

DNB Asset Management AS

A company in the DNB Group

DNB Renewable Energy

Sustainable enablers of a better environment



DNB



Article 9 fund

The fund potentially avoids **1,480 tCO₂/EURm** invested³⁾

48% of the portfolio has made a public commitment to the **TCFD**⁶⁾

35% of the portfolio has committed to or set a **Science-based target**¹⁾

19% of the portfolio has set a **net-zero target**⁴⁾

We engaged with **36 companies** on **79 topics** from September 2020–September 2021

67% **EU Taxonomy** eligibility²⁾

Potential revenue exposure to **SDG 7** (affordable and clean energy) and **SDG 9** (industry, innovation and infrastructure)⁵⁾



1) Science-based targets: SBTi website
2) Taxonomy: Bloomberg
3) Potential avoided emissions: ISS-ESG
4) Net zero target: DNB AM from company reporting
5) Bloomberg
6) TCFD commitments: DNB AM from TCFD website and company reporting
7) Valid between 01.01.2021–31.12.2021

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1 Reflections from PMs



Photo: Stig B. Fiksdal

Investors increasingly consider the environmental characteristics of their investments. The impetus may be moral; to align one's portfolio with one's values. It may be profit-driven; a belief that companies are more likely to earn abnormal returns from activities that contribute to a better environment.

This report describes how we build an environmental portfolio and quantify its impact on carbon emissions: the fund's underlying holdings potentially avoid six times more emissions than they emit.

CONSTRUCTING THE ENVIRONMENTAL PORTFOLIO

The financial industry is always eager to tap investors' demand for new products. For example, 177 new sustainable funds were launched globally in Q2 2021 alone according to Morningstar¹⁾. The resulting flow of private capital into "sustainable" investments strikes us as positive and continues to provide funding to companies that would otherwise lack the resources to carry out their activities.

As investors with an environmental mandate, we are often asked how to define a company whose activities contribute to a better environment. Common approaches include exclusion, triage based on sustainability scores, and a focus on industries deemed green. In our case we, for example, exclude companies with more than 10% of revenues generated from coal²⁾. We scrutinise sustainability scores and data as part of our due diligence. We are also

1) [global-esg-q2-2021-flows-report-final-numbering.pdf](#) (morningstar.com)
2) As required by the FNG fund label – see appendix 8.1 for more information.

overweight renewable energy generation relative to the MSCI World. We feel, however, that these approaches alone fall short of solving the problem at hand: allocating resources to companies that contribute to a better environment and away from those that do not.

Environmental investing must be rooted in the investor's approach to investing in general, i.e., integrated in the investment process. We believe in thorough, bottom-up analysis of a company's activities and its ability to generate attractive returns. Much of our investment process is therefore spent on discovering a company's sustainability advantages and how these are deployed in the marketplace. For example, we believe corporate culture is key to understanding a business and we are often interested in what motivates employees. Speaking to companies and their ecosystem is integral to the process. Are employees thinking about sustainability as engrained in their business and opportunity set, or are green credentials only sought to satisfy external demands? Similarly, competitive advantage permeates business analysis, and we readily apply the concept to the environmental theme. For example, we seek to understand whether the company's products and services have superior environmental credentials and whether the company is able to extract a premium therefrom.

Our motivation is always to find companies with opportunities and advantages that will generate attractive returns over time. If the company is not, now or in the future, able to earn abnormal profits from environmental undertakings we consider it a market signal that they are not bringing true solutions. Environmental endeavours must be linked with profits.

The result of this process is a portfolio with broad exposure to the environmental theme. Naturally, we find opportunities in sectors such as hydrogen, renewable energy generation, and electric vehicles. These sectors clearly present solutions to a better environment.

However, we also spend time thinking about industries where the solutions are less obvious. Who is moving the needle in the textile industry and who enables decarbonisation in construction? These sectors are large emitters, and we think the environmental investor should address them head on. Because they cannot be ignored from a climate change perspective, but also because industry stakeholders stand ready to reward companies that bring solutions.

Another distinctive of our approach is the willingness to look at the value chain. We invest upstream in companies that engage in natural resource extraction and we look downstream for companies that develop markets, optimise production, and help the customer build greener products.

In going beyond obviously environmental stocks we frequently encounter challenging trade-offs, including lower Environmental, Social and Governance (ESG) scores and more complex exposures to the environmental theme. We consider it our job as active portfolio managers to weigh such considerations against all other aspects we deem important and form an educated view on the environmental fit and the investment's risk reward.

QUANTIFYING THE ENVIRONMENTAL IMPACT OF THE PORTFOLIO

Our approach leans heavily on subjective evaluation of corporate activities. This may leave an increasingly quantitative financial ecosystem wanting more. This report is an attempt at adding quantitative data points to our library of inputs. It is an attempt at quantifying something that is not easily quantified: a company's ability to enable its customers, or its customers' customers, to reduce their emissions. It is a daunting task and not one without drawbacks, methodologically and otherwise.

“The fund's underlying holdings potentially avoid six times more emissions than they emit.”

Figure 1. Results of 2021 PAE analysis

Significant net PAE for the fund's underlying holdings
 (tCO₂/EURm invested)

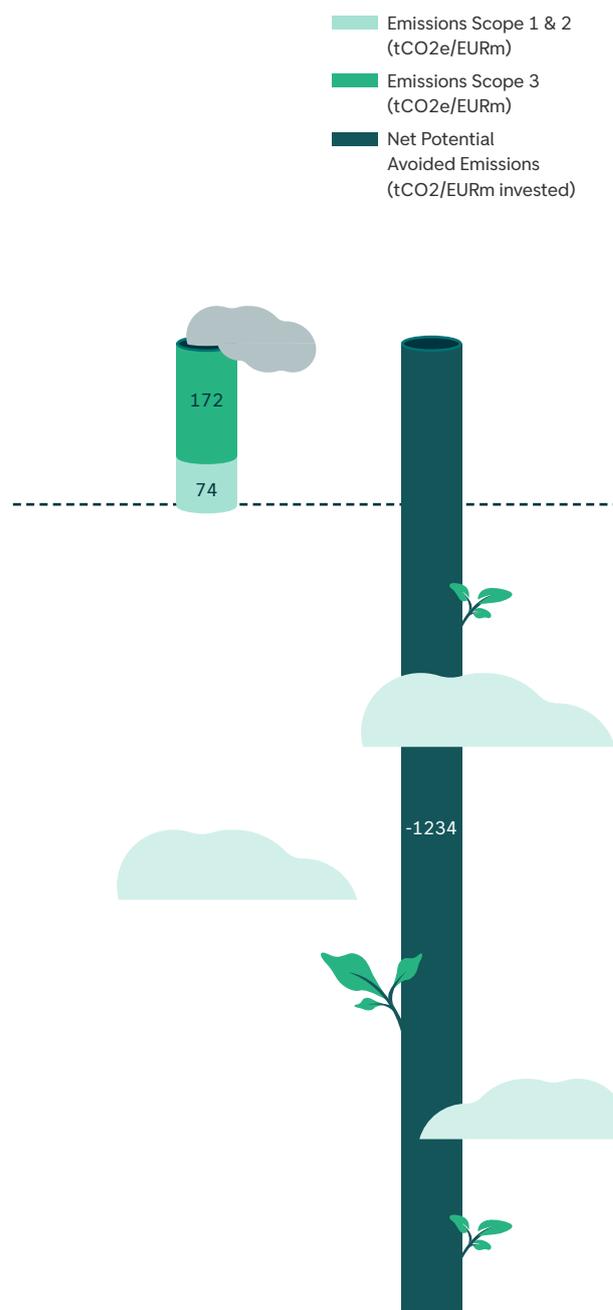
Sector	Scope 1 & 2	Scope 3	PAE	Net PAE
Solar	7	21	-478	-449
Wind	0	1	-217	-215
Materials	3	7	-224	-214
Grid	1	4	-132	-127
Biofuels	4	2	-98	-92
Energy saving	1	6	-95	-87
Power generation	57	130	-236	-49
Other	0	0	-1	-1
Total³⁾	74	172	-1480	-1234

3) The estimates cover 71% of portfolio holdings as at 30.05.2021 and have been prepared together with ISS-ESG

To measure the impact of our portfolio companies we have engaged ISS-ESG to deploy a method known as "potential avoided emissions" (PAE). At the core it seeks to measure carbon emissions avoided in the value chain by a company's products and services. For example, when Scatec, the renewable energy developer, builds a solar farm we consider the emissions avoided to be the difference in carbon footprint from creating a MWh with today's global electricity mix and that of the solar farm.

The potential avoided emissions for the fund's underlying holdings were 1,480 tCO₂ per EURm invested as at 30.05.2021. This compares to a carbon footprint of 246 tCO₂ per EURm invested. The assessment covered 71% of portfolio holdings by weight as at 30.05.2021. The implication is that the portfolio potentially avoids 6tCO₂ per 1tCO₂ emitted – net 5 tCO₂. The result is encouraging and suggests our research process is robust.

This report is a step towards the ultimate goal: to build a portfolio of companies with large contributions to a better environment and strong abilities to extract abnormal profits from such undertakings.



2 Why now?

Climate change – a “code red” for humanity

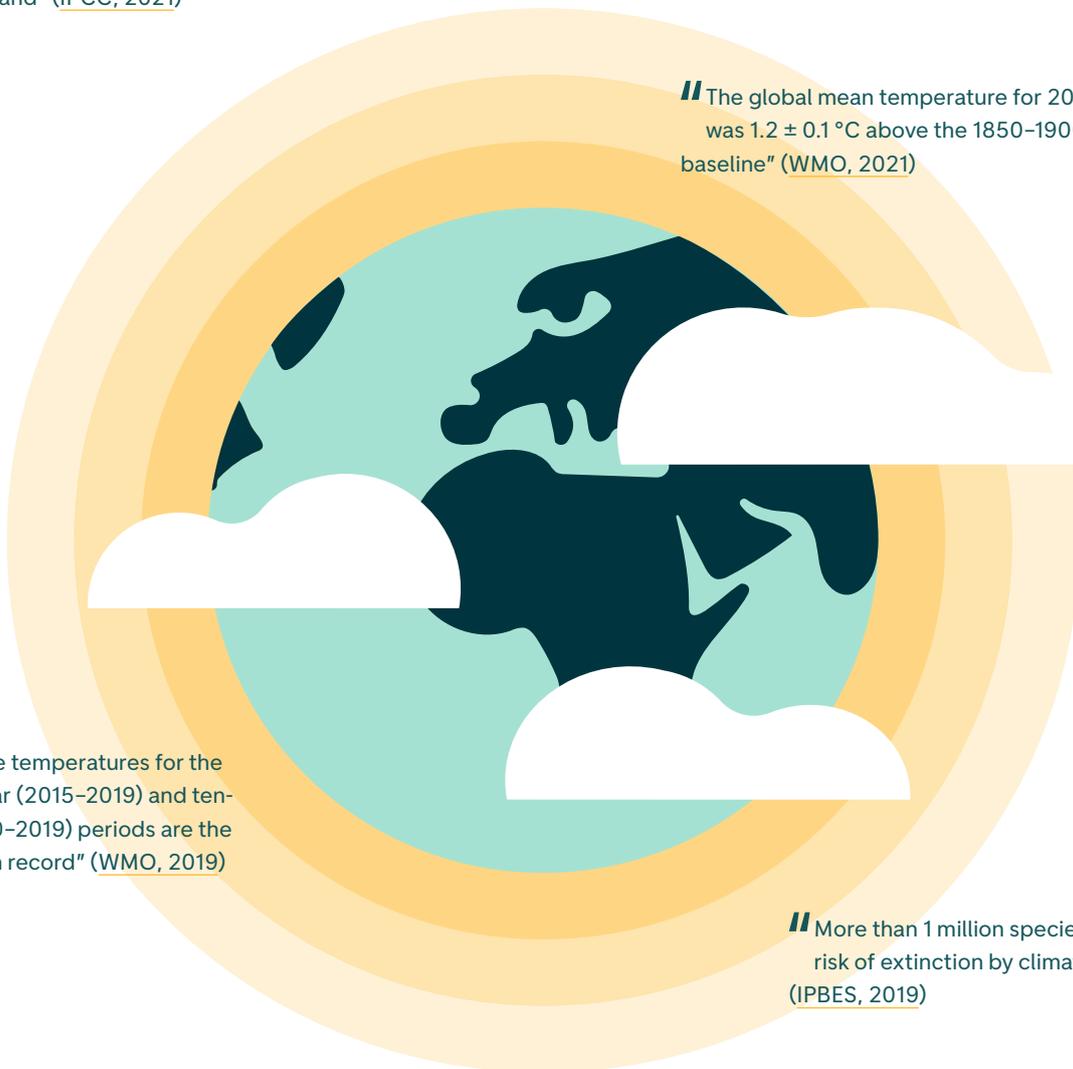
“It is unequivocal that human influence has warmed the atmosphere, ocean and land” ([IPCC, 2021](#))

“The global mean temperature for 2020 was 1.2 ± 0.1 °C above the 1850–1900 baseline” ([WMO, 2021](#))

“Average temperatures for the five-year (2015–2019) and ten-year (2010–2019) periods are the highest on record” ([WMO, 2019](#))

“More than 1 million species are at risk of extinction by climate change” ([IPBES, 2019](#))

“Climate change is already happening – “Climate impacts are already being felt through increased frequency and magnitude of extreme weather events from heatwaves, droughts, flooding, winter storms, hurricanes and wildfires” ([IPCC, 2021](#))



3 Our investment universe

The current emissions trajectory will exhaust the 1.5C carbon budget within seven years – UNEP FI estimates that a 7.6% annual emissions reduction is required to close the emissions gap^{4) 5)}

A BROAD INTERPRETATION OF THE ENVIRONMENTAL THEME

To avoid catastrophic, irreversible damage to our planet, the IPCC estimates that we need to halve global emissions by 2030 and reach net-zero by 2050.

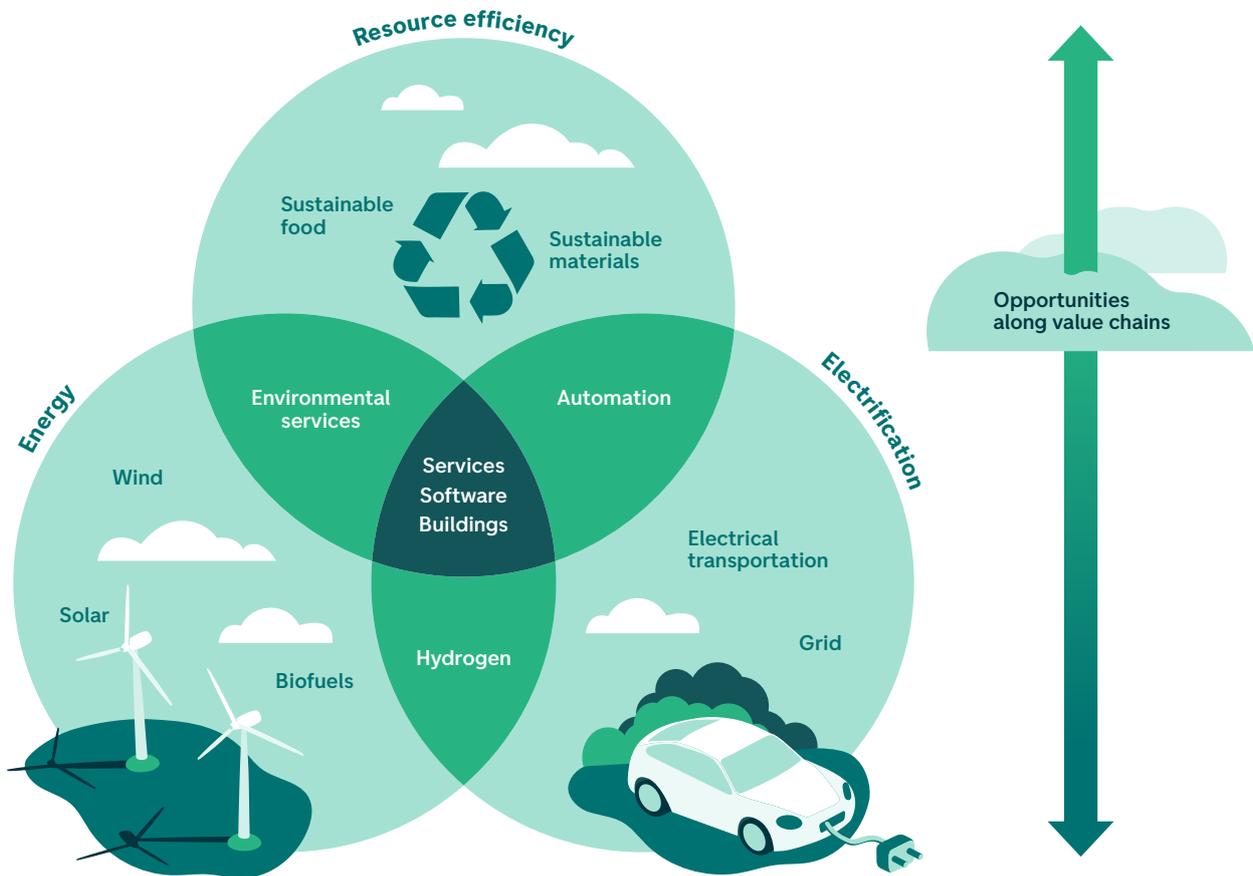
Before conducting any financial fundamental evaluation of equities, we investigate the environmental angle of the company and seek to understand if the business is significantly driven by enabling a better environment or not. The result is a broad universe of companies with exposure to the environmental theme.



4) <https://www.mcc-berlin.net/en/research/co2-budget.html>

5) [Visual feature: The Emissions Gap Report 2019 \(unep.org\)](#)

Figure 2. Our investment universe



The “obviously green” companies are a natural part of the universe. Here there is strong consensus that these companies and sectors contribute directly and positively to environmental challenges. An example is renewables – a large part of the decarbonisation story will come from renewables and technology that already exists today. In addition, nascent technology, such as hydrogen, carbon capture and storage, and recycling/circularity solutions still need to be developed and scaled and will also play a significant role. The availability of cheap renewable energy also drives electrification, which enables emissions reductions within hard-to-decarbonise sectors, such as steel production.

However, we also see opportunities within industries providing “less obvious” solutions. These are the companies that deliver products and services that enable emissions reductions along value chains. We believe that some of the most exciting opportunities exist within this category, as you can often find “hidden gems” with attractive

business models and strong competitive advantage. The International Energy Agency (IEA) estimates that annual clean energy investment needs to more than triple by 2030 to around 4USDtrn to reach net zero by 2050⁶⁾. The companies providing or enabling solutions will therefore experience tailwinds in their financials as the world economy makes investments to decarbonise the global capital stock. They are also well-placed to benefit from structural drivers from policy, shifting focus from investors, and increased societal expectations on climate.

The role of “less obvious” solutions can be better understood by looking at an example. Fig. 4 outlines examples of current portfolio holdings and which part of the offshore wind supply chain they feed into. Note that this is not an exhaustive list of all steps in the supply chain. In this example, the renewable energy that is generated is the part of the value chain which can be considered “obviously green”. However, the companies providing critical inputs that facilitate the renewable energy generation are also

6) [Net Zero by 2050 – Analysis – IEA](#)

interesting to look at. Without these, it would not be possible to generate this renewable energy.

There are numerous ways to measure if a company is significantly driven by enabling a better environment. We can look at percentages of revenue, profits, assets, Research and Development (R&D), capital expenditure (CAPEX), and the sum-of-the-parts value which provide climate and environmental benefits. This information is interesting for any investment candidate, but, in practice, the data will not always be available, and it will also be somewhat dependent on which stage of the business lifecycle the company is in. For instance, in earlier phases, such as start-up and growth, R&D and CAPEX will be

most relevant. For mature businesses, profits become more important. We also steer clear of businesses with controversial environmental angles, as we see repricing of climate risk as being negatively skewed for such companies. Also, clients investing in environmental fund strategies typically do not want this exposure.

A DYNAMIC UNIVERSE

Our understanding of the environmental theme is not static – it will continue to evolve over time as expectations, policy and technology develop. Data availability may also influence how our view progresses.

Figure 3. DNB Renewable Energy vs. MSCI World allocation

Per cent

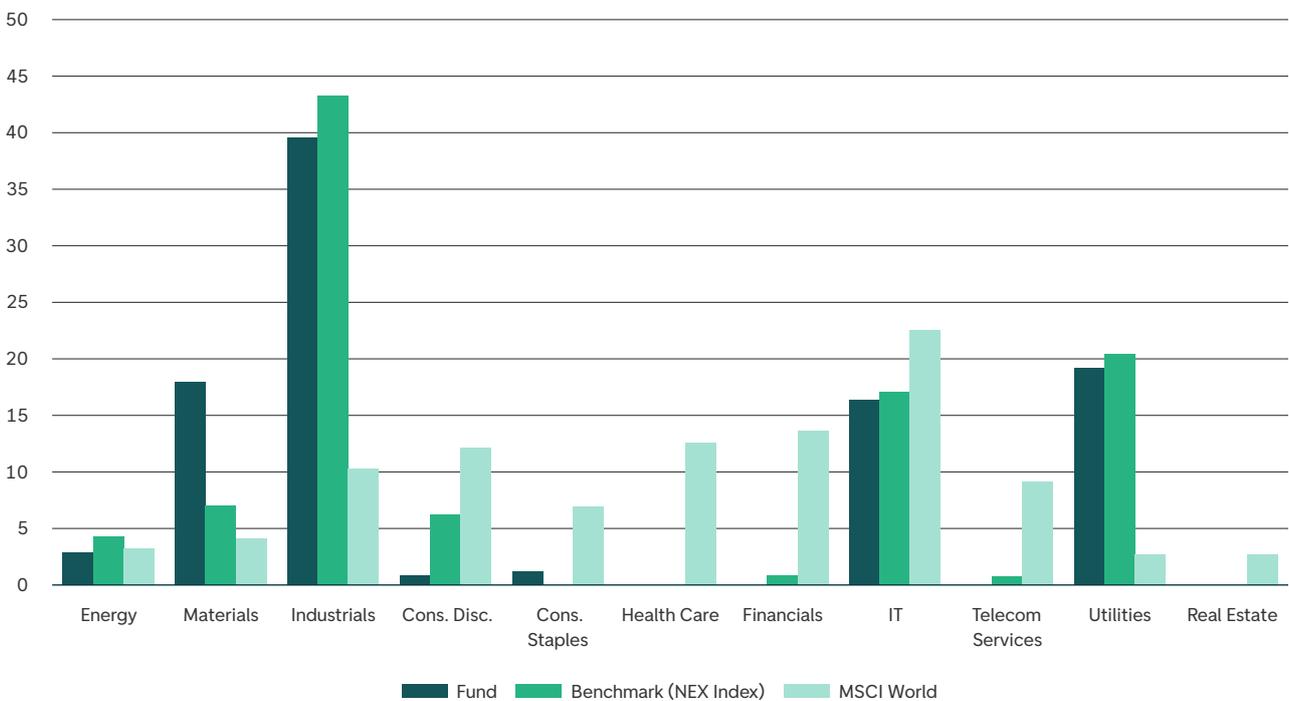
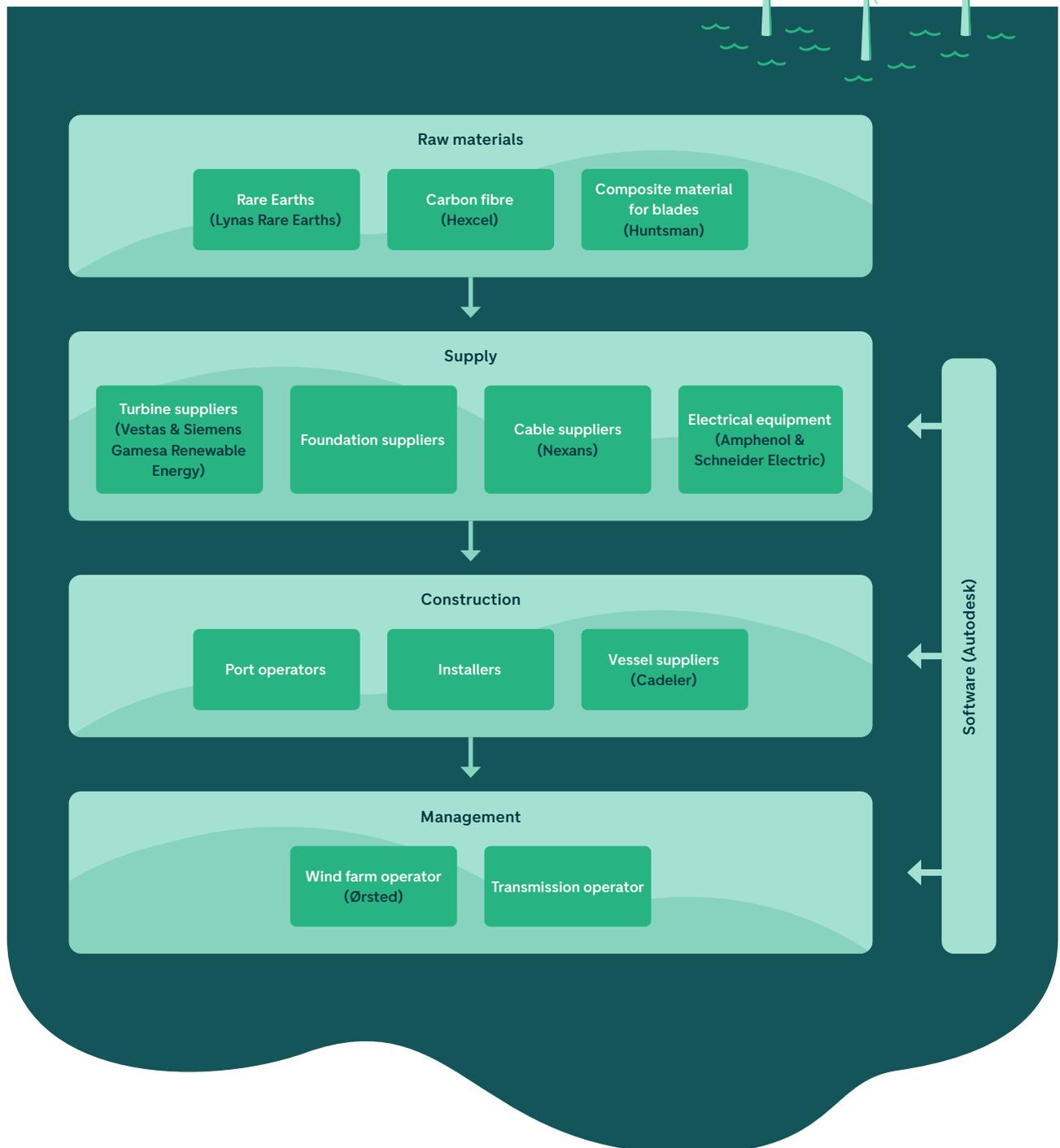


Figure 4. The offshore wind supply chain (non-exhaustive list of steps)⁷⁾



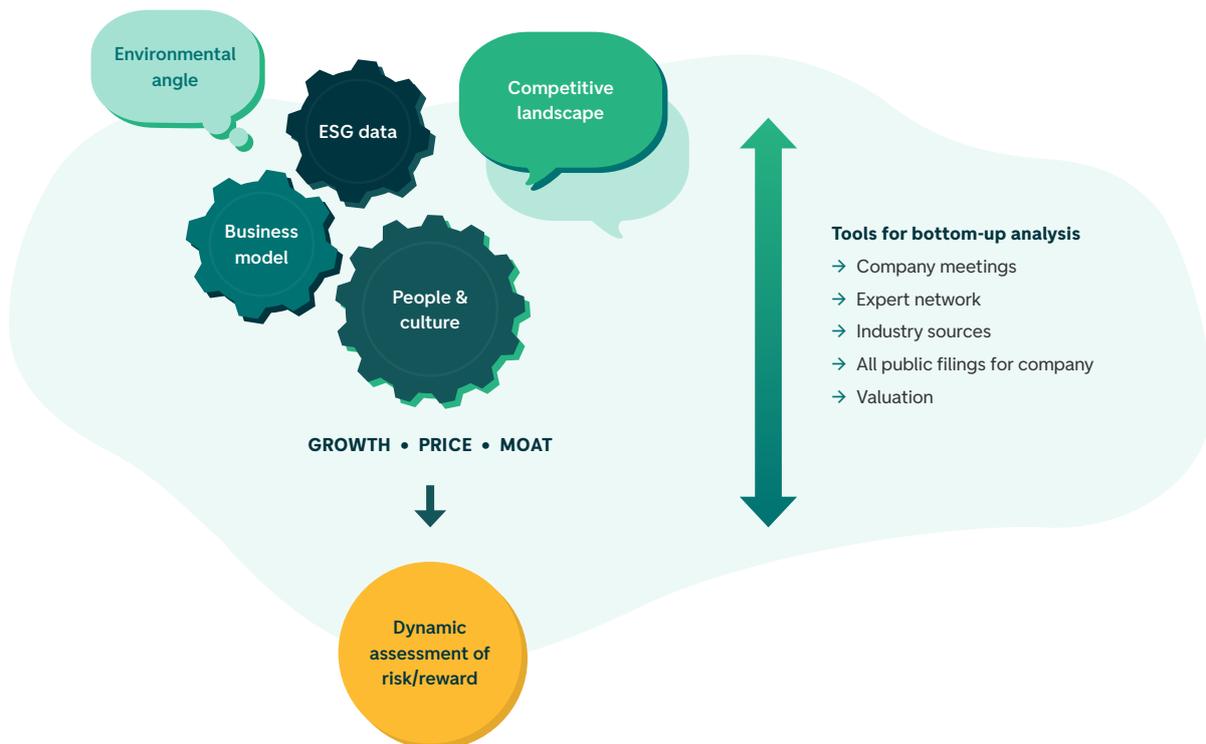
7) Adapted from: [The offshore-wind supply chain.](#) | Download Scientific Diagram (researchgate.net)

**"...climate risk is investment risk.
But we also believe the climate
transition presents a historic
investment opportunity."**

Larry Fink, CEO BlackRock

4 Our investment process

Figure 5. Our investment process



INVESTMENT PHILOSOPHY AND PROCESS

We believe investment returns are driven by a thorough assessment of competitive advantage, growth opportunities and intrinsic value relative to the share price. The investment process is a set of tools to evaluate and understand these most important aspects of the investment philosophy.

The process is bottom-up and driven by a curiosity for businesses models, and, more broadly, an appetite for understanding how the world works. In practice it includes review of all public company filings and various industry sources. Beyond this we particularly enjoy expert networks and company meetings as they yield good chances of understanding corporate culture. Valuation is another part of the process worth highlighting. We enjoy building models, thinking through scenarios, and comparing our views with those prevailing in the market.

We believe in holding equities for the long term and are attracted to companies with proven value creating capabilities. Over time we believe such companies, properly identified, will continue to generate attractive returns. We also see opportunities with shorter time horizons, for example where investor psychology leads to outsized reactions in the share price. Lastly, we observe a diverse and dynamic investment universe, and we strive for a process that is flexible and adaptable to change.

ESG IS INTEGRATED INTO THE INVESTMENT PROCESS

ESG considerations permeate our investment process. They are not separated from the rest; how could they be? It seems obvious to us that a proper assessment of an investment's risks and rewards must include these considerations.

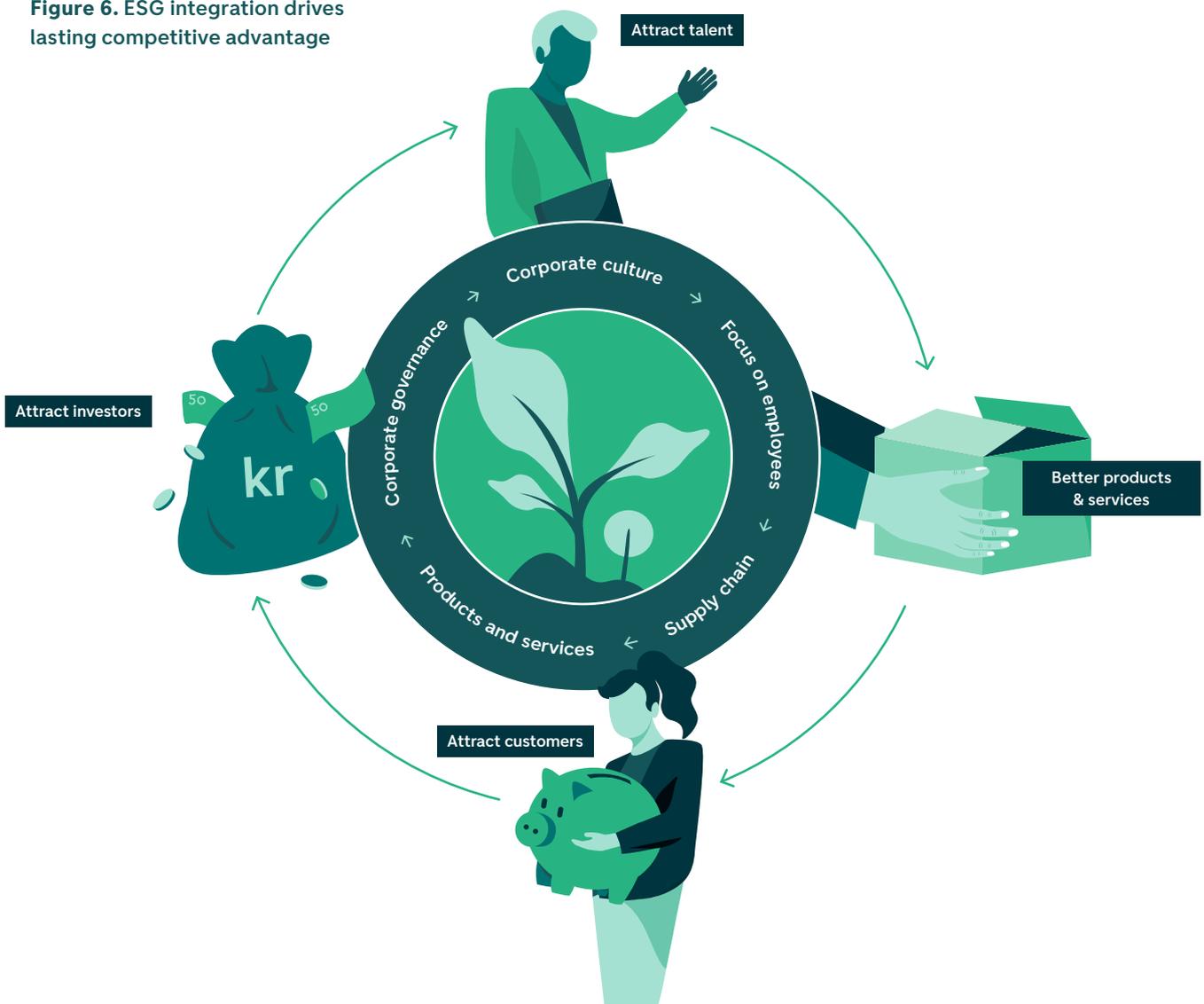
For example, we believe that businesses offering solutions to lower their customer's carbon footprint often face attractive growth prospects. Additionally, if their environmental innovation velocity is faster than competition, they are likely to grow their competitive advantage in the future. Such findings guide our view on revenue growth and expectations for return on capital.

Culture is another source of competitive advantage. For example, we seek to understand whether the company's sustainability division serves mainly reporting functions or whether they actively partake in the business' core activities. Do management set the right example by having a thorough understanding of the environmental drivers of

the business' products and services? Are salespeople able to sell based on a wholistic value proposition that includes lower emissions or resource intensity?

Addressing climate challenges is at the core of our investment mandate. However, we also believe that other ESG elements are important drivers of value creation. Companies that have a sustainable approach to its employees, corporate culture, products and services, supply chain and corporate governance will attract talent over time, which will in turn develop the best products and services, which will attract customers, which in turn attracts investors. This continuous process results in a lasting competitive advantage for those that are best-in-class.

Figure 6. ESG integration drives lasting competitive advantage



5 Close collaboration with our ESG team

Successful and thorough integration of ESG into the investment process also requires a close collaboration with DNB Asset Management's (DNB AM) ESG team. DNB AM's ESG team is unique, with both broad ESG and climate change competency, as well as over 40 years of portfolio management experience. This experience provides a basis for interesting discussions between teams, and a mutual understanding of how ESG drives value creation.

Read more about how the ESG team works in our [2020 Annual Report on Responsible Investments](#).

DNB AM'S ESG TEAM



Janicke Scheele
Head of Responsible Investments

Has worked with Norwegian and global capital markets since 1989. Previous experience includes investment research, investor relations, and fund management (equities and fixed income, and TAA/SAA). Started at DNB Asset Management in 2006. Has led the ESG team since 2015.



Karl G. Høgtun
Senior Analyst

MBA, MIM. Has worked with Norwegian and global capital markets since 1990. Previous experience as an Analyst, Investment Banker, Portfolio Manager, Head of Equities and Head of Nordic Equities. Joined the ESG team in 2016.



Ingrid Aashildrød
Analyst

Has an MSc and a CEMS MIM from The Norwegian School of Economics and The University of Sydney Business school. Previously worked as an ESG analyst at Nordea. Joined the ESG team in 2021.



Henry Repard
Analyst

Has an MSc in Environment and Sustainable Development from the University College London. Previously worked as an ESG Analyst at KLP Asset Management and CDP. Joined the ESG team in 2018.



Lise Børresen
Analyst

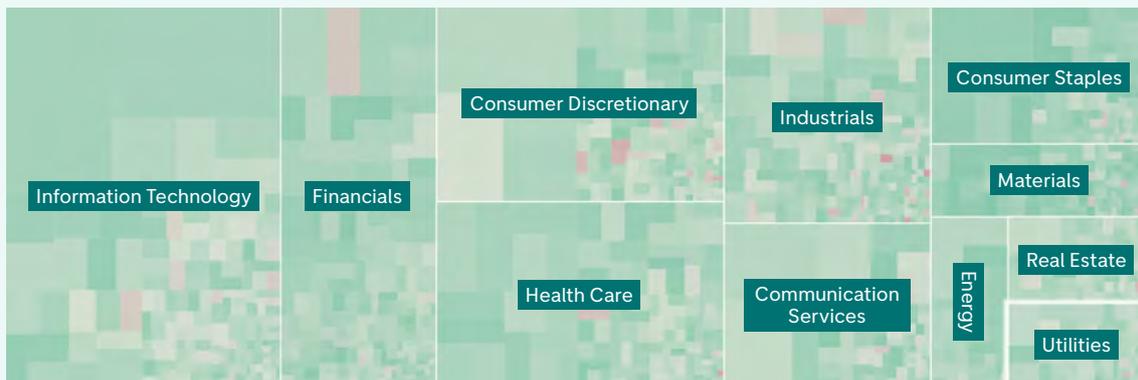
Has an MSc in Finance from The Norwegian School of Economics. Previously worked as an Investment Analyst at Gjensidigestiftelsen. Joined the ESG team in 2021.

DNB AM ESG Lab – an interdisciplinary collaboration to reach a house view on ESG (in addition to external ESG data)

During 2021 an internal initiative was launched called ESG Lab. The initiative consists of several ESG workstreams that aim to use a proprietary framework, collate different datasets, collect primary data, and provide enhanced flexibility to deliver an in-house view on a range of ESG topics including:

- ESG scores (all companies)
- Questionnaire and assessment framework for Small and Medium-size Enterprises (SMEs)
- Questionnaire and assessment framework for water
- Assessment framework for oceans
- Assessment framework for evaluating alignment to the Sustainable Development Goals (SDGs)
- Climate dashboard
- Example output (subject to change):

Figure 7. Aggregated proprietary ESG scores for example portfolio



HOW HAS THE APPROACH TO ESG EVOLVED OVER TIME?

ESG integration has not always been central to how asset managers manage sustainability risks and opportunities. The understanding, practices and actors involved have changed and developed since DNB AM first started working with responsible investments in 1988. Previously, the focus has been on excluding “sin stocks”, with tobacco, gambling, pornography, weapons, and alcohol considered unethical and consequently excluded from investment universes. ESG has since shed its activist image and is considered mainstream in investment management today. Reporting and incorporating ESG risks and opportunities into investment decision making has also been incorporated into regulation, for example through the action points of the EU’s Action Plan on Sustainable Finance. In our view, the most important tools for implementing ESG now and moving forward are ESG integration, and active ownership through engagement and voting. This said, exclusions remain important as a last resort – see the appendix 8.1 for exclusion criteria that the fund applies.

Another development we are seeing is that asset managers are increasingly looking to define an in-house view on ESG, in addition to relying on external ESG data providers. Forming such a view necessarily requires interdisciplinary collaboration, relying on inputs from ESG, equity and fixed investments, compliance, and IT, to name a few. In 2021, DNB AM have initiated an internal initiative to systematise this process – see the fact box for more information.

THE PURSUIT OF FORWARD-LOOKING ESG METRICS

In recent years, the metrics used to understand ESG-related risks and opportunities have become increasingly sophisticated. The conversation has turned from historical, backward-looking data, such as carbon footprint, to metrics that can tell us something about direction of travel.

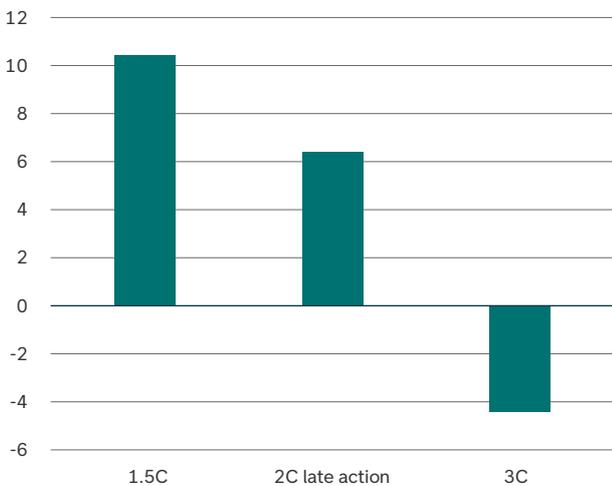
The **EU (European Union) taxonomy**, the classification system that intends to define environmentally sustainable economic activities, was published in the Official Journal of the EU and entered into force in July 2020. Due to challenges with data availability, the reporting requirements for asset managers has been staggered. As of the 01.01.2022, asset managers will likely be required to disclose the proportion of taxonomy-eligible investments of financial products that pursue the climate objectives designated in the EU Taxonomy Regulation. Note that as of today, it is still unclear what the final requirement will be. We performed eligibility screening for DNB Renewable Energy as at the 30.09.2021 using data from Bloomberg. The results show that approximately 67% of portfolio holdings were determined to be eligible (i.e., activities that have been defined as green) using data covering 73% of the portfolio. This is an high result. By comparison, the MSCI World (as at the 30.09.2021) shows 38% taxonomy-eligibility (based on Bloomberg methodology), with a coverage of 99%. However, as data availability improves and additional layers of screening are applied (threshold, Do No Significant Harm, and minimum social safeguards), the actual taxonomy-alignment for the portfolio is expected to be reduced considerably. Even so, we would still expect the portfolio to have a higher taxonomy-alignment than the MSCI World due to its focus on sustainable enablers of a better environment.

An important recommendation from the **Taskforce on Climate-related Financial Disclosures (TCFD)** is to conduct **scenario analysis**. DNB AM’s ESG team has been working on scenario analysis since 2018.⁸⁾ An assessment of DNB Renewable Energy as at 30.09.2021 reveals the following results:

8) See pages. 40–44 in Annual Report on Responsible Investments 2020 for more information

Figure 8. CVaR under 1.5C, 2C late action and 3C scenarios using AIM-CGE (average)⁹⁾

Per cent



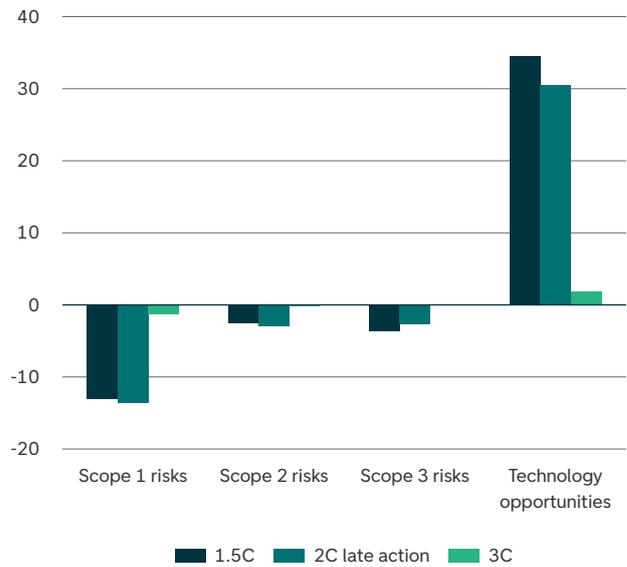
9) ©2021 MSCI ESG Research LLC. Reproduced by permission.

A positive CVaR implies that the overall portfolio-level impact will result in profits under the scenario, whereas a negative CVaR implies that there will be portfolio-level costs associated with the scenario.

The positive results under a 1.5C and 2C late action can be investigated further by examining the transition risks and opportunities and physical risks and opportunities.

Figure 9. CVaR transition risks and opportunities under 1.5C, 2C late action and 3C using AIM-CGE (average)¹⁰⁾

Per cent



10) ©2021 MSCI ESG Research LLC. Reproduced by permission.

As demonstrated above, the positive results are largely driven by exposure to technology opportunities. This broadly aligns with our expectations, as the fund specifically invests in sustainable enablers of a better environment. By comparison, the contribution of technology opportunities to the MSCI World's total CVaR in a 1.5C scenario is 2.5% versus DNB Renewable Energy's 34.5%.

The final forward-looking metric worth noting is **Implied Temperature Rise (ITR)**. MSCI ESG's metric aims to provide an indication of how companies and investment portfolios align to global targets. In recent months, there has been increasing interest in demonstrating the temperature trajectory of funds. However, we believe that it is important to separate temperature alignment from impact. Nonetheless, this data provides an interesting additional metric to consider when evaluating companies. That said, there are some company-level results that are difficult to understand. For example, we believe that focusing on avoided emissions is necessary to deliver on global

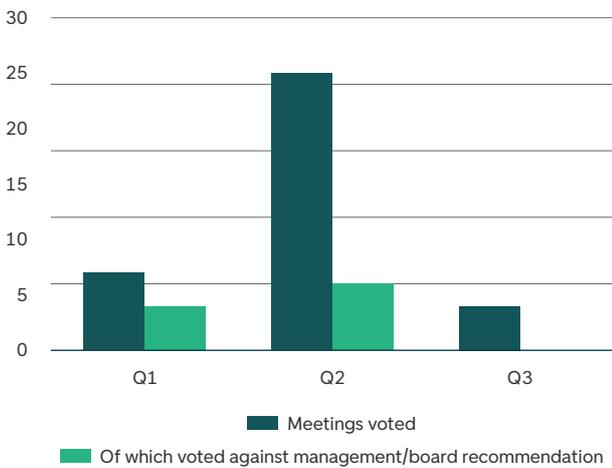
climate change goals, however, companies' emissions-avoiding capabilities do not appear to be captured by the methodology. For example, we question whether it makes sense that independent power producers, such as Scatec and Neoen, which develop and own solar and wind, receive ITR scores of over 3°C in the current version of the methodology. Nonetheless, this metric is interesting to keep track of, and monitor changes in over time. It may also help us to prioritise company engagements, should there be any noticeable outliers. We are also hopeful that companies' emissions-avoiding capabilities will be better captured in future iterations of the methodology as it develops over time.

VOTING

As active owners, we exercise our voting rights as shareholders for the largest holdings in our portfolio, as well as strategically important items and ESG-related topics.

By the end of Q3 2021, we had voted at a total of 36 company general meetings. By comparison, during 2020 we voted at a total of 31 company general meetings by year end.

Figure 10. Number of company meetings voted at during Q1–Q3 2021¹¹⁾



PUSHING COMPANIES IN A POSITIVE DIRECTION THROUGH ENGAGEMENT

Another key tool at our disposal as active owners is engagements with companies' management and sustainability teams. Our overarching goal is to influence companies to improve their practices, thereby securing long-term shareholder value and mitigating ESG risks in the best interest of our clients, as required as part of our fiduciary duty.

Company engagements may be conducted for several reasons. It may be to understand how companies' sustainability work drives competitive advantage, and how this may impact future earnings potential. It may also be to investigate potential ESG weaknesses highlighted in ESG scores, or to address controversies. In the case of the latter, milestones for engagement are defined and followed-up over time. See case study on Lynas Rare Earths as an example of an engagement focused on weaknesses flagged in ESG scores.

Dedicated ESG dialogues will always be conducted as a collaborative effort between the ESG team and portfolio management team. However, ESG topics are also raised in company meetings conducted solely by the portfolio management team, alongside discussions of strategy, earnings, etc. From September 2020 to September 2021, we had 33 company engagements covering 79 topics. This is a noteworthy increase from 2019, where we engaged with companies on 23 topics.

11) Voting statistics for DNB Renewable Energy

Case study:

Company engagement to address potential ESG risks



Photo: Nicholas Doherty

Lynas Rare Earth's products enable emissions reductions by providing critical inputs to permanent magnets for EVs and to the generator in offshore wind turbines.

Lynas Rare Earths is the largest producer of rare Earths outside China. The company's products enable emissions reductions by providing critical inputs to permanent magnets which increase the efficiency of the motor in Electric Vehicles (EVs) and of the generator in offshore wind turbines. These products are therefore an important part of the decarbonisation story.

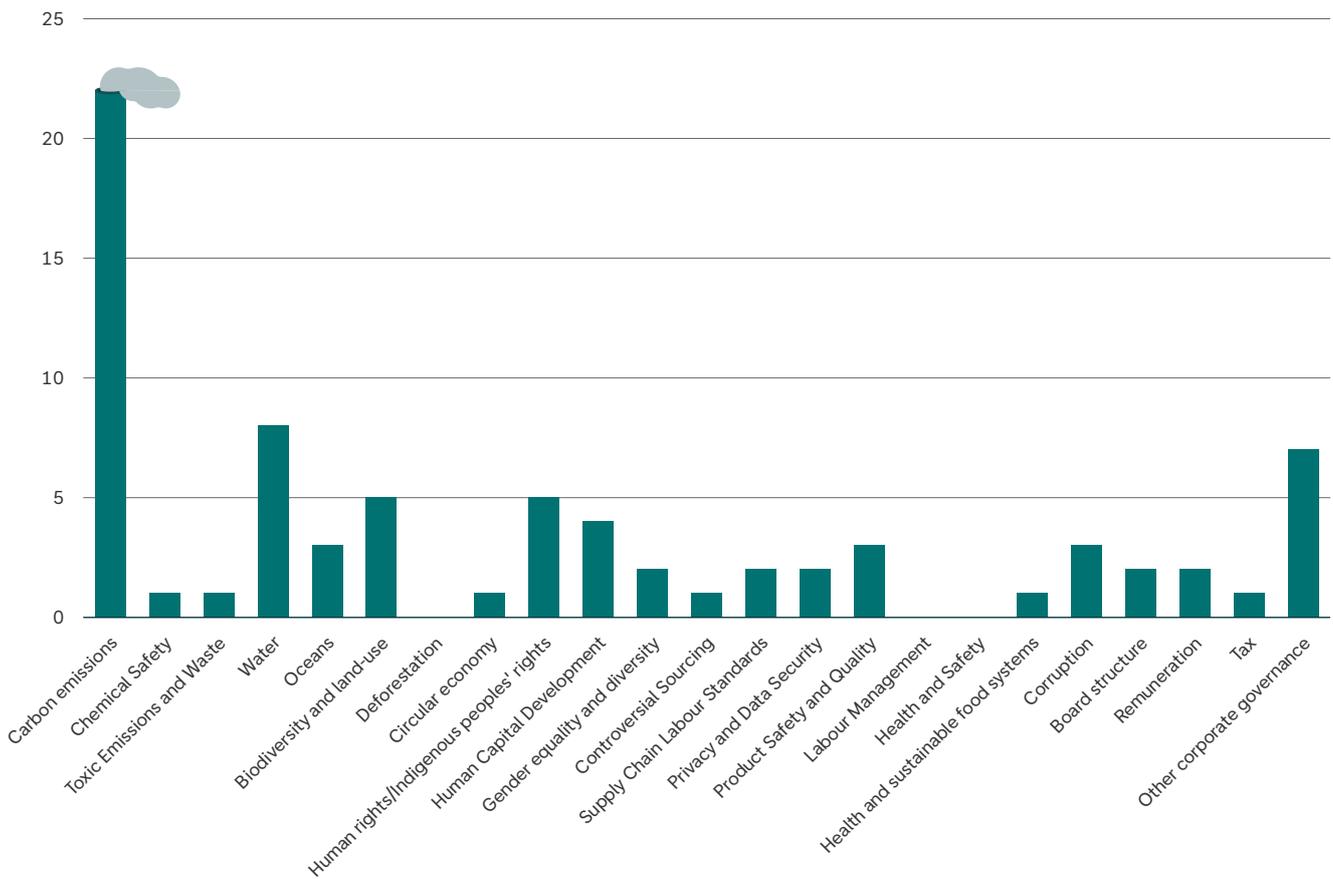
We have engaged with the company on its biodiversity practices over several years. In September 2021 we learned the following:

- Lynas has a strong focus on biodiversity (conducts community impact assessments, rehabilitation trials, flora and fauna studies, surveys, etc)
- Its tailings are operated in a different way from other companies – uses a mud master to dry out tailings, as the tailings may still contain rare Earth content, and this reduces the amount of by-product. Radioactivity levels are low (comparable to phosphate fertiliser). Has not yet extract rare Earths from this mud but plans to do so in the future.

- The company fulfils all legal requirements at its Malaysian plant and has had its license renewed (max 3 years at a time). It is also in the process of moving its cracking and leaching operations to outside Malaysia (Kalgoorlie, Australia) by 2023. It is also in the process of identifying a suitable site and obtaining approval for permanent storage in Malaysia. The imported material is not considered/marked as radioactive material before it reaches Malaysia – Malaysia has stricter thresholds for this than Australia and internationally (international cut off is 10 Becclles/g vs. the 6 Becclles/g that this material is associated with). The company has also not had any environmental incidents at the site.
- Cracking and leaching are water intensive – this is why this was initially done in at a water-rich site in Malaysia. The processing plant is now being moved to Kalgoorlie. Water scarcity is a concern at this site but will not be an issue for the facility because it will rely on recycled water from the water treatment plant (as agreed with the local town).

Our view is that the company is manages its biodiversity risks sufficiently, even going beyond legal requirements. Its innovative approach to tailings management may even represent an opportunity to extract additional rare Earths.

Figure 11. Number of dialogues per ESG topic from September 2020–September 2021¹²⁾



When looking at the topic of discussion during these 33 meetings, carbon emissions was the most-discussed topic (see Fig. 11 above). Discussions on carbon emissions include both how companies' products and services enable emissions reductions, but also how companies manage their own carbon footprint, including by setting carbon emissions reductions targets.

12) Source: DNB AM

Figure 12. Breakdown of commitments to the Science-based Targets Initiative (as at 30.09.2021)¹³⁾



Commitment to the Science-Based Target Initiative:	12.0%
Science-based 2C target:	1.1%
Science- based well-below 2C target:	1.1%
Science-based 1.5C target:	20.7%
No science-based target:	65.2%

As demonstrated in Fig. 12, 35% of portfolio holdings are either committed to the Science-Based Target Initiative (SBTi) or have set a target. Science-based targets are a good way to assess company commitment, and we encourage companies to such targets¹⁴⁾. However, we also recognise that other target-setting may be equally as good, such as utilising the contraction method, which is based on a 7.6% annual decarbonisation rate¹⁵⁾ to reach net zero by 2050.

When looking at carbon reduction targets in general, we see the following:

Figure 13. Breakdown of portfolio carbon reduction targets (as at 30.09.2021)¹⁶⁾



Has a carbon reduction target:	28.1%
Has a carbon neutrality target:	13.1%
Has a net zero target:	18.8%
Has no carbon target:	39.9%

The total share of carbon reduction targets is higher in Fig. 13 than in Fig. 12, as Fig. 13 also includes targets which have not been approved by the SBTi. Targets that have not been approved by the SBTi require additional assessment and scrutiny to understand their effectiveness. This is a typical topic of discussion in company engagements. See case study on Signify as an example of an engagement on carbon target-setting.

13) Source: SBTi website

14) [Climate_Change_Expectations_2020.pdf \(dnb-asset-management.s3.amazonaws.com\)](#)

15) Visual feature: [The Emissions Gap Report 2019 \(unep.org\)](#)

16) Source: DNB AM has collected this data from company reporting

Carbon reduction targets explained¹⁷⁾

- **Science-based targets:** targets that are aligned with what the latest climate science deems necessary to meet the goals of the Paris Agreement – limiting global warming to well-below 2C above pre-industrial levels and pursuing efforts to limit warming to 1.5C. Companies that have a target approved by the Science-based Target Initiative (SBTi) have targets that have been validated by SBTi's technical experts. Those who have signed a commitment letter are recognised as "committed" and have two years to submit their target and have it validated and published by the SBTi.
- **Carbon neutral:** Carbon neutral refers to a policy of not increasing carbon emissions and achieving a carbon reduction of remaining emissions through offsets.
- **Climate neutral:** Same as the above, except all greenhouse gases are addressed, not just carbon dioxide.
- **Net-zero:** The IPCC estimates that limiting global warming to 1.5C above pre-industrial levels by 2100 will require a halving of global emissions by 2030 and reaching net-zero by 2050. By net-zero, the IPCC means that remaining emissions in 2050 would need to be balanced by removing CO₂ from the air. Companies may contribute to this by either reducing the energy intensity of their operations, or by sequestering carbon from the atmosphere, or by combining both approaches. Net zero targets focus on decarbonising as much as possible and business transformation. Unabated emissions will not be offset, rather, residual emissions will be removed (i.e., CCS or other).



17) Sources: How it works – Science Based Targets, FAQs – Science Based Targets, [foundations-for-net-zero-full-paper.pdf](https://sciencebasedtargets.org/foundations-for-net-zero-full-paper.pdf) (sciencebasedtargets.org)

Case study:

Engaging on carbon neutrality targets

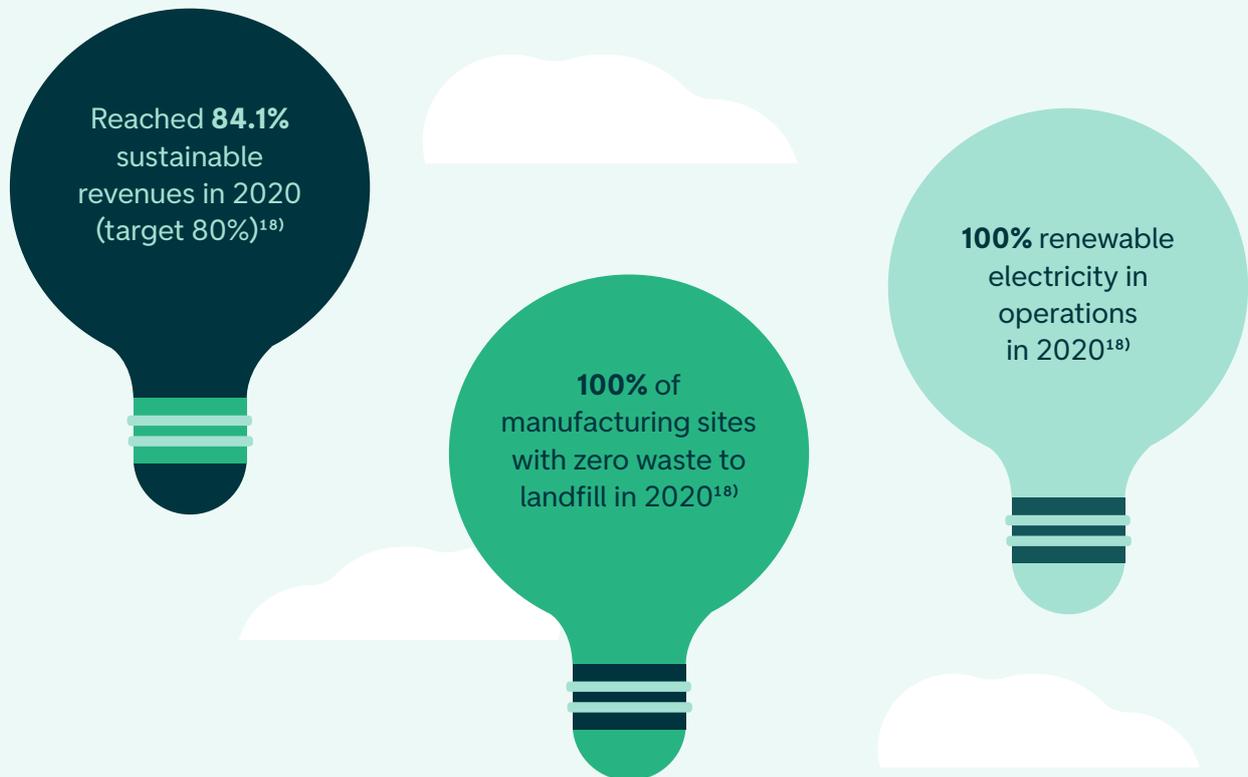
Signify is the world leader in lighting products, systems, and services. The company has led the shift to LED and connected technologies, enabling smarter and more efficient use of lighting. Signify has also been a leader in addressing its own emissions. It is 100% carbon neutral in its own operations and sends zero manufacturing waste to landfill sites. We believe this leadership attracts talent to the company, motivates employees, and helps the company to win new business.

In September 2020, Signify announced that it had delivered on its goal to become carbon neutral. The commitment addresses scope 1 & 2 emissions, as well as scope 3 categories covering business travel and logistics (which account for 40% of the company's carbon footprint).

We engaged with the company to learn more about how it had delivered on this target. We learned the following:

- 30% of emissions are offset. Signify has worked with South Pole on this commitment.
- The company publicly announces that all offsets must be Verra, Gold Standard or UN Clean Development Mechanism.
- Moving forward, the company will include the footprint of suppliers and products in use phase (scope 3) in its carbon reductions work.
- The company's target constitutes a 1.5C scenario and is approved by the SBTi.

We encouraged the company to be more transparent about the types of credits it purchases (mix of compensation credits vs. neutralisation credits), and what it has paid for such credits. Moreover, we encouraged the company to consider setting a net-zero target.



18) Source: [signify-annual-report-2020.pdf](#)

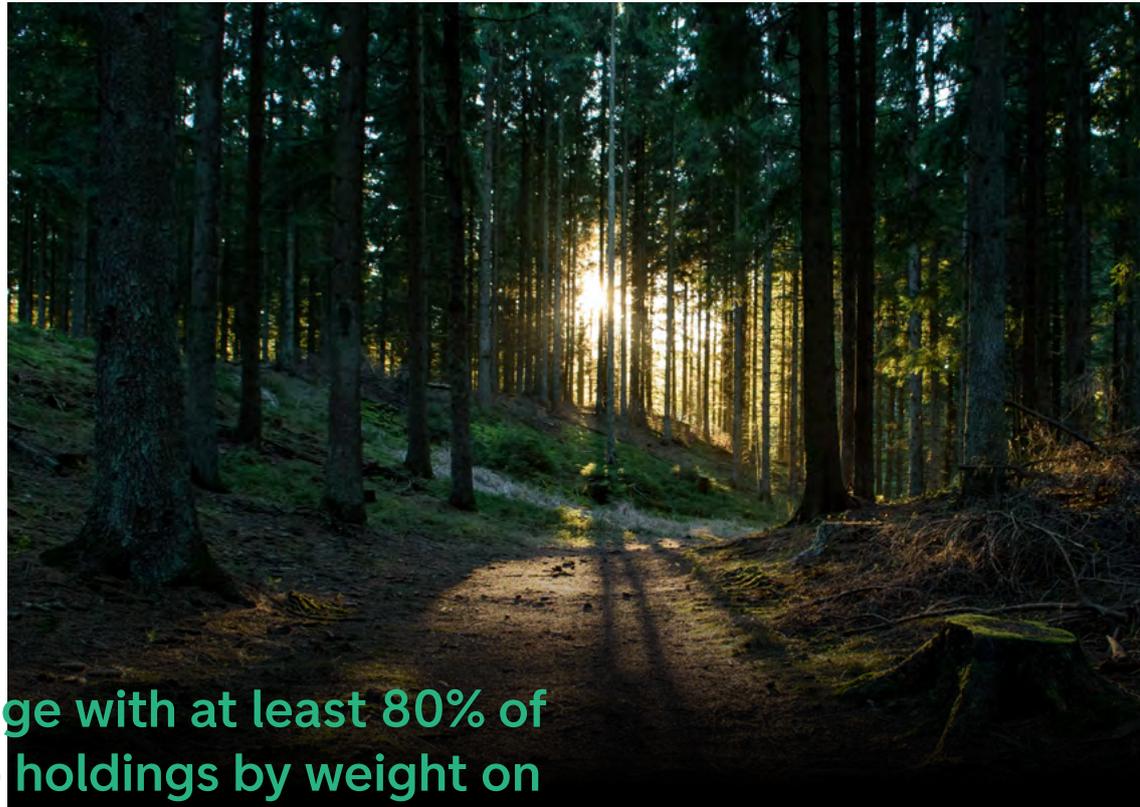


Photo: GettyImages

We will engage with at least 80% of our portfolio holdings by weight on science-based net zero targets on an annual basis starting from 2022.

ENGAGING ON NET-ZERO

Though the portfolio specifically invests in companies that demonstrate a solid ability to reduce or avoid emissions for their customers or their customer's customers, we strongly believe that these companies should also be addressing their own operational and supply chain emissions. The SBTi considers a model that "leaves a source of emissions unabated for every volume of emissions avoided [is] not compatible with the global goal of reaching net-zero emissions at the global level".¹⁹⁾ In the absence of a strong carbon mitigation strategy, the companies' activities will continue to lead to increased level of greenhouse gas (GHG) emissions in the atmosphere. Such companies therefore remain exposed to transition risk. We also believe that companies striving for leadership in this area will be able to tap into this as an additional source of competitive moat over time.

Our commitment to engage with companies on net-zero will cover both companies that have already set net-zero targets, and those which are yet to set a target. The reason for also including the former is because not all targets are created equally. It is therefore important to understand (based on guidance from the SBTi):

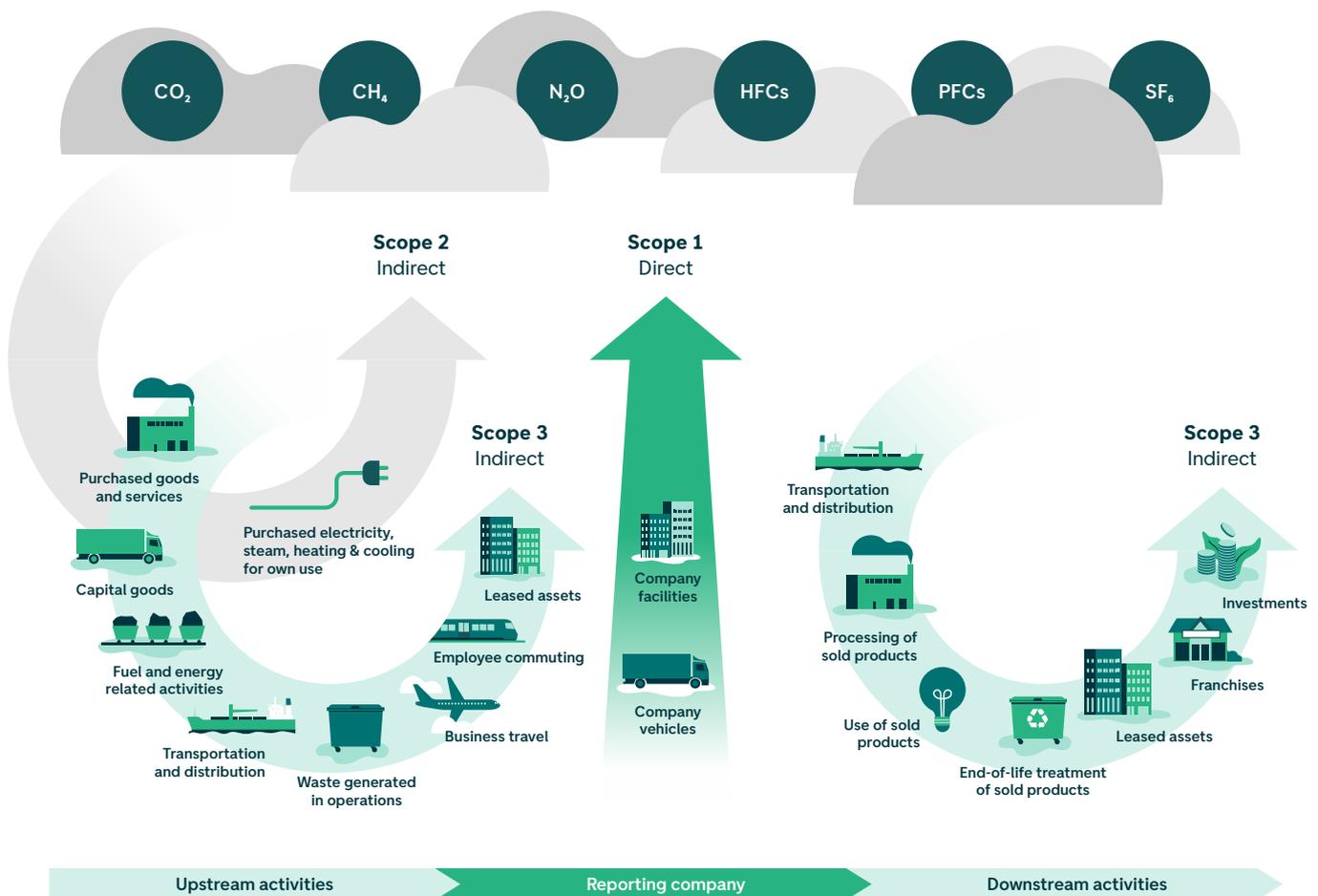
- The scope of climate impacts addressed
- The scope of activities covered
- The mitigation strategy that will be used
- The timeframe

For those companies which have not set a target, we will define milestones for the engagement and track progress over time. In time, we will also determine whether it will be necessary to define an escalation strategy.

19) [foundations-for-net-zero-full-paper.pdf \(sciencebasedtargets.org\)](https://sciencebasedtargets.org/foundations-for-net-zero-full-paper.pdf)

6 Key findings of potential avoided emissions analysis

Figure 14. Greenhouse gas emissions across the value chain²⁰⁾



Scope 1: All direct GHG emissions.

Scope 2: Indirect GHG emissions from consumption of purchased electricity or steam.

Scope 3: GHG emissions relating to up- and downstream activities in the value chain of the company's product/service.

CARBON FOOTPRINT VERSUS AVOIDED EMISSIONS

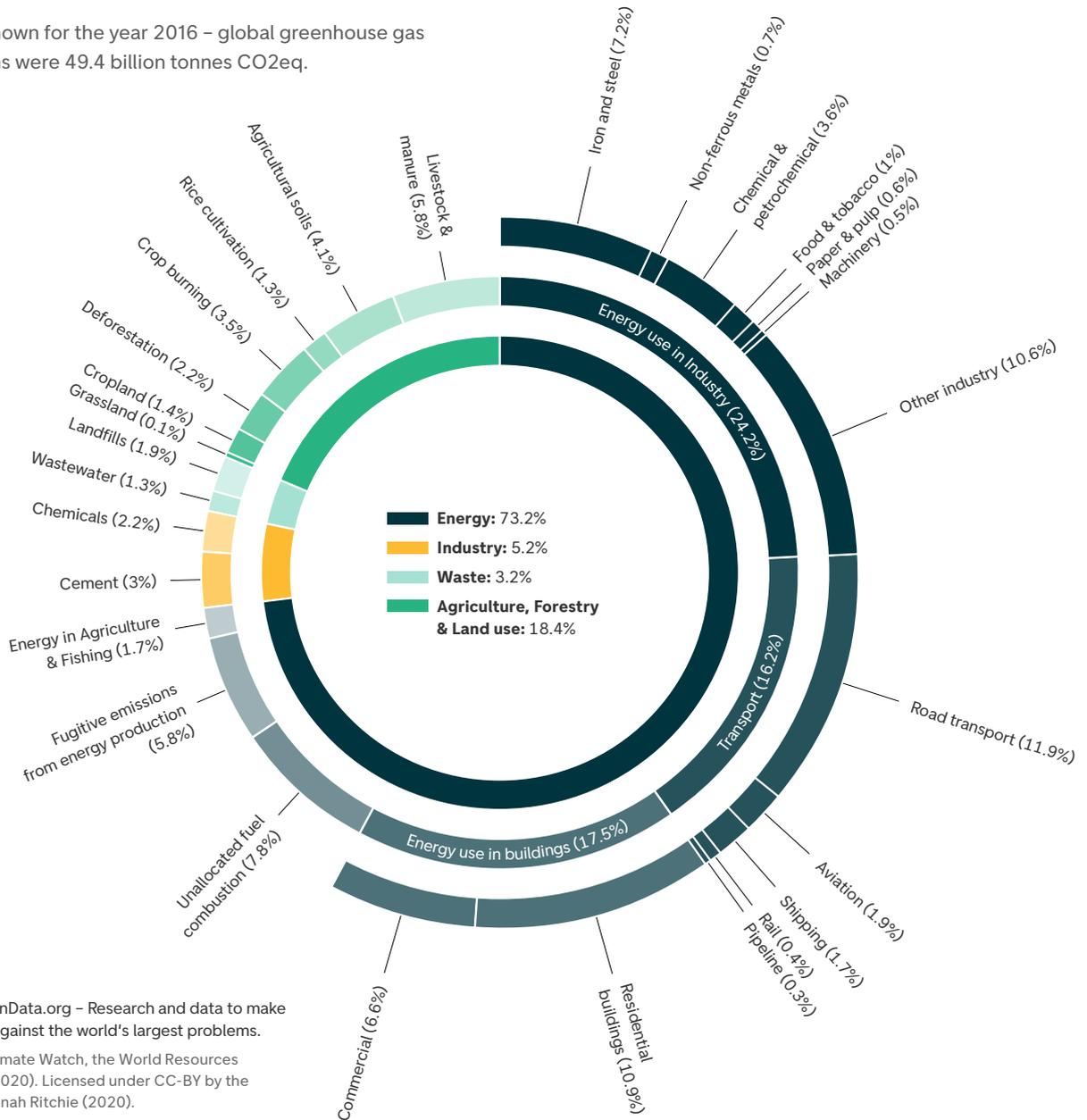
Carbon footprint, also called carbon intensity, is the measurement of a company's greenhouse gas emissions relative to a company's turnover and is one of several factors that says something about a company's climate risk and impact. Companies and investors use carbon footprint to help identify and address carbon-related risks.

Considering the contribution from various sectors to global GHG emissions may be a useful starting point for identifying how to prioritise emissions reductions.

20) Original illustration from the GHG Protocol: www.ghgprotocol.org/sites/default/files/ghgp/standards_supporting/Diagram%20of%20scopes%20and%20emissions%20across%20the%20value%20chain.pdf

Figure 15. Global greenhouse gas emissions by sector

This is shown for the year 2016 – global greenhouse gas emissions were 49.4 billion tonnes CO₂eq.



OurWorldinData.org – Research and data to make progress against the world’s largest problems.
 Source: Climate Watch, the World Resources Institute (2020). Licensed under CC-BY by the author Hannah Ritchie (2020).

Carbon footprint analysis considers a company’s direct and indirect emissions to produce its product(s) and/or service(s). The GHG Protocol defines these emissions as scope 1 and scope 2 emissions (see Fig. 14). These data are relatively easy to measure and are widely available. Many green investment strategies have therefore been directed into companies and sectors that are carbon efficient in terms of their scope 1 & 2 emissions.

However, we see great value in looking beyond scope 1 & 2. Scope 3 emissions are emissions that happen because of a company’s activities but are not owned or controlled by

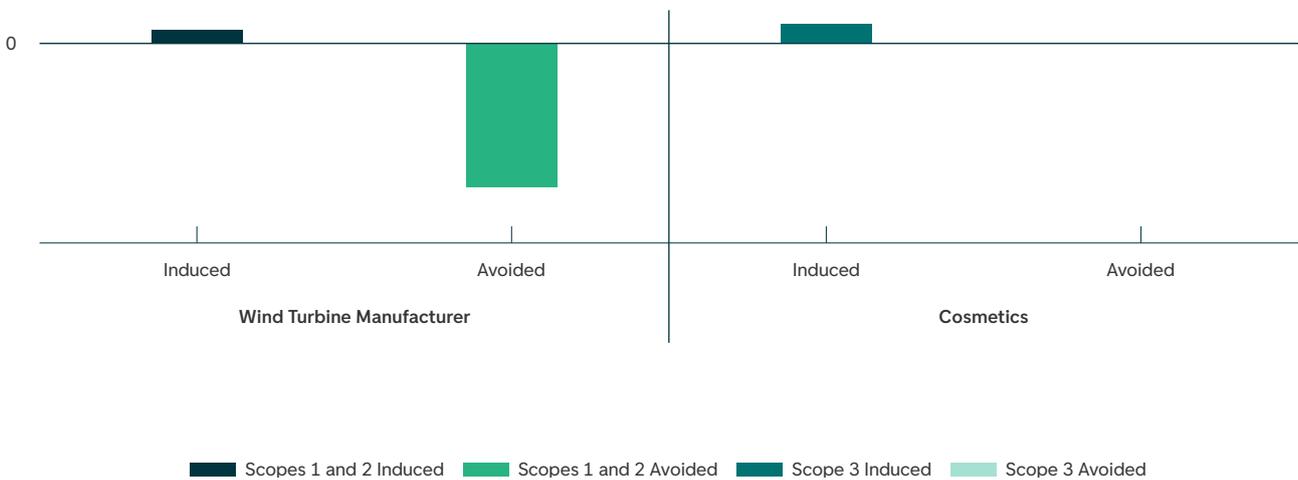
the company. These emissions are complex to measure. As a result, these are typically not reported, or are reported, but not in their entirety. Though some ESG data providers estimate these emissions, it is still not common practice for these to be included in investors’ carbon footprinting. It is also important to note that these underreported scope 3 emissions often represent the largest source of emissions for some sectors, such as oil and gas (approximately 80%). Ignoring these emissions may therefore underestimate the transition risks faced by the underlying company and may raise questions as to the validity of its profile as a “green” company.

Due to these challenges, we believe that considering all scopes of emissions (1, 2 & 3), coupled with an assessment of a company's emissions-avoiding capabilities, represents a fairer assessment of its true climate impact and mitigation potential. We therefore engaged ISS-ESG to help us measure the Potential Avoided Emissions (PAE) associated with the fund. PAE is a useful quantification that seeks to evidence the solutions-providing capabilities of our fund holdings. We believe that the companies providing these solutions are best positioned to capitalise on the world's requirement to cut emissions.

The example below (Fig. 16) demonstrates the avoided emissions concept. The two companies have similar emissions profiles in terms of their scope 1, 2 & 3 emissions, but vary vastly in regard to PAE. If we were only to focus on scope 1, 2 & 3 emissions, we would potentially be overlooking the opportunity to invest in the company providing real climate change solutions.

Figure 16. Emissions comparison for cosmetics company and wind turbine manufacturer, 31.10.2019²¹⁾²²⁾

Both companies have similar induced emissions...



...but calculating avoided emissions highlights wind turbines' climate benefit.

21) climate-change-analysis.ashx (cfainstitute.org)
 22) Source for original figure: Mirova/Carbone4

Figure 17. Results of 2021 PAE analysis

Significant net PAE for the fund's underlying holdings (tCO₂/EURm invested)

Sector	Scope 1 & 2	Scope 3	PAE	Net PAE
Solar	7	21	-478	-449
Wind	0	1	-217	-215
Materials	3	7	-224	-214
Grid	1	4	-132	-127
Biofuels	4	2	-98	-92
Energy saving	1	6	-95	-87
Power generation	57	130	-236	-49
Other	0	0	-1	-1
Total²³⁾	74	172	-1480	-1234

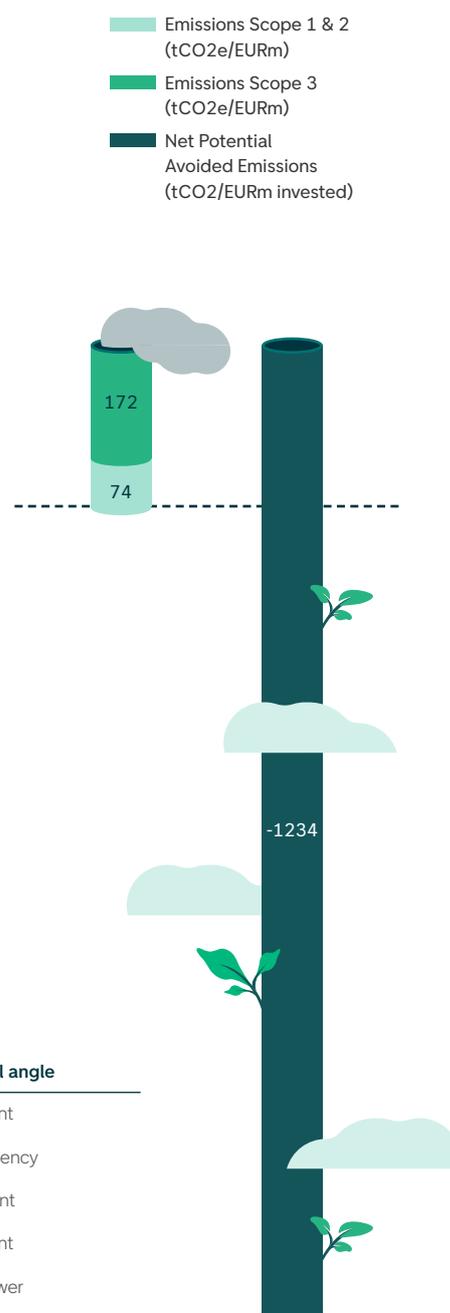
23) The estimates cover 71% of portfolio holdings as at 30.05.2021 and have been prepared together with ISS-ESG

RESULTS OF PAE ANALYSIS

As shown in Fig. 17, the fund's underlying holdings potentially avoids 1,480tCO₂/EURm invested based on 2020 figures compared to a carbon footprint of 246tCO₂/EURm. This implies that the portfolio avoids approximately 6 tons of CO₂ for every ton the fund emits (~5tCO₂ net). The top ten contributors to PAE account for 81% of the total net PAE of the portfolio (see Table 1).

Table 1. Top ten contributors to PAE in the fund

Company	Weight	Fund PAE (tCO ₂)	% of total portfolio	Environmental angle
Canadian Solar Inc.	1,9 %	319 882	24%	Solar equipment
AMG Advanced Metallurgical Group NV	2,8 %	165 540	13%	Resource efficiency
Vestas Wind Systems A/S	3,4 %	138 018	10%	Wind equipment
First Solar, Inc.	4,1 %	99 474	8%	Solar equipment
Concord New Energy Group Limited	1,8 %	70 325	5%	Renewable power
Landis+Gyr Group AG	1,5 %	65 134	5%	Enabling infrastructure
Renewi Plc	1,1 %	60 554	5%	Sustainable waste management
Novozymes A/S	2,2 %	57 772	4%	Bio-based enabling materials
Siemens Gamesa Renewable Energy SA	1,5 %	54 623	4%	Wind equipment
Sika AG	2,6 %	34 995	3%	Sustainable building materials
Total	23,0 %	1 066 317	81%	



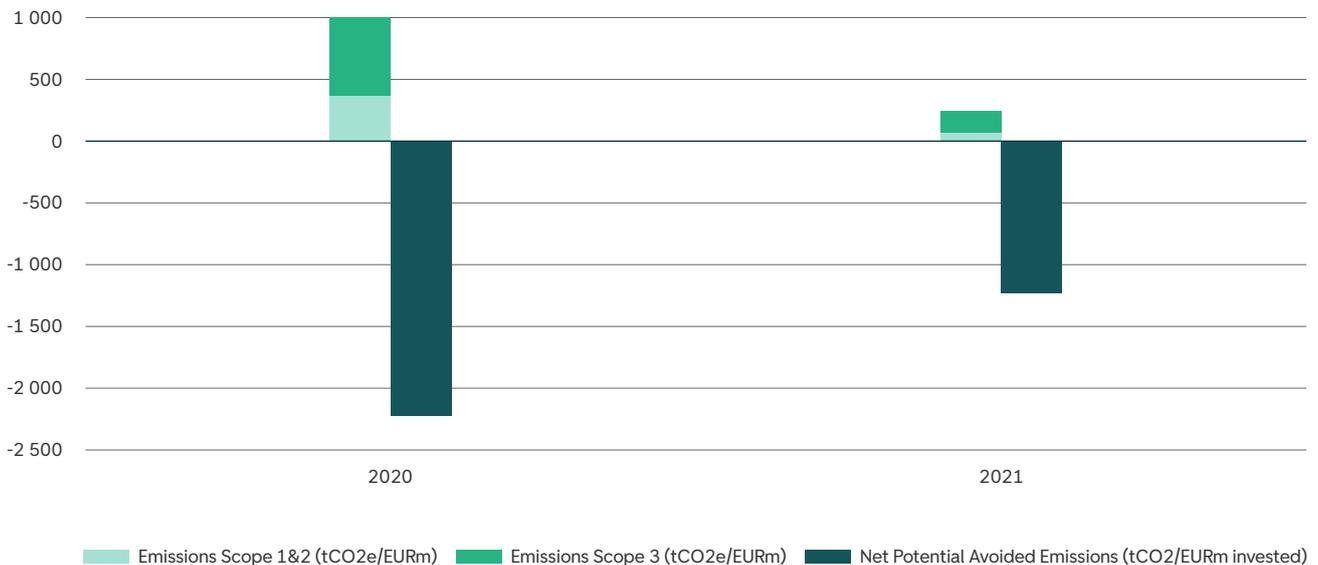
To calculate the carbon footprint, we have scaled down the scope 1, 2 and 3 emissions provided by ISS-ESG in line with the percentage of revenues that the PAE analysis covers per company. As we will discuss in more detail, the PAE analysis focuses on one primary product category per company. In practice, by scaling down the carbon footprint in this way we are assuming that the remaining revenue streams have a similar emissions profile to those covered by the analysis. Utilities have 100% PAE coverage and, as such, 100% of scope 1, 2 and 3 emissions are included in our total carbon intensity figure. Note that this additional analysis we have conducted to understand net PAE is not based on an established methodology.

The PAE estimate covers 71% of the fund holdings with the PAE estimates covering 72% of the revenues of these holdings. In our opinion this gives a fair estimate of how figures also would look for the total portfolio.

The calculations are based on backward-looking figures from 2019 or 2020 (based on data availability at the time of analysis). We expect that significantly better avoided emissions results would have been achieved if based on forward-looking estimates. This is because the portfolio companies have business models centred on products and services that enable a better environment and should experience growth over the cycle.

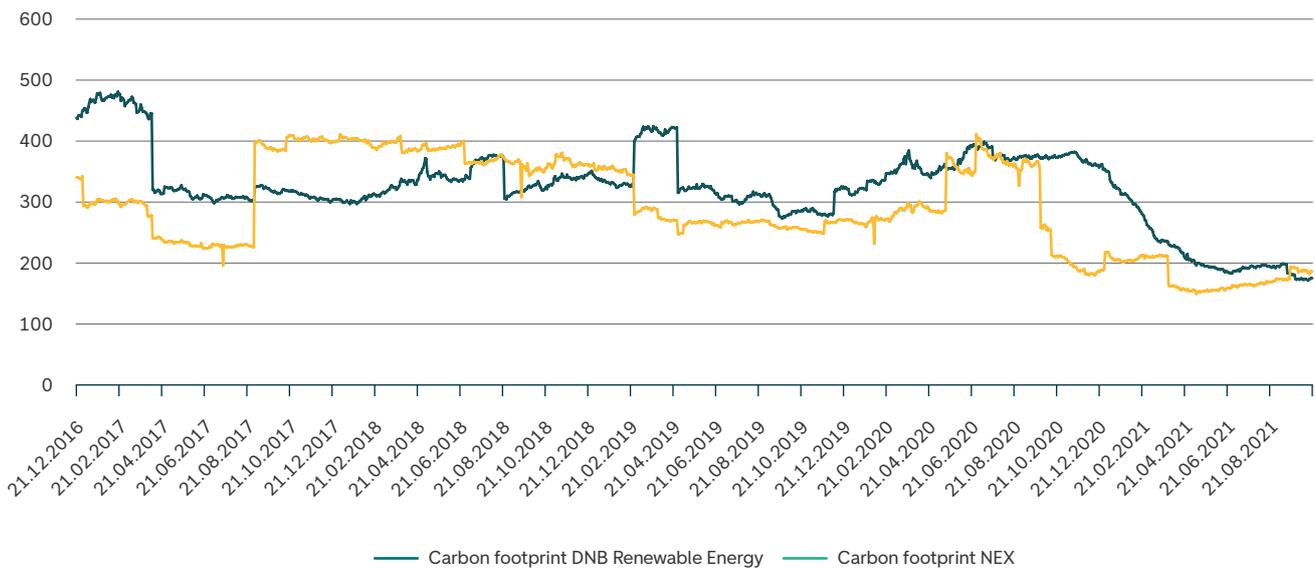
Since we conducted the PAE analysis last year as well it is also interesting to have a look at how the results compare year on year for the portfolio (see Fig. 18). The main take away is that PAE/EURm invested has declined considerably. The primary effect is the repricing of environmental stocks and the fund over the last 12 months driving multiple expansion. The secondary factor is changes to the portfolio mix, driven by changes in the risk/reward assessment. It is then encouraging to see that the changes made to the portfolio have led to a considerable reduction in the fund's Scope 1, 2 & 3 emissions (see Fig. 19), driving an increase in the net PAE from 4 times last year to 5 times this year.

Figure 18. Potential Avoided Emissions for the fund – 2020 vs. 2021 results²⁴⁾
 tCO₂/EURm invested



24) Source: ISS-ESG

Figure 19. Weight average carbon footprint development of fund and benchmark (2016–2021)²⁵⁾



25) ©2021 MSCI ESG Research LLC. Reproduced by permission.

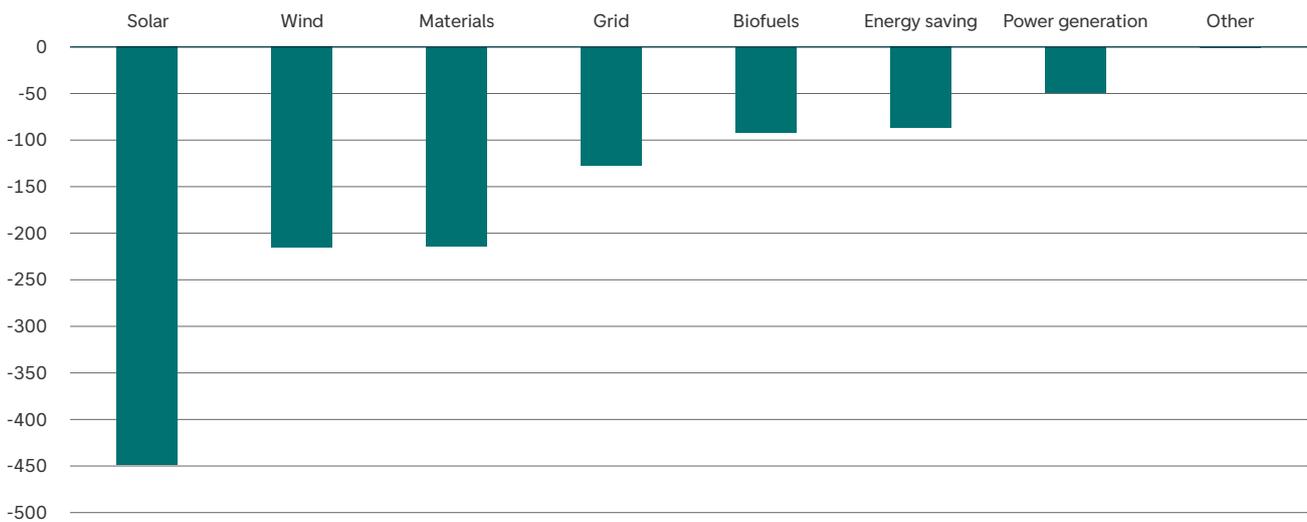
It is also useful to consider how different sectors contribute to the overall PAE result. As shown in Fig. 20, the net PAE per sector varies considerably. The net results show that solar delivers the strongest contribution by sector, while power generation and other renewables shows the weakest contribution.

Solar and wind’s strong contribution to net PAE is partly explained by the fact that the PAE methodology favours technology providers, who are allocated PAEs over the full lifetime of their products installed in the measuring year. The lifetime assumption for both solar and wind is 20 years. However, both offshore and onshore wind are allocated superior load factors compared to solar. This influences the PAEs allocated to companies within these sectors. The reason that solar comes out on top in this year’s analysis is because both solar companies have relatively low market capitalisations compared to their annually supplied capacity.

The materials sector is the second strongest contributor to PAE by sector. As in last year’s analysis, this is primarily driven by AMG Advanced Metallurgical Group. The company has a portfolio of CO₂-reducing business areas, but for this exercise we focused on the product category “thermal barrier coatings and turbocharger wheel castings”. This proprietary AMG technology enables aircraft engine manufacturers to increase operating temperatures beyond the physical limitations of the base materials by coating nickel-based superalloy blades in the high-pressure combustion section of the engine. This dramatically increases aerospace fuel efficiency. Note that only 4% of the company’s revenues as covered by the analysis. We therefore consider this result to be highly conservative, as if we had used the company’s own reported avoided emissions figures (covering additional product categories) we would have gotten a substantially higher result.

Figure 20. Net PAE breakdown by sector²⁶⁾

Net PAE tCO₂/EURm invested



26) Source: ISS-ESG

Grid comes in fourth place when looking at the net result. In last year's analysis there was no exposure to grid. Landis + Gyr, Schneider Electric and Nexans are the portfolio companies exposed to this theme, whereof Landis + Gyr is the greatest contributor. The company manufactures energy management solutions (smart meters) which enable time-of-use switching, driving reduced energy demand at peak times. Again, the company's lower market capitalisation compared to its PAE assessment plays a role in driving this positive result.

Within the **biofuels** sector, Novozymes comes out on top. The company produces enzymes and yeast for bioethanol production. Adecoagro shows a lower result compared to last year due to a decrease in production volume by 25% coupled with a disproportionate 35% decrease in PAE due to differences in heating value. Renewable Energy Group also has a lower PAE than last year. This appears to be driven by a lower self-reported PAE compared to

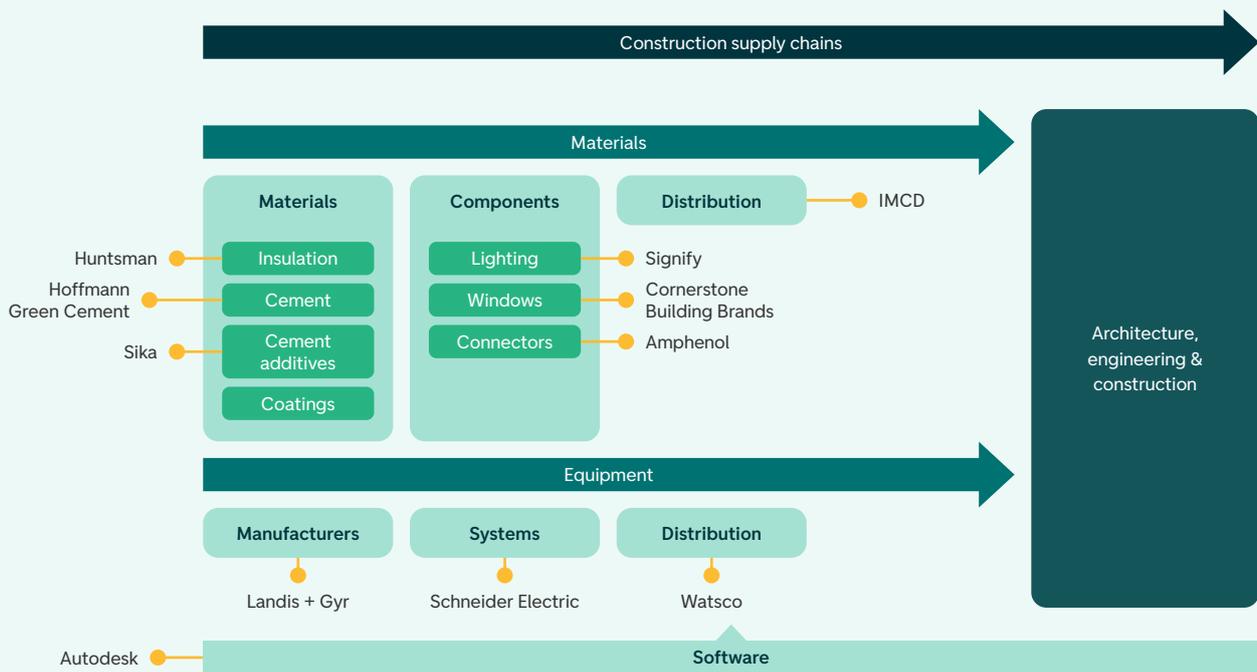
production volume compared to previous years. Note that ISS-ESG did not use Renewable Energy Group's self-reported PAE in last year's analysis. This also plays a role in the lower result compared to last year.

Like last year, the **energy saving** category has a relatively weak contribution to total net PAE. The companies that fit into this category typically have broad product portfolios. As a result, the average share of revenues covered by the analysis for this sector are lower (41%) than for all companies covered by ISS-ESG (72%). It's therefore highly likely that the results for this category are on the conservative side. Sika is the company which contributes the most to overall PAE within this category. Sika delivers additives for concrete that result in stronger concrete that requires less inputs (water and raw materials). See case study on Sika for more information.

Case study:

Sika PAE

Figure 21. Construction supply chain²⁷⁾



Sika delivers construction materials like cement additives and roof systems. Its employees argue they “sell services, not goods”. This demonstrates a clear understanding of the value that Sika’s products bring to its clients. This understanding is also key to being able to price its products in line with the value the products bring. Sika has identified sustainability as a competitive advantage which they nourish under their “more value – less impact” strategy. Its products and services aim to “extend the service life of buildings and industrial applications in order to reduce maintenance effort, to improve energy and material efficiency, and to further enhance user-friendliness and

health and safety profiles²⁸⁾. Stakeholders and incentives are aligned with a decentralised organisation with a culture to innovate products and finding the best solutions together with their clients.

The PAE result for the company is 56,691,250tCO₂. In terms of net PAE, the company ranks 12th amongst companies covered by the analysis, with a net result of -1,510tCO₂/EURm. We believe that this is a conservative result given that only 20% of the company’s revenues have been covered by the analysis.

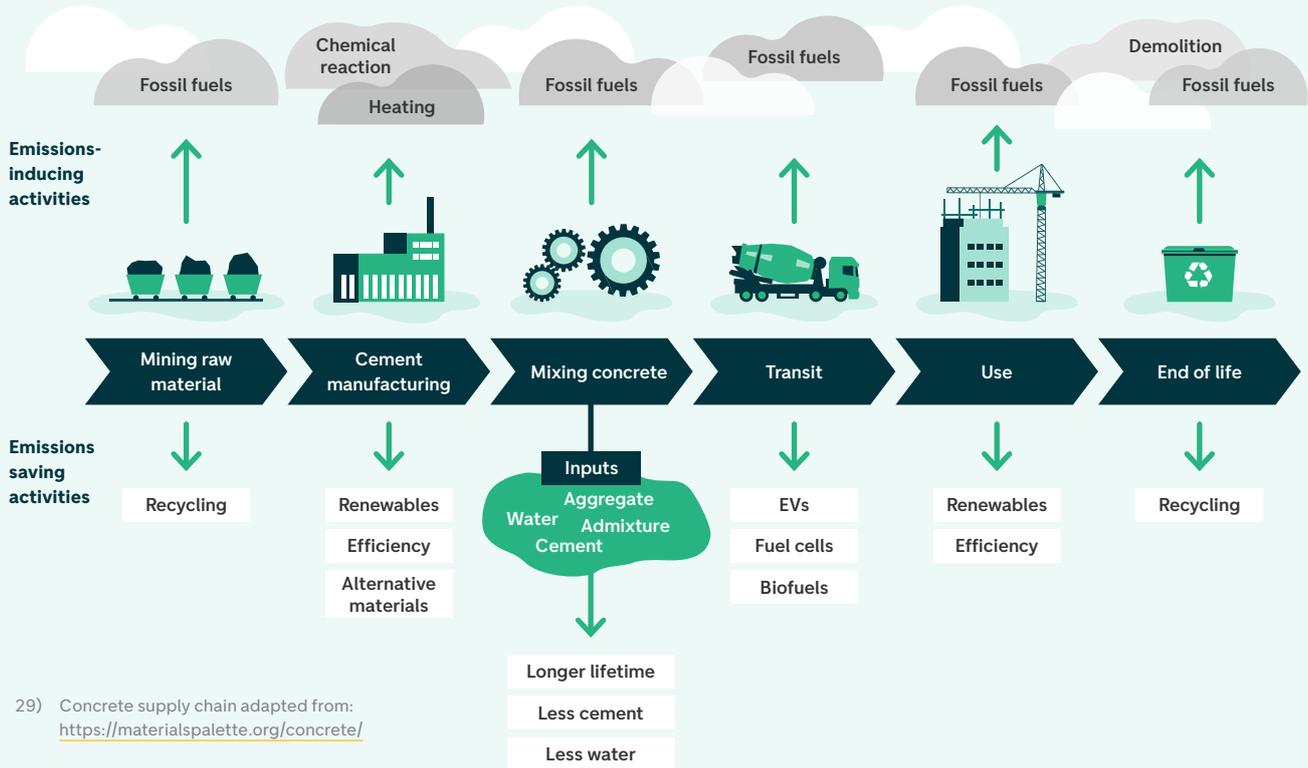
27) Construction supply chain adapted from: [Figure 1 from Towards a Framework for Process Mapping and Performance Measurement in Construction Supply Chains | Semantic Scholar](#)

28) Source: [glo-sika-gri-report-2019-en.pdf](#)

Case study:

Sika PAE

Figure 22. Concrete supply chain²⁹⁾



29) Concrete supply chain adapted from: <https://materialpalette.org/concrete/>

30)'. To the right, a large green bag of cement is shown with '-12% less waste per ton sold (2019 vs. 2020)'. Above the bag, a white cloud contains '-26% CO2 decline in CO2 emissions per ton sold (2019 vs. 2020)³⁰⁾'."/>

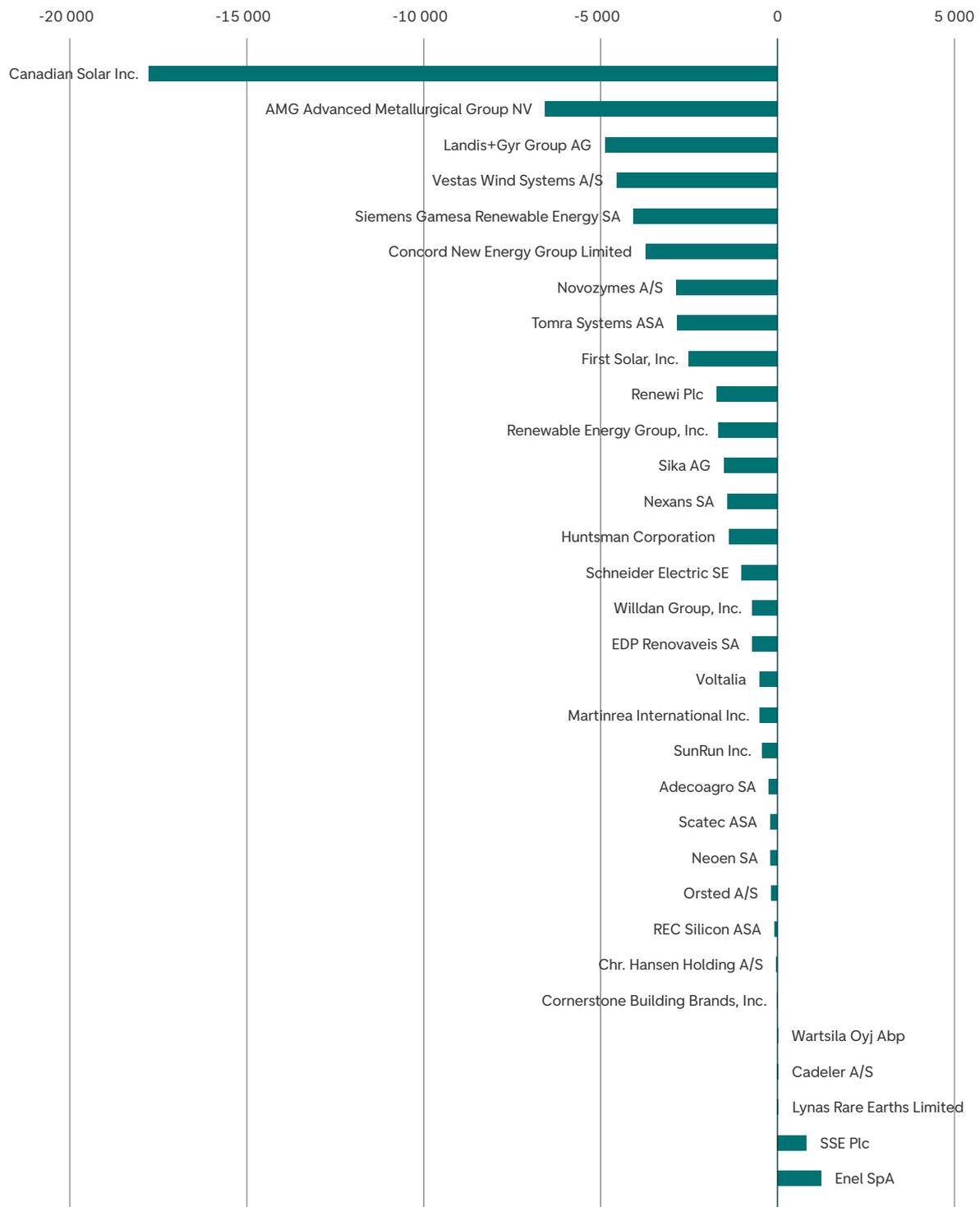
All new products developments will be within "sustainable solutions" by 2023³⁰⁾

-26%
 CO2 decline in CO2 emissions per ton sold (2019 vs. 2020)³⁰⁾

-12%
 less waste per ton sold (2019 vs. 2020)

30) Source stats above: Sustainability Report – Annual Report 2020 (sika.com) and glo-sika-gri-report-2019-en.pdf

Figure 23. Net PAE per company (tCO2/EURm)³¹⁾



31) Source: ISS-ESG

Once again, **power generation** shows relatively weak net PAE. The explanation is the same as in last year's assessment – several of the companies within this sector are in the process of transitioning towards the low-carbon economy. Though they are more carbon-intensive in terms of their scopes 1, 2 & 3, they will be important contributors moving forward given the scale of their investments in renewables. An example is Enel. Enel's net result is positive (i.e., Emits more than it avoids). Despite this result, we still firmly believe that Enel is amongst the greatest contributors to the energy transition, as one of the world's largest renewables developers, adding 3–5GW of renewable capacity annually. This figure will increase to >10GW by the second half of this decade. The company's carbon footprint is driven by its coal exposure, which is due to be retired by 2027 (brought forward by 3 years since our previous PAE report). The PAE methodology also uses the average world emissions factor for the considered year for utilities. This is also a sector that has come far in its decarbonisation journey (see fact box on Enel's decarbonisation story).

There is one company categorised as **other renewables** – Chr. Hansen. The company's bioprotection segment has been analysed. Bioprotection involves the use of natural microbial food cultures to inhibit unwanted contaminants. This helps to prevent food spoilage and enhance food safety. Increased preservation reduces food waste and therefore emissions. As demonstrated in the graph above, the net PAE result for the company is low. We estimate that bioprotection accounts for 6% of the company's total revenues. As a result, we believe the estimated PAE to be conservative, as the company had additional emissions-enabling capabilities beyond bioprotection. The inclusion of a company like this in the portfolio speaks to the direction of travel of the portfolio. We believe that emissions-saving investment opportunities within sustainable food and agriculture will be of increasing importance moving forward given that agriculture and land-use change accounts for approximately 25% of global GHG emissions.

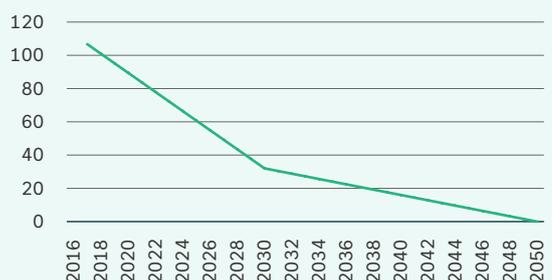
Enel's decarbonisation journey

Enel is amongst the greatest contributors to the energy transition, as one of the world's largest renewables developers, adding 3–5GW of renewable capacity annually.

Enel commits to reduce its scope 1 GHG emissions by 80% per kWh by 2030 from a 2017 base year, limiting them to 82gCO₂/kWh_{eq}, and will achieve full decarbonisation by 2050. It also commits to reduce its absolute scope 3 GHG emissions for the use of sold products by 16% by 2030 from a 2017 base year. The SBTi has approved this target and verifies that this is consistent with reductions required to keep global warming to 1.5C. BNEF estimates that this target covers 95% of the company's total emissions.

ISS-ESG calculated a PAE of 46,165,404tCO₂ in last year's analysis, versus 48,781,680tCO₂ in this year's analysis. This represents a 6% PAE increase in one year, showing the impact of added renewable capacity. At the same time, the company's scope 1, 2 & 3 carbon intensity (tCO₂e/EURm revenue) decreased by 37% as power generated from coal significantly decreased from 16% to 6% of the company's total power generation. Its net PAE per EURm has decreased from 2,425tCO₂e/EURm to 1,231tCO₂e/EURm. This means that the company still emits more than it avoids, but the decrease shows that the company is on the right track.

Enel SpA - emissions trajectory based on targets³²⁾
 MtCO₂e per yer



32) Source: BNEF Corporate Net-Zero Assessment Tool

METHODOLOGY

Below we summarise the ISS-ESG PAE methodology along with some of our own observations. The PAE assessment considers a single product category per company, sometimes covering as little as 4% of the revenues. This approach reduces the total PAE attributed to each company compared to if the analysis had covered the entire product portfolio. The analysis covers 72% of company revenues for the 33 names – this represents 71% of the portfolio by weight as at the 31.05.2021.

Avoided emissions are “emissions that would have been released if a particular action or intervention had not taken place”. Avoided emissions can appear throughout third parties’ value chains depending on the type of product or service offered and how this product or service affects operations. See example outlined in Fig. 16.

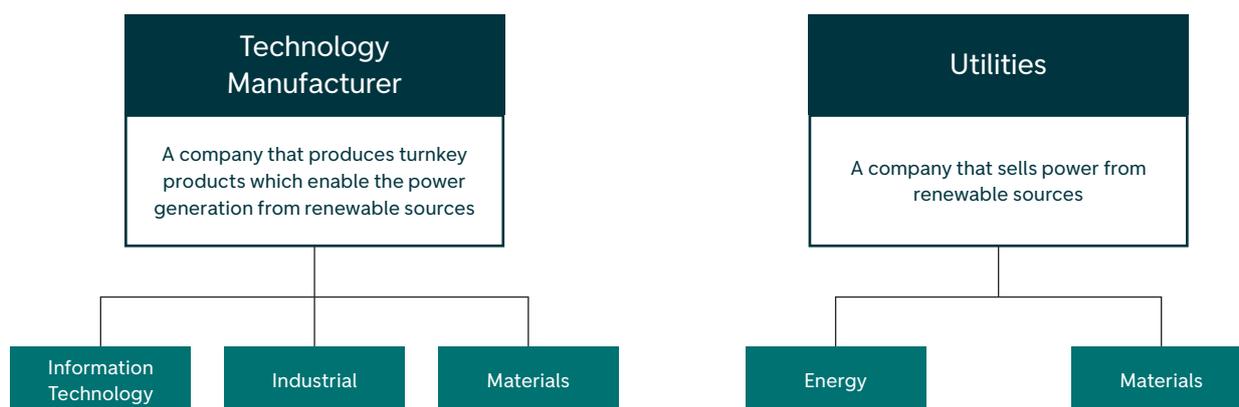
To quantify an amount of PAE, a baseline must be established. The baseline describes what would have occurred if the product or service had not been made available. The PAE are obtained from the difference in GHG emissions between the baseline level and the scenario where the product or service is made available³³⁾. The emissions avoided by using a more efficient product or service are often conditional to either consumer or market behaviour, although this analysis does not make absolute predictions about behaviour or market developments. Consequently, ISS-ESG has chosen to use the expression potential avoided emissions to underline that the avoided emissions presented in this report are not assured or verified by a third party and are dependent on certain behaviours. Furthermore, the companies included in this analysis provide popular services with a proven market demand, sometimes using infrastructure that has been in place for over a century. It is therefore difficult to establish

additionality. For instance, if one company were to cease operation; it is likely that a company with a similar offering would take its place in the market. Further, the source of finance is arguably primarily driven by market demand and financial opportunity rather than a motivation to support activities with proven climate change mitigating effects. Most stakeholders therefore agree that climate mitigating contributions from products and services that are financed through traditional financial markets may not be additional in that they are already taking place in a business-as-usual scenario.

Nonetheless, this should not discourage investors from assessing positive impact. The products and services that are financed via investments, such as renewable energy or LED lights, are vital to transitioning away from carbon intensive activities. The private sector and investors are therefore expected to play a crucial role in the implementation of the Paris Agreement. The policy environments created by Nationally Determined Contributions (NDCs) are making low-carbon technologies attractive for investors, for example through renewable energy auctions. This encourages the private sector to contribute to reaching climate targets. Evaluating the climate change mitigating effects of an investment is a complex exercise. This methodology provides a simplified approach that can be applied at portfolio level. The methodology focuses on investments involved in the production and/or distribution of renewable energy. With a wide array of actors ranging from component manufacturers and material suppliers to wholly integrated manufacturers, project developers and operators to utility providers, the renewable energy sector is highly diverse. ISS-ESG defines two primary groups within this (see Fig. 24): renewable energy technology manufacturers and utilities.

33) CDP, Technical note: Glossary terms.

Figure 24. ISS-ESG defines two primary products within the renewable energy sector



SHORTCOMINGS OF POTENTIAL AVOIDED EMISSIONS ANALYSIS

Our assessment of the shortcomings of the PAE analysis can be found in their entirety in [last year's report](#). Here we summarise the main points:

- **Double counting:** in an interlinked society with complex value chains, it is nearly impossible to completely exclude double counting.
- PAE assessment only considers a **single product category per company:** Sometimes as little as 4% of company revenues have been covered by the assessment. Though this approach is considered best-practice today, we believe that the final result is highly conservative.
- The results rely on the **quality of available data:** we note a substantial difference in the quality and volume in company responses. For companies that were not able to provide data but whose offering enables PAEs, generic data has been used. In some cases, the calculations are based on generic estimates.
- **Calculations are based on backward-looking data:** Investors invest based on the prospect of what companies will deliver in the future.

- **Conservative assumptions:** For instance, the lifetime assumption of an asset is a key consideration. If we change the assumption around the number of years a solar park will be in operation in our discounted cash flow analysis, it will yield different results. For many of the products we have used conservative lifetime assumptions while, in reality, they will be in operation longer, thereby saving more emissions.
- **Determining the baseline:** The baseline itself introduces uncertainty. For instance, for the power generation sector, the local grid emission factor can vary substantially between regions. In practice, it is also difficult to obtain accurate data. The calculation for the baseline comparison is therefore based more on high-level and readily available data.
- **Additionality:** It is difficult to establish additionality.

7 Potential revenue exposure to the UN SDGs



The UN SDGs were adopted by all UN Member States in 2015. The goals provide a shared blueprint for peace and prosperity for people and the planet, now and in the future. The SDGs consist of 17 goals and 169 targets which aim to address the greatest challenges faced by the global community by 2030. Along with governments, the SDGs call on private sector participation to solve some of the world's most urgent problems this decade.

THE SDGS ARE PART OF OUR STRATEGY

As the fund has an environmental focus, the SDGs are an interesting framework to consider, both from a risk and an opportunity perspective. We strive to identify companies with business models aligned with the SDGs. Considering these in a collective manner will also help to increase the resilience of our portfolio.

MAPPING POTENTIAL PORTFOLIO REVENUE EXPOSURE TO THE SDGS

Our portfolio specifically targets investments in companies that provide positive environmental and climate benefits through their products and services. As in last year's assessment, we have mapped company revenues to the SDGs using Bloomberg's SDG model to demonstrate potential portfolio revenue exposure to the SDGs.

The Bloomberg SDG model utilises a two-pronged approach. First it identifies revenue segments that may be exposed to the SDGs, and then it considers corporate performance against the goals by looking at goal specific ESG metrics that may bring positive or negative effects. It is important to note that the model identifies potential exposure to the SDGs; it does not measure alignment, contribution or impact.

Our assessment focuses on understanding the potential revenue exposure of portfolio holdings. The result provides a high-level signal of the portfolio's potential revenue exposure to the SDGs. Corporate performance against the goals is not considered in this overview.

Over the past year, as part of ESG Lab, DNB AM have been working to establish an in-house view on SDG alignment (see fact box on ESG Lab for more information). The methodological approach and framework are currently under development, and we expect to publish results using this approach in next year's report.

Figure 25. Potential SDG revenue alignment as at 31.12.2019³⁴⁾



Figure 26. Potential SDG revenue alignment as at 30.09.2021³⁵⁾



34) Source: Bloomberg

35) Source: Bloomberg

The pie chart above broadly aligns with our expectations and the intended climate and environmental aims of portfolio at an aggregated level.

The difference between this year's result compared to last year's speaks to the direction of travel for the strategy. SDG 11 (Sustainable cities and communities) represented a large share of last year's potential revenue exposure to the SDGs. This was largely driven by exposure to auto parts manufacturers playing on the sustainable transport theme. The portfolio has since reduced this exposure, as auto suppliers have experienced a strong recovery together with value stocks. We have also become more uncertain about how strong both the environmental case and the competitive positioning is for several of these companies.

Potential revenue exposure to the SDGs is found for companies responsible for approximately 76% of the weight of the portfolio. When looking at the highest percentage of potential revenue exposure per company, the average percentage of potential revenue exposure per company is 83%. This figure does not capture revenues that may be applicable to several SDGs.

See [last year's report](#) for the full discussion of the limitations of this approach.

8 Appendix

8.1 Exclusion criteria

The fund applies several layers of exclusion criteria:

Excludes	Based On
Companies found to be in breach of: → Product-based criteria (production of tobacco, production of pornography, controversial weapons) → International norms and standards	DNB's Standard for Responsible Investments
Companies with >5% of revenues from: → Alcohol production → Gambling → Conventional weapons	Additional exclusion criteria
Companies with >5% of revenues (unless otherwise specified) from: → Manufacturers that mine uranium → Companies that base their electricity generation on nuclear energy → Operators of nuclear power plants and manufacturers of essential components for nuclear power plants → Companies which use and/or produce hydraulic fracking technologies → Manufacturers of conventional weapons → Coal mining companies* → Companies with base their power production on coal energy (less than 10% of revenues) → Companies which exploit and/or concentrate oil sands*	FNG Label

*Stricter threshold than the DNB Standard for Responsible Investments

8.2 Disclaimers

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The European SRI Transparency logo signifies that DNB Asset Management commits to provide accurate, adequate and timely information to enable stakeholders, in particular consumers, to understand the Socially Responsible Investment (SRI) policies and practices relating to the fund. Detailed information about the European SRI Transparency Guidelines can be found on www.eurosif.org, and information of the SRI policies and

practices of the DNB Asset Management can be found at: www.dnb.no/en/about-us/csr/sustainability-library.html.

The Transparency Guidelines are managed by Eurosif, an independent organisation. The European SRI Transparency Logo reflects the fund manager's commitment as detailed above and should not be taken as an endorsement of any particular company, organisation or individual.

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FNG LABEL

The FNG-Label is the quality standard for sustainable investments on the German-speaking financial market. It was launched in 2015 after a three-year development process involving key stakeholders. The sustainability certification must be renewed annually.

The FNG-Label gives the German-speaking countries a quality standard for sustainable mutual funds. The holistic methodology of the FNG-Label is based on a minimum standard. This includes transparency criteria and the consideration of labour & human rights, environmental protection and anti-corruption as summarised in the globally recognised UN Global Compact. In addition, all companies in the respective fund must be explicitly analysed in terms of sustainability criteria. Investments in nuclear power, coal mining, significant coal-fired power generation, fracking, oil sands, weapons and armaments are taboo.

High-quality sustainability funds that excel in the areas of “institutional credibility”, “product standards” and “impact” (title selection, engagement and KPIs) are awarded up to three stars. The FNG-Label goes far beyond a mere portfolio assessment and is holistic and meaningful. With more than 80 questions, the Label analyses and evaluates, for example, the sustainable investment style, the associated investment process, the associated ESG research capacities and a possibly accompanying engagement process. In addition, elements such as reporting, the investment company as such, an external sustainability advisory board and issues of good corporate governance play an important role.

The auditor of the FNG-Label is the University of Hamburg. The Qualitätssicherungsgesellschaft Nachhaltiger Geldanlagen (QNG) bears overall responsibility, especially for coordination, awarding and marketing. An independent committee with interdisciplinary expertise also accompanies the audit process. The FNG-Label has been awarded the title “highly recommended” by the consumer portal www.label-online.de and has been added to the shopping basket of the German Council for Sustainable Development. The EU, together with the other national, governmental label systems, has also invited it to join a working group within the framework of the EU Action Plan for financing sustainable growth.

Detailed information on the methodology can be found in the [rules of procedure](#).

Further information on the FNG-Label: www.fng-siegel.org.



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