TT Environmental Solutions – ESG Reporting

Author

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Head of ESG

Basak is Head of ESG at TT. Working alongside the Investment, Risk and Marketing teams, she helps to integrate ESG across our long-only products. Before joining TT in 2020, Basak spent six years at Norges Bank Investment Management, where she collaborated closely with the Investment teams and senior management to integrate ESG into their investment process. Prior to Norges, she was a Portfolio Manager on Harvard University's endowment fund, investing in Emerging Markets in a long/short equity strategy. Basak graduated cum laude with an A.B in Economics from Princeton University. She also has an MSc in Management and Regulation of Risk from London School of Economics.

Firm ESG update

2022 was marked by high volatility in financial markets and commodities following Russia's invasion of Ukraine. We formed a working group across TT's Trading, Risk, ESG, Legal, and Compliance divisions and responded to the fast-evolving landscape of sanctions and market developments. We exited our Russian investments following the invasion to the extent possible and engaged with companies in our portfolios with exposure to Russia, as well as with the Association of Institutional Investors, a Russian corporate governance organisation that we have been members of since 2019.

We had 95 targeted ESG engagements with 75 companies. We voted at 405 meetings and published our voting records on our website.

ESG products: We won the **ESG Investing award for 'Best ESG Investment Fund: Global Thematic' for our Environmental Solutions Strategy, as well as the Environmental Finance Sustainable Investment Awards 2022 for 'Thought Leadership Paper on Sustainable Investing, Global.'** We finalised our SDG alignment framework with input from our investment team and used it to launch two ESG strategies in 4Q22 – Sustainable EM and Sustainable Thematics. Sustainable EM is an Article 8 version of our existing EM strategy that actively targets alignment with the UN Sustainable Development Goals using a proprietary scoring framework and seeks to invest at least 80% of the fund's capital in companies that promote the SDGs through their operations and/or products. In our Sustainable Thematics strategy, we seek to invest in a diversified portfolio of small- and mid-cap companies which present the opportunity for long-term growth, within the environmental, technological, demographic and sociological, and top-down and opportunistic global themes. These strategies exclude companies that derive more than 10% of their revenues from fossil fuels, tobacco, cannabis, alcohol spirits, gambling, weapons, and adult entertainment, whilst also subjecting each investee company to a UN Global Compact violations filter.

Active ownership: We continued to engage with our investee companies on climate risk, biodiversity, human rights risks in supply chains, and executive remuneration. We continued our involvement in the Taskforce on Nature-related Financial Disclosures (TNFD) Forum. We analysed company disclosure on biodiversity and sent letters to companies in our Environmental Solutions Fund which did not previously disclose meaningfully on this topic.

Processes: We held monthly ESG risk meetings on our long-only portfolios with the portfolio managers and TT Risk team. At these meetings, we review the portfolio companies with relatively high governance risks (including accounting flags), low ESG scores, controversies and high carbon emissions. We also initiated these reviews for our hedge fund strategies.

In terms of ESG resources, we subscribed to Eurasia Group for geopolitical risk analysis and Glass Lewis for proxy research, which is in addition to our existing proxy research from ISS. We believe these resources will be highly valuable to us, as we see geopolitical risks rising in the world and look to engage with companies.

Reporting: We published our second stewardship report and renewed our status as a signatory to the UK Stewardship Code. In our UN PRI assessment, we scored very strongly on ESG incorporation for long-only equities (5 stars) and achieved 4 stars on investment and stewardship policy, voting, and ESG incorporation and voting for hedge funds.

Regulatory: We finalised the legal documents and SFDR disclosure for our new ESG products and updated fund documents for TT Environmental Solutions.

TT INTERNATIONAL

TT Environmental Solutions – ESG Reporting

The Overall Sustainability-Related Impact

During the relevant period, the TT Environmental Solutions Fund held 100% of its invested capital in sustainable investments with an environmental objective.

How did the sustainability indicators perform?

In targeting sustainable investments, the fund seeks to invest over 80% of its invested capital in issuers that generate at least 50% of revenues or operating profits from activities which contribute to the solution of an environmental problem. However, the Fund may also invest up to 20% of its invested capital in companies that are making a material improvement to environmental issues but whose revenues or operating profits from such activities do not yet account for 50% of the business. To assess the success of the Fund in achieving its objective, we verify the revenues or operating profits derived from environmental solutions for each company that the Fund invests in using both public company disclosure and equity research. The fund consistently complied with this threshold in the reporting period, ending the year at 81.7 per cent of its assets (and 89.4 per cent of its invested capital) in issuers that generated at least 50 per cent of its revenues or operating profits from activities that contribute to the solution of an environmental problem. On a weighted average basis, 73.5% of the revenues and/or operating profit of our portfolio was generated from the provision of environmental solutions (80.5% across the invested capital).The carbon footprint of the portfolio (scope 1 and 2 emissions) also declined during the fiscal year, reducing from 67 tonne CO2e per USD million invested at the beginning of the year to 49 tonne CO2e per USD million invested at the end of the year, based on available information. The portfolio’s avoided carbon emissions as disclosed by the investee companies was 22.9 times its carbon footprint as of 31-December-2022.

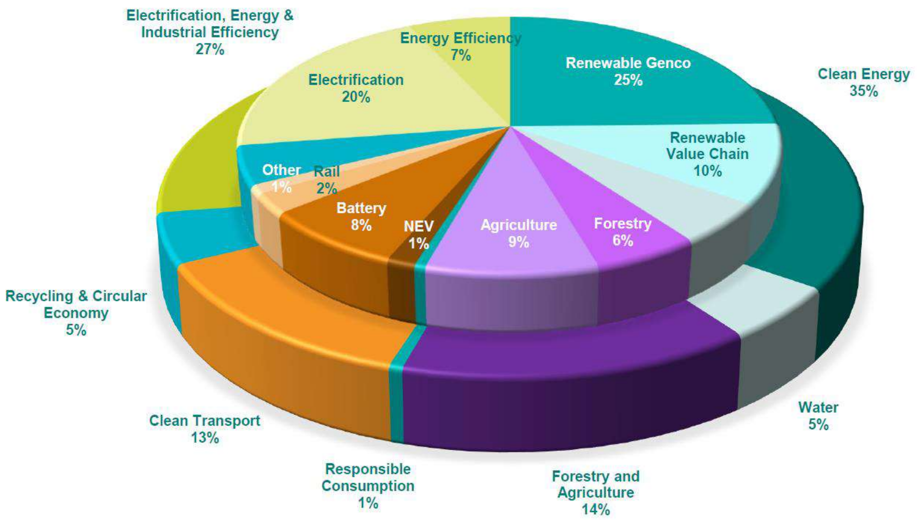
Top investments

The top 5 investments of the TT Environmental Solutions Fund as of 31-December-2022 were:

Largest Investments	Sector	% of assets	Country
EDP Renovaveis	Utilities/Clean Energy	6.1	Portugal
DSM	Materials/Responsible Consumption	5.3	Netherlands
Weyerhaeuser	Real Estate/ Forestry, Food and Agriculture	5.1	United States
Terna	Utilities/Electrification, Industrial and Energy Efficiency	4.8	Italy
Omega Energia	Utilities/Clean Energy	4.7	Brazil

In which economic sectors were the investments made?

The investments were in the following sectors: (i) clean energy; (ii) clean transport; (iii) forestry and agriculture; (iv) responsible consumption; (v) recycling and circular economy; (vi) sustainable use and protection of water; and (vii) electrification, electrical and industrial efficiency. The chart below illustrates the allocation into themes as of 31-December-2022.



TT Environmental Solutions – ESG Reporting

TT INTERNATIONAL

Fund ESG Dashboard

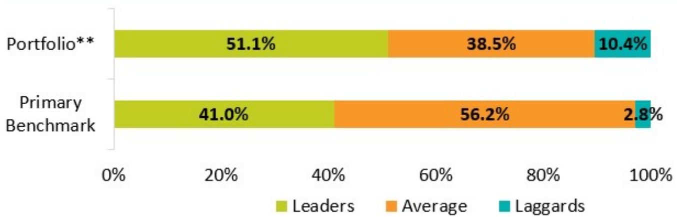
Carbon Footprint and Avoided Emissions

	TT ESF	MSCI ACWI	Portfolio vs Benchmark
Carbon footprint (CO2t per $1m invested)	49	101	-51%
Carbon intensity (CO2t per $1m sales)	112	188	-40%
Coverage including cash	100.0%	99.9%	

Our portfolio's avoided carbon emissions as disclosed by the investee companies is 22.9x its carbon footprint*

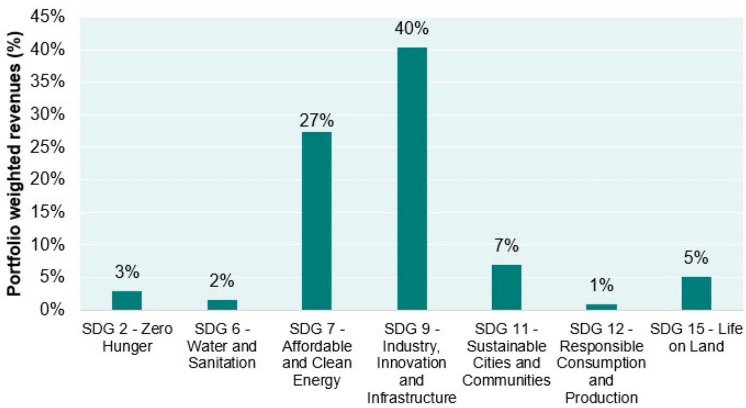
EU Taxonomy Alignment

MSCI ESG Ratings Distribution



	Portfolio	Primary Benchmark
Weighted Avg. ESG Score	6.39	6.67

SDG-aligned revenues of our portfolio



Source: TT International, MSCI, Bloomberg. Data as of 31st December 2022.

*45 companies with reported or estimated carbon emissions, 23 companies reporting emissions avoided through their activities. **7 companies not covered by MSCI ESG ratings.

MAIN PILLARS OF THE STRATEGY'S IMPACT

Impact through engagement on specific issues and by means of thematic engagement

- Numerous examples of improved capital markets outcomes and disclosure consistent with our engagement efforts
- Since inception to December 2022, we have had 102 engagements in the strategy (including our thematic biodiversity letter project to 32 companies)

Providing primary capital to help scale environmental solutions

- Participated in 5 IPOs to date
- Participated in 18 follow-on capital raises

Lowering implied cost of capital for businesses in capital hungry growth phase

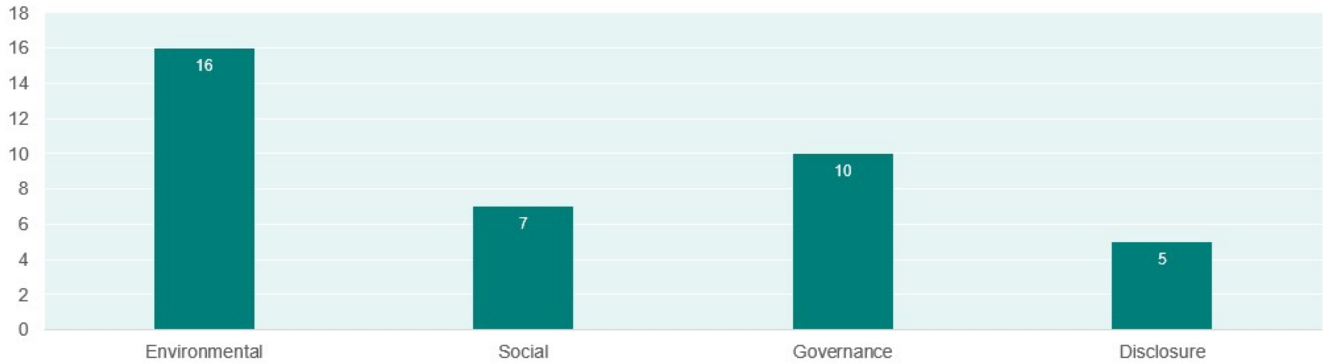
- Secondary markets help drive correct pricing & capital allocation between competing solutions
- Our expertise helps to drive prices to appropriate levels

Unique impact through TT's charitable donations, creating meaningful environmental outcomes

- Our total charitable contribution as of Q4 2022 was $431,748
- We currently support Heal (rewilding), The University of Western Australia Oceans Institute (supporting academic research), GreenWave (regenerative ocean farming), and The Global Returns Project (which allocates the most effective not-for-profit organisations tackling the climate and nature crisis).

Engagement Breakdown by Theme

- 27 targeted engagements in 2022 with 15 companies in the Environmental Solutions strategy covering environmental, social, governance topics and ESG disclosure
- In addition to the engagements above, we also sent out biodiversity disclosure letters to 32 companies in our portfolio which had minimal biodiversity disclosure to educate and guide our investee companies (not included in the statistics below)



Biodiversity engagement – letter project

We analysed the ESG disclosure of all the companies in the portfolio as of April 2022 and sent 32 physical letters to companies where there was no disclosure on the topic. These letters were directed to the chair of the committee on the board responsible for environmental matters. Where there was no such sub-committee, we wrote to the chair of Nominating and Corporate Governance Committee, and for others, the chairman of the board.

We also prepared a presentation detailing the current state of biodiversity disclosure which was reviewed by Dr. Joseph Bull, our research advisory board member, who is an expert in biodiversity and conservation and who teaches at Oxford University. Our slide pack for the corporates included information on:

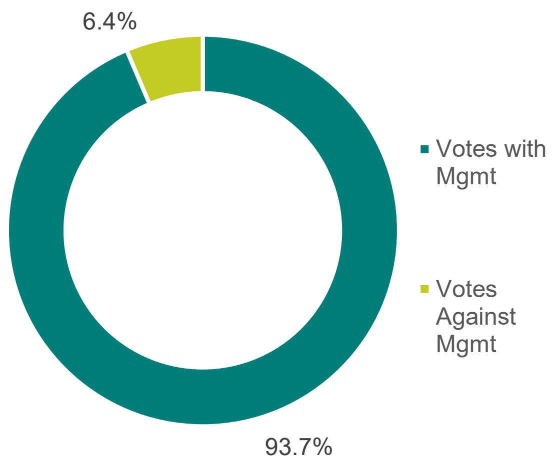
- TNFD (Taskforce on Nature-related Financial Disclosures) and its LEAP approach for corporates
- GRI and EU SFDR biodiversity metrics
- Best practices for setting a strategy and policy for own operations and supply chain
- General and industry-specific disclosure examples

Owens Corning – Russian withdrawal

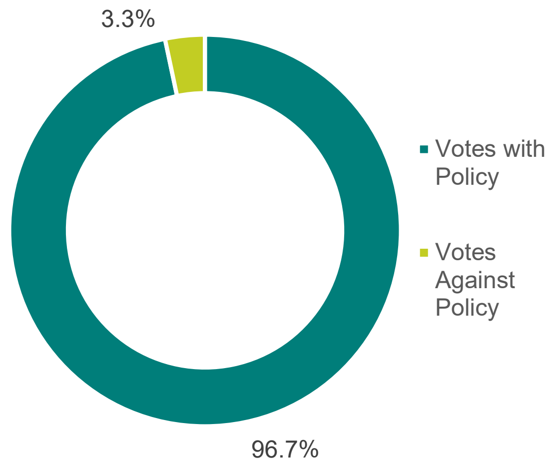
In the aftermath of Russia's invasion of Ukraine, we reviewed our investee companies' exposure to Russia. Owens Corning had two facilities in Russia (in Composites and in Technical and Global Insulation) and derived less than 1% of its global sales from the country. We then engaged with the company on 11-March-2022 about its plans with respect to its Russian business. We cited the withdrawal of many multinational companies from Russia in the aftermath of the invasion and strongly suggested that the company too should consider ceasing its operations in Russia. Following the company's response that they considered matters "beyond the financial impact to Owens Corning," we emphasized that they should at a minimum commit to not expanding operations in Russia and cease to use government-owned suppliers. We also drew the company's attention to the Yale School of Management list of companies that continued to operate in Russia – Owens Corning was one of the 26 American companies that had made no commitments on scaling back operations at the time despite its strong and long-standing commitment to ESG.

On 13-April-22, the company announced that it was going to transfer or sell its Russian facilities and exit Russia and that the Owens Corning Foundation had donated to humanitarian efforts in Ukraine, as well as matching employee donations to charities in the region. We strongly believe that shareholder pressure played a role in this outcome. Despite this commitment, Yale continued to list the company as continuing "business as usual". We therefore continued engaging with Owens Corning and drew their attention to other companies that had announced the same strategy and were listed as "withdrawing". We encouraged the company to communicate with Yale University and reiterate their commitment to the exit. The company was recognised by Yale for its commitment to full withdrawal in May 2022. Owens Corning fully exited from Russia in December 2022 via an asset sale.

Proxy voting – Alignment with management



Proxy voting – Alignment with Policy



Source: ISS

Proxy voting - Highlights

- We voted at 50 meetings (out of 50 meetings, or 100%) in the twelve months ending 31-December-2022.
- Votes cast during the reporting period were least in line with management on non-routine business matters, where only 50% of votes followed management recommendations.

Proxy voting – Significant examples

- **Smart Metering Systems Plc (05/22) Approve Remuneration Report**
  ISS recommended voting against the remuneration report due to two structural issues –short vesting period and retesting. The remuneration report disclosed that awards granted to Executive Directors during the year under the Share Option Plan vest in annual tranches within a five-year period, rather than waiting a minimum of three years. The vesting of each annual tranche is subject to annual targets including a market capitalisation target. Where a market capitalisation target is missed, the corresponding tranche of award will automatically vest in future years if the future year market capitalisation target is met or on the occurrence of certain events which would cause all trances to vest. Importantly, the proposed LTIP rectifies both of these structural issues, removing retesting potential and having awards start vesting after three years. We therefore voted in favour of the remuneration report.
- **Plug Power Inc. (06/22) Advisory Vote to Ratify Named Executive Officers' Compensation**
  The company has good disclosure of the targets and achievements; has made real improvements including removing time-based shares (restricted stock units) from LTIP and put in stretching hurdle rates for the options to vest – Plug Power's three-year goal is to achieve a stock price of $100/share (or more) by 2024. To achieve this goal, the CEO and the management team would have had to more than triple Plug Power's market cap to grow Plug Power to an almost $60 billion company over the next three-year period. We considered this to be a positive sign; however, management could hit those hurdles for any 30-day period within the next three years and still retain the options, which is not structurally sound. Therefore, we abstained on this vote.
- **Stem, Inc. (06/22) Elect Director Laura D'Andrea Tyson and Jane Woodward**
  We had voted against several proposals last year at the Stem EGM to approve the SPAC transaction – namely the company adopting a supermajority (2/3rds) vote requirement to remove directors and amend the charter and the bylaws, as well as the highly dilutive omnibus stock plan. In the time that passed since then, the company has not removed the supermajority requirements and therefore both ISS and Glass Lewis recommend voting against the two directors who have been on the board since the company went public via the SPAC transaction. A classified board prevents shareholders from holding directors accountable on an annual basis, can entrench management, and can deter takeovers and proxy contests. The supermajority vote requirement could lock in provisions that may not be in shareholders' best interests and may prevent future shareholders from effecting change.

Carbon footprint – (t CO_2E/\$m invested)

	Portfolio	Benchmark
Carbon footprint	49	101

Source: MSCI
Carbon intensity: Portfolio coverage 100% (including cash), Benchmark coverage 100%

Top 5 contributors to the portfolio's carbon footprint

Rank	Company	Portfolio weight	Sector (GICS)	Carbon intensity	Contribution to carbon footprint of the portfolio
1	Owens Corning	2.38%	Industrials	403	21.4%
2	Terna-Rete Elettrica Nazionale	4.79%	Utilities	576	11.7%
3	Renewi	0.53%	Industrials	233	9.7%
4	Befesa	1.05%	Industrials	820	9.1%
5	Steico	0.75%	Industrials	694	7.7%

Source: MSCI; holdings as of 31-December-2022

Comments

- **Owens Corning** (21% of the portfolio's carbon intensity) is a major provider of residential insulation, which improves the thermal efficiency of buildings. In 2021, more than 63% of the company's revenue helped save energy and avoid emissions that were twice the company's scope 1+2 emissions. Owens Corning has a SBTi approved target of a 50% reduction in scope 1 & 2 GHG emissions by 2030.
- **Terna-Rete Elettrica Nazionale** (12% of the portfolio's carbon intensity) is one of Europe's main electricity transmission grid operators. 96% of the company's carbon footprint is from grid losses as electricity passes through conductors and during its transformation. These losses are not completely under the company's control, but it is trying to address the issue through projects such as improved infrastructure and faster responses to leaks/losses and helping to increase the share of renewables in the grid. The company has adopted a Science Based Target to reduce absolute scope 1 & 2 emissions by 28% as of 2030 (from a 2019 base).
- **Renewi** (10% of the portfolio's carbon intensity) is one of Europe's largest independent waste disposal enterprises. Renewi's recycling avoids 3.1m tonnes of CO2 emissions annually, more than 6 times its scope 1 & 2 emissions. Renewi reduced its scope 1 & 2 emissions by 7% by switching to 100% green electricity at its Dutch Commercial Waste division.
- **Befesa** (9% of the portfolio's carbon intensity) is a specialist metal recycling company focused on steel and aluminium dust/residue. Befesa contributes significantly to circular economy by increasing the efficiency of raw material use in the metals industry. One of Befesa's main sources of emissions is the use of coking coal in the steel reduction process. The company is aiming for a reduction in CO2 emissions intensity of 20% by 2030 and net zero emissions by 2050.
- **Steico** (8% of the portfolio's carbon intensity) produces wood fibre building insulation, which improves the thermal efficiency of buildings and reduces their CO2 footprint. It has a relatively high carbon intensity due to the production of heat and steam required in the manufacturing process. The emissions avoided through the use of Steico's products are approximately three times the company's total scope 1 & 2 emissions. Steico has substantially reduced its carbon intensity from 2020 to 2021 largely by reducing its use of fossil fuels – coal use was cut by 38% and it is now only used as a reserve energy source.

Summary

Ticker: RNW US

Headquarters: India

GICS Industry: Independent Power and Renewable Electricity Producers

Environmental Solution revenue: 100%

MSCI Rating: Unrated

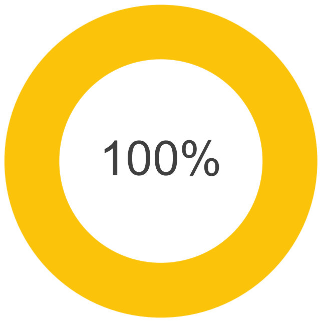
Portfolio weight: 2.51%

Clean Energy – ReNew Energy Global

Environmental Solution

ReNew is one of the largest independent renewable power producers in India and globally. As a producer of 100% clean energy, ReNew contributes to climate mitigation. The company has 7.57 GW of total commissioned capacity including solar, wind, and hydro projects. In addition, ReNew also has 3.12 GW of committed capacity. Avoided emissions from ReNew's clean energy generation was 11 million tCO_2e over 2021-2022.

SDG Aligned Revenues



EU Taxonomy Aligned Revenues

100% of Renew's revenues were deemed to be EU taxonomy aligned in 2022.

Emissions Targets

	CO_2 emissions included	Absolute / Relative	Reduction target	Target year	Baseline year
1	Scope 1, 2 & 3	Absolute	29.4%	2027	2022
2	Scope 1, 2 & 3	Absolute	90%	2040	2022

Active Ownership

In 2022, we engaged with ReNew on its exposure to supply chains involving Hoshine Silicon and other companies on US trade blacklists because of accusations around Uighur forced labour. ReNew has updated its contractual representations from its vendors such that the vendors ban forced labour at their production facilities and in their upstream value chain. We also discussed ReNew's approaches to considering biodiversity risks when procuring modules and turbines. ReNew plans to require its suppliers to disclose on biodiversity and conservation in the future.

ReNew was one of the companies that we engaged on biodiversity disclosure. The company's chairman responded to our letter and addressed our high-level questions on the strategy, governance, and risk management of biodiversity. For example, ReNew has installed ~ 23,000 birds diverters to avoid any incidence of bird hits on transmission lines.

TT Environmental Solutions – ESG Reporting

Summary

Ticker: KBX GY

Headquarters: Germany

GICS Industry: Construction Machinery and Heavy Transportation Equipment

Environmental Solution revenue: 60%

MSCI Rating: AA

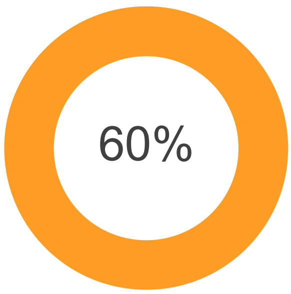
Portfolio weight: 2.30%

Clean Transport – Knorr-Bremse

Environmental Solution

Knorr-Bremse is a global market leader in braking and other systems for rail and commercial vehicles. Whilst braking systems account for ~5% of the cost of the train at the point of manufacture, aftermarket sales are 2-3x larger than the original equipment provision. Strict regulations relating to mileage or age determine when brakes are replaced and with the rail network due to be used more intensively to meet emission targets, Knorr-Bremse facilitate climate mitigation. Rail produces 29g of CO2 per passenger km vs flying at 214g over long distances. 60% of the company's revenues are environmental solutions (rail systems and fuel efficiency for commercial vehicles.)

SDG Aligned Revenues



EU Taxonomy Aligned Revenues

Knorr-Bremse reported 8% of its 2022 revenues to be aligned with the EU Taxonomy's climate change technical criteria, a narrow definition that does not fully reflect the company's environmental revenues. Knorr-Bremse's taxonomy aligned activities include the manufacture of low carbon technologies for transport, infrastructure for rail transport and the installation, maintenance and repair of energy efficiency equipment.

Emissions Targets

Since the end of 2021 operations at Knorr-Bremse have been carbon neutral and the firm had set the target of reducing its Scope 1 & 2 emissions by 50% by 2030 without using carbon offsets. Over the 2022 fiscal year the firm reduced emissions by 69% from 2018 levels, therefore at its latest AGM, Knorr-Bremse heightened its ambition, and it is now aiming to cut emissions by 75% by 2030.

	CO_2 emissions included	Reduction target	Target year	Baseline year
1	Scope 1 & 2	75%	2030	2018
2	Scope 3	25%	2030	2021

Active Ownership

In 2021, we engaged with Knorr-Bremse to request a shareholder vote on the proposed acquisition of Hella, the automotive lighting company. We raised concerns regarding derogation language in remuneration, which we believed made it more likely for such transactions to take place, along with the our concerns around the strategic fit. Knorr-Bremse later pulled out of the transaction as a result of shareholder response.

Summary

Ticker: OC UN

Headquarters: US

GICS Industry: Building Products

Environmental Solution revenue: 63%

MSCI Rating: AA

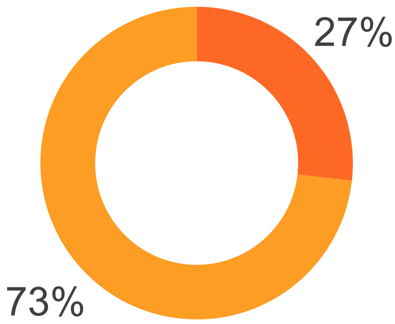
Portfolio weight: 2.37%

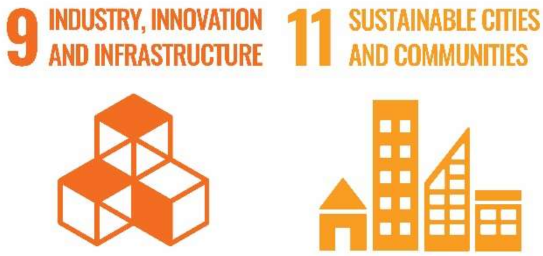
Electrification, Industrial and Energy Efficiency – Owens Corning

Environmental Solution

In 2021, around 19% of global energy-related and process-related CO2 emissions resulted from the generation of electricity and heat used in buildings. As a major provider of residential and commercial use insulation, Owens Corning contribute to improving the thermal efficiency of buildings and reducing the CO2 footprint of buildings and thus help climate mitigation. The firm has said that 63% of its revenue comes from products that save energy and lower emissions in 2022.

SDG Aligned Revenues





EU Taxonomy Aligned Revenues

37.5% of Owens Corning's revenues were deemed to be EU taxonomy aligned.

Emissions Targets

	CO_2 emissions included	Absolute / Relative	Reduction target	Target year	Baseline year
1	Scope 1 & 2	Absolute	50%	2030	2018
2	Scope 3	Absolute	30%	2030	2018

Active Ownership

In 2022, we engaged with Owens Corning on its exposure to Russia – the firm had two facilities in Russia contributing less than 1% of global sales. We highlighted the withdrawal of many multinational companies from Russia after the invasion and strongly suggested that the company should consider ceasing its operations. The firm later announced its intention to transfer or sell its Russian facilities and exit Russia. We guided them to communicate with the Yale School of Management and get reclassified from a grade F to an A, which was successful.

Summary

Ticker: WY UN

Headquarters: US

GICS Industry: Equity Real Estate Investment Trusts (REITs)

Environmental Solution revenue: 96%

MSCI Rating: AA

Portfolio weight: 5.13%

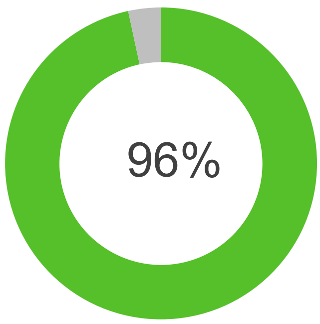
Forestry and Agriculture - Weyerhaeuser

Environmental Solution

Weyerhaeuser is the largest private timberland owner in North America, with 11 million acres owned in the US and 14 million licensed in Canada. Weyerhaeuser has estimated that its forests store 2.3-3.6bn tons of CO_2e. Carbon sequestration of trees as they grow removes carbon from the atmosphere. Carbon removal activities store the equivalent of 32m metric tons of CO_2 in their wood products annually, the equivalent of taking 7 million cars off the road.

On a net basis Weyerhaeuser absorbs 25mt CO_2e annually. The firm plants 150 million trees annually and 100% of timberlands are reforested. Active forest management also reduces the risk of wildfires, insect infestations and disease which can cause catastrophic carbon losses. The 2019 California wildfires released about 68mt of CO_2 and around 48mt of CO_2 has been lost from insect infestations and disease between 1997 and 2015. WY's main contribution to solving environmental problems is through climate mitigation. 96% of the company's revenues goes towards environmental solutions.

SDG Aligned Revenues



EU Taxonomy Aligned Revenues

16% of Weyerhaeuser's revenues were deemed to be EU taxonomy aligned.

Emissions Targets

	CO_2 emissions included	Reduction target	Target year	Baseline year
1	Scope 1 & 2	42% (absolute)	2030	2020
2	Scope 3	25% (intensity)	2030	2020

Active Ownership

We have previously engaged with Weyerhaeuser on physical climate risks including bark beetle infestation and management of fire risks, as well as the company's climate opportunity with their new business unit, 'Natural Climate Solutions'. In 2022, we engaged with the firm on water pollution damage caused by the firm's manufacturing operations to the Columbia river; WY rerouted one of its stormwater pipes so it no longer flows into the Columbia River and instead goes to a waste treatment plant.

Summary

Ticker: BFSA GY

Headquarters: Luxembourg

GICS Industry: Commercial Services & Supplies

Environmental Solution revenue: 100%

MSCI Rating: BBB

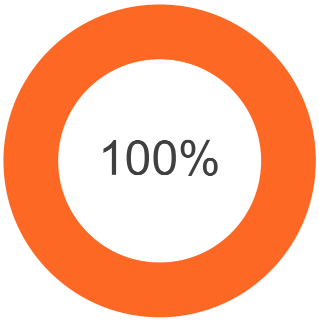
Portfolio weight: 1.05%

Recycling and Circular Economy - Befesa

Environmental Solution

Befesa recycles steel dust and aluminium and is the global leader in EAFD recycling. It is a key player in the steel industry & the circular economy, with c2m tons of recycled and 1.5m tonnes of valuable materials recovered annually. It contributes significantly to the increased efficiency of raw material use in the metals industry. 100% of Befesa's revenues count towards ESG solutions.

SDG Aligned Revenues



EU Taxonomy Aligned Revenues

In its 2021 report Befesa conducted a preliminary assessment for EU Taxonomy eligibility under all 6 environmental objectives. It found that 100% of revenue, capex and opex of Befesa's 2021 operations would be EU Taxonomy-eligible across the six environmental pillars. While Befesa's taxonomy-aligned revenues targeting climate adaptation and mitigation are currently zero, the firm's activities play a key role in the circular economy and Befesa is awaiting the publication of the technical criteria for the "Transition to Circular Economy" goal by the EU authorities.

Emissions Targets

	CO_2 emissions included	Reduction target	Target year	Baseline year
1	Scope 1 & 2	20% (intensity)	2030	2021
2	Scope 1 & 2	Net zero	2050	n/a

Befesa's net zero by 2050 target is dependent on certain technologies currently under development becoming technically viable and economically feasible.

Active Ownership

In 2022, we engaged with Befesa on steps being taken to reduce emissions – currently just 20% of the power procured is from renewable power and we would like this to increase to 80%. Befesa has a strong presence in China – it is currently ramping up operations at its plant in Henan and is planning a third plant in Guangdong. We engaged with Befesa on how prepared they are for geopolitical risks arising from China.

Summary

Ticker: CRBN NA

Headquarters: Netherlands

GICS Industry: Chemicals

Environmental Solution revenue: 41%

MSCI Rating: A

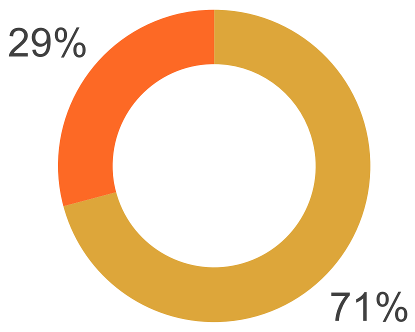
Portfolio weight: 0.53%

Responsible Consumption - Corbion

Environmental Solution

Corbion's Sustainable Food Solutions business produces fermentation-based natural preservation products and solutions with the principal benefits of reducing food wastage. For example, Corbion's Ultra Fresh Premium Advantage (blend on enzymes) extends the shelf life of a loaf of commercial white bread by 7 days. Corbion has a JV with Total which produces PLA (poly lactic acid), a bioplastic that uses natural renewable feedstock. PLA is biodegradable and recyclable and the production process for making PLA is 4x less CO2 intensive than that of making synthetic plastics. While PLA is more expensive than synthetic plastic it is considerably more cost effective than other bioplastics. By replacing fossil-based plastics with PLA plastics users will be able to substantially reduce their Scope 3 GHG emissions. 41% of the firm's 2022 revenues count towards environmental solutions.

SDG Aligned Revenues



EU Taxonomy Aligned Revenues

Corbion reported 4.4% of its 2022 revenues to be aligned with the EU Taxonomy's technical criteria for climate change mitigation, which is a narrow definition and does not fully reflect the company's revenues from environmental solutions.

Corbion's Taxonomy aligned activities include the manufacture of AlgaPrime DHA which is applied in feed for aquaculture and pet food as alternative for fish oil and the manufacture of lactic acid for the production of PLA plastics. Corbion said that these activities meet the DNSH criteria for climate change adaptation.

Emissions Targets

	CO_2 emissions included	Reduction target	Target year	Baseline year
1	Scope 1 & 2	38% (absolute)	2030	2021
2	Scope 3	24% (absolute)	2030	2021

Active Ownership

We have previously engaged with Corbion with regards to deforestation allegations in their supply chain and on the extent of supply chain audits.

Summary

Ticker: ECL UN

Headquarters: US

GICS Industry: Chemicals

Environmental Solution revenue: 66%

MSCI Rating: AAA

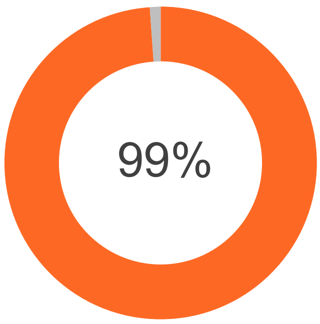
Portfolio weight: 3.33%

Water - Ecolab

Environmental Solution

The World Resources Institute projects that under a business-as-usual scenario, the world will face a 56% freshwater deficit by 2030, placing urgent pressure on businesses to rethink the way water resources are managed. Ecolab helps businesses around the world achieve water conservation goals by doing more with less – improving the heating and cooling, industrial processing, wastewater treatment and cleaning and sanitizing processes of their customers. The company employs innovative water technologies to help customers implement industrial water conservation efforts to reduce freshwater use. Ecolab solutions reduce water use at customer sites by over 120 times than that of their own annual water withdrawal footprint, there is also an associated emissions benefit since there is less water that need to be moved. In 2021, the firm helped customers save 215 billion gallons of water and avoid 3.6 million metric tons of GHG emissions. EcoLab said that 66% of its 2022 revenues deliver environmental benefits as a cautious estimate, and as the firm improves its clean revenue methodology, it expects this figure to increase.

SDG Aligned Revenues



EU Taxonomy Aligned Revenues

9% of Ecolab's revenues were deemed to be EU taxonomy aligned with climate change objectives.

Emissions Targets

	CO_2 emissions included	Reduction target	Target year	Baseline year
1	Scope 1 & 2	50% (absolute)	2030	2018
2	Scope 1,2 & 3	Net zero	2050	n/a

Ecolab is also working with its suppliers, which account for 70% of its Scope 3 emissions, to have science-based aligned goals by 2024.

Active Ownership

Our engagement efforts have been focused on verifying and substantiating the environmental benefits of EcoLab's business. We received more details regarding the benefits of Ecolab's products compared to its peers and this helped us class the company as majority environmental revenues.

Year-end holdings and environmental rationale

ADVANCED DRAINAGE SYSTEMS INC – According to The American Society of Civil Engineers, 6 billion gallons of drinking water is lost to leaking pipes, with an estimated 240,000 mains breaks occurring every year. This accounts for 14-18% of daily treated water lost due to inefficient pipe infrastructure, which is equivalent to the drinking needs of 15 million households. Pipes laid in the 1920s have a lifespan of 100 years, and those installed after WWII have a lifespan of 75 years. Therefore, much of the underground pipeline network will be due for replacement in the next two decades. Advanced Drainage Systems (ADS) addresses this problem with its plastic piping solutions, which avoids welding and can be fitted in larger “plug-in” parts, which minimises leaks as the infrastructure ages.

Advanced Drainage Systems also takes a circular approach to its manufacturing, with 50% of its COGS from recycled materials: In 2019 ADS consumed 30% of US recycled plastic, making it is the 2nd largest plastic recycler in the country. In the process it prevents ~400 million pounds of plastic going to landfill. The amount of recycled plastic ADS consumed in FY 20 reduced greenhouse gas emissions by over 730 million pounds, which is equivalent to taking 70,000 cars off the road. 100% of revenue is focused on environmental solutions.

AGRONOMICS – Agronomics is a holding company which invests in underlying operating companies involved in lab based meat and animal product cultivation. Lab based meat and animal products offer gains from reduced carbon/methane intensity of production, reduced water usage, lower land use (biodiversity) impacts and less pollution (pesticides, fertilisers, herbicides). 100% of Agronomics capital is invested in companies which are contributing to environmental solutions.

ALUPAR INVESTIMENTO SA– Alupar contributes to Climate Mitigation through its two business areas; electricity transmission and electricity generation. Alupar’s generation portfolio (821.5MW of which 674MW operating) is 100% renewable (hydro, small hydro, but also wind and solar). The company has over 1GW of further development projects in its pipeline, principally wind projects. 100% of the firm’s revenues go towards environmental solutions.

BEFESA SA – Befesa recycles steel dust and aluminium and is the global leader in EAFD recycling. It is a key player in the steel industry & the circular economy, with 2 million tonnes of recycled and 1.5 million tonnes of valuable materials recovered annually. It contributes significantly to the increasing efficiency of raw material use in the metals industry. 100% of revenues stem from environmental solutions.

BORALEX INC – As a producer of clean energy (wind and solar, hydro), around 99% of generation is from renewable sources, with thermal the remaining 1%. At the end of 2020, Boralex had 2.2 GW installed capacity and aims to reach 12 GW until 2030.

CERES POWER HOLDINGS PLC – Ceres is a developer of fuel cell and electrochemical technology that enables its partners to delivery clean energy. It has a licensing model that embeds its technology with world class leaders in their fields to address climate change and air quality challenges in a range of areas like transportation and data centres. 100% of its earnings stem from environmental solutions.

CHINA THREE GORGES RENEWABLES GROUP CO LTD – China Three Gorges Renewables specialises in renewable power generation. As of end of 2021, the company had 22.9GW installed capacity, with 14.3GW from wind installation and 8.4GW from solar installation, of which offshore wind installation reached 4.6GW, making Three Gorges Renewables the largest listed offshore wind operator in China.

CHUNBO CO LTD – Produces chemicals for lithium-ion batteries that power electric vehicles. Battery additives were 49% of sales in 2020.

CONTEMPORARY AMPEREX TECHNOLOGY – CATL is the world's largest producer of EV batteries. The group plan to have capacity of 500 Gwh by 2025 which will account for approximately a third of global battery demand. Its products are essential to allow numerous OEMs to grow their electric vehicle fleet. In addition, CATL has a stationary battery storage business which helps residential and non-residential sites to store the energy that they generate. Through its support for the development of EV technology, CATL is contributing to climate mitigation and reduced pollution. 100% of revenues and profits are related to battery manufacturing or services.

CORBION NV – Corbion's Sustainable Food Solutions business produces fermentation-based natural preservation products and solutions with the principal benefits of reducing food wastage. For example, Corbion's Ultra Fresh Premium Advantage (blend on enzymes) extends the shelf life of a loaf of commercial white bread by 7 days. Corbion has a JV with Total which produces PLA (poly lactic acid), a bioplastic that uses natural renewable feedstock. PLA is biodegradable and recyclable and the production process for making PLA is 4x less CO2 intensive than that of making synthetic plastics. While PLA is more expensive than synthetic plastic it is considerably more cost effective than other bioplastics. By replacing fossil-based plastics with PLA plastics users will be able to substantially reduce their Scope 3 GHG emissions. 32% of the firm's revenues count towards environmental solutions.

ECOLAB INC – The World Resources Institute projects that under a business-as-usual scenario, the world will face a 56% freshwater deficit by 2030, placing urgent pressure on businesses to rethink the way water resources are managed. Ecolab helps businesses around the world achieve water conservation goals by doing more with less – improving the heating and cooling, industrial processing, wastewater treatment and cleaning and sanitizing processes of their customers. The company employs innovative water technologies to help customers implement industrial water conservation efforts to reduce freshwater use. Ecolab solutions reduce water use at customer sites by over 120 times than that of their own annual water withdrawal footprint, there is also an associated emissions benefit since there is less water that need to be moved. In 2021, the firm helped customers save 215 billion gallons of water and avoid 3.6 million metric tons of GHG emissions. EcoLab said that 66% of its 2022 revenues delivered environmental benefits but that this was a cautious estimate, as the firm improves its clean revenue methodology, it expects this figure to increase.

EDP RENOVAVEIS SA – The group develops and owns a range of off and onshore wind farms and solar plants that generate renewable energy. EDP also invests in new technologies such as storage and green hydrogen. The group's main operations are in Western Europe, the US and Asia (Vietnam). 100% of revenue generation is from renewable sources, either on or offshore wind, and solar.

ENETI INC – Eneti is positioning itself to be one of the largest offshore wind turbine installation fleet operators through its acquisition of Seajacks and subsequent orders for 2 cutting edge vessels from Daewoo. 100% of revenue in the new business is focused on the installation of wind turbines.

EVOQUA WATER TECHNOLOGIES CO – Evoqua provide water services for industrial companies globally. In advanced economies as much as 45% of all water demand is generated by industry. Evoqua transforms approximately 100 billion gallons of water every day, with their products and services helping a number of industries. This is over 4.5 times the amount of water flowing over Niagara Falls every day. The main environmental benefit Evoqua provides is the treatment and efficient use of water for their industrial customers.

GREENCOAT RENEWABLES PLC – Greencoat Renewables is an investor in renewable energy infrastructure assets, with a portfolio of more than 800MW of generation capacity, as at end of March 2022. 100% of its revenues/profits stem from environmental solutions.

GUANGDONG JIA YUAN TECHNOL – Jia Yuan is engaged in the manufacture of high performance ultra-thin copper foil. Copper foil is used as the anode current collector in lithium-ion batteries. Through its contribution to the EV battery supply chain, Jia Yuan is contributing to climate mitigation and reduced pollution. 90% of its revenues stem from environmental solutions, although this number is expected to grow, given accelerating EV demand.

HANSOL CHEMICAL CO LTD – Although Hansol Chemical doesn't have a core activity (> 50% of revenues/profits) deriving from an environmental solution, it is included in 20% of the fund reserved for non-compliant stocks due to its production of EV battery materials. Hansol produces anode binder and separator binder for EV batteries. Anode binders are used to bond copper foil to Anode Active Materials (Graphite, for the moment). Separator binders are used to coat ceramic on separator film to enhance thermal stability and prevent shrinkage.

Although a small part of the battery cost (<1%), the binder is a critical element of the chemistry. Hansol is one of the few Korean companies able to produce high grade binder and is currently taking share within the two Korean EV battery makers who outsource binder production (SDI, SKI). Overtime we expect them to win share with international battery producers such as Panasonic, CATL and NorthVolt. In 2022 approximately 11% of revenues came from LiB materials but we forecast this to reach 23% by 2025. By enabling the EV revolution, we believe that Hansol is contributing to climate mitigation and reduced pollution.

INDUSTRIE DE NORA SPA – The group manufactures electrodes that are an integral part of electrolysers, which make hydrogen. They are the world's largest supplier of high performing catalytic coatings and insoluble electrodes for electrochemical and industrial applications, as well as a leading provider of equipment, systems, and disinfection and filtration solutions for water and wastewater treatment. Thus, core activities are cleaner water and cleaner energy from hydrogen. At least 45% of its revenues in 2025 could be EU taxonomy aligned, and potentially up to 70% if water technologies are included.

KINGSPAN GROUP PLC – Kingspan's principal contribution to solving an environmental problem derives from its activities as a manufacturer and supplier of high-performance insulation products that are used in both the commercial and residential construction industry. Buildings are a significant consumer of energy globally, principally through heating and cooling. Kingspan's products deliver significantly improved thermal efficiency performance compared to traditional insulation, thereby generating significant reduction in energy consumption of buildings. In addition, the company provides daylighting & ventilation solutions that further reduce energy consumption, as well as water management systems that help to conserve and recycle water. The insulation products account for around 84% of Kingspan's business, and if the Light & Air and Water & Energy divisions were included, it would be well over 90%.

KNORR-BREMSE AG – Knorr-Bremse is a global market leader in braking and other systems for rail and commercial vehicles. Whilst braking systems account for ~5% of the cost of the train at the point of manufacture, aftermarket sales are 2-3x larger than the original equipment provision. Strict regulations relating to mileage or age determine when brakes are replaced and with the rail network due to be used more intensively to meet emission targets, Knorr-Bremse facilitate climate mitigation. Rail produces 29g of CO_2 per passenger km vs flying at 214g over long distances. 61% of the company's revenues are environmental solutions (rail systems and fuel efficiency for commercial vehicles.)

KONINKLIJKE DSM NV – DSM has several ways in which it contributes to solving environmental problems, primarily within its animal nutrition business both from within its existing portfolio and its innovation portfolio. The key environmental reason for our investment is for its Bovaer product which reduces methane emissions in ruminants. Bovaer is a novel methane inhibitor for cows and other ruminants such as sheep, goats, and deer. Methane is 28x times more potent than CO_2 as a greenhouse gas, and ruminants emit about 20% of all methane emissions globally. A quarter teaspoon of Bovaer® per cow per day suppresses the enzyme that triggers methane production in a cow's rumen and consistently reduces enteric methane emissions by on average 30% for dairy cows and on average 45% for beef cows, with some trials showing reductions as high as 90%. It therefore contributes to a significant and immediate reduction of the environmental footprint of beef and dairy products, with

KWS SAAT SE & CO KGAA – KWS SAAT is an agricultural seed company; 100% of KWS' revenues come from seed technology. Its products target numerous environmental problems:

- Climate adaptation - seeds which are more resilient to drier, hotter climates. Changes in abiotic stresses require new characteristics of seeds. Changes in climate also potentially alters patterns of weeds and fungal diseases.
- Water - seeds which can cope with less watering.
- Biodiversity - if better seed genetics can increase the productivity of land, then less land is necessary for farming and more can be preserved for biodiversity. Food demand is expected to increase by 60% by 2050 and greater populations reduce the available area for cultivation.
- Pollution - better quality seeds potentially require less fertilisers (and potentially less pesticides).

LINDSAY CORP – Lindsay provides irrigation solutions for farmers globally. Their mechanised pivot irrigation systems apply water more efficiency, resulting in water savings. In addition, with appropriate irrigation farmer yields are enhanced, which means that more food can be grown on less land. This results in a positive impact on biodiversity. Approximately 70% of Lindsay's revenues stem from providing an environmental solution.

NARI TECHNOLOGY CO LTD-A – NARI Technology is a leading power grid secondary equipment and systems provider in China. Secondary equipment / systems / software are used for the dispatch / controlling / monitoring of primary power grid equipment (which is equipment for direct transmission / distribution of electricity). This is becoming increasingly important as the increase in renewable energy and Electric Vehicle adoption makes it increasingly difficult to manage power demand / supply fluctuations on the grid, which requires investments to enhance digitalisation of the power grid to maintain grid reliability.

NEXANS SA – The company facilitates the transmission of electricity with its technologies. Currently there is no better way to move electricity at scale from point to point than through cables, despite the lost power due to resistivity. Typically, 6% of power moved is lost down the wire/cable depending on the distance. Comparing this to storage with a very high-quality battery which will bleed 2% of power per month, or 24% per year. By 2024, management plans to have 90% of revenues derived from High Voltage Projects (Offshore Wind + Interconnectors) and Buildings & Territories (Smart Cities) making it the best electrification play in the sector with a reasonable liquidity profile."

NIU TECHNOLOGIES-SPONS ADR – NIU Technologies is a leading high-end e-scooter manufacturer. Its lithium-ion battery powered e-scooters not only present a lower carbon footprint than traditional diesel-powered motorcycles but are also replacing traditional low-end lead-acid battery powered e-scooters which reduce the second-derivative pollution caused by disposal of lead-acid batteries after-use.

OMEGA ENERGIA SA – Omega Energia is a 100% pureplay renewables operator and is the third largest operator of renewable capacity in Brazil. As of end-21, it operates 1,869 net capacity, the vast majority of which is wind, with small exposures to solar and hydro. 100% of its revenues/earnings stem from environmental solutions.

ON SEMICONDUCTOR – The environmental solution that Onsemi addresses is climate mitigation. Onsemi has a portfolio of semiconductor products that address a number of end industries and use cases. A key part of their product portfolio are power semiconductors that are used for applications such as renewable energy generation, energy storage, electric vehicles, and electric vehicle charging. Solutions for renewable energy, energy storage, and EV charging sit in the company's industrial business segment which in 2021 accounted for ~25% of group revenues. For EV vehicle applications, Onsemi's key product is silicon carbide power semiconductors; this semiconductor solution uses a wide band gap material and delivers higher energy efficiency for the EV traction inverter which can lead to a longer driving range. We think higher performing solutions such as this are key to improving the energy benefits of EV's and can help drive faster adoption in range conscious consumers. Currently mid-single digits of its revenues/profits stem from this environmental solution. We expect that this can increase to ~20% with increased contribution from fast growing applications that are deemed an environmental solution.

OWENS CORNING – In 2021, around 19% of global energy-related and process-related CO2 emissions resulted from the generation of electricity and heat used in buildings. As a major provider of residential and commercial use insulation, Owens Corning contribute to improving the thermal efficiency of buildings and reducing the CO2 footprint of buildings and thus help climate mitigation. The firm has said that 63% of its revenue comes from products that save energy and lower emissions in 2022.

PLANET LABS PBC – Planet Labs is a leading provider of daily earth observation data. They provide this service utilising their 200+ constellation of satellites equipped with high resolution imaging capabilities. This data set powers decision making in a myriad of industries including agriculture, forestry, mapping, and government. Using the data Planet Labs provides customers can measure and monitor ecological change, improve the efficiency of their operations and improve transparency and reporting of environmental metrics.

We consider Planet Labs to be contributing to climate mitigation, pollution reduction, and biodiversity given the breadth of customers and applications of the data they provide. However, given that their most significant environmental revenues are currently for the agricultural use case the main environmental solution would be biodiversity. Current and expected revenue contributions from the agriculture vertical are expected to be ~25%. Examples of environmental applications of their data include forecasting and enhancement of crop yields, land management and monitoring, and wildlife population tracking.

RE:NEWCELL AB - Renewcell was founded in 2012 and is the world's first and only 100% textile-to-textile cotton recycler with its Circulose pulp, a cellulose pulp made from 100% recycled textiles ready to be used in apparel production. According to the Ellen MacArthur Foundation, less than 1% of clothing is recycled into new garments today, with the rest being used in low-value solutions or discarded in landfills. Given that Renewcell's technology can facilitate a closed-loop value chain, Circulose presents an optimal solution to this issue.

Virgin cotton production consumes vast amounts of water, resulting in the creation of desert landscapes, soil erosion and the destruction of ecosystems. Plastic fibers used in clothing such as polyester contribute massively to microplastics in the oceans when washed in conventional washing machines. The fashion industry has an outsized environmental problem and is aware of the damage they are doing. Circulose represents an elegant solution which is compatible with their existing requirements, being chemically and physically very similar to cotton. 100% of Renewcell's sales come from Circulose.

RENEW ENERGY GLOBAL PLC – As a producer of 100% clean energy (wind, solar and hydro), Renew contributes to climate mitigation. 100% of its revenues/earnings stem from environmental solutions. As of November 2022, ReNew contributed to 1.4% of India's total installed capacity and helped mitigate 0.5% of India's annual carbon emissions.

RENEWI PLC – Renewi is a waste to product company that turns waste into useful materials such as paper, metal, plastic, glass, wood. It aims to be a pure play recycler, facilitating a circular economy. The group has three main divisions: commercial waste, Minerals and Water and Specialities. As such, it works to produce less waste and results in a reduction of carbon emissions.

SAMSUNG SDI CO LTD – Samsung SDI is the world's fourth largest producer of EV batteries. Its products are essential to allow numerous OEMs to grow their electric vehicle fleet. In addition, SDI has a stationary battery storage business which helps residential and non-residential sites to store the energy that they generate.

Samsung has produced 1.2GW of batteries to ytd (end-April 2020) implying 6.5% of global supply share. SDI's customers are BMW, Porsche, WC and it is expected to add Jaguar. Through its support for the development of EV technology, Samsung is contributing to climate mitigation and reduced pollution. Mid-large batteries were 33% of revenues in 2019, seen at 52% by 2021. The rest of the revenues come from small (smartphone, tablet) batteries and electronic materials (semiconductor materials, polarised film).

SHENZHEN KEDALI INDUSTRY – Kedali is the largest supplier of Lithium-Ion batteries (LiBs) structural parts (battery cell casing and cover) in China with the majority of their sales coming from EV LiBs and small amount from consumer related LiB. Their products are key components for both prismatic and cylindrical LiBs which account for 87% and 6% respectively of the GWHs sold in China in 2021. From the end of 2022 the company will start mass producing 4680 cylindrical structural parts which will support the adoption of more energy efficient and lower cost cells. Given the high threshold of safety for automotive end market the structural integrity of the cell and module is of utmost important to battery manufacturers and auto OEMs. Due to this we see Kedali as key in enabling the transition to electrification of transportation.

SHIMANO INC – Shimano is a leading bicycle and fishing tackle brand. In 2022, 82% of Shimano's revenues came from bicycle components, thereby supporting low-carbon transport options. The core activity of Shimano contributes to climate mitigation through displacing more carbon intensive modes of transport with eco-friendly alternatives.

SIGNIFY NV – Signify's core activity – producing LED bulbs/luminaries – contributes to the solution of an environmental problem since its products are significantly more environmentally friendly (reduced energy use, longer life) than conventional incandescent/halogen bulbs.

By reducing energy consumption, signify is primarily helping with climate mitigation. LED bulbs use typically 70-90% less energy than incandescent bulbs. Signify reports 72,988,000t avoided emissions, a multiple of 451x its Scope 1+2 emissions. Signify is a 100% carbon neutral in its operations.

SMART METERING SYSTEMS PLC – The core business and key value driver is the installation and ownership of smart meters across residential & commercial customers in the UK. Smart meters are an integral part of a flexible, decentralised and decarbonised energy system. They help consumers reduce emissions by decreasing their energy demand, enabling dynamic pricing tariffs to support low carbon electric heating, promoting improved measurement of energy efficiency performance and supporting new business models for buying low carbon heating. In addition to the smart meter opportunity, the company has also embarked on pursuing a range of other CaRe opportunities, leveraging its existing infrastructure and expertise, across grid-scale battery storage, Behind-the-Meter solar and battery solutions, EV charging infrastructure and heat Networks & Meters. 100% of revenue & profit contributes to environmental solutions.

SMURFIT KAPPA GROUP PLC – Smurfit's is one of the leading providers of paper-based packaging in the world. Smurfit's products are 100% renewable and produced sustainably, and they provide an important alternative to plastic packaging, which is highly damaging to the environment. Employing circular economy initiative, paper-based packaging has the highest recycling rate of all packaging materials. The company is also involved in recycling and forestry. These aforementioned activities account for 100% of revenues or profits.

SOLAREDGE TECHNOLOGIES INC – SolarEdge develops smart technology, in particular inverters, that help photovoltaic systems provide solar energy. It addresses a range of energy market segments through its PV, storage, EV charging and batteries plus grid services. PV systems allow customers to generate more power at a much lower carbon footprint than conventional energy methods. 100% of its revenues/earnings stem from environmental solutions.

STEICO SE – Steico develops, produces and markets ecological construction products made of renewable raw materials and is the European market leader for wood fibre insulation materials. It is this core insulation business that is the principal contributor to solving an environmental solution. Buildings are a significant consumer of energy globally, principally through heating and cooling, and are one of the largest contributors to global emissions. Therefore, improving insulation in buildings is widely recognised as one of the best, and cost effective, ways to tackle reducing global emissions. 66% of Steico's sales come from ecological insulation materials.

STEM INC – Stem provides products and services that are key to decarbonising the electricity grid. Their storage solutions facilitate the adoption of renewables into the electricity grid by alleviating concerns related to intermittency associated with renewable forms of energy generation. In addition to helping increase the penetration of renewables Stem's software solutions can help optimise energy management loads improving efficiency for end users. 100% of Stem's operations are related to battery storage and grid services.

SUNGROW POWER SUPPLY CO LT – Sungrow specialises in the R&D, manufacturing, sales and service of solar energy, wind energy, energy storage, hydrogen energy, electric vehicles, and other new energy power supply equipment. PV inverters, Sungrow's core product line, have been sold to 150 countries and regions worldwide. The cumulative installed capacity at the end of December 2021 was 224 GW. 100% of its revenues/earnings stem from environmental solutions.

TERNA ENERGY SA – Terna Energy is the largest investor in the Renewable Energy Source sector in Greece and continues its dynamic growth aiming to reach 6.4 GW of Renewable Energy Source plants until 2029. The vertically organised company is committed to a sustainable energy future by undertaking projects in wind, hydro, solar and integrated waste management.

TERNA-RETE ELETTRICA NAZIONALE – Terna is Europe's largest independent electricity transmission system operator. Within the context of the energy transition, Terna is responsible for guaranteeing the secure provision of electricity, the adequacy of the system and the quality of service at the lowest possible cost for the end user and works to foster the integration of renewables and the electrification of consumption.

VESTAS WIND SYSTEMS A/S – Vestas is a leading onshore wind turbine manufacturer, with a growing presence in offshore through its consolidation of the JV with Mitsubishi Heavy Industries. 100% of its revenue stems from environmental solutions. Vestas' sustainable energy solutions have prevented 1.5 billion tonnes of carbon dioxide from entering the atmosphere contributing to climate mitigation.

WEYERHAEUSER CO – Weyerhaeuser is the largest private timberland owner in North America, with 11 million acres owned in the US and 14 million licensed in Canada. Weyerhauser has estimated that its forests store 2.3-3.6bn tons of CO2e. Carbon sequestration of trees as they grow removes carbon from the atmosphere. Carbon removal activities store the equivalent of 32m metric tons of CO2 in their wood products annually, the equivalent of taking 7 million cars off the road.

On a net basis Weyerhaeuser absorbs 25mt CO2e annually. The firm plants 150 million trees annually and 100% of timberlands are reforested. Active forest management also reduces the risk of wildfires, insect infestations and disease which can cause catastrophic carbon losses. The 2019 California wildfires released about 68mt of CO2 and around 48mt of CO2 has been lost from insect infestations and disease between 1997 and 2015. WY's main contribution to solving environmental problems is through climate mitigation. 95% of the company's revenues goes towards environmental solutions.

Other investments held during the year

ACCSYS TECHNOLOGIES PLC – Accsys aims to reduce the use of environmentally unfriendly building materials and products through their proprietary technology and the introduction and uptake of their products around the world. The planet continues to consume endangered materials like tropical hardwood and non-renewable, high emitting building materials such as plastics, concrete, and metals. The main environmental benefit of the company's Accoya and Tricoya acetylated wood products is their use as a substitute for other, more environmentally damaging products. Accoya turn fast growing sustainable sourced wood into a building material that locks in carbon for decades while also performing to the highest standards. We exited our investment in Accys due to the mis-execution of capacity increase in the Netherlands, as well as slower than anticipated ramp-up of Tricoya in Hull, which led to emerging balance sheet threats.

CONSTELLATION ENERGY – The group is the leading provider of carbon free 24/7 energy in the US, with 32GW of generating capacity. Around 86% of their generation output is from nuclear, with a small amount from renewables and natural gas. We exited our investment, as the company reached our target price.

CORP ACCIONA ENERGIAS RENOVA – The group develops and owns a range of wind farms, solar parks, hydro and biomass that generates renewable energy. 100% of generation is from renewable sources. The firm says they provide renewable energy for the consumption of 7.6m people, thereby avoiding the emissions of more than 13m tonnes of CO2. We exited our investment as there was relatively limited upside to target price, and we had a preference for less spot-market exposed generation companies such as EDPR and Greencoat.

DELTA ELECTRONICS – Delta Electronics is a Taiwanese electronics company specialising in uninterrupted power supply and power management systems – areas they are world leaders in. Delta can be a crucial player within climate mitigation through their enabling of the EV transition. Specifically, Delta supply 2 key components to EVs – power management systems and traction motors. These are significant and crucial components within an EV. A battery electric vehicle will typically contain around $1,250 of power management unit content and $1,100 of traction motor content. We exited our investment due to concerns over end demand weakness, combined with higher conviction ideas within the 20% portion of portfolio reserved for stocks with less than 50% environmental revenue exposure.

FIRST SOLAR INC – First Solar designs and manufactures solar modules. The firm uses a thin film semiconductor technology to manufacture electricity-producing solar modules. The company is expected to benefit from the US Inflation Reduction Act which extends tax credits for solar projects. We exited our position in January 2022 due to concerns over polysilicon supply risks pressuring module prices and as the Inflation Reduction Act seemed increasingly unlikely at the time.

INSTALLED BUILDING PRODUCTS – The firm is one the largest insulation installers for the residential new construction market in the United States. Insulation improves the energy efficiency of buildings and helps reduce emissions. We exited our investment due to concerns over outlook for US housing market given the challenging rates backdrop.

INVINITY ENERGY SYSTEMS PLC – Invinity is one of the world's most advanced producers of vanadium flow batteries. The increased proportion of electricity generated over the coming years from renewable sources will introduce more volatility and instability to grids because of the intermittency of renewables production. One way to counter this instability is to store electricity during periods of excess supply (e.g. during sunny, windy days) to be released during periods of excess demand. A grid storage system with a high degree of slack capacity reduces the need to for standby thermal baseload generation. Vanadium flow batteries are one such storage solution and have a number of advantages versus other battery storage systems. We exited our investment due to the lack of conversion into order book.

MERCARI INC – Mercari operates a C2C marketplace which specialises in the listing and selling of second-hand products. The promotion of second-hand items increases circularity of goods and reduces the need for new items which would consume additional resources and energy in the manufacturing process.

Mercari management define a circular economy as one 'where the earth's finite resourced are used efficiently and everyone can live more prosperously.' In this way the group aims to shift production and consumption from assuming eventual disposal of items to assuming circular use of products and materials. We exited our investment due to the deteriorating fundamentals in the Japanese business as well as the severe competition in the US market.

MERIDA INDUSTY CO LTD – Merida exclusively makes bicycles, both 'traditional' and 'e-bikes', thereby supporting low carbon transport options. Notably, the e-bikes can be particularly relevant for older demographics who might otherwise not be able/willing to access travel via bicycle. The core activity of Merida contributes to climate mitigation through displacing more carbon intensive forms of transport. We exited our investment due to the slowdown of the bicycle market as the industry went into demand normalisation and inventory destocking post COVID.

PLUG POWER INC – Plug Power has four integrated business units, each of which focus on hydrogen as a zero-carbon (at point of combustion) alternative to diesel. These units include material handling, hydrogen production, electrolyser production and stationary and mobility applications. We exited our investment due to certain governance concerns.

PYLON TECHNOLOGIES CO LTD – Pylon is engaged in energy storage system production. Energy storage is a critical component in the renewable energy development. It acts to fill in the gap between power generation and consumption schedule difference considering the seasonality in wind, solar, and hydro, and helps address the technical challenges of the electricity networks and avoid the energy grid from over-burdening. With the rising penetration of distributed renewable energy such as roof-top solar, having the capacity to store electricity for end-users is necessary and economically attractive. Energy storage is an important enabler of the efficient & optimised deployment of renewable energy, and thus, Pylon helps reduce carbon dioxide emissions that cause climate change. We exited our investment, as the company reached our target price.

ROCKWOOL INTERNATIONAL – Rockwool is the world's leading manufacturer of engineered stone wool products which go into a range of applications, of which by far the largest is stone wool insulation. Buildings are a significant consumer of energy globally, principally through heating and cooling, and are one of the largest contributors to global emissions. Therefore, improving insulation in buildings is widely recognised as one of the best ways to tackle reducing global emissions. For example, Rockwool estimate that their technical insulation sold in 2019 will save 1bn tonnes of $CO2$ over the lifetime of its use. We exited our investment as the company was negatively and materially exposed to increasing energy prices following Russia's invasion of Ukraine.

UBS BLOOMBERG CMCI EMSN EUR – The ETS is the EU's "cornerstone policy" for achieving its new target of "at least 55%" reduction from 1990 emission levels by 2030. The ETS works via an emissions cap-and-trade system. The cap is set on the total amount of allowances (auctioned and given for free), which is reduced over time to incentivize companies to decrease their total emissions to remain within their allowance. ETS is amongst the most effective policy tools for European industry to reduce its carbon emissions. We exited our investment due to limited upside to our target price.

XPENG INC – As an electric vehicle manufacturer XPENG contributes to climate mitigation and pollution. XPENGs EV's have a lower carbon footprint when compared to traditional ICE vehicles and also do not emit harmful particulates such as SoX and NoX. We exited our investment due to lower-than-expected success of model launches leading to concerns around balance sheet.

YUNNAN ENERGY NEW MATERIAL – Yunnan is a manufacturer of lithium-ion battery separators. There are four active materials in a lithium-ion battery, the cathode, anode, electrolyte, and separator. As such we see the manufacturing of separators as a key input to li-ion battery production. Through its support for the development of EV technology, Yunnan is contributing to climate mitigation and reduced pollution. We exited our investment due to concerns over deteriorating supply/demand balance within EV separators.