in mind that the NAM Climate Change Strategy was adopted in 2019. Its five pillars all contribute to the development of a more robust climate risk management framework, and within each pillar, we are taking active measures to responsibly manage our climate risk exposure.

Figure 8

Climate strategy pillars	Description	Key features	Notable actions in 2023
Integration	Climate risk and opportunity analysis is integrated into the overall investment process as part of company research and regular risk monitoring	• ESG and climate KPIs integrated into portfolio performance reviews of our equities and fixed income teams • All portfolio risk reports include climate dashboards with key figures such as the weighted average carbon intensity (WACI) and absolute emissions of investments • For funds with a carbon footprint reduction target the risk report tracks progress, and compares investments to its industry-geography peer group highlighting best-in-class companies and possible laggards[14]	• Built Climate Risk Assessment Tool that Integrates current and forward looking indicators to identify high risk companies, i.e. relative emissions-intensive companies without reduction targets, strategy or good climate governance • Beyond this, in 2023, we made extensive progress in developing a Forward Decarbonization tool that provides our investment boutiques with a forward-looking view of the potential decarbonisation trajectory of any company in our investment universe
Active ownership	We engage and vote to improve the climate resilience of our investments	• The Corporate Governance team, in close collaboration with the Responsible Investments team and Portfolio Managers evaluate all important climate resolutions. Our aim is to vote in at least 90% of all general meetings of equity holdings • Active participant and co-lead in key engagement initiatives such as Climate Action 100+	• Voted in 98% of all climate proposals • As of end 2023, 81% of top 200 carbon footprint contributors were aligned or subjective to active engagement to become aligned • We engaged with 63 companies on methane and 9 companies joined the OGMP 2.0
Divestment and mitigation	We take active measures to reduce our exposure to highly carbon-intensive sectors that do not have meaningful prospects for a sustainable transition	• Strict exclusion criteria for thermal coal mining and oil sands (5% revenue threshold) as well as arctic drilling (0% threshold) • Our Paris-Aligned Fossil Fuel Policy, restricts investments in fossil fuel companies that are not transitioning in line with the objectives of the Paris Agreement • The RI team regularly conducts analyses to highlight NAM's exposure to sectors and companies with high climate risk, and makes recommendations to the Responsible Investment Committee to divest from or engage with carbon intensive companies that fail to show signs of transformation	• A total of 2035 issuers were uninvestable for funds that follow the PAFF Policy. In addition 65 issuers were removed from the white list as a result of continuous review processes, with a view to ensuring all issuers live up to our expectations on Paris alignment

14) For more information on our portfolio-specific carbon footprint reduction targets see Portfolio-level carbon footprint targets.

Climate strategy pillars	Description	Key features	Notable actions in 2023
Product development	We focus on products that support the transition to a low carbon economy	• ESG STARS range has grown to include 22 strategies with more under development • RI strategies now represent around 60% of NAM's assets under management as of end of 2023	• During 2023, our Global Impact strategy remodeled its investment themes: Strong Communities, Resilient Economy and Livable Planet. The strategy takes into account the interconnection between the "S" (Social) and "E" (Environment) pillars, setting the soundness of building an Inclusive Economic Growth
Policy support	We support climate policy that help deliver on the Paris Agreement's objectives, and are involved in various industry initiatives that promote the same agenda	• Amongst the first cohort of signatories to the **Net Zero Asset Managers (NZAM) initiative** and co-developer of the **Net Zero Investment Framework** • Signatory to the **Finance for Biodiversity Pledge**, a commitment of financial institutions to protect and restore biodiversity through finance activities and investments	• Signed comment letter to the United States Environmental Protection Authority to support the updated methane regulation for the oil and gas industry, the largest source of industrial methane emissions in the United States • Co-signed a letter to the UK Prime Minister from om the CEOs of IIGCC, PRI and UKSIF following his announcement that the British government would water down key net zero policies. The letter signals deep concern with the recent proposals to 'backtrack on vital policy measures that support the UK's transition to net zero'

3.1 Managing in line with net zero

As an early signatory to Net Zero Asset Managers Initiative we are committed to supporting the goal of net zero greenhouse gas emissions by 2050 or sooner, in line with global efforts to limit warming to 1.5°C.

With this commitment comes a requirement to set an interim target for the proportion of assets to be managed in line with the attainment of net zero emissions by 2050 or sooner. This raises the question of what it means to 'manage in line with net zero'?

According to NZAM guidelines, managing assets in line with net zero means the following:[15]

1. Setting interim targets for 2030, consistent with a fair share of the 50% global reduction in CO_2 identified as a requirement in the IPCC special report on global warming of 1.5°C
2. Taking account of portfolio Scope 1 & 2 emissions and, to the extent possible, material portfolio Scope 3 emissions
3. Prioritising the achievement of real economy emissions reductions within the sectors and companies in which we invest
4. If using offsets, investing in long-term carbon removal, where there are no technologically and/or financially viable alternatives to eliminate emissions
5. As required, creating investment products aligned with net zero emissions by 2050 and facilitate increased investment in climate solutions

Our first key choice has been to follow the Net Zero Investment Framework (NZIF), one of three target-setting methodologies endorsed by NZAM. In our view, a strong point of NZIF is its dual emphasis on having both **top down portfolio level** targets as well as **bottom up issuer-level alignment targets**.

Our second key choice has been to only count an investment strategy as part of AUM that is 'managed in line with net zero' if it has an investment objective to invest in climate solutions; or is subject to a portfolio specific carbon footprint reduction target specifically structured to prioritize the achievement of real economy emission reductions.[16]

This is the case for 14.3% of NAM's total AUM.[17]

An alternative approach would have been to use our '50% reduction in WACI by 2030' target to justify a large proportion of

15) See The Net Zero Asset Managers Commitment for a full description. 16) Using 'carbon footprint' as target setting metric is in line with NZIF and the updated recommendation of the Taskforce for Climate-related Financial Disclosures (TCFD). 17) Please see Appendix: for more information on how our carbon footprint targets prioritise real emission reductions.

AUM as committed to be managed in line with net zero. Doing so would mean that approximately 70% of our AuM could be labelled "managed in line with net zero", because they are encompassed by our existing WACI target. However, we do not consider this to be best-practice or in the interest of our clients, who should feel confident that the funds they are invested in could be expected to decarbonize in line with net-zero requirements, if such funds are said to be managed in line with net zero.

What are our next steps?

In 2024 we will continue ensuring our net zero commitment channels outcomes in the real economy through:

- Further enhancing our climate capabilities through our suite of tools that support issuer selection as well as portfolio customisation in response to specific client requirements
- Maintaining willingness to add carbon to portfolios where there is confidence it will be used for climate solutions or where we can influence its reduction
- Continuing to engage material GHG emitters in our portfolios on Paris alignment and escalate engagement where progress is insufficient

As the largest asset manager* in the Nordics, NAM investments cover all major asset classes; listed and private equity, corporate bonds, green bonds, sovereign bonds, covered bonds, structured products and others. For most of these asset classes, methodologies for measuring Net Zero alignment has not yet been established. Going forward, to increase the share of AUM 'managed in line with net zero by 2050', we will contribute to establishing industry best practice methodologies for measuring 1.5 degree C alignment across more asset classes.

In July 2022, we initiated the first phase of a collaboration with selected partners and clients to engage with 15 companies in the oil and gas industry on the disclosure and mitigation of their methane emissions. Our primary engagement ask is for investee companies with methane emissions to join the Oil and Gas Methane Partnership (OGMP) 2.0 framework. OGMP is the gold standard in methane measurement, reporting and target setting. In addition to joining the OGMP, investee companies are asked to identify the actions being taken to reduce methane emissions and to share the cost/benefit analysis of these actions in engagement meetings.

Facilitating real emission reductions in the oil & gas industry...

Methane is a powerful greenhouse gas, estimated to be contributing to 25% of global warming today. Methane has more than 80 times the warming power of carbon dioxide over the first 20 years after it reaches the atmosphere. Although CO_2 has a longer-lasting effect, methane sets the pace for warming in the near term. The oil and gas industry is the largest industrial source contributing to 25% of global anthropogenic methane emissions. Reducing methane emissions is critical for companies to achieve a 1.5 degree pathway. The International Energy Agency has demonstrated that reducing methane in oil and gas in the next decade is one of the most cost-effective forms of climate risk mitigation.

We are proud to share that at the end of 2023, we were engaging with 63 companies about joining the Oil and Gas Methane Partnership 2.0 and reducing their methane emissions to near zero. The engagement focus is on oil and gas companies and utilities, and during 2023, nine companies in the engagement joined the OGMP 2.0 – Aker BP, Coterra Energy, Chesapeake Energy, Diamondback Energy, EOG Resources, INPEX, KazMuynayGas, Petrobras and PPT E&P. For us, this is a great achievement as it can often take a year or more for companies to work through the changes they need to make to join the program.

Parallel to our engagement activities, our focus on methane extends to sharing industry best practices. For instance, we participated in the Methane Mitigation Summit series, arranging and moderating investor panels in Amsterdam, Houston and Calgary on investor expectations on methane and best practices for methane data and reporting.

Reference to companies or other investments mentioned should not be construed as a recommendation to the investor to buy or sell the same but is included for the purpose of illustration. No representation is being made that such security will continue to be held or if it was or will be profitable.

* According to December 2023 AuM.

4. Targets and metrics

In November 2021 our net zero commitment was cemented by the release of a new set of climate targets, complementing existing objectives[18]. Collectively, our targets embody our overall ambition to continue building climate resilience and embracing the opportunities presented by the transition to a low-carbon economy.

Our overarching long-term goal is to achieve net-zero emissions for all assets under management by 2050. Our short-and mid-term targets work towards this overall ambition, through complimentary top-down and bottom-up approaches: from an **organisational** wide target to reduce the weighted average carbon intensity (WACI) of investments; a set of **portfolio-specific** carbon footprint reference objectives, and a complimentary target to ensure **individual companies** are engaged to become 1.5°C aligned. To this end, we have also set a 2025 target to phase out investments in coal-related companies without plans to achieve a full exit from coal globally by 2040.[19]

In practice, we expect our targets to be achieved through three mechanisms, which in order of priority are:

- **Pushing current investee companies towards accelerated decarbonization.** Active ownership is a core pillar of our climate strategy underpinning our investments, including the launch of our Climate Engagement strategy
- **Investing in companies that facilitate real-world decarbonization.** A good example of this is our PAFF Policy, as well as our efforts to ensure our portfolio-level carbon footprint targets incentivise investment in decarbonisation leaders
- **Shifting portfolio allocation away from high-emitting companies and sectors.** We restrict investments in sectors with a limited future in a decarbonised economy, and integrate the identification of negative emission outliers into the overall investment process

18) The targets were released in Net Zero Asset Manager Initiative's 2021 Progress report. 19) We define coal-related companies as those that are involved in the mining for coal or use it for electricity generation. NAM already excludes companies with more than 10% of their revenues from coal production from all its portfolios, and applies our Paris-Aligned Fossil Fuel Policy or even stricter exclusion criteria to all portfolios designated ESG (currently app. 70% of NAM AuM).

Figure 9: NAM quantified targets

Timeline	Target	Scope	Status (as of end 2023)
Short term: 2025	80% of top 200 contributors to financed emissions to be either categorized as "Aligned" or else be subject to engagement to become aligned	Listed equity and corporate bonds	**161** companies (81%) Aligned or subject to active engagement
	Phase out investments in coal-related companies without plans to achieve a full exit from coal globally by 2040.	Companies involved in the mining for coal or use it for electricity generation	Ongoing
	Double share of net-zero committed AuM to 35%	All asset classes	Ongoing
Mid-term: 2030	100% of top 200 contributors to financed emissions to be either categorized as "Aligned" or else be subject to engagement to become aligned	Listed equity and corporate bonds	Ongoing
	Achieve fund-specific carbon footprint reduction targets. The AUM-weighted average target value is currently 34.5 tCO2e/ mUSD, equivalent to a 48% reduction from 2019 baseline year, but varies depending on sector composition	17.3 % of total AuM	Ongoing
	50% reduction in the weighted average carbon intensity (WACI) of investments from 2019 baseline year	Listed equity and corporate bonds	38% reduction from 2019 – 2023
	Increase investments in climate solutions	To be defined	Ongoing
Long-term: 2050	Net zero greenhouse gas emissions	Total AuM	

Weighted Average Carbon Intensity

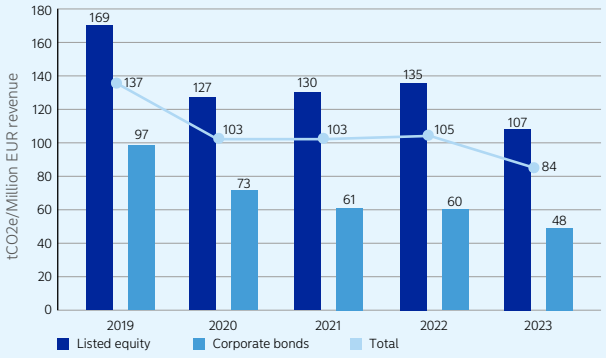
To ensure alignment with the Paris agreement, in 2020 NAM committed to reducing the weighted average carbon intensity (WACI) of its aggregated listed equity and corporate bond investments by 50% before 2030, compared to a 2019 baseline. WACI measures TCO_2e/EUR million revenue, and as such is not a direct measure of emissions. Yet, it is a useful measure of a portfolio's exposure to carbon-intensive companies, and acts as a proxy for climate transition risk, since companies with higher carbon intensity are likely to face more exposure to carbon-related market and regulatory risks.

2023 saw a 19.8% decrease in WACI compared to 2022. Some of this is driven by divestment and new investments, but a majority is driven by an overall reduction in the intensity of companies that were held in NAM portfolios over both periods. Here the biggest driver is an overall increase in company revenues without a corresponding increase in emissions thereby reducing GHG emissions per Million EUR Revenues. Such a reduction can signal both improved operational efficiency, and sensitivity to inflation. From a real world decarbonisation perspective, we are interested only in the former.

Financed emissions and carbon footprint

NAM's Carbon Footprint stood at 36,95 GHG emissions per million EUR invested. This represents a decrease of 11.37% in respect to 2022. In order to analyse what this number represents, it is important to consider that climate indicators such as carbon footprint can fluctuate over time due to reasons other than changes in companies' emissions. In order to disentwine the drivers behind a reduction in our carbon footprint we use an attribution analysis, which allows us to determine the influence not only from changes in the emissions of companies in the portfolio but also the decisions of portfolio managers and other financial variables.

Figure 10: WACI



Data as of 31.12.2023.

Data coverage listed equity: 99% (2019), 99% (2020), 99% (2021), 100% (2022), 100% (2023).

Data coverage corporate bonds: 85% (2019), 88% (2020), 88% (2021), 89% (2022), 87% (2023).

Source: Nordea Asset Management, ©2022 MSCI ESG Research LLC. Reproduced by permission.

Figure 11: Financed emissions

Financed emissions scopes 1-2 (tCO_2e)	2019	2020	2021	2022	2023
Listed equities	7.047.552	6.369.470	7.688.412	6.206.663	5.682.747
Corporate bonds	3.348.761	4.186.406	1.946.459	2.625.993	2.804.593
Total	10.396.313	10.582.876	9.634.871	8.832.656	8.487.339

Carbon Footprint 1-2 (tCO_2e)	2019	2020	2021	2022	2023
Listed equities	69.26	57.15	51.17	48.01	39.59
Corporate bonds	42.94	47.95	23.62	32.04	32.57
Total	112.20	105.10	74.79	80.05	72.16

Data as of 31.12.2023. Financed emissions figures are coverage-adjusted. Data coverage listed equity: 96% (2019), 97% (2020), 98% (2021), 100% (2022), 100% (2023). Data coverage corporate bonds: 81% (2019), 84% (2020), 72% (2021), 87% (2022), 88% (2023). Securities for which no data is available are assumed to be the average of the sector. This is done to avoid excluding those securities and thereby undercounting financed emissions. **Source: Nordea Asset Management, ©2022 MSCI ESG Research LLC. Reproduced by permission.**

At the end of 2023, NAM's carbon footprint stood at 36.95 tCO_2e per million EUR invested, down 11.37% from the end of 2022. This reduction came only partly from emission reductions achieved by our investee companies, and was in fact mainly attributable to other factors, primarily including changes to our overall portfolio composition. We conducted an attribution analysis to identify the relative impact from changes in issuer-level emissions vis-à-vis the impact from portfolio management decisions and other financial variables.

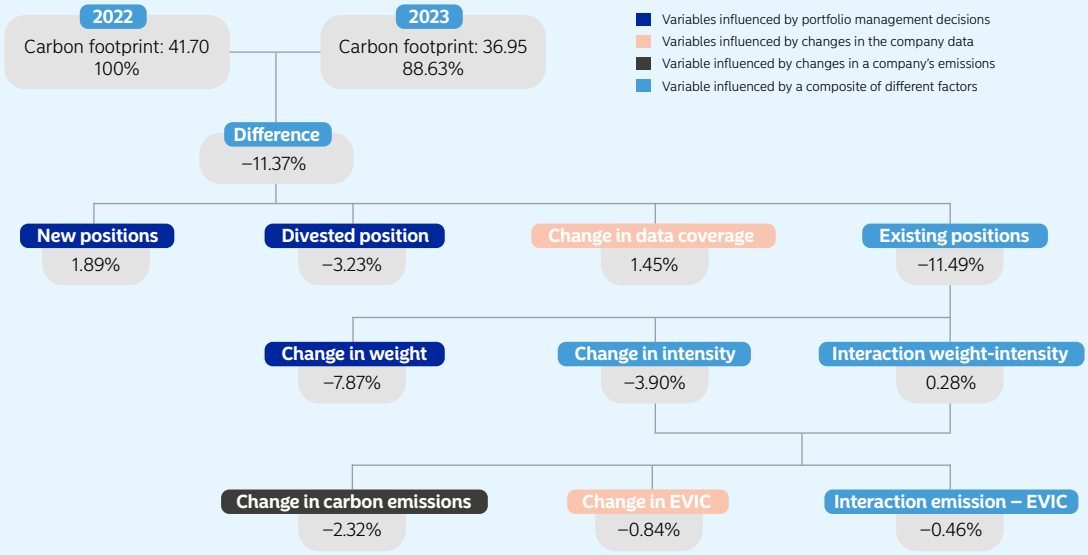
Figure 12 displays the results of this attribution analysis, illustrating how the difference of 11.37% can be analysed in three layers[20]. The first layer shows the effects of portfolio composition changes. This includes the addition of completely new positions, the complete divestment of previously held positions, as well as any changes related to positions that were held both in 2022 and 2023 ("existing positions"). The net effect across new positions and divested positions was an overall carbon footprint reduction of –1.34%. This can be interpreted as the combined effect of a relative change in our sectoral exposure, as well as the within-sector effects of adding exposure to sector-relative low-emitters or removing exposure to sector-relative high-emitters. For instance, we added several new positions in the financial sector, effectively increasing our total exposure to one of the lowest-emitting sectors on a scope 1-2 basis. All else equal, such sectoral shifts lead to overall reductions in our carbon footprint. At the same time, we also fully divested from some companies that stand out as sector-relative high-emitters even within high-emitting sectors, notably including examples such as coal-heavy Monongahela Power Company in the utilities sector. The carbon footprint effects of these divestments, however, were not nearly as significant as the effects of changes in positions that were held both in 2022 and 2023, which are illustrated in the second layer.[21]

The second layer includes both those effects that stem from changes in position size as well changes relating directly to issuers' emissions or financials. The total change contained in the second layer is a –11.49% carbon footprint reduction, and of this, –7.87% came from changes in relative position sizes. This was the single largest driver of our carbon footprint reduction, and the dynamic here is similar to that of the first layer; portfolio allocation changes across existing positions have generally favoured a combination of increased exposure to low-emitting sectors and increased exposure to sector-relative low-emitters across both low- and high-emitting sectors. For instance, our investment exposure to ArcelorMittal SA, a high-emitting steel company, was reduced during the period and this allocation change led to a reduction in our carbon footprint. However, during the period, ArcelorMittal SA also improved their emissions intensity, which also contributed to lowering our carbon footprint since we remained invested in the company. Improvements in issuer-level emissions intensities among existing positions accounted for a total –3.90% reduction in our carbon footprint. These improvement are disaggregated in the third layer.[22]

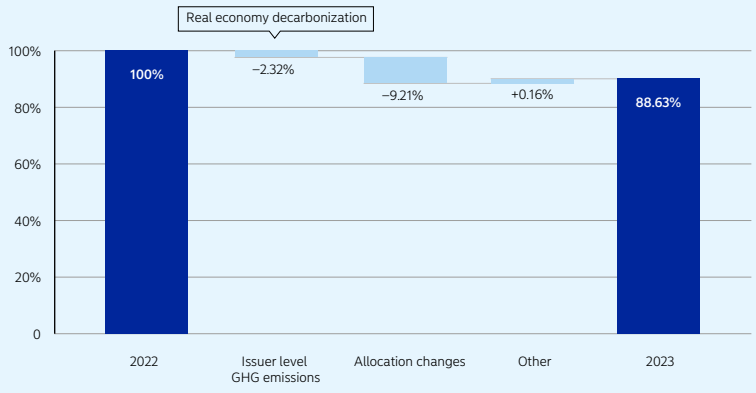
20) The attribution analysis tree is derived by using MSCI's framework for attributing changes in a portfolio carbon footprint. The methodology follows a bottom-up approach where changes are attributed at a position level and then summed to provide the aggregate figure for all holdings. 21) The data coverage term in the first layer shows the changes in the carbon footprint due solely to an increase or decrease in data coverage between the initial and the final portfolio. 22) The interaction terms in the second and third layers indicate non-linear effects where several input variables change at the same time.

The third layer includes the effects on our carbon footprint from changes in both the numerator (GHG emissions) and the denominator (EVIC) in the emissions intensity formula. It illustrates that, in total, reductions in issuer-level absolute scope 1-2 emissions accounted for a total carbon footprint reduction of –2.32%, compared to a total effect of –9.21% that is attributable to allocation changes (new, existing and divested positions).[23] Out of the total issuer-level emission reduction effect, nearly all improvements came from emission reductions observed in the utilities sector. In other words, real-economy decarbonization among the companies in which we invest made up only a minority of the total portfolio carbon footprint reductions achieved during the period, and almost all of that came from utilities and the fuel-switching that has taken place in this sector. The –2.32% reduction attributable to this should also be seen in relation to the ca –7% annual GHG reduction that is generally understood to be necessary for the fulfilment of the Paris Agreement's climate objectives. Accelerating real-economy decarbonization, therefore, remains at the centre of our climate strategy, notwithstanding the significant improvements in portfolio-level carbon footprint that we have achieved.

Figure 12: NAM's Carbon Footprint Attribution Analysis 2022 – 2023 (1/2)



NAM's Carbon Footprint Attribution Analysis 2022 – 2023 (2/2)



Data as of 31.12.2023. **Source: Nordea Asset Management.**

23) The methodology does not capture year-on-year changes in emissions intensities for companies that were not part of the portfolio at the beginning of the period. The same is true bonds that were issued or reached maturity during the period.

Portfolio-level carbon footprint reference objectives

In line with our NZAM commitment, we report and track the percentage of AUM committed to be managed in line with net zero. Here we only count an investment strategy as part of AUM that is 'managed in line with net zero' if it falls in line with a decarbonization target that is consistent with 1.5°C.

Our initial set of portfolio reduction reference objectives corresponds to 13% of total AUM.[24]

Each investment strategy in scope is subject to a strategy-specific carbon footprint target for 2030, expressed in terms of tCO_2e/mUSD invested. The precise target value for any given investment strategy varies depending on the investment universe and composition of the strategy, but the AUM-weighted average target value is currently 34.5 tCO_2e/mUSD, equivalent to a 48% reduction relative to the benchmark intensity in the baseline year.

A key aspect of the NZAM commitment is to "Prioritise the achievement of real economy emissions reductions within the sectors and companies in which we invest".

When setting mid-term reference objectives a core objective therefore was to ensure they incentivise real economy reductions by continuing to incentivise investment in sectors that are critical for real-world decarbonization.

This was achieved by setting reference objectives that incentivize investments in decarbonization leaders in all sectors. We achieve this by defining fund-specific and sector-agnostic target baselines, based on the average emissions of specific sector-geography combinations represented in a portfolio. The adjusted benchmark baseline value expresses what the carbon footprint of the portfolio's benchmark would have been in 2019, if the benchmark had the same sector/geography composition as the current portfolio. From that a targeted reduction value is calculated based on the notion of a fair share contribution.[25]

For more information on our reference objective setting process see Appendix

Issuer-level targets

A key driver for achieving our climate targets and net zero commitment is the increasing alignment of companies to net zero pathways. As active owners we prioritise engagement as the primary mechanism to drive alignment, which is why our 2025 target is for 80% of our top 200 **carbon footprint contributors** be on a Paris-aligned trajectory or else subject to engagement. This target will increase to 100% by 2030.

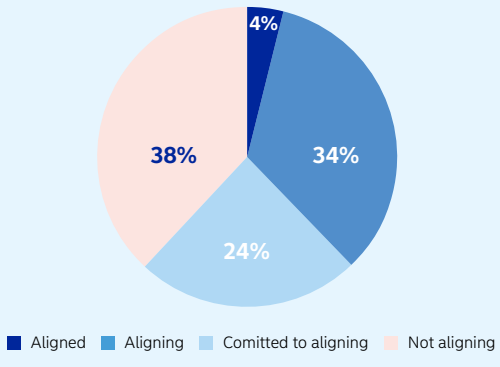
To identify our top 200 list, we measure financed emissions (tCO2e) and carbon footprint (tCO2e/million EUR invested) following the Partnership for Carbon Accounting (PCAF) guidance. The 'financed emissions' of a company represent NAM's share of that company's emissions. It is a function of two things: 1) Company GHG emissions; and 2) NAM's exposure to the company.

All else equal, a company is more likely to end up on our Top 200 list if it has relatively high GHG emissions or if our exposure is relatively high.

Collectively, the top 200 list is responsible for 79% of our equity and corporate bond financed emissions.[26]

Note that our top 200 list is a moving target. Its composition changes as reported emissions change (the desired outcome of our engagement) and our issuer exposure changes (due to portfolio re-allocation). Over the next years we will therefore expect to engage significantly more than 200 companies.

Figure 13: Paris alignment maturity of our top 200 companies



24) As the largest asset manager in the Nordics, our investments cover all major asset classes. For most of these asset classes, such as covered bonds, methodologies for measuring Net Zero alignment has not yet been established. We will expand the scope of its targets across additional asset classes when it is possible to establish, in a robust and peer comparable way, what is consistent with a fair share reduction. We also count investment strategies that have as investment objective to invest in climate solutions as managed in line with net zero. This takes the total AUM to 14.3%. 25) A 'fair share' contribution may be more or less than 50% by 2030. For example, the power sector is expected to decarbonise faster than the steel and cement sectors. Europe and North America are expected to decarbonise faster than Asia. All in all, we distinguish between 24 different sector/geography combinations, each with its own decarbonization pathway, primarily informed by One Earth Climate Model (OECM) and IPCC. 26) Data as of 31.12.2023.

Progress made in 2023

In line with the NZIF, we assess each company against a set of current and forward-looking alignment criteria in order to categorize it into one of **4 alignment categories: aligned, aligning, committed to aligning or not aligning**. Figure 13 show the alignment spread of our top 200 companies.[27]

Our 2023 priority was to initiate engagement with all companies categorised as not aligning. This milestone was met through the following key actions:

- Individual dialogues with companies in which we stated and discussed our expectations of Paris alignment;
- Engagements via collaborative initiatives (CA100+, CDP non-disclosure campaign);
- A letter addressed to select company CEOs outlining the six alignment criteria and highlighting our expectation, as well as the expectation of the growing number of net-zero committed asset managers, of an increase in alignment maturity if the company is to remain investable in the medium to long term

In total in 2023, 161 companies (81%) on our top 200 list were engaged on the topic of Paris alignment.

27) Data as of 31.12.2023.

Climate Outlook 2024

Financial, Political and Technological uncertainty are slowing down climate action. In spite of this, the energy transition will happen, as was recognised at COP 28 in Dubai. To safeguard their long term interest – and profit from it – investors must roll up their sleeves and invest in the transition.

A cocktail of inflation, higher interest rates and supply chain issues was poison for offshore wind power in 2023 – especially for those projects that had not locked in input prices to match the electricity tariffs they were founded on. As a result, green energy firms' share price suffered and significant amounts of planned wind power will not materialise in the short term. Most recently, projected sales growth in Battery Electric Vehicles (BEV's) is less than in earlier years, leading manufacturers to pare back investment in some markets, while cutting prices – and profitability – to support sales.

Eric Pedersen,
Head of Responsible Investments

In some markets, the slower sales growth for BEV's was due to a reduction in subsidies for consumers, which arguably are being phased out too early to achieve the strong transport electrification targets set. This reflects a certain amount of political grandstanding, where increasingly ambitious targets continue to be set at the overall level, while underlying policy action does not follow through strongly enough. Governments are likely to realize this and could prolong the initiatives needed to reach their stated targets.

More pernicious were the campaigns in the Unites States, Australia and elsewhere that succeeded in stopping offshore wind developments by falsely claiming that sound waves from these would harm whales. In general, there has been an uptick in these types of influence campaigns, where vested interests masquerade their interference with the buildout of renewable energy as popular resistance, dishonestly claiming a mantle of environmental concern – and in turn gaining support from sincere voters lacking the full context and information.

At the highest level, uncertainty remains about the outcome of elections in the United States and elsewhere, and the effect these may have on programs like the Inflation Reduction Act and the EU's several green initiatives. These initiatives themselves may be less effective than they could be, in terms of their effect in halting climate change, as they risk directing funding to technologies that are unproven and may not come to fruition even in the long term, rather than to those known to be immediately effective. The momentary hype around hydrogen for home heating, being promoted over building isolation and heat pumps is one example of this.

To come out on top in this challenging scenario, investors must be able to see through the haze, do the work to identify *bona fide* decarbonisation cases, and step up their investment in the climate transition. We at Nordea Asset Management recognise this, and are directing significant resources towards helping our clients do the same. We call it **Returns with Responsibility**.

Appendix

Deriving portfolio-specific reduction pathways

In line with the principles laid out in the Net Zero Investment Framework, we have set our fund-level carbon footprint targets based on the notion of a 'fair share' of emission reductions, meaning that we use regional and sectoral science-based pathways that are consistent with achieving net zero global emissions by 2050.

The 'fair share' emission reductions refers to the recognition that within the ultimate goal of reducing global GHG emissions to net zero by 2050, or earlier, different sectors, industries, and regions will decarbonise at different rates. Therefore, for some sectors or regions, a 'fair share' contribution may be more or less than 50% by 2030. For example, the power sector is expected to decarbonise faster than the steel and cement sectors. Europe and North America are expected to decarbonise faster than Asia. The carbon footprint targets for our portfolios, therefore, are proportional to how large their exposure is to sectors and regions for which the required decarbonization is higher-than-average or lower-than-average.

All in all, we currently distinguish between 24 different sector/geography vectors, each with its own decarbonization pathway, and determine to which vector every investee company belongs. The objective is to ensure that every company we invest in is assessed against a relevant and sector-specific 1.5°C-aligned decarbonization pathway, as well as a relevant peer group of other companies. Every company in a given portfolio contributes to that portfolio's carbon footprint reduction target in a way that is reflective of two key considerations:

1) the decarbonization needs in that company's sector/geography vector; and
2) how high or low the company's emissions are in relation to others in the same vector.

For example, a portfolio that is invested in an average electric utility would, all else equal, be subject to a steeper decarbonization target than a portfolio that is invested in an average software company, because electric utilities generally need to deliver a great emission reduction than software companies. However, if the portfolio is invested in an electric utility that is more emissions-intensive than the sector average, then this would imply an even steeper decarbonization target, because sector laggards generally need to deliver greater emission reductions than sector leaders. When this assessment is applied to a portfolio that is fully diversified against all sectors and regions, it results in a carbon footprint reduction target of –50% by 2030, which is in line with the global 1.5°C pathway in the sustainability-oriented P2 scenario in the IPCC Special Report on Global Warming of 1.5°C. For any given portfolio of ours, the actual target will be higher or lower than –50%, depending on to what extent the portfolio is invested in sectors and countries that need to decarbonize more or less than 50%, and to what extent the specific investee companies in those sectors and countries are leaders or laggards within their vectors.

Figure A1: 24 vectors

1.5°C-aligned reduction p.a.	OECD Europe	OECD N.A.	Rest of World	Total
Utilities	–7%	–8%	–4%	**–5%**
Energy	–18%	–18%	–10%	**–12%**
Transport	–3%	–11%	–7%	**–6%**
Cement	–3%	–5%	–1%	**–3%**
Steel	–6%	–13%	–2%	**–7%**
Other Materials	–6%	–7%	–3%	**–5%**
Other Industrials	–6%	–7%	–3%	**–5%**
Other	–6%	–7%	–3%	**–5%**
Total	**–8%**	**–10%**	**–5%**	**–7%**

For the identification of relevant sector/geography vectors to use in this methodology, and their associated decarbonization pathways, we rely on a 2020 version of the One Earth Climate Model (OECM), which was developed at the Institute for Sustainable Futures at the University of Technology Sydney, and commissioned by the UN-convened Net Zero Asset Owner Alliance and the European Climate Foundation. This version of OECM identifies five critical sectors (Energy, Utilities, Transport, Steel and Cement) and plots 1.5°C-aligned pathways for each, in three separate geographical regions (OECD Europe, OECD North America, and Global). This yields 15 sector/geography vectors for which we directly use the decarbonization pathways from OECM. We further divide the remaining sectors into three categories (Other Materials, in relation to how emissions intensive they are, and split also these across the same three geographical regions. This yields 24 vectors in total. During 2022, OECM has launched newer versions of their pathways with a higher level of sectoral granularity, and going forward, we will seek to reflect this in our target-setting methodology.

To express our 1.5°C-aligned portfolio level targets, we construct what we call a "custom baseline" footprint, against which we measure carbon footprint reductions for our portfolios. The custom baseline expresses what the carbon footprint of the portfolio's benchmark would have been in 2019, if the benchmark had the same sector/geography composition as the portfolio. Then, every vector in that baseline is assigned its own carbon target based on its decarbonization pathway. This is ultimately aggregated based on the portfolio's composition to express an overall reduction target.

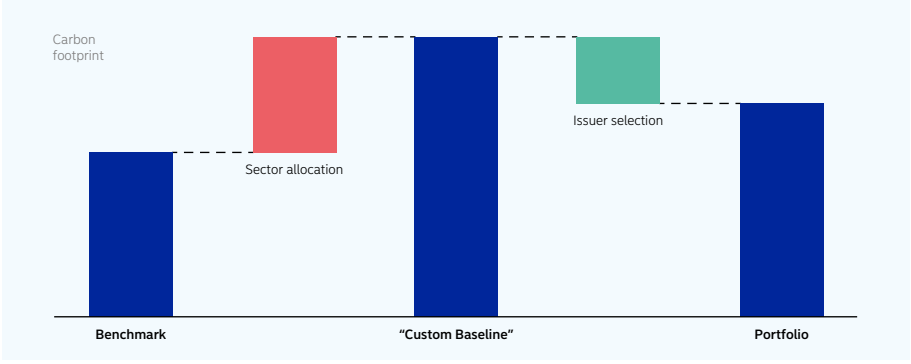
The custom baseline represents a sector- and geography-neutral comparison between the portfolio's carbon footprint and that of its benchmark. This means that a target expressed in relation to a custom baseline cannot be met by simply changing the sector allocation in a portfolio. A comparison between the portfolio and its custom baseline, however, is still sensitive to differences in stock selection within vectors, as well as real emissions reductions undertaken by companies in the portfolio. This means that in order for our portfolio carbon footprint target to be met, we need to ensure that we are able to increase investments in decarbonization leaders across all sectors, and ensure that the companies that we invest in deliver real-world emissions reductions over time. In other words, we seek to eliminate sector allocation effects from our carbon footprint targets, and instead emphasize issuer selection effects and real decarbonization. In this context, it is important to note that the granularity of the sector/geography vector system matters. Excessive granularity will overstate sector allocation effects, and insufficient granularity will understate them. For this reason, we prioritise distinguishing between sectors where we can capture either distinct decarbonization pathways, or significant differences in current emissions intensities.

The fundamental reason for using this approach is that it allows us to avoid disincentives to invest in specific sectors (e.g., Materials) or countries (e.g., Asia). Not using a custom baseline, and instead formulating a target based on a simple comparison with a benchmark or a historical version of the portfolio, would significantly disincentivize investments in emerging markets and several sectors that are critical for real-world decarbonization, without offering any climate benefits to compensate for this.

A desired consequence of our approach is that the precise target value for a given portfolio varies depending on its composition and investment universe. This means that periodic recalibration of carbon footprint targets may be necessary for portfolios where the sector/geography composition has changed significantly. At the inception of our fund-level carbon footprint targets, the average reduction target for 2030 across strategies was 48% relative to the reference footprint in 2019. The fact that this is below 50% is partly reflective of our strategic underweight in some fossil fuel-related sectors, which would be subject to a higher-than-average decarbonization requirement.

Figure A2: Custom baseline

The "custom baseline" approach is a method for **comparing carbon footprints on a sector-agnostic basis**



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