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Investing for a  
world of change

# Global Environment Impact report

October 2021

# Welcome

We are delighted to share our third annual Global Environment Impact Report.

This report follows shortly after the Global Environment strategy reached its three-year anniversary. Since we launched, financial markets have endured significant turbulence – including the sharpest bear market for global equities in history – sandwiched between buoyant periods, driven more recently by the extraordinary support from governments and central banks. We have also seen increasingly sobering climate data and extreme weather events and more positively, some much-needed green shoots of political action on climate change. About 73%<sup>1</sup> of global emissions are now covered by national net-zero pledges, though only six countries have turned their pledges into binding laws.

1. Source: Ninety One, 30 June 2021.



**Graeme Baker**  
Co-Portfolio Manager



**Deirdre Cooper**  
Co-Portfolio Manager,  
Co-Head of Thematic Equity

Yet despite some political progress, investment in decarbonisation remains far short of that required, and the annual amount of decarbonisation needed to reach net zero continues to escalate. The International Energy Agency's (IEA's) ground-breaking May 2021 report, 'Net Zero by 2050', estimates that achieving carbon neutrality by 2050 will require, by 2030, a 4x increase in wind and solar capacity, an 18x increase in electric vehicle (EV) sales, a 41x increase in annual electric-vehicle (EV) battery production, and US\$4 trillion of annual investment in the energy sector alone. The scale of the challenge facing the world has spurred unprecedented interest over the last 12 months in investing to tackle climate change.

Two important initiatives have changed the landscape for investors: the European Union Sustainable Finance Disclosure Regulation ('SFDR') and related green taxonomy; and the Net Zero Asset Owners and Asset Managers Alliances. We consider ourselves cheerleaders for both, and have always strongly supported the drive towards more transparent sustainability reporting. However, we are also deeply concerned about an overreliance on 'sustainability by numbers', and by the tendency of some third-party data sources to oversimplify the issues. We describe this report as our 'sustainability attribution'. But while investors will always want performance attribution, the need for careful interpretation of the numbers is even more acute with sustainability data. No single datapoint can describe whether a company is driving the transition to net zero, or (an even harder question) whether it is truly sustainable. Hence, we report here a dashboard of portfolio metrics to help you compare Global Environment with your other investments. Even then, we would strongly emphasise the company-level disclosures in this report, as every portfolio position has a unique story.

The fact is that sometimes the portfolio-level metrics will not be indicative of the underlying sustainability performance of our investments. For example, it is possible that Global Environment's green-taxonomy alignment will decline as our investments move deeper into supply chains, where the EU's framework is currently less applicable; yet supply-chain investments are vital for decarbonisation. It is also possible that our portfolio's carbon footprint will decrease simply because one of our holdings sold a business to another owner, which could even lead to increases in real-world emissions if the new owner is less responsible. It is equally possible to have a portfolio with better-than-benchmark board-diversity metrics, but that is populated with companies that are far from inclusive places to work. This is why we've always been committed to providing detailed position-level reporting, revealing not only the data, but the stories behind it.

With these caveats, we are pleased to share some portfolio-level highlights:

## Carbon reporting

- We have seen further improvements in portfolio companies' reporting of carbon risk (Scope 1, 2 & 3 carbon emissions) and impact (carbon avoided). As expected, the rate of improvement has slowed.
- Almost 80% of companies now report Scope 1 & 2 emissions. The proportion of portfolio companies providing full carbon-risk reporting is now just under 40%.
- While carbon reporting is improving, there continue to be significant time lags. We are also seeing some meaningful restatements, particularly of Scope 3 emissions, where a change in methodology can result in very different emissions figures, making comparisons between companies difficult. Fundamental analysis of carbon data continues to be a vital overlay.
- We have been particularly pleased with the first-time reporting since our last Impact Report of three Chinese holdings, and by NextEra Energy, the world's largest renewable-energy provider.
- Our increased collaboration with CDP (formerly the Carbon Disclosure Project) will improve aspects of our reporting, such as calculating carbon avoided using different methods when a company spans multiple sectors, as well as using CDP's metrics linked to the production of low-carbon products. Given CDP's critical role in improving voluntary carbon reporting globally, this partnership will be important in supporting the continued enhancement of our process.<sup>2</sup>
- We are pleased that our universe has expanded from about 700 companies to over 1,200.

## Carbon risk and impact

- Over the past year (i.e., FY2019 vs. FY2018), two thirds of portfolio companies reduced Scope 1 & 2 emissions intensity, and two-thirds increased their absolute carbon avoided.
- One-third of companies reduced their Scope 3 emissions intensity. Helping companies to understand their Scope 3 emissions, and subsequently target reductions, remains a key engagement objective for us.
- Based on our initial appraisal against the EU taxonomy, we estimate over 40% alignment (prior to any 'do no significant harm' or 'social safeguards' assessments).
- 14 portfolio companies have explicit carbon-reduction targets. About 35% of portfolio holdings have targets approved by the Science Based Targets initiative (SBTi).

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2. CDP provides environmental data and technical assistance to Ninety One for the development of the Carbon Avoided Emissions Methodology. Please note, however, that 'avoided emissions' refers to a metric that compares actual emissions against a hypothetical reference scenario. While this is a helpful metric to assess the impact of specific interventions and monitor positive contributions, CDP and Ninety One believe that tracking and reducing overall emissions need to be the cornerstones of any corporate or investor approach to addressing climate change.

## Engagement

- We have detailed all of our discussions with management teams, including on carbon reporting, emissions reduction, labour issues and corporate governance. We are encouraged that our engagements on improving reporting standards have contributed to the improvements in carbon reporting discussed above.
- We voted all proxies to hold boards and management teams accountable to the highest standards.

As carbon reporting has improved and companies have started to set carbon-reduction targets, we have been engaging with companies regarding their net-zero ambitions and targets, and incorporating these into our individual company models. We expect this work to become a much bigger focus for us going forward. This report also introduces our initial net-zero analysis. The portfolio's pathway to emissions reductions is currently heavily reliant on developed market large-cap companies, with emerging market and smaller cap companies tending to lag on reporting and therefore on target setting too. Many emerging market companies have only recently started tracking and reporting their emissions, so it will take time for them to set meaningful targets, but this will be an important engagement topic.

While we strive to allocate capital to companies we believe are developing products and services that will help the world get as close as possible to 1.5 degrees, and are doing everything they can to decarbonise their own businesses, we would not be comfortable in describing Global Environment as a '1.5-degree portfolio' – simply because we don't believe we live in a 1.5-degree world, and all companies ultimately rely on the communities they operate in to achieve their climate goals. Hopefully, we will start to see more regulatory action that will enable us to make that statement in the future. That would not only be great news for the planet, but also we believe for our companies' growth and return prospects.

### Notes on the methodology used in this report:

- Most of the analysis in this report relates to portfolio holdings as at end-December 2020, with the exception of the review of the portfolio's pathway to net zero, which is based on end-June 2021 portfolio holdings.
- This means we have included assessments for three companies that were no longer held in the portfolio at end-June 2021 (IPG Photonics, Nidec and NXP Semiconductors). We have also included assessments for two companies newly added in 2021 (Ansys and Trane Technologies).
- While carbon reporting is improving significantly, it is still subject to a significant time lag. Our previous Impact Report, issued in June 2020 and based on end-December 2019 holdings, used carbon reporting for financial-year (FY) 2017. The timing of this Impact Report enables us to provide carbon reporting relating to both FY2018 and FY2019. The sources of this carbon data include company reports and estimates calculated in conjunction with our two carbon-data providers, CDP and Urgentem.
- We have provided an initial indication of EU taxonomy alignment. It should be noted that this indication has been completed on a best-efforts basis using the guidance currently available. It does not include an appraisal of 'do no significant harm' nor 'social safeguards', as guidance is not available on these aspects yet.

# Letter from the Chair of the Sustainable Investing Advisory Forum

Ninety One has been evolving its approach to sustainability and ESG integration for over a decade. The past eight years were defined by what we call the 'ESG 1.0' phase, which focused on laying the foundations for a common understanding of ESG and stewardship. This resulted in a set of sustainability policies and principles. An ESG team was established to work with the investment teams and help build the foundations of robust ESG integration processes and active ownership. The ESG team also worked closely with clients and advised on a broad range of sustainability issues. As ESG 1.0 matured, we began working towards our next phase, Sustainability 2.0. This latter phase emphasises Ninety One's wider sustainability ecosystem (Invest, Advocate, Inhabit) and allows for greater quality and integrity of our investment efforts as an active manager.

Under Sustainability 2.0, Ninety One's investment teams are fully responsible for addressing and embedding ESG and active ownership considerations (this has always been the case with the Global Environment strategy), and they are monitored and supported by functions including a Sustainability team, an Investment Risk function and an Engagement and Voting team. In fact, the last three years' experience with Global Environment has deepened our belief that ESG and active ownership must be deeply integrated in investment teams and led by portfolios managers. We believe this approach will be the most effective at driving an investment transformation which truly puts sustainability at the core of how we invest our clients' money and deliver on their mandates.

The Sustainable Investing Advisory Forum, which I chair, provides internal oversight of Ninety One's sustainable investment strategies, including the Global Environment strategy. The Forum bears ultimate responsibility for reviewing, and advising on compliance with, the formal sustainability objectives and guidelines of the strategies, and the positive 'impact spirit' of the mandates. The Forum also encourages debate and challenge around portfolio holdings, with a particular focus on areas that may require further engagement with a company. The Forum may escalate any concerns or important decisions to Ninety One's Sustainability Committee.

Over the past year, the Forum has met quarterly to discuss all the holdings in the Global Environment portfolio. Topics of discussion have included environmental, social and governance issues, carbon disclosure, waste management, health & safety, gender diversity, board composition and supply-chain labour practices. It has also begun to apply a slightly broader remit as a peer review against the fast approaching SFDR expectations in Europe.

The Global Environment team has made sustained efforts to improve carbon reporting, and we have seen some significant developments in this regard since the last Impact Report: including first-time reporting by three Chinese companies, commitments to report in 2021 by other companies, and improvements in reporting by companies that have been reporting for some time. Not all engagements – on carbon disclosure, corporate governance or other matters – will be positive. But it is evident from the descriptions in this report that they provide useful information for decision-making purposes, which at the extreme has led to us exiting a position. We believe it is vital that the integrity and transparency of our reporting on engagement is maintained, and have therefore aimed to be frank and direct in our comments here. The integrity and transparency of the teams reporting is vital and it is therefore encouraging to see a high level of honesty and authenticity in their comments.

The investment team has also been at the forefront of analysing their portfolio's pathway to net zero. While the Global Environment portfolio lends itself more readily to this exercise than those of some other Ninety One strategies, the principles and processes applied by the Global Environment team will be useful as we expand this analysis across the business, consistent with the intentions of the Net Zero Asset Managers Initiative, which Ninety One signed up to in July 2021.

We continue to be excited about the road ahead for the strategy. Alongside Ninety One's Sustainability team and the other members of the Sustainable Investing Advisory Forum, I look forward to working with the Global Environment team in the coming year.

**Therese Niklasson**  
Global Head of Sustainability



## Ninety One's Commitment to the Net Zero Asset Managers Initiative

Becoming a signatory to the Net Zero Asset Managers Initiative complements Ninety One's support for the Paris Agreement and efforts to limit global warming to 1.5°C. In joining the initiative, we have also committed to make the case for a fair and inclusive transition that works for all of the world's 7.9 billion people. A drive to net zero that excludes, intentionally or otherwise, any place or enterprise, could result in no net zero at all. The carbon-intensive emerging market economies in particular need time, encouragement and resources to adjust. These economies, after all, are not responsible for the bulk of emissions to date.

So in our drive towards low-emitting portfolios, we intend to do more than reduce carbon by simply excluding high-emitting countries and companies. We believe that, if an exclusionary process is mechanically applied, the result is likely to be portfolios concentrated in developed markets and asset-light industries. Instead, we seek to differentiate between the reduction of 'portfolio carbon' and the reduction of carbon emissions in the real world.

As currently measured, the carbon footprint of a portfolio depends far more on sector and regional allocations than on the progress of the underlying companies. Thus, a narrow focus on lowering 'reported carbon intensity' is therefore likely to divert capital away from the developing world in particular, where carbon intensity tends to be higher. This could deny large parts of the world the capital needed to build a cleaner, greener economy, while doing nothing to reduce real-world emissions. It would also deny developed-market savers access to the dynamism of emerging markets and the associated potential return opportunity. In the past 15 years, exposure to fast-growing emerging markets has provided return and diversification benefits to developed market savers.

At Ninety One, we believe in active engagement and encouragement towards a transition. As a recent paper from Imperial College noted, "Not all firms can go green, but they can all get engaged in transition". Instead of risking a disorderly exit from carbon-intensive economies, sectors and companies with a high carbon footprint, we will, where we can exert influence, actively allocate to companies and countries that can be encouraged to deliver on transition plans.

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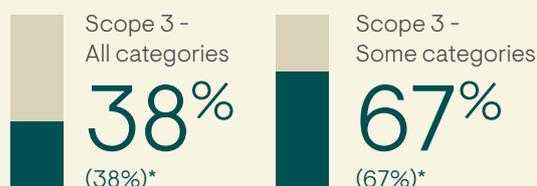
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**General risks:** The value of investments, and any income generated from them, can fall as well as rise. Past performance is not a reliable indicator of future results. If any currency differs from the investor’s home currency, returns may increase or decrease as a result of currency fluctuations. Investment objectives and performance targets are subject to change and may not necessarily be achieved, losses may be made.

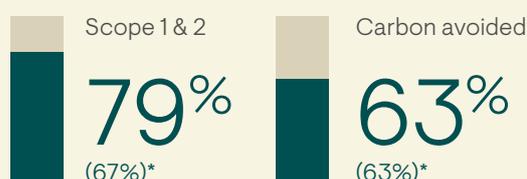
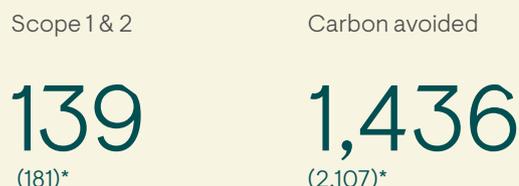
**Specific risks:** **Geographic/Sector:** Investments may be primarily concentrated in specific countries, geographical regions and/or industry sectors. This may mean that the resulting value may decrease whilst portfolios more broadly invested might grow. **Currency exchange:** Changes in the relative values of different currencies may adversely affect the value of investments and any related income. **Derivatives:** The use of derivatives is not intended to increase the overall level of risk. However, the use of derivatives may still lead to large changes in value and includes the potential for large financial loss. A counterparty to a derivative transaction may fail to meet its obligations which may also lead to a financial loss. **Equity investment:** The value of equities (e.g. shares) and equity-related investments may vary according to company profits and future prospects as well as more general market factors. In the event of a company default (e.g. insolvency), the owners of their equity rank last in terms of any financial payment from that company. **Concentrated portfolio:** The portfolio invests in a relatively small number of individual holdings. This may mean wider fluctuations in value than more broadly invested portfolios. **Commodity-related investment:** Commodity prices can be extremely volatile and losses may be made. **Emerging market (inc. China):** These markets carry a higher risk of financial loss than more developed markets as they may have less developed legal, political, economic or other systems. **Sustainable Strategies:** Sustainable, impact or other sustainability-focused portfolios consider specific factors related to their strategies in assessing and selecting investments. As a result, they will exclude certain industries and companies that do not meet their criteria. This may result in their portfolios being substantially different from broader benchmarks or investment universes, which could in turn result in relative investment performance deviating significantly from the performance of the broader market.

# Sustainability data dashboard

% of portfolio companies reporting emissions



Footprint (tCO<sub>2</sub>e for US\$1m invested)



Carbon intensity (weighted average tCO<sub>2</sub>e/US\$m revenue)



Renewable energy generated (MWh for US\$1m invested)



Further context on the above aggregate portfolio carbon data compared to last year's Impact Report:

- As noted earlier, this Impact Report has the benefit of two years of extra carbon data. Given the nascency of carbon reporting, this represents a significant time frame over which data can evolve.
  - Overall, we have seen a significant improvement in reporting and estimation methodologies.
  - The portfolio's Scope 1 and 2 emissions footprint and intensity have fallen relative to last year, which is positive.
  - Scope 3 emissions footprint and intensity have increased, with the majority of this change explained by companies using more detailed and improved methodologies in line with best practice, resulting in a number of company restatements. All of these changes are explained within this report.
- This highlights the complexity of Scope 3 reporting across all 15 categories. Our experience is that as businesses improve their reporting methodologies, which involves delving deeper into their supply chains, their Scope 3 emissions subsequently rise. However, we would expect to see this trend plateau over time.
- Carbon avoided has fallen relative to last year's report. This was primarily driven by portfolio changes. Throughout 2020 we sold out of typically higher carbon-avoided companies and purchased companies where we expect to see very strong growth in carbon avoided as we move forward in time, but they are companies with lower carbon avoided in the near-term.

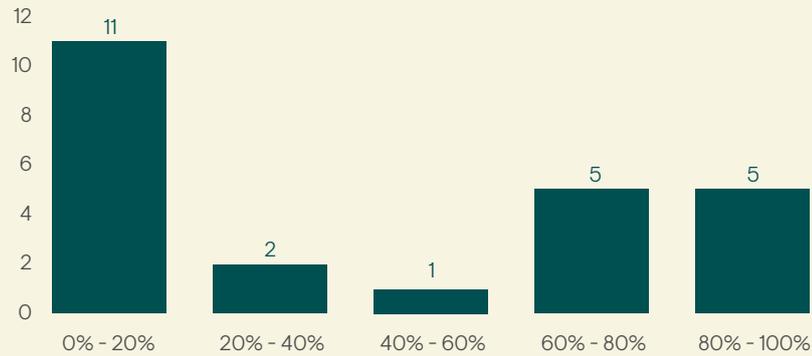
\*Equivalent figures from last year's Impact Report are shown in brackets.

## EU taxonomy alignment

47%

portfolio alignment  
(before 'do no significant  
harm' and 'social  
safeguard' assessments)

**Distribution of EU taxonomy alignment**  
(No. of portfolio companies)



## Impact Management Project framework assessment

From a philosophical perspective, the Impact Management Project's (IMP) framework is closely aligned to our philosophy around sustainability and positive impact. The mapping of the Global Environment strategy against the IMP framework is shown below. We have allocated all companies to the 'contribute to solutions' category as we believe that they are having a positive impact AND we have a robust methodology for quantifying that positive impact.

| Investor contribution to impact          | Act to avoid harm | Benefit stakeholders | Contribute to solutions |
|--|-------------------|----------------------|-------------------------|
| Signal that impact matters               |                   |                      |                         |
| + Engage actively                        |                   |                      | 100%                    |
| + Grow new/undersupplied capital markets |                   |                      |                         |

## Net zero pathways<sup>3</sup>

5.3%  
p.a.

estimated portfolio-emissions  
(Scope 1 & 2) reduction up to 2025

10.3%  
p.a.

for developed market  
(DM) companies

0%  
p.a.

for emerging market  
(EM) companies



3. Based on the portfolio as at end June 2021.

# Measuring carbon risk

While the companies we invest in are by nature low carbon-risk because their business models are highly exposed to sustainable decarbonisation, we believe it's still very important to monitor and track their carbon footprints. We see Scope 1 & 2 emissions as a good proxy for how efficiently a company is managing carbon in its business; the upstream part of Scope 3 proxies the carbon-efficiency of a company's supply chain; and the downstream part is representative of the carbon-efficiency of a company's products.

79% of the companies in the portfolio now report Scope 1 & 2 emissions, up from 67% in the last Impact Report. We hold ourselves to strict standards: until the Scope 1 & 2 emission data covers more than 95% of a company's total footprint, we will not count it as a reported figure (it will only be considered an estimate), a point we engaged on in 2020. The percentage of portfolio companies reporting all 15 Scope 3 emissions categories has remained at 38%, as per the previous Impact Report. A further 29% now report some Scope 3 categories. Scope 3 calculations are inherently complex, so it is encouraging that two-thirds of portfolio companies are reporting at least some Scope 3 categories – meaning the majority of our companies are understanding their total carbon-risk more deeply.

We have provided commentary on the evolution of the emissions data for each company in this report. With emissions data reported to CDP coming with a time lag, the trendline is interesting to monitor but the commentary around it and the specific targets the companies have put in place are even more important for us.

As we have discussed many times, to allow investors to build climate-resilient portfolios we believe it is vital that companies begin to quantify the carbon risk not just in their own businesses but in their supply chains. Committing to reporting some Scope 3 categories is a hugely important step in this regard. We are working hard to engage with companies to further improve their carbon reporting. In addition to working with Urgentem (formerly Engaged Tracking), a leading carbon-data analytics firm, to estimate the carbon footprint of the non-reporters and for missing Scope 3 categories, we have also strengthened our relationship with CDP over the past year. This closer collaboration with CDP has the following benefits: (a) it brings us closer to the data, which we are engaging with companies to improve; (b) it enables greater evolution of the carbon-avoided methodology; (c) it offers a channel for advocacy to help grow the adoption and reporting of carbon avoided.

## About CDP

CDP (formerly Carbon Disclosure Project) is an international non-profit organisation that supports companies and other entities to disclose their environmental impact. It aims to make environmental reporting and risk management a business norm, and drive disclosure, insight and action towards a sustainable economy. CDP has an on-the-ground presence in c. 50 countries.

Each year CDP supports thousands of companies, cities, states and regions to measure and manage their risks and opportunities on climate change, water security and deforestation at the request of their investors, purchasers and city stakeholders.

Ninety One has been an investor member of CDP since 2010, and has led collaborative engagements on 36 companies, with three of these relating to Global Environment in 2020. Ninety One is also a CDP Forest Champion, supporting efforts to improve our understanding of deforestation risk and its contribution to climate change.

## Why we believe reporting to CDP is important

Over the last two decades, CDP has created a system that has resulted in what we believe to be unparalleled information and engagement on climate and other environmental issues worldwide. Disclosure is the essential first step to drive environmental action, and we believe CDP is the gold standard for corporate environmental reporting. The data is detailed, verified and therefore extremely useful for us when engaging with companies and comparing emissions data across holdings and new opportunities.

Our extrapolation model is relatively simple: we use Bloomberg Industry Classification (BICS) segmentation to estimate the footprint of companies that don't report, using data from peers in similar industries that do. These estimates are inherently imprecise because of differences between business models and local electricity grids. But as the number of companies that report increases, the quality of the estimates will continue to improve. Urgentem also checks the data and 'winsorises' it (removing extreme outlying datapoints to get to a more robust and accurate data set) if necessary.

## Understanding carbon 'Scope'

Thanks mainly to the work done by CDP, more companies are reporting detailed carbon-footprint data; not just direct emissions (Scope 1 carbon) and indirect emissions from purchased energy (Scope 2 carbon), but indirect emissions from companies' supply chains and products and services once they are sold (Scope 3 carbon).

|  |  |   |                      |               |                                  |  |                               |                 |                        |  |                    |  |                             |                      |  |                          |            |  |  |             |
|--|--|---|----------------------|---------------|----------------------------------|--|-------------------------------|-----------------|------------------------|--|--------------------|--|-----------------------------|----------------------|--|--------------------------|------------|--|--|-------------|
| <p>Scope<br/><b>1</b><br/>Direct</p>   | <p>Company facilities<br/>Company vehicles</p>   | <p>Scope 1 carbon emissions are the direct emissions from owned or controlled sources</p> <ul style="list-style-type: none"> <li>– Fuel burned on site</li> <li>– Owned vehicles</li> </ul> | <p>Carbon risk</p>   |               |                                  |  |                               |                 |                        |  |                    |  |                             |                      |  |                          |            |  |  |             |
| <p>Scope<br/><b>2</b><br/>Indirect</p> | <p>Purchased electricity, steam, heating and cooling for own use</p>   | <p>Scope 2 carbon emissions are the indirect emissions from the generation of purchased energy</p>  |                      |               |                                  |  |                               |                 |                        |  |                    |  |                             |                      |  |                          |            |  |  |             |
| <p>Scope<br/><b>3</b><br/>Indirect</p> | <p><b>15</b> categories</p> <table border="1"> <tr> <td>Purchased goods and services</td> <td>Capital goods</td> <td>Fuel &amp; energy related activities</td> </tr> <tr> <td>Upstream transportation &amp; distribution</td> <td>Waste generated in operations</td> <td>Business travel</td> </tr> <tr> <td>Upstream leased assets</td> <td>Downstream transportation &amp; distribution</td> <td>Employee commuting</td> </tr> <tr> <td>End-of-life treatment of sold products</td> <td>Processing of sold products</td> <td>Use of sold products</td> </tr> <tr> <td></td> <td>Downstream leased assets</td> <td>Franchises</td> </tr> <tr> <td></td> <td></td> <td>Investments</td> </tr> </table> | Purchased goods and services  |                      | Capital goods | Fuel & energy related activities | Upstream transportation & distribution | Waste generated in operations | Business travel | Upstream leased assets | Downstream transportation & distribution | Employee commuting | End-of-life treatment of sold products | Processing of sold products | Use of sold products |  | Downstream leased assets | Franchises |  |  | Investments |
| Purchased goods and services           | Capital goods  | Fuel & energy related activities  |                      |               |                                  |  |                               |                 |                        |  |                    |  |                             |                      |  |                          |            |  |  |             |
| Upstream transportation & distribution | Waste generated in operations  | Business travel   |                      |               |                                  |  |                               |                 |                        |  |                    |  |                             |                      |  |                          |            |  |  |             |
| Upstream leased assets                 | Downstream transportation & distribution   | Employee commuting  |                      |               |                                  |  |                               |                 |                        |  |                    |  |                             |                      |  |                          |            |  |  |             |
| End-of-life treatment of sold products | Processing of sold products  | Use of sold products  |                      |               |                                  |  |                               |                 |                        |  |                    |  |                             |                      |  |                          |            |  |  |             |
|  | Downstream leased assets   | Franchises  |                      |               |                                  |  |                               |                 |                        |  |                    |  |                             |                      |  |                          |            |  |  |             |
|  |  | Investments   |                      |               |                                  |  |                               |                 |                        |  |                    |  |                             |                      |  |                          |            |  |  |             |
| <p>Ninety One carbon avoided</p>       |  | <p>Carbon avoided is the carbon emissions avoided by using a product that has less carbon emissions than the status quo thereby contributing to decarbonisation</p>                         | <p>Carbon impact</p> |               |                                  |  |                               |                 |                        |  |                    |  |                             |                      |  |                          |            |  |  |             |



# Measuring carbon impact: ‘carbon avoided’

More importantly for the companies in our portfolio, we want to measure carbon impact: whether they are genuinely contributing to decarbonisation. To do so, we use the concept of ‘carbon avoided’. This examines whether a company’s products or services are better in terms of their carbon footprint than the alternative.

We have worked with CDP to estimate carbon avoided (a document describing our full methodology is available on request). In general, carbon avoided is initially calculated using global averages as baseline emissions estimates. Ideally, over time all our companies will report carbon avoided as an integral part of their financial reporting. Carbon avoided is not as well-known a concept as Scope 1, 2 & 3 emissions, but following engagements with our holdings, many have recognised the importance of quantifying the positive impact of their products or services.

The proportion of companies reporting carbon avoided has remained above 60%. We have commented on the trend in absolute carbon avoided for each of our holdings in this report. When we are comfortable with the reported data, we use it for the company in question and as an estimate for peers in the same BICS category. When companies report the Scope 3 category ‘average use of sold products’, we can compare their number to the average of their peers, with the difference being carbon avoided. In other instances, we use academic data to estimate carbon avoided from certain products and services, and attribute that to the relevant revenues.

As discussed in our previous Impact Report, we evolved the carbon-avoided methodology with more precise calculations for the utilities and automotive sectors. This year, we continued to refine the process by looking at each division within a company separately and applying different carbon-avoided methodologies as appropriate to each different business unit. We also used CDP’s metrics linked to the manufacture of low-carbon products to help find companies with carbon avoided, and we added some new carbon-avoided methodologies, including for engineering software, low-carbon food and commercial vehicles.

Finally, just like financial data, carbon-avoided numbers can be volatile over time, and we need to monitor not just the data but the narrative behind it. For example, as the percentage of energy-efficient devices in the overall mix increases, the baseline gets better, and the carbon avoided goes down even as the number of products sold increases. Put another way, in a world where 100% of electricity generated is renewable, then there is no incremental carbon avoided from new installations of renewable energy.

# Decarbonisation investment opportunity set

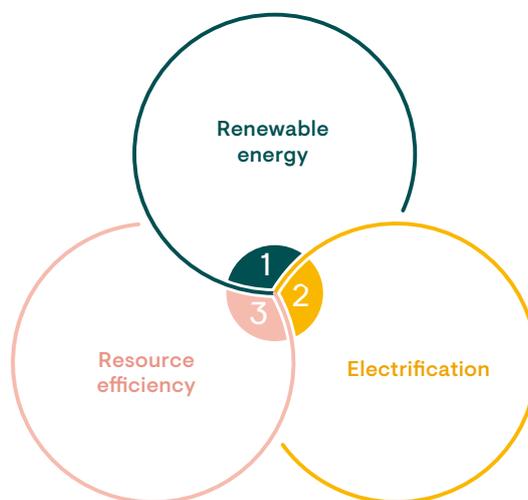
We believe that decarbonisation will be a powerful growth tailwind for select businesses, giving them the potential to grow market share, revenues and profits. That is likely to benefit their stock prices over the long term, though of course investors need to be prepared for short-term volatility and the usual cyclical nature of certain areas of the market. As part of our investment process, we spend a lot of time analysing the valuation of securities, and our research suggests that this decarbonisation-linked growth potential is yet to be incorporated into the share prices of some of these companies, indicating a potential opportunity for investors.

When discussing allocating to decarbonisation, many investors often think of wind- and solar- farms, or electric-car manufacturers. But the range of companies required to reduce global emissions is much broader than that, encompassing businesses in sectors as diverse as chemicals, software, semi-conductors, logistics and waste management. We invest in leading companies across all of these areas of the economy, and more. Indeed, it's important to consider not just the direct beneficiaries of the energy transition, but the entire supply chains that need to be built around them. For example, to deliver the many millions of lithium-ion batteries required to electrify transportation and balance out intermittent renewables, we need to invest not only in battery manufacturing, but also in battery metals (lithium, nickel, cobalt and copper among others) and the power semiconductors and power electronics required to manage those batteries.

It's important to consider not just the direct beneficiaries of the energy transition, but the entire supply chains around them.

From a regional perspective, some portfolios that focus on climate change tend to direct most of their investments towards the developing world. In our view, emerging markets offer huge potential for investors in decarbonisation. Certain companies in China in particular are global leaders in technologies that are crucial to efforts to tackle climate change. We must also remember that we will not achieve our climate goals unless the developing world also decarbonises: the majority of carbon emissions today and 90% of emissions growth come from emerging markets. Investment is crucial to help emerging markets successfully transition to a low-carbon economic model, yet the decarbonisation-funding gap is most acute in developing countries, exacerbated by COVID-induced fiscal stress.

At the broadest level, our opportunity set can be described as encompassing three pathways to a low-carbon future: 1) renewable energy, 2) electrification (of transport and industrial processes etc.) and 3) resource efficiency. A diverse group of companies is needed to drive the global economy down these pathways, spanning multiple sectors and regions, and with a spread of market capitalisations, but generally with higher-than-average growth rates. The table below provides an overview of the breadth of opportunity available to us. It highlights areas such as agriculture, factory and building efficiency, which are increasingly important in the decarbonisation story.



| <b>1</b>                | <b>2</b>                   | <b>3</b>                   |
|-------------------------|----------------------------|----------------------------|
| <b>Renewable energy</b> | <b>Electrification</b>     | <b>Resource efficiency</b> |
| Solar                   | Electric vehicles          | Waste management           |
| Wind                    | Autonomous vehicles        | Homes and buildings        |
| Clean Power Utilities   | Industrial electrification | Agriculture                |
| Smart grids             | Hydrogen economy           | Consumer products          |
| Networks                | Heating and cooling        | Factories                  |

We formally refresh our investment universe on an annual basis. The universe evolves due to: (1) new companies meeting our requirements of >50% from environmental revenues and quantifiable carbon avoided; or (2) if we expand the list of areas that we believe are impacted by the ongoing transition to a decarbonised global system. In the 2021 universe update, we added commercial vehicles, engineering software and low carbon food as new areas. This expansion will continue as we gain a deeper understanding of decarbonisation mechanisms across different industries, particularly those that are yet to define their decarbonisation pathway. The table below compares our current universe (CAU 3) to last year's universe (CAU 2). There is broad consistency across the regional, sector and market capitalisation splits, but now with more companies to draw from.

|   | CAU 3 universe  | CAU 2 universe  |
|---|---|---|
| No. of companies with >50% environmental revenues | c.2,700   | c.2,300   |
| No. of companies in CAU Universe                  | c. 1,200  | c. 700  |
| ACWI overlap                                      | 12% by weight, c. 25% by name   | 7% by weight, c. 33% by name  |
| Regional split                                    | China: 42%<br>Europe: 15%<br>US: 13%<br>Other: 30%                              | China: 34%<br>Europe: 19%<br>US: 17%<br>Other: 30%                              |
| Sector split                                      | Industrials: 36%<br>Tech: 25%<br>Materials: 15%<br>Utilities: 11%<br>Other: 13% | Industrials: 39%<br>Tech: 19%<br>Materials: 17%<br>Utilities: 14%<br>Other: 11% |
| Market-capitalisation split                       | Small: 48%<br>Mid: 33%<br>Large: 19%  | Small: 47%<br>Mid: 35%<br>Large: 18%  |

Source: Ninety One, 30 June 2021 CAU = Carbon Avoided Universe.

# Setting net zero ambitions for Global Environment

As discussed earlier in this report, Ninety One's approach to setting net-zero targets focuses on allocating capital to companies that are impacting real-world emissions and engaging with them to ensure this impact is as large as possible – rather than just reducing portfolio emissions per se.

This has always been Global Environment's approach. Our strategy of investing in the solution providers for climate change is fully aligned with The Institutional Investors Group on Climate Change (IIGCC) recommendation to increase investment in climate solutions. However, our companies also need to play a part in decarbonising existing portfolios and have clear carbon-reduction pathways for their own businesses. This is where the net-zero emissions-reduction ambition is important and we have approached it as follows:

- We have reviewed each company and modelled the expected emissions based on the carbon targets they've set.
- We have treated each company individually and adjusted where we thought there was reason to be conservative. For example, for companies without targets, we have assumed emissions growth in line with revenues.
- Where emissions and science-based targets (SBTs) are not in place, we will be engaging with these companies to ensure appropriate targets are set.
- We have assessed the use of offsets in each of the targets; due to a lack of transparency of where and when these will be used, this is an ongoing process.
- Scope 1 & 2 is just the starting point and progress will need to be made to include Scope 3 emissions in the future. We are continuing to engage with our companies to ensure we have robust Scope 3 disclosure across the portfolio.
- An explanation of other methodologies to assess net zero alignment is available in the Appendix.

The preliminary results from our initial work are as follows:

Portfolio emissions (Scope 1 & 2) reductions are currently estimated at 5.3% p.a. up to 2025.

14 of the 23 companies in the portfolio have carbon-reduction targets.

Eight of those are approved SBTs, while three companies are committed to SBTs, awaiting approval.

Where targets are not SBTs, we have modelled emissions more conservatively. For example, Brambles has committed to carbon-neutral operations (Scope 1 & 2) by 2025 and to an SBT (not yet approved), but we model this goal being met by the end of 2026.

We see significant regional biases in carbon-reduction targets. For example, almost all our European holdings have targets. None of our Chinese, Taiwanese or Japanese holdings have targets. Two of the nine non-reporters are in the US.

There are also significant market-capitalisation biases in carbon-reduction targets. The average market capitalisation in the portfolio is almost US\$40 billion, but the average market capitalisation of the non-reporters is c.US\$11 billion. Seven of the nine non-reporters are among the nine smallest companies in the portfolio by market capitalisation.

5.3%  
p.a.

estimated portfolio-emissions (Scope 1 & 2) reduction up to 2025

10.3%  
p.a.

for developed market (DM) companies

0%  
p.a.

for emerging market (EM) companies

■ ■ ■  
■ ■ ■  
■ ■ 8 (35%)

of companies with science-based targets

9 companies without carbon reduction targets

14 companies with carbon reduction targets

US\$11bn average market cap of non-reporters vs. US\$40bn average for portfolio

8 companies have SBTs. 3 have committed to adopting them

No reporting from Asian companies.  
2 of the 9 non-reporters are US companies

Most European companies have targets

Our approach from here is to aim for emission reductions in our DM companies of at least the 7.6% p.a. required by the Paris agreement by 2025 (although we note this will not be linear), and to engage with our EM companies on introducing SBTs by 2025. We believe a step-by-step approach is appropriate for emerging market holdings. Given that three of our five Chinese holdings are first-time reporters to CDP since our last Impact Report, it will take time for them to understand the carbon data and set targets. We do not believe it makes sense to rush to set targets and, in our view, company targets need to be set bottom-up rather than top-down.

The portfolio-level ambition is sensitive to the progress of utilities, as these companies have large Scope 1 & 2 intensities. We believe Scope 1 & 2 emissions intensity is a poor proxy for climate risk. Scope 1 & 2 emissions intensity also has significant sector and regional biases, and emissions can easily be sold or outsourced. However, Scope 3 data is not yet sufficiently comparable across companies to monitor at the portfolio level, even though it is useful in monitoring individual company progress. Therefore we believe understanding the drivers of any intensity reduction is more important than its pace.

Ultimately, to influence real world emissions we need to see a reduction not just in emissions intensity but in absolute emissions, with the pace of that reduction the key metric as it is the total sum rather than the flow of greenhouse gases that matters. In the short term, this metric will penalise companies that grow more quickly or gain market share but it is important to report it.

We will be monitoring progress of utilities closely due to the vital role these holdings will play in decarbonising the energy grid.

# Engagement update and goals

We believe that engagement and active stewardship are among the most powerful tools we have as active investors. We meet management teams and engage with all of our portfolio companies on a regular basis. As can be seen in the detail on engagement for each company, topics of engagement are not only financial and operational matters but a wide range of sustainability issues. We focus our engagements with each company by setting specific engagement goals. As well as direct engagements with companies, our engagements include participation in advocacy, as well as collective engagements that we feel would help make a material contribution to the required transformation.

Since our last Impact Report, we have met regularly with all the companies held in the portfolio and have seen progress against the annual engagement goals for each company. It should go without saying that we voted all proxies to hold boards and management teams accountable to the highest standards over the year. Again, this is outlined for each company in this report.

In 2020, the Global Environment investment team led collaborative engagements on carbon-emissions disclosures with three companies: NextEra Energy, Xinyi Solar and Longi Green Energy. All three companies have now reported their emissions data to CDP, with NextEra completing this recently. This is a significant positive development and, with the team having worked with Xinyi Solar and Longi Green Energy over 2019 as well, it demonstrates above all the importance of tenacity and patience. In the first year of our commitment to support the CDP programme, none of these companies reported emissions data to CDP.

Carbon reporting remains a key focus for all of our company engagements, even for companies at the better end of the reporting spectrum. We have had some success in working with companies to report carbon data to CDP for the first time either in 2020 or 2021. For other companies, we have been engaging on improving the quality and depth of reporting; for instance, by adding more categories within Scope 3 or more product lines as part of their carbon-avoided calculation.

Our engagement focus for 2021 has broadened to cover the topic of carbon-reduction targets and alignment with SBTs, as we explained earlier. Where companies have approved SBTi targets, we are engaging on the progress made against them. Where they have targets that are not SBTi approved, we are working with the companies to achieve this accreditation. For companies that haven't as yet articulated these targets, we are pragmatic about not asking them to run before they can walk in this respect – in most such instances these companies have only just started carbon reporting and we acknowledge that it might take several years before a SBTi commitment is made.

## Outside of carbon reporting and targets, the engagement topics covered in this report include:

- Board tenure and independence
- Diversity at the board and workforce levels
- Succession planning
- The introduction of EU taxonomy-aligned reporting
- Employee turnover
- Employee health & safety
- Employee learning and development
- Asset disposals
- Supply-chain labour issues

The latter point, supply-chain issues, is a good example of where our learnings from engaging with one of our companies, Schneider Electric, on what it considers best practice have contributed to productive engagements with other portfolio companies on the same topic.

# Inhabit

## 55 Gresham Street, climate-risk training and Ninety One Green

As explained in Ninety One's 2021 [Annual Sustainability Report](#), we continue to work to decouple the company's growth from our environmental impact. We aim to do so by expanding our corporate sustainability strategy and finding new ways to reduce our direct carbon impact, while encouraging behaviour that results in positive outcomes.

As part of our commitment to making our operations more sustainable, we are pleased to report that our new London headquarters at 55 Gresham Street achieved a Building Research Establishment Environmental Assessment Method (BREEAM) 'Excellent' rating for the fit-out. BREEAM is one of the world's leading sustainability assessment methods for buildings.

An 'Excellent' rating puts our London office in the top 10% of commercial buildings globally from a sustainability perspective. Heating and cooling are delivered by energy efficient low-carbon technology and, in selecting materials used in the fit-out, we prioritised zero/low volatile organic compounds, good data transparency and accredited responsible sourcing.

Our environmental footprint will be an integral part of the project plan whenever we upgrade our buildings or look for new offices across the world. Our environmental data-collection system allows us to track and manage our direct operational impacts.

Contributors to the [Global Environment Impact Report](#) in our new London headquarters. **Front row** (Left to Right): Arita Sehgal, Graeme Baker, Deirdre Cooper, Yunli Liu. **Back row** (Left to Right): Atul Shinh, Michael Spinks, Dawid Heyl, Jennifer Moynihan, Eric Opara, Linnea Bengtsson, Sam Anthony, Miles Hamilton



## Climate-risk training - a firm-wide commitment to continuous learning on climate investing

In 2021, Ninety One and Imperial College, the London-based research university, launched a bespoke 'Climate Risk' learning programme for Ninety One employees. The programme is aimed at deepening understanding of climate-related risks and opportunities across all of Ninety One's investment capabilities, building on the expertise developed within the Global Environment team, to help inform investment decision-making.

The first cohort of Ninety One employees attended the course in Q2 2021. The programme is designed to enhance our investment professionals' ability to assess climate risk and their knowledge of the various pathways towards climate-change mitigation. The programme also examines the technological developments that may enable or disrupt these pathways, and how to model the uncertainties inherent in a period of accelerated change as the world steps up efforts to curb carbon emissions. A major component of the course focuses on the pricing of climate-related risks and how such pricing approaches can be integrated into investment processes.

## Ninety One Green: changes starts at home

Ninety One Green is a new internal global network, launched in Q3 2021, which focuses on:

- Aligning colleagues' actions and choices with Ninety One's drive to achieve net-zero emissions.
- Providing employees with tools to help them reduce their personal environmental impacts.

The first Ninety One Green initiative introduces a carbon tracker (developed by a former Ninety One staffer) that helps people measure their environmental footprints, identify means to improve them, and participate in carbon-saving challenges.

## Ninety One Green



# Company

# reports

# Company reports

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## Ansys (added in January 2021)

### Environmental thesis

Ansys develops multi-physics simulation software for computer-aided engineering (CAE), which is used to predict how products will behave in the real world. Ansys' software allows customers to reduce material inputs, increase energy efficiency and stimulate innovation within low-carbon technologies across renewable technologies, electrification solutions, and building and industrial processes.

### EU Taxonomy assessment

All of Ansys' revenues are eligible under the EU taxonomy based on the 'information systems' category guidance. While we believe the company's products are strongly linked to decarbonisation, they are also applied in many different ways across a wide variety of industries, making it challenging to specify exactly which activities are explicitly aligned with the taxonomy. Until Ansys can specify which revenues apply to decarbonisation solutions, we assume no revenues are EU taxonomy aligned.

### Environmental data progression

| Carbon data    | FY 2019 (2021 reporting)      |  |
|----------------|-------------------------------|--|
|                | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) |
| Scope 1 & 2    | 18,470                        | 12   |
| Scope 3        | 806,172                       | 532  |
| Carbon Avoided | 485,613                       | 320  |

Ansys is a new holding in the portfolio, added in January 2021, and only started reporting Scope 1 & 2 emissions in 2020 (FY 2019 data). Scope 3 is not yet disclosed by the company, which will be our engagement focus. Carbon avoided is based on our own estimate. We will also be engaging with the company to progress towards reporting carbon avoided, but the complex applications of the software mean this is a longer-term target.

### Net zero targets

Ansys does not yet have carbon-reduction targets in place, but the company only has a small Scope 1 & 2 footprint. Its Scope 3 footprint is more meaningful, but greater disclosure is required prior to the setting of targets.



Engineering Software  
100.0%

100%

Taxonomy eligible revenues

0%

Taxonomy aligned revenues

US\$31.2bn

Market capitalisation

US\$31.3bn

Enterprise valuation

8.9%

1 year sales growth

13.2%

5 year sales growth

11.5%

1 year RoE

13.4%

5 year average RoE

### Structural growth from decarbonisation

Ansys' addressable market is growing rapidly, most notably through the themes of electrification, autonomy and 5G. Electrification is increasing the complexity of products, and Ansys' software makes it possible to identify thermal and electrical issues during the design phase. Within the autonomy theme, vehicle development requires considerable testing: through Ansys' software, this can be conducted via simulations, rather than on-the-road driving. Ansys' software can also simulate the dispersion of 5G signals, which helps address the bandwidth issues associated with 5G. The company's addressable market may also grow through what Ansys calls 'new adjacencies'. Within this component, Ansys offers solutions that enable upfront simulation, allowing a product's performance to be simulated earlier in the design process. Digital twins, which virtually mirror the performance of a physical object (such as a turbine), and 3D printing are other markets in which the company is expecting increasing opportunities. We believe the breadth of Ansys' solutions means it can contribute to decarbonisation across a variety of different markets.

### Competitive advantage

Ansys is the global leader in multi-physics simulation software. Over time, the company has acquired leading simulation technology to develop its offering, and now provides the widest range of leading software solutions. This technology leadership is bolstered by Ansys' focus on research and development, technology-focused acquisitions and partnerships with key users such as Synopsys and Autodesk. The company has a strong market share, estimated to be in the range of 20-25%.

### Sustainable returns

Ansys' returns have been relatively stable over time, but the company has been increasing its investments, through acquisitions and capital expenditure, to strengthen its simulation-software platform. The company is increasingly providing solutions for a wide array of engineering problems and expanding into new markets, as discussed above. Over the long-term, as the company matures and grows its platform capabilities, we expect returns to improve.

### Engagement progress

The below engagement goals have been set for Ansys. We have already started to discuss them with the company, with positive responses so far.

### Proxy voting

The company was a new holding in 2021.

### 2021 engagement goals

1. Scope 3 emission disclosure.
2. Report carbon avoided estimates.

# Aptiv

## Environmental thesis

Aptiv is a global technology company that serves the mobility industry. A rapid shift from internal combustion engines (ICEs) to electric vehicles (EVs) is underway. The future of mobility could ultimately include electric, autonomous vehicles powered by zero-emission energy. We believe Aptiv is a leader in enabling the transition to an electrified, software-defined vehicle of the future.

## EU Taxonomy assessment

We conservatively assume 4% taxonomy alignment, given the lack of granular information on carbon intensity or customer look-through against the <50g CO<sub>2</sub>/km per vehicle carbon-intensity metric. High-voltage electrification (US\$0.5bn or 4% of revenues) accounts for the only reported revenues we can confidently align with the taxonomy, given these revenues specifically relate to EVs.

## Environmental data progression

| Carbon data    | FY 2017 (2019 reporting)      |  | FY 2018 (2020 reporting)      |  | FY 2019 (2021 reporting)      |  |
|----------------|-------------------------------|--|-------------------------------|--|-------------------------------|--|
|                | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) |
| Scope 1 & 2    | 369,266                       | 29   | 370,964                       | 26   | 357,549                       | 25   |
| Scope 3        | 9,257,428                     | 719  | 8,415,068                     | 583  | 8,303,399                     | 578  |
| Carbon Avoided | 1,230,000                     | 95   | 1,190,000                     | 82   | 434,726                       | 30   |

Aptiv has reported Scopes 1, 2 and 3 (all 15 categories) since 2017. The trend in carbon emissions and intensity has been in the right direction. Absolute direct emissions declined by approximately 4% over the past 12 months and intensity fell by 3%. Indirect emissions (Scope 3) on an intensity and absolute basis fell marginally (by 1%); they are a significant proportion of total emissions. The Scope 3 categories of 'purchased goods and services' and 'use of sold products' make up 46% and 34% of Aptiv's total emissions, respectively. The business is working hard to decarbonise its supply chain and aims to be net-zero by 2040 (see below), 10 years earlier than a previous target. Aptiv's product mix, exposure and therefore 'use of sold products' continue to shift from conventional vehicles to electric, low-carbon-intensity vehicles, and we would expect to see this part of Scope 3 emissions intensity fall significantly over time as a result. Carbon avoided has declined, with a small change to the carbon avoided attributed to electrical connectors, but this remains an estimate and we are engaging with the company to work towards reporting this number.

Aptiv is committed to reducing waste, consuming less water and using less materials in its operations. It reports to CDP on water and has delivered a 1% absolute reduction in water consumption and a 12% reduction in water consumption per employee. Aptiv has a waste-diversion (volume of recycled waste/total waste volume) target of 80%, which it has already met. It has decreased total waste generation by almost 30% since 2018.

## Net zero targets

Aptiv has committed to an SBT. It is aiming for a 25% reduction in Scope 1 & 2 emissions by 2025, carbon-neutral operations and 100% renewable-energy consumption by 2030, and to be completely carbon neutral by 2040.



0%

Taxonomy eligible revenues\*

4%

Taxonomy aligned revenues

\*Based off Bloomberg's EU taxonomy eligibility assessment. However, the company has 100% environmental revenues based on our universe selection process.

US\$35.2bn

Market capitalisation

US\$37.1bn

Enterprise valuation

**-11.3%**

1 year sales growth

**-1.4%**

5 year sales growth

**30.2%**

1 year RoE

**38.1%**

5 year average RoE

## Structural growth from decarbonisation

Aptiv provides a portfolio of technology spanning the 'brain and nervous system' of the car and the wider mobility industry. With two main segments – signal and power solutions, and advanced safety and user experience – Aptiv is directly exposed to the move towards an electrified and ultimately autonomous transport system. The latest IEA report highlights that an 18x increase in electric car sales is required by 2030 to achieve net zero by 2050. Aptiv estimates that on average the wiring weight in an EV is about 13kg higher than in an ICE vehicle. Its innovations (zone controllers, smart vehicle architecture) should enable a reduction in wiring weight by 20-30% in the coming years, thereby contributing to improving driving ranges and the cost of producing EVs. Although Aptiv posted weak absolute revenue growth for 2020 due to COVID-19, the company continues to outgrow the auto market, posting 10% growth over the market for the third year in a row, highlighting its structural exposure to areas such as high-voltage electrification and advanced safety. Aptiv is also one of the leaders in autonomous-vehicle technology through its partnership with Lyft and joint venture with Hyundai, an area of significant potential long-term growth. We believe Aptiv can continue to grow above-market by at least 7% p.a., driven by 40%+ growth in high-voltage electrification and leadership in advanced driver-assistance systems (ADAS) and autonomous vehicle technology. Bookings reached a record US\$11bn.

## Competitive advantage

In our view, Aptiv has a leading portfolio focused on greener, safer and more connected vehicle systems. This includes expertise in high-voltage, electrical-architecture, driver-assist and perception systems, sensor fusion, active safety software and numerous connectivity systems. This positions it to take advantage of the trend towards an electrified, centralised and autonomous vehicle computer system. It currently provides high-voltage content in 50% of all EVs produced today. Its high-voltage book has grown from seven customers a few years ago to 20+ currently, and is expected to be 25+ in 2025. Aptiv remains one of the only full-systems solutions providers and global systems integrators, which should help it continue to grow its leading market share, and deepen its strong relationships with key OEMs and well-known leading EV brands around the world.

## Sustainable returns

The increased electrical and data complexity of cars should result in a strong value proposition for Aptiv's system-integration capabilities in both hardware and software, leveraging both in-house capabilities as well as those of its network of partners. Aptiv is a low capital-intensity business with a focus on costs. It has made numerous strategic acquisitions and driven returns/margins higher once these have been integrated into the business. Growth in software and continued scale benefits across segments such as high voltage should also help it to grow margins over time.

## Engagement progress

We engaged with the company on carbon-emissions targets, carbon avoided and board tenure. It has submitted its application to the SBTi and is working towards carbon neutrality. It takes approximately two years for a target to be validated by the SBTi. Aptiv has interim targets for Scopes 1 & 2, and is working on a full-lifecycle assessment for certain products such as wiring harnesses. This will help it to understand the environmental footprint of certain products and quantify emissions reductions more accurately. This should also help with its carbon avoided calculation. Regarding board tenure and succession planning, Aptiv has refreshed the board in recent years and added seven non-independent directors, four with extensive technology backgrounds, and improved the diversity of the board. We note that average tenure is low. Finally, we have been discussing human rights and supply-chain sustainability and had a number of discussions around the potential adoption of ISO 26000 (a standard for guidelines for social responsibility).

## Proxy voting

We voted with management on all items in 2020 but flagged the re-election of three directors due to their having tenures of 10 years. Since the board has been recently refreshed and none of the directors in question serve on the audit committee, we were comfortable voting in favour but have engaged with the company on the topic of tenure.

## 2021 engagement goals

1. Progress with SBTi application.
2. Carbon avoided reporting.

## Brambles

### Environmental thesis

Brambles operates the world's largest pool of reusable pallets, crates and containers. Pallets are used in the transportation of goods (particularly food and beverages). Brambles offers pooling solutions through its network of pallets, which means they are recycled, removing cost and complexity within the supply chain. Brambles' circular economy business model not only generates carbon avoided, but saves water (2,600 megalitres), wood (1.7 million cubic meters), trees (1.7 million) and waste (1.3 million tonnes).

### EU Taxonomy assessment

Brambles' business model is not directly addressed within the EU taxonomy, although we remain of the view that the company is supporting decarbonisation by improving the carbon footprint of the fast-moving consumer goods (FMCG) sector. Given the business model is not addressed, we have concluded that revenues are not aligned with the taxonomy; however, guidance related to the forestry sector provides evidence of indirect alignment. We note that Brambles' activities may be eligible for one of the taxonomy's four remaining environmental objectives in the future (once set), likely the 'transition to a circular economy'.

### Environmental data progression

| Carbon data    | FY 2017 (2019 reporting)      |  | FY 2018 (2020 reporting)      |  | FY 2019 (2021 reporting)      |  |
|----------------|-------------------------------|--|-------------------------------|--|-------------------------------|--|
|                | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) |
| Scope 1 & 2    | 117,645                       | 23   | 90,440                        | 20   | 48,888                        | 11   |
| Scope 3        | 2,956,957                     | 579  | 3,321,295                     | 743  | 4,624,011                     | 1,006  |
| Carbon Avoided | 2,500,000                     | 490  | 2,588,015                     | 579  | 1,998,587                     | 435  |

Brambles was targeting a 20% reduction in Scope 1 & 2 emission per unit (pallets, crates and containers) by 2020. In FY19, 18% of this reduction had been achieved and this improvement is reflected in the downward trend in Scope 1 & 2 emission intensity. Scope 3 emissions have been rising. 10 Scope 3 categories were reported (the same as last year), so we continue to rely on estimated emissions. Scope 3 disclosure was a focus of this year's engagement. The company says that all 15 categories will be reported in FY2021, which will mean we can begin to monitor the company's progress. The decline in carbon avoided is the result of the company's sale of its IFCO business in early 2019, which provided reusable boxes, typically for food and beverages. FY2019 therefore represents a reset for carbon avoided.

### Net zero targets

Brambles has committed to an SBT but is still in the process of approval. However, outside of the SBT, the company has set a target to be carbon neutral by 2025. We will be engaging with the company to ensure an ambitious SBT is set and includes Scope 3.



Containers & Packaging  
100.0%

0%

Taxonomy eligible revenues

0%

Taxonomy aligned revenues

US\$12.0bn

Market capitalisation

US\$14.0bn

Enterprise valuation

6.0%

1 year sales growth

-2.5%

5 year sales growth

13.6%

1 year RoE

22.0%

5 year average RoE

## Structural growth from decarbonisation

Brambles controls the original pallet pool developed in Australia and has since expanded into markets including the UK and US, which have become mature. Through these operations, it has developed relationships with large global players in the FMCG sector such as Coca Cola, P&G and Unilever. Brambles was negatively impacted by the COVID-19 pandemic but was broadly resilient given its exposure to mostly consumer staples, where demand increased. While the historical revenue growth profile appears negative, the company has consistently grown between 6-8% on a constant currency basis. We expect Brambles to maintain its growth profile given its large addressable market, with the opportunity to grow into new regions alongside its global FMCG partners and by converting users of non-pooled solutions, such as 'white wood' pallets, which are often lower quality, less reliable, higher cost and not recycled. Brambles has been advancing its progression into South American markets in particular but there are also long-term opportunities in Eastern Europe and China.

## Sustainable returns

Brambles 2020 return was negatively impacted by the COVID-19 pandemic, but longer term, we expect returns to continue their recovery with the ongoing margin improvement programme in the US business driven by surcharges in customer contracts and plant automation. While returns could be impacted by inflationary headwinds in the short-term, particularly in lumber, the business is improving its capital discipline. This was demonstrated in the recent COVID-19 pandemic in which the company focused on ensuring pallets move through the system quicker rather than investing in new pallets to meet customer demand.

## Competitive advantage

Brambles offers a high-quality pooling solution that reduces costs through efficiency and simplification of FMCG customer supply chains, which are often highly complex. The company has dominant market share across several developed markets and no global competitors. While there is competition from regional operators, they are unable to match Brambles' economies of scale and global footprint.

## Engagement progress

Our engagement goals included disclosure of the final Scope 3 emission categories, as well as water recycling and sustainability targets for management. As noted above, Brambles intends to report all Scope 3 categories in next year's disclosure. Water recycling was also discussed with the company and it is focusing on implementing greater recycling efforts in water-stressed areas such as South Africa. Notably, following the disposal of its IFCO business in 2019, the company has halved its water consumption, so this is now a less material issue. In relation to sustainability targets for management, these are in place for relevant department heads (e.g., procurement), but more formal incentives are not yet in place for executive-level management. Some social aspects, such as health and safety, are included in management's compensation, but Brambles is looking at the inclusion of environmental components.

## Proxy voting

As we noted last year, we had some concerns related to the tenure of a non-executive director who was helping with the chairman transition. This transition happened in 2020, and this director is now set to retire. The company also introduced new directors onto the board. Subsequently, we voted with management on all items in 2020.

## 2021 engagement goals

1. Scope 3 emission disclosure.
2. SBT progress.

# China Everbright Environment Group

## Environmental thesis

China Everbright Environment is China’s (and the world’s) largest waste-to-energy (WtE) investor and operator, with a WtE capacity of over 140kt/d. Sustainable decarbonisation will require a transformation in how we generate electricity, with a move away from fossil fuels towards renewable energy. Given China’s coal-heavy grid, WtE generates significant carbon avoided. China must also tackle the serious issue of waste disposal. A shift is underway from municipal waste disposal towards waste incineration for two main reasons: rapid urbanisation has left landfill space in short supply; and extremely high and dangerous levels of air and underground water pollution from landfill sites are not sustainable. We believe China Everbright Environment is well positioned to benefit from the government’s focus on giving people a better quality of life.

## EU Taxonomy assessment

China Everbright Environment Group splits revenues into three segments: (1) ‘Environmental energy’ (c.61%); (2) ‘Greentech’ (c.23%); and (3) ‘Water’ (c.16%). Only the ‘water’ segment is aligned, based on our assessment, given that WtE (within ‘environmental energy’) is seen as not ideal for managing waste and the carbon intensity of biomass-related generation (within ‘greentech’) is above the relevant taxonomy threshold.

## Environmental data progression

| Carbon data    | FY 2017 (2019 reporting) |                                 | FY 2018 (2020 reporting) |                                 | FY 2019 (2021 reporting) |                                 |
|----------------|--------------------------|---------------------------------|--------------------------|---------------------------------|--------------------------|---------------------------------|
|                | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) |
| Scope 1 & 2    | 10,559,782               | 4,106                           | 9,200,468                | 2,648                           | 9,337,245                | 1,947.89                        |
| Scope 3        | 24,932                   | 10                              | 27,318                   | 8                               | 13,554                   | 3                               |
| Carbon Avoided | 5,910,000                | 2,298                           | 10,800,000               | 3,109                           | 12,343,000               | 2,575                           |

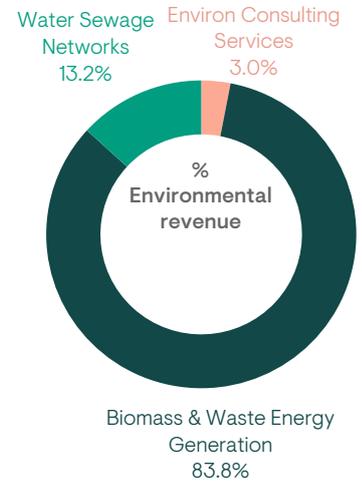
|                      | 2018 (2019 Disclosure) | 2019 (2020 Disclosure) | 2020 (2021 Disclosure) |
|----------------------|------------------------|------------------------|------------------------|
|                      | Absolute (MWh/yr)      | Absolute (MWh/yr)      | Absolute (MWh/yr)      |
| Renewable generation | 8,294,000              | 10,713,049             | 17,078,231             |

China Everbright reports Scopes 1 & 2 and some Scope 3 categories to CDP. It has restated its historical carbon emissions again in the latest CDP report. Restated figures are shown in the table above. The restatement is based on revisions to coefficients/emission factors to align with China-specific data on the mix of waste used, which affects the emissions from electricity generation from waste, and uses other more up-to-date calculation methodologies. We have also highlighted some potential inaccuracies in the company’s Scope 3 disclosure, which we are engaging with the company on. During the reporting period, the company processed approximately 24.7m tonnes of household waste (up 23% vs the previous year), 4.6m tonnes of agricultural and forestry waste (up 46%), and 198,000 tonnes of hazardous and solid waste (up 55%). Scope 1 & 2 absolute emissions increased by 1.5%. As the company used more energy-efficient equipment and renewable energy, Scope 1 & 2 intensity fell by an impressive 26%.

Scope 3 reported emissions fell over the past year, but the company did not report all 15 Scope 3 categories. The majority of reported Scope 3 emissions came from downstream transportation and distribution (18% of Scope 3), business travel (8%) and upstream transportation and distribution (68%). We continue to engage regarding Scope 3 reporting and the business has committed to improving its coverage in future reports to CDP.

China Everbright’s projects supplied approximately 12,272,395 MWh of on-grid green electricity in 2019 (up 28%) and 17,078,231 MWh in 2020 (up 59%).

The company reported 12.3m tonnes of carbon avoided, an increase of 14%. The company also treated approximately 1.4bn m<sup>3</sup> of waste water (up 12%) and 5.2m m<sup>3</sup> of leachate (up 19%), reducing chemical oxygen demand (COD) discharge by approximately 513,000 tonnes in total.



16.7%

1 year sales growth

30.9%

5 year sales growth

14.8%

1 year RoE

15.7%

5 year average RoE

### Net zero targets

The company does not currently have net zero targets. This is a key engagement goal for 2021.

### Structural growth from decarbonisation

China Everbright has been well placed to take advantage of the growth in WtE, as well as demand for environmental services, across China in recent years, as its operational growth demonstrates. However, uncertainty regarding the Chinese government's support for WtE has continued and WtE policy has taken a backseat to wind and solar. China's latest five-year plan will see fewer projects released by the government, implying lower market growth than in the previous five years. But with growth in per-capita waste and little landfill supply available, plus the environmental benefits of moving away from pollutive landfills, the need for efficient WtE projects remains strong. In addition, there is strong demand for waste sorting, collection and transportation, growing areas of focus for the company.

China Everbright has been working through a significant capacity expansion and, although we may be at the peak of WtE project development, the cashflow peak for these projects is still a few years away. Therefore, we expect strong growth in cashflows over the long-term as more projects become operational and as the business moves to capital-light areas. The company's revenue and attributable net profit rose 17% and 16% year on year, respectively, in 2020.

### Competitive advantage

The company is the largest owner of WtE capacity in China and its plants are more efficient than the average among its major peers in terms of power sales per tonne of processed waste. We believe it has scale advantages and extensive experience, and is located in provinces with higher incineration targets than the national average. With falling national subsidies for WtE plants, local governments and local treatment fees within each province become more important. China Everbright's projects are clustered in prosperous cities along the coastal region, which makes it easier to increase treatment fees if needed relative to peers. The business is well placed within the waste-management industry to take advantage of potential synergies across other areas such as sorting, collection, transportation and recycling.

### Sustainable returns

Given its leading market share and strong focus on costs and returns, we believe the company will continue to generate an above-peer return on equity. We are starting to see evidence of management prioritising cashflows and return-on-capital, but need to see further evidence of this. Management remains confident regarding project returns and it expects waste-treatment fees to increase gradually over time as the central government wants to shift more of the financial burden of environmental projects onto local authorities. The government has set 46 cities goals to implement waste-disposal fee systems.

### Engagement progress

Our engagements with the company focused on emissions-reduction targets and staff pay/benefits. The company does not have an overall target for Scope 1 emissions as they can fluctuate substantially due to the varying composition of household waste received, which is beyond its control. To drive long-term decarbonisation in line with the Paris Agreement, the company is actively considering setting emissions-reduction targets for different business sectors. Specific targets are currently under development and we will monitor progress. The company has also committed to improved and more consistent Scope 3 emissions reporting, which we will also continue to monitor. Regarding pay and benefits, the company offers a range of incentives and benefits across its employee base, with a commitment to equal opportunities. China Everbright has developed a bonus/recognition programme for project companies with excellent environmental performance and there is a link between management's year-end bonuses and the environmental performance of the company.

### Proxy voting

We voted against two nominees, due to their excessive tenure and being members of a less-than-majority-independent audit, nomination and compensation committee. We also voted against two issuance items as they exceeded our internal limit of 10%.

### 2021 engagement goals

1. Consistency of emissions reporting across Scopes 1, 2 & 3.
2. Progress towards net-zero targets, ideally through SBTi.
3. Greater board diversity.

## Croda

### Environmental thesis

Croda is a leading oleochemical producer that uses nearly two-thirds biological inputs in its production processes. The company's output, which mainly serves as ingredients in products such as skin creams, vaccines and biological pesticides, replaces carbon-intensive, fossil-fuel-based alternatives. Croda is an enabler of decarbonisation in industries such as personal care and crop protection. In addition, some of its products offer efficacy advantages; for instance, its adjuvants decrease the amount of active ingredients required in a pharmaceutical product to deliver the same health outcome for patients. We believe environmental revenues will increase over the long-term, with 95% of Croda's R&D pipeline being bio-based.

### EU Taxonomy assessment

Croda's business-segment revenues are split as follows: (1) 'Personal care' (34%); (2) 'Life sciences' (29%); 'Performance materials' (30%); and (4) 'Industrial chemicals' (7%). Bloomberg's taxonomy estimate suggests just 29% of revenues are eligible, but the company reports that c.65% of raw materials are natural, biological, renewable and lower-carbon-emission generating than the equivalent petrochemical alternative. Notably, we identify 63% of revenues as environmental. However, it does not currently disclose how much biological and renewable raw materials are used in each separate segment. Given that input/ feedstock does not equal revenue, we are therefore not able to ascribe revenues as being taxonomy aligned. Furthermore, at this time we do not have enough detail to assess alignment against various taxonomy thresholds such as manufacturing emissions vs. the EU-Emission Trading System (ETS) benchmark, and so cannot conclude any revenues are aligned. Zero aligned revenue is a conservative assumption, and we would expect a proportion of revenues to be deemed aligned as the company progresses its reporting. We have engaged with the company on this, and it has shown willingness to develop its reporting once it feels it can prove eligibility in its respective activities.

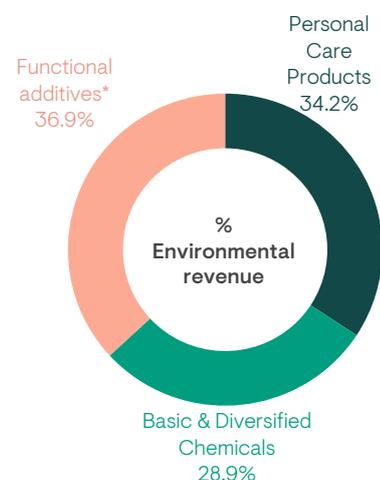
### Environmental data progression

| Final          | FY 2017 (2019 reporting) |                                 | FY 2018 (2020 reporting) |                                 | FY 2019 (2021 reporting) |                                 |
|----------------|--------------------------|---------------------------------|--------------------------|---------------------------------|--------------------------|---------------------------------|
|                | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) |
| Scope 1 & 2    | 182,617                  | 103                             | 199,185                  | 108                             | 174,362                  | 99                              |
| Scope 3        | 899,369                  | 508                             | 1,134,680                | 613                             | 986,383                  | 561                             |
| Carbon Avoided |                          |                                 | 700,000                  | 378                             | 850,500                  | 484                             |

Croda reports Scope 1 & 2 and all 15 categories of Scope 3. This provides a strong base from which to monitor emissions. Since FY2018, Scope 1 & 2 intensity has declined, mainly a result of increasing investments in renewable-energy supply. Scope 3 intensity has also declined, with Croda increasingly focused on decarbonising its purchased goods and services. We expect the decline in emissions to continue, given the company's SBT, which includes Scope 1, 2 & 3 (see below). While we are pleased to see the positive progress in carbon avoided, it will be important for Croda to capture the carbon avoided within its broader portfolio (see engagement section).

### Net zero targets

Croda has committed to reduce absolute Scope 1 & 2 emissions by c.46% by 2029 relative to 2018. The company has also committed to reduce upstream Scope 3 by 13.5% within the same timeframe. Croda has received approval from SBTi for these goals.



\*This segment is not an environmental revenue.

29%

Taxonomy eligible revenues\*

0%

Taxonomy aligned revenues

\*Based off Bloomberg's EU taxonomy eligibility assessment. However the company has 63% environmental revenues based on our universe selection process

US\$12.6bn

Market capitalisation

US\$13.7bn

Enterprise valuation

0.6%

1 year sales growth

5.5%

5 year sales growth

16.5%

1 year RoE

26.6%

5 year average RoE

## Structural growth from decarbonisation

Croda is capturing the structural-growth opportunity from decarbonisation through its strong bio-based portfolio. From 2021, the company now reports based on a new segment breakdown: consumer care, life sciences and performance technologies. Within consumer care, there is increasing demand for products based on 'natural' or 'organic' ingredients derived from bio-based sources (as opposed to petrochemicals). Croda already has strong relationships in this area with companies such as L'Oréal, and we expect consumers will increasingly prefer the bio-based products Croda supports. Within the company's life sciences business, products focus on the delivery of drugs to plants and humans (via healthcare products). Croda's agricultural products help farmers to increase crop productivity, reducing pressures on land and mitigating negative agricultural impacts such as deforestation and soil degradation. While there is a less clear link to decarbonisation from the healthcare business, it creates positive social impacts. For example, Croda's expertise in gene therapy supported the rapid scaling of the Pfizer and Moderna COVID-19 vaccines. Finally, the performance technologies segment is currently undergoing a strategic review, which will be finished by the end of 2021. We expect most of this business to be sold or placed into a separate entity. At the group level, short-term sales growth had been impacted by the pandemic, but we expect it to rebound strongly towards long-term averages.

## Competitive advantage

Croda has evidenced its ability to deliver strong returns in both the short and long term. Its oleochemicals are often critical inputs into products, and typically account for only a small proportion of the total cost of a product, which we expect will allow Croda to retain pricing power. Furthermore, with the company investing in growing its intellectual property, we expect it to retain its market leadership and at least maintain its current level of returns. We believe there is upside potential to these returns following the strategic review of performance technologies, which is a lower-margin business, and due to the strength of the company's R&D pipeline.

## Sustainable returns

The foundation of Croda's competitive advantage is its intellectual capital. The company is focused on continuing to develop its in-house intellectual property and growing revenues from what it calls 'New and Protected Products', which currently represent around 27% of sales. The company also continues to make strategic acquisitions to enhance its product portfolio. Croda has a leading position in its industry, with a 90%+ share in some market segments. Given its technology and strong market share, the company has developed strong relationships with customers that are often partners in product development (which can take up to four years, depending on the complexity of the chemistry). This further increases barriers to entry.

## Engagement progress

As discussed, Croda already has good carbon disclosure. Carbon avoided is reported for only four products out of thousands; while this is useful, we are encouraging the company to extend coverage. The company intends to do so, but this may take time due to the complexity of the application of its products and supply chain. We will monitor developments closely. Croda has stated it intends to save 3.8m tCO<sub>2</sub>e by 2030, though the pathway to achieving this figure is unclear. We have also been engaging with the company on aligning its reporting with EU taxonomy criteria. We believe the company is an important contributor to global decarbonisation, but its contribution could be overlooked due to the complexity of the business. Early discussions indicate a desire to align reporting, but this issue remains open as an engagement goal. Encouragingly, Croda has set an SBT, which includes Scope 3 emissions. However, as a chemicals company, its value chain is difficult to decarbonise, so we will be engaging to better understand how upstream Scope 3 emissions will be reduced to 2030 and beyond. We would also like further detail on the company's thinking on downstream emissions (which are much less significant for Croda, but still require attention).

## Proxy voting

We did not find any issues within the proxy statement, so voted with management in 2020.

## 2021 engagement goals

1. Reporting carbon avoided on more products.
2. SBT Scope 3 detail.
3. Evolution of palm-oil certification.



# Iberdrola

## Environmental thesis

Iberdrola is a global leader in renewable-energy generation. Sustainable decarbonisation will require a complete change in how we generate electricity, moving away from fossil fuels towards renewable energy, mainly wind and solar. It will also require significant investment in electricity networks to reduce losses and better integrate renewables. Iberdrola operates more than 35GW of renewable energy in Europe, the US and Latin America. It owns regulated networks in Spain, the UK, the US and Brazil. Iberdrola's greenhouse gas emissions declined to 98g CO<sub>2</sub>/kWh in 2020, one-third of the European average. Iberdrola will invest €75bn in the development of renewable energy, smart grids, energy storage and smart solutions by 2025, doubling renewable capacity and increasing network assets by 50%.

## EU Taxonomy assessment

Iberdrola's business lines include: (1) 'Renewables' (25% of EBITDA); (2) 'Networks' (50% of EBITDA); and (3) 'Generation & supply' (25% of EBITDA). Electricity generation with a carbon footprint less than 100g/kwh measured on a life-cycle emissions (LCE) basis is considered eligible, with wind, solar and European-based hydropower exempted from the LCE test. Similarly, all electricity transmission and distribution infrastructure or equipment in systems on a trajectory to full decarbonisation are eligible. On this basis, the whole 'renewables' segment and the proportion of the 'networks' segment that relates to eligible regions (Spain, UK, Brazil and part of the US where there is compliance with the emissions-intensity threshold cited within the taxonomy) are considered aligned.

## Environmental data progression

| Carbon data    | FY 2017 (2019 reporting)      |  | FY 2018 (2020 reporting)      |  | FY 2019 (2021 reporting)      |  |
|----------------|-------------------------------|--|-------------------------------|--|-------------------------------|--|
|                | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) |
| Scope 1 & 2    | 16,735,674                    | 474  | 16,184,909                    | 391  | 15,508,851                    | 380  |
| Scope 3        | 56,292,018                    | 1,594  | 52,031,559                    | 1,256  | 54,278,200                    | 1,331  |
| Carbon Avoided | 23,500,000                    | 665  | 19,500,000                    | 471  | 22,920,441                    | 562  |

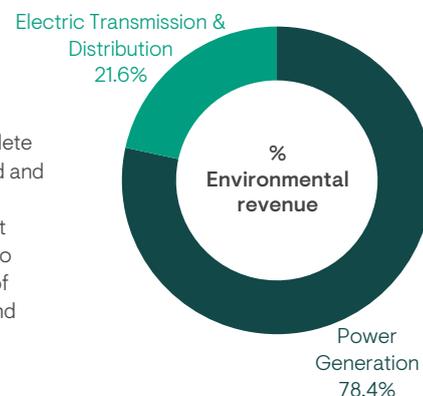
|                      | 2018 (2019 Disclosure) | 2019 (2020 Disclosure) | 2020 (2021 Disclosure) |
|----------------------|------------------------|------------------------|------------------------|
|                      | Absolute (MWh/yr)      | Absolute (MWh/yr)      | Absolute (MWh/yr)      |
| Renewable generation | 61,793,000             | 59,074,000             | 67,846,000             |

The carbon data displayed above shows Iberdrola's carbon footprint based on restatements, the most important of which is the reclassification of the Mexican gas plants into Scope 3 as Iberdrola does not control the dispatch of these assets. While we have seen a large jump in Scope 3, this sets a strong basis from which to monitor emissions and we are encouraged by the fact that Iberdrola's SBT includes Scope 3 emissions, so would expect to see a reduction in the coming years. We are also pleased to see a reduction trend in Iberdrola's Scope 1 & 2 emissions, both absolute and intensity, as well as an increase in carbon avoided. The declining Scope 1 & 2 emissions and the increasing carbon avoided are a direct result of Iberdrola's fast-growing renewables business and continued retirement of fossil-fuel power stations.

We note that, in general, as electricity grids become cleaner, it becomes increasingly difficult to grow carbon avoided as the baseline is also decarbonising. Carbon avoided for the power sector is calculated by comparing a company's generation mix to the grid in which it sits. So, as the European electricity grid reduces its footprint, carbon avoided per unit of clean generation is lower.

## Net zero targets

Iberdrola has committed to reduce absolute Scope 1, 2 & 3 emissions by 20% by 2030 from a 2017 base. This has been validated by SBTi. Iberdrola is committed to being carbon neutral by 2050. All employees, from the Chairman and CEO down, have incentives linked to climate goals.



BICS revenue data does not capture Iberdrola's exposure to fossil generation as it sits within the category labelled Other Power Generation Operations. However, we note that as at December 2020, 8.8GW of Iberdrola's 48GW of generation was natural gas but are pleased to report that the coal generation has now been retired.



-5.7%

1 year sales growth

0.8%

5 year sales growth

9.9%

1 year RoE

8.4%

5 year average RoE

## Structural growth from decarbonisation

Iberdrola is the market leader in owning renewable-energy generating capacity in Europe, with leading positions in Spain, the UK, Mexico and Brazil. The IEA's net-zero roadmap requires a 4x increase in renewable energy by 2030 and 10-20x by 2050. We believe Iberdrola has a key role in delivering that goal and hence is extremely well positioned for structural growth. Revenue growth is not always a meaningful metric for utilities. That said, Iberdrola's investment plan calls for an additional 27.6GW of renewables between 2020-2025, of which 80% is already under construction, compared to 48GW today, which should drive EBITDA and net-income growth.

## Competitive advantage

We believe Iberdrola's market-leading position in developing wind- and solar-generating capacity gives it several competitive advantages, including access to the best sites (wind especially can vary significantly depending on the location), more competitive turbine pricing and better financing terms.

## Sustainable returns

Iberdrola's return-on-equity compares well to other European utilities. 2020 saw a reduction due to lower power demand, and some increased costs due to COVID-19, but we would expect these effects to be short term. The company also benefits from a very low cost of capital, so typically generates good returns above its weighted-average cost of capital.

## Engagement progress

Our engagement was mainly focused on succession planning and the joint Chairman/CEO role. We have had a number of conversations with management on this topic and met with a senior independent board director. That conversation gave us some confidence that board discussions are frequent and robust, with highly engaged and qualified directors. However, we continue to believe that an explicit succession plan would be helpful and will continue to engage on this issue.

## Proxy voting

We had flagged the joint Chairman/CEO role as a key engagement point. We voted against the re-election of Victor Ibarra as a director, as his tenure meant we no longer considered him independent; the two new directors and other existing directors up for re-election had more relevant experience. We did not vote against the Chairman, given his exceptional strategic track record. We also voted against the advisory vote on remuneration as we felt the remuneration is not particularly well designed. The company uses a broad group of international large-cap companies to benchmark CEO pay, but uses a different group of European utilities as performance comparators for the purpose of meeting the targets. It argues that European utilities are state-owned enterprise and hence not relevant comparators for pay, which is reasonable. But we believe the peer group for performance should be the same as the peer group for pay. As such, we felt the company should have some of the higher-return companies with better-paid management teams in the comparator group for targets.

## 2021 engagement goals

1. Succession planning.
2. The Cenyt case. The Chairman and eight other members of the management team have been defined as persons of interest in an alleged corruption case involving large Spanish corporates and politicians accused of procuring investigation services from a serving police officer, via Grupo Cenyt. No accusations have been levelled. Iberdrola admits to working with Cenyt between 2004 and 2017 but only for legal services backed by invoices. Baker McKenzie and PWC have produced detailed reports supporting the company's position, which we have reviewed. We are comfortable that Iberdrola has not been involved in corruption but will of course continue to monitor the situation.
3. Progress against the SBT.



# Infineon Technologies

## Environmental thesis

Infineon is a market-leading power semiconductor company. Sustainable decarbonisation requires a complete change in how we generate electricity, moving away from fossil fuels towards renewable energy, mainly wind and solar, a transformation in ground transportation, moving away from internal combustion engines towards EVs powered by renewable energy, and more efficient use of energy. Infineon's products will see structural growth because of all these broad trends. Within renewable energy, Infineon supplies the top 10 wind-turbine and solar-inverter companies with power semiconductors. Within automotive, an electric car has twice the semiconductor content of an ICE vehicle; and variable speed drives, which allow appliances to use 40% less energy, and have over 10x the power semiconductor content of traditional devices.

## EU Taxonomy assessment

Revenue lines for the company include: (1) 'Industrial power control' (14% of revenue); (2) 'Automotive' (43%); (3) 'Power & sensor systems' (29%); and (4) 'Connected secure systems' (14%). Within 'Industrial power control', 4% of total group revenues were derived from sales specifically to renewables in FY2020, so are considered aligned revenues. Within the 'Automotive' segment, 5% of total group revenues are derived from semiconductors used for EVs, so are also aligned. While there are many links to other decarbonising technologies within Infineon's broader product portfolio, the company is unable to provide exact revenues, so we have excluded these revenues from our alignment estimates.

## Environmental data progression

| Carbon data    | FY 2017 (2019 reporting)      |  | FY 2018 (2020 reporting)      |  | FY 2019 (2021 reporting)      |  |
|----------------|-------------------------------|--|-------------------------------|--|-------------------------------|--|
|                | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) |
| Scope 1 & 2    | 868,903                       | 111  | 915,472                       | 101  | 928,973                       | 103  |
| Scope 3        | 1,591,179                     | 204  | 2,627,002                     | 290  | 8,272,094                     | 913  |
| Carbon Avoided | 56,100,000                    | 7,189  | 56,000,000                    | 6,190  | 56,000,000                    | 6,183  |

Infineon's Scope 1 & 2 intensity has declined from FY2017, but no further declines were made between FY2018 and FY2019. Perfluorinated compounds (PFCs) and in particular sulfur hexafluoride (SF<sub>6</sub>) gas accounts for around 86% of Scope 1 emissions and are a key focus for the company. Infineon's PFC usage is currently equivalent to 1.2 tonnes of CO<sub>2</sub>/m<sup>2</sup>, in line with 2018 and down from 1.4 tonnes of CO<sub>2</sub>/m<sup>2</sup> in 2017. This is significantly below the World Semiconductor Council's 2020 target of 2.2 tonnes CO<sub>2</sub>/m<sup>2</sup>. Scope 3 emissions, on both an absolute and intensity basis, have increased dramatically as a result of higher sector averages used in our estimates. Given the complexity of the value chain into which the company sells its products, calculating some Scope 3 categories represents a significant challenge, but we intend to encourage greater transparency in this area to support the development of an SBT that includes Scope 3 (for further detail, see the net-zero targets section below). While Infineon continues to generate large carbon savings from its products, carbon avoided has remained the same recently, but we expect the contributors to carbon avoided to change over time. The biggest historical contributor was the drives business, where Infineon's semiconductors helped improve the energy efficiency of domestic appliances. Increasingly, the majority of appliances sold are highly efficient, hence the decrease in carbon-avoided from new devices. However, we expect the carbon avoided from other parts of the business, particularly from semiconductors sold to EVs and renewable energy, to grow. As noted within the taxonomy assessment above, exposure to these technologies is still relatively small, but will increase significantly in the medium to long term.

## Net zero targets

Infineon has set a goal to reduce Scope 1 & 2 emissions by 70% to 2025 relative to 2019, and to be carbon neutral by 2030. This is not an SBT, and while we are confident that Infineon can achieve it, we would like to see this target go through the SBTi approval process. We would also like to see this goal incorporate Scope 3 emissions.



Semiconductor Devices  
100.0%

100%

Taxonomy eligible revenues

9%

Taxonomy aligned revenues

US\$50.4bn

Market capitalisation

US\$56.9bn

Enterprise valuation

**-1.9%**

1 year sales growth

**5.6%**

5 year sales growth

**4.2%**

1 year RoE

**12.7%**

5 year average RoE

### **Structural growth from decarbonisation**

Since 1999, Infineon has grown revenues organically by 9% per year on average, significantly faster than the global semiconductor market. Because of the company's significant market share in power semiconductors and tailwinds from the structural growth drivers outlined above, we expect this trend to continue.

### **Competitive advantage**

Infineon has a global market share of 19% in power semiconductors, over double the #2 player. This represents a small decline in market share vs. the previous year (19.9%) and is against the longer-term trend (market share was 11.2% in 2010). We believe the decline reflects the speed the market is growing rather than any weakness in competitive positioning (i.e., capacity growth has not kept up). Nonetheless, we will monitor progress closely. We expect market-share gains to continue in the medium term due to the company's strong focus on R&D and the development of next-generation products. Furthermore, following the closing of the Cypress acquisition in mid-2020, Infineon is increasing its leadership in not just components, but system-level solutions.

### **Sustainable returns**

Infineon has historically generated strong and increasing returns. The company has seen some weakness due to the COVID-19 pandemic, but we expect returns to normalise quickly and continue the improving trend over the long term. Because Infineon outsources significantly less manufacturing than some semiconductor peers, returns will never be best-in-class in the industry. Nevertheless, we believe its control over the manufacturing process helps it to gain market share, particularly within automotive.

### **Engagement progress**

Last year's engagement goal centred on diversity, with a particular focus on gender. The company now has 16% of middle and senior management roles filled by women, exceeding its '15% by 2020' target, though this is still relatively low. Infineon has noted challenges relating to the number of female engineering graduates. Board gender diversity reached 50% in 2020. We have also been discussing emissions performance, with a view to encouraging Infineon to establish an SBT that incorporates Scope 3.

### **Proxy voting**

We did not find any issues within the proxy statement, so voted with management in 2020.

### **2021 engagement goals**

1. SBTs.
2. Engagement on 'use of sold product' reporting
3. Improving gender diversity.



# IPG Photonics (sold in January 2021)

## Environmental thesis

IPG Photonics is a leading global developer and manufacturer of a broad range of high-performance fibre lasers, fibre amplifiers and diode lasers that are used for diverse applications, primarily in materials processing, advanced communications and medical applications. IPG lasers are used in renewable-energy products, including the production of EVs, solar cells and EV batteries. Lasers offer excellent energy/raw material/chemical savings for industrial processes, and they increase productivity, save costs and protect the environment.

## EU Taxonomy assessment

The main business segments for IPG cover: (1) 'High-power CW lasers >1 KW' (54% of revenues); (2) 'Medium-power CW lasers <1 KW' (4%); (3) 'Pulsed lasers' (13%); (4) 'QCW lasers' (4%); and (5) 'Laser and non-laser systems' (8%). Other revenues represent 17%. IPG's fibre lasers use a fraction of the electricity of other lasers, helping customers reduce their carbon footprints; the operation of IPG fibre lasers (instead of other types of lasers) has resulted in approximately 25bn kg less CO2 emissions since 2011 and 7bn kg less CO2 emissions in 2020 alone. However, the company does not have third-party verification of its relative energy efficiency, with the assessment based on internal comparisons of product specifications to competing technologies using industry data for electrical efficiency. As such, it is not possible to classify any revenues as taxonomy-aligned, given that validation by a third party is a requirement.

## Environmental data progression

| Carbon data    | FY 2018 (2020 reporting) |                                 | FY 2019 (2021 reporting) |                                 |
|----------------|--------------------------|---------------------------------|--------------------------|---------------------------------|
|                | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) |
| Scope 1 & 2    | 67,222                   | 46                              | 67,713                   | 52                              |
| Scope 3        | 441,941                  | 303                             | 427,930                  | 326                             |
| Carbon Avoided | 5,000,000                | 3,425                           | 6,000,000                | 4,564                           |

The company does not report carbon emissions to CDP, but self-reports Scopes 1 & 2 for 84% of the business. Scope 1&2 emission intensity has increased 12% over the last year. Scope 3 intensity also increased by 8%, but this is an estimated figure. However, longer term, 'CO2 per kW of lasers sold' has fallen, highlighting IPG's strong unit sales growth and improving carbon intensity per laser.

The company self-reports carbon avoided, which has continued to grow every year since 2011. In 2020, it reported carbon avoided of 7m metric tons of CO2. Water intensity (water/kw lasers sold) has also been trending in a positive direction over the past three years, as has the volume of recycled metals.

## Net zero targets

The company has no net-zero targets or SBTs. We sold the company in January 2021 due to material corporate governance and valuation concerns. Please see engagement section for further information.



%  
Environmental  
revenue

Optical  
Components  
100.0%

100%

Taxonomy eligible revenues

0%

Taxonomy aligned revenues

US\$11.9bn

Market capitalisation

US\$10.6bn

Enterprise valuation

**-8.9%**

1 year sales growth

**5.7%**

5 year sales growth

**6.4%**

1 year RoE

**14.3%**

5 year average RoE

### **Structural growth from decarbonisation**

IPG is levered to the structural growth in fibre lasers and high-end lasers across many industries. Industrial lasers are increasingly substituting conventional machine tools in materials processing, given the environmental and cost benefits; 40-70% savings in operating costs are not uncommon. Over the past 20 years, laser processing has grown from 6.5% to 20% of total machine tools, and fibre lasers have grown market share from 34% to 47% since 2013. Fibre lasers are also essential in EVs and organic light-emitting diodes. China has been the key driver of the global industrial laser-equipment market, growing by a CAGR of 26.1% in 2011-2017 vs. the 11% CAGR of the global market. This is reflected in the increasing contribution of China in IPG's revenue mix, to 42% in 2020 from 19% in 2010. Given this market-leading structural exposure, we believe a return to 15%+ per annum revenue growth is possible over the medium term.

### **Competitive advantage**

IPG Photonics is the market-share leader in the laser market (33% global, 54% China) and has a much higher market share in fibre lasers (c.70% global). The company has leading high-end technology and competitive advantages through scale and vertical integration, resulting in lower manufacturing costs, higher quality products, and the ability to rapidly develop and integrate advanced products.

### **Sustainable returns**

The business generates above-peer returns on capital. However, its return profile can be relatively volatile and cyclical, given the end-market exposure of the products. We continue to monitor the price competition from lower-end Chinese competitors, which has put pressure on returns across the industry.

### **Engagement progress**

We spent significant time engaging with the company on sustainability reporting, targets and its corporate governance structure in 2020. The business accepted that it is in the early stages of its sustainability journey and committed to work to improve reporting, starting with its sustainability report. It stated that it could report Scopes 1 & 2 to CDP in 2021. We encouraged it to report Scope 3 as soon as possible and set targets.

Early in 2021, the company moved to appoint a new Board member with strong family ties to the current founder/chairman/CEO and also the Chief Technology Officer, despite having very little relevant experience, in our view. This led us to question board independence and diligence. Following conversations with management on this issue, we remained of the view that the appointment undermined board independence and revealed potential weaknesses in the nomination committee. We believed this was a material issue and, combined with much-reduced intrinsic value upside compared to when we initiated the holding, we sold the position. We continued to engage on this issue in Q1 2021 via a formal letter to the board, following the sale, and remain disappointed with the engagement outcome.

### **Proxy voting**

Due to the holding period, there was no proxy vote requirement for the company.

### **2021 engagement goals**

Not applicable as we no longer hold the position.



# Itron

## Environmental thesis

Itron provides smart networks, software, services, meters and sensors to help utilities and other customers better manage energy and water resources. Sustainable decarbonisation will require a move to an electrified global energy and transport system powered by renewables. This needs significant investment in a smarter electricity grid to better manage energy use and integrate intermittent renewables and EVs. Itron enables utilities and cities to safely, securely and reliably deliver critical infrastructure services to over 8,000 customers and communities in more than 100 countries.

## EU Taxonomy assessment

Itron's business segments cover: (1) 'Networked solutions' (57% of revenues); (2) 'Device solutions' (32%); and (3) 'Outcomes' (11%). We believe the 'networked solutions' and 'outcomes' business segments are aligned with the relevant taxonomy sections on the installation of smart meters for gas and electricity, and the transmission and distribution of electricity, but we do not have the level of disclosure required on 'device solutions' to conclude alignment here. Therefore, we conservatively believe Itron has 68% aligned revenues.

## Environmental data progression

| Carbon data    | FY 2017 (2019 reporting) |                                 | FY 2018 (2020 reporting) |                                 | FY 2019 (2021 reporting) |                                 |
|----------------|--------------------------|---------------------------------|--------------------------|---------------------------------|--------------------------|---------------------------------|
|                | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) |
| Scope 1 & 2    | 25,815                   | 13                              | 22,968                   | 10                              | 21,562                   | 9                               |
| Scope 3        | 317,435                  | 157                             | 355,726                  | 150                             | 401,450                  | 160                             |
| Carbon Avoided | 46,600                   | 23                              | 299,000                  | 126                             | 540,342                  | 216                             |

Itron has started reporting carbon emissions to CDP including Scopes 1 & 2. Although FY 2019 reporting did not include any Scope 3 categories, the company has reported business travel in its 2021 submission. Scope 1 & 2 absolute emissions fell 6% over the past year and intensity fell 11%. The Scope 3 data here is estimated, given the absence of Scope 3 reporting. Our estimated carbon avoided has grown significantly over the past three years.

The company also reports on water and waste. Total water use/withdrawals fell on an absolute and intensity basis; other positive trends include declining waste to landfill and increased recycling.

## Net zero targets

The company does not currently have net-zero targets, but intends to disclose emissions targets in 2021. We will engage further on this topic.



Elec Measuring Instruments  
100.0%

100%

Taxonomy eligible revenues

68%

Taxonomy aligned revenues

US\$3.9bn

Market capitalisation

US\$4.7bn

Enterprise valuation

**-14.7%**

1 year sales growth

**1.9%**

5 year sales growth

**-7.3%**

1 year RoE

**-0.1%**

5 year average RoE

## Structural growth from decarbonisation

Improvements in energy efficiency across the electricity system and buildings are needed to reach net zero by 2050. The IEA's net-zero scenario requires energy intensity to decrease by 4.2% per annum to 2030. This will be achieved through smarter transmission and distribution grids and increased penetration of smart meters and networks. Smarter control systems will be required to manage higher volumes of variable renewable electricity generation, EV/battery charging and flexibility services to the power system. Itron plays a key role in enabling smarter cities, networks and meters, helping data collection and demand management for the world's utilities and electricity consumers. Revenue growth disappointed in 2020 as the pandemic negatively impacted manufacturing and meter installations. Growth is yet to rebound thus far in 2021, given continued COVID impacts and supply-chain constraints. However, we believe the medium-term growth levers remain intact as the US and other regions move to spend more on smart grids and networks and as Itron continues to shift towards higher-growth, capital-light areas (networks and outcomes segments). Itron's backlog stands at a record US\$3.5bn, mostly focused on the network solutions and outcomes businesses, both of which should grow at 7%+ and 10%+, respectively, over the medium/long term.

## Competitive advantage

Itron has a leading global market position, with 200 million communicating endpoints and over 78 million endpoints under management. Over 80% of electricity in North America is forecasted by Itron software; 75% of power in the US touches Itron technology; and 3 million distributed intelligence-enabled endpoints are managed with Itron technology. The company has strong relationships with major utilities. It also has over 1,400 issued patents and pending applications. It has a 60% penetration of 400 million endpoints in North America and a 20% penetration of 3.6 billion endpoints globally. We believe its leading market share, relationships and technological capabilities provide a strong competitive advantage that will help it to grow earnings/returns over time.

## Sustainable returns

Return on capital has disappointed over the past 12 months as COVID-19 took its toll on the business. European factories had to close and supply chains were severely disrupted, hurting sales and margins. The long-term strategy of the company remains sensible in our view, as the company transitions towards a more capital-light business and focuses on the higher margin networks (35-40% gross profit margin) and outcomes (40-45% gross profit margin) segments. Within this shift, we expect to see increased software and application services driving improved capital intensity and returns, with expectations for return-on-equity to move above 10% over the medium term.

## Engagement progress

We have seen good progress since our last Impact Report. The company has enhanced its sustainability strategy and improved reporting significantly. Itron has restructured its internal sustainability platform, splitting it across four pillars: environmental and operational; solution impact and community involvement; diversity and human capital pledge; and effective shareholder advocacy. Itron now report Scopes 1, 2 and one Scope 3 category to CDP, which is a step in the right direction, and has set 2019 as a baseline for emissions to be measured against. The company has provided excellent specific examples of carbon avoided over time, but we continue to hope for a company-wide figure this year. In addition, we have encouraged it to have its carbon-avoided and water-saved calculations verified by a third party.

## Proxy voting

We voted in line with management on all proxies.

## 2021 engagement goals

1. Reporting all Scope 3 emissions to CDP.
2. Reporting carbon avoided.
3. Targeting net zero by 2050, ideally via SBTi.



# NextEra Energy

## Environmental thesis

NextEra Energy is the world's largest generator of electricity from wind and solar, a market leader in battery storage, and the market leader in North American renewable energy. The company also operates and invests in electric transmission in the US. Sustainable decarbonisation will require a complete change in how we generate electricity, moving away from fossil fuels towards renewable energy, mainly wind and solar. It will also require significant investment in electricity networks to reduce losses and better integrate renewables. NextEra operates more than 16GW of wind energy and 5.5GW of solar across 21 US states and four Canadian provinces, with a pipeline of 23-30GW of renewable energy to be built by 2024. It also operates 87,610 miles of transmission and distribution lines. NextEra's 2020 emissions rate (per kwh) was 47% better than the US electric power sector average. The company has reduced its emissions rate by 57% since 2005.

## EU Taxonomy assessment

NextEra's business segments are split into: (1) 'Renewables' (44% of net income); and (2) 'Regulated networks' (56%). Electricity generation with a carbon footprint less than 100g/kwh measured on a life-cycle emissions (LCE) basis is considered eligible, with wind, solar and European-based hydropower exempted from the LCE test. Similarly, all electricity transmission and distribution infrastructure or equipment in systems which are on a trajectory to full decarbonisation are eligible. Within 'renewables', 80% of the generation is from wind and solar, and therefore aligned. 'Regulated networks' relates to a regulated utility in Florida. It is difficult to split this business between networks and generation, and the US grid as a whole does not meet taxonomy eligibility. We are exploring with the company, however, whether its service areas could be considered eligible. The US grid is likely to be eligible next year, based on current forecasts. We have therefore not included any of this business stream as aligned. This leaves us with a total of 34% alignment. Due to the volatile nature of the company's revenues, compared to a much more stable net income, our analysis of the company's alignment with the taxonomy currently focuses on the percentage of net income that is aligned.

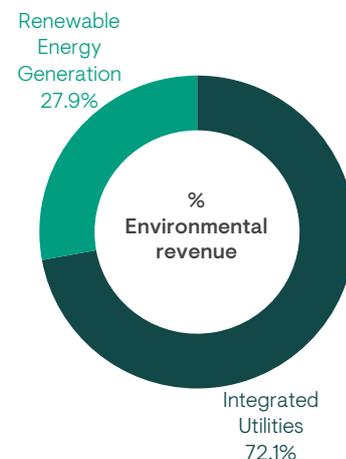
## Environmental data progression

| Carbon data    | FY 2017 (2019 reporting) |                                 | FY 2018 (2020 reporting) |                                 | FY 2019 (2021 reporting) |                                 |
|----------------|--------------------------|---------------------------------|--------------------------|---------------------------------|--------------------------|---------------------------------|
|                | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) |
| Scope 1 & 2    | 46,591,395               | 2,713                           | 44,923,952               | 2,686                           | 49,956,427               | 2,601                           |
| Scope 3        | 23,251,809               | 1,354                           | 25,657,037               | 1,534                           | 34,332,972               | 1,788                           |
| Carbon Avoided | 47,800,000               | 2,783                           | 47,600,000               | 2,846                           | 40,727,661               | 2,121                           |

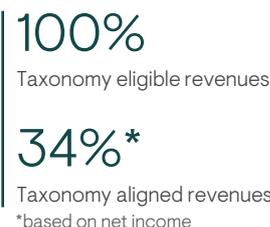
  

|                      | 2018 (2019 Disclosure) | 2019 (2020 Disclosure) | 2020 (2021 Disclosure) |
|----------------------|------------------------|------------------------|------------------------|
|                      | Absolute (MWh/yr)      | Absolute (MWh/yr)      | Absolute (MWh/yr)      |
| Renewable generation | 49,082,000             | 49,867,518             | 58,666,741             |

For FY2019, NextEra only reported Scope 1 emissions, although its has recently reported all Scopes to CDP. While previous years are estimates, FY2019 figures reflects the company's reported Scope 1 because we have sufficient confidence that it is a more accurate reflection of NextEra's footprint, despite not including Scope 2. While the lack of Scope 2 reporting here is not helpful in monitoring trends, NextEra's net-zero target (described below) gives us comfort in our decarbonisation thesis. It's also worth noting that acquiring 'dirty' utilities, and retiring the coal and replacing it with cleaner generation, is part of NextEra's strategy. As a result, reported emissions may increase in certain years only to decrease later. We are very supportive of this strategy, as it can have a clear positive real-world impact. For example, in 2019, NextEra acquired Gulf Power and its generation portfolio, including 1,590mw of coal. In 2020, it completed the shut-down of coal units at Plant Crist. With the retirement of NextEra-subsiary Florida Power & Light's Indiantown Cogeneration facility in 2020, 2021 marks the first time in nearly 20 years that there is no coal-fired power generation in Florida.



BICS revenue data does not capture NextEra's exposure to fossil generation as it sits within the category labelled Integrated Utilities. However, we note that, in 2020, 45% of NextEra's generation was natural gas and 2% was coal.



**-7.8%**

1 year sales growth

**-1.1%**

5 year sales growth

**7.9%**

1 year RoE

**14.5%**

5 year average RoE

### Net zero targets

NextEra's goal is to reduce its CO2 emissions rate by 67% by 2025 from a 2005 baseline – equivalent to a nearly 40% reduction in absolute CO2 emissions – even as it more than doubles expected electricity generation over this period. Through 2020, NextEra has achieved a 57% reduction in its CO2 emissions rate, though we note that this is not currently an SBT.

### Structural growth from decarbonisation

NextEra Energy is the market leader in owning renewable-generating and battery-storage capacity in the US. The IEA's net-zero roadmap requires a 4x increase in renewable energy by 2030 and 10-20x by 2050. We believe NextEra has a key role in delivering this goal and hence is extremely well positioned for structural growth. This is evidenced by NextEra's current expected buildout of 23-30GW by 2024, which is 1.5x the current operating renewables portfolio. Based on the company's analysis, it believes there is an opportunity for the industry to build approximately 3,600GW, or more than 100GW per year, of renewable energy and storage through 2050, 20x current capacity. Additionally, decarbonising the electricity sector results in excess energy that may be converted to green hydrogen to decarbonise other sectors of the economy. NextEra believe this creates a US\$1.7 trillion investment opportunity in renewable energy plus storage through 2050. GAAP revenues are not a particularly informative metric for regulated utilities because fuel is a pass-through, but NextEra expects to grow earnings-per-share at around 8% through 2024, which we believe is backed by highly visible capital expenditure plans and is in line with historical growth rates.

### Competitive advantage

We believe NextEra's market-leading position and first-mover status in developing wind, solar and battery storage capacity in the US gives it several competitive advantages, including access to the best sites (wind resource especially can vary significantly by location), more competitive turbine pricing and better financing terms. Longer term, we believe NextEra may be able to capitalise on this market position to benefit from the growth in the hydrogen economy.

### Sustainable returns

NextEra has consistently generated market-leading returns, with returns on equity around 2% above the sector average. We expect this trend to continue, as well as a supportive regulatory settlement in Q4 2021.

### Engagement progress

Our key engagement goal for NextEra was around carbon disclosure, as discussed above. We are leading the CDP engagement campaign and wrote to the CEO/chairman on behalf of a wide group of investors to explain how important this disclosure is. We were delighted to see NextEra recently report all carbon Scopes to CDP in its 2021 ESG report. Longer term, we would like to see NextEra set an SBT and incorporate other climate policies. However, we also understand that climate policies are not universally popular in the US and that NextEra has always been careful to explain clean-energy investment in the context of employment, infrastructure investment and lower customer bills, which has been key to its success. As a result, we are comfortable with NextEra's management focus on climate, even without some of these policies in place.

Finally, NextEra has a joint chair/CEO. In general, we prefer a separate, independent chair. Also, the board has a large number of long-tenured directors, and so does not pass our independence criteria.

### Proxy voting

We voted against the re-election of Sherry S. Barratt as the lead director to register our discomfort on the issues raised above.

### 2021 engagement goals

1. SBTs.
2. Report Scope 3 emissions
3. Independent Chairperson

## Nidec (sold in March 2021)

### Environmental thesis

Nidec is the world's largest manufacturer of electric motors. Sustainable decarbonisation will require a complete change in ground transportation, including a more efficient fleet and ultimately a move away from the internal combustion engine towards EVs powered by renewable energy. It will also require significantly more energy-efficient appliances and industrial machinery. As more than 40% of global electricity is consumed in motors, Nidec's motors will be key in driving energy efficiency. Nidec estimates that its IE3-level motors are about 10% more energy efficient than the alternative and save an annual 560kg of CO<sub>2</sub> per unit. Nidec also has a growing business in traction motors for EVs.

### EU Taxonomy assessment

Taking a conservative assessment of taxonomy alignment, we estimate that 2% of Nidec's revenue relating to e-axle/traction motors are aligned. We note this business line is growing strongly and is estimated to reach as much as 24% of revenue by 2022.

While we also expect Nidec to expand the revenue contribution of power-saving products in appliances and commercial and industrial products, we note that this is unlikely to qualify as taxonomy-compliant revenue as the EU in general has more stringent energy-efficiency standards than Japan by some distance. For example, the EU HVAC standards are on average 30% stricter than Japan's.

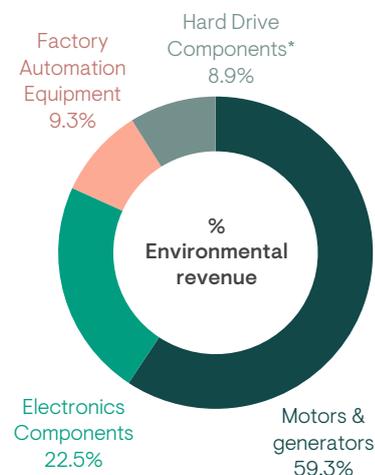
### Environmental data progression

| Carbon data    | FY 2017 (2019 reporting)      |  | FY 2018 (2020 reporting)      |  | FY 2019 (2021 reporting)      |  |
|----------------|-------------------------------|--|-------------------------------|--|-------------------------------|--|
|                | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) |
| Scope 1 & 2    | 844,622                       | 76   | 964,160                       | 72   | 798,195                       | 60   |
| Scope 3        | 3,578,677                     | 323  | 5,428,220                     | 404  | 4,562,546                     | 343  |
| Carbon Avoided | 633,000                       | 57   | 633,000                       | 47   | 1,176,800                     | 88   |

Nidec reports Scope 1 & 2 emissions to CDP, but its data excludes the US and Europe and covers less than 100% of the business, so we have used estimated figures. As with many Japanese companies, Nidec does not report all Scope 3 categories. It currently reports 11 categories to CDP, something we hope will improve over time. Although we have now sold the position, during our holding period we encouraged Nidec to report for all of its business and importantly to report all Scope 3 categories. While the estimated data is helpful in gauging the company's carbon footprint, it is not accurate enough to monitor the direction of travel.

### Net zero targets

In 2019, Nidec launched its SMART2030 programme, which includes a target to cut 30% of Scope 1 & 2 emissions by 2030 compared to a 2017 base, by increasing the energy efficiency of its operations and using more renewable energy. In July 2020, it also announced that it will target carbon-neutrality from its business activities (Scopes 1 & 2) by fiscal year 2040. We would like to see the company add Scope 3 targets to its ambitions. Nidec does not currently have any SBTs.



\*This segment is not an environmental revenue.

100%

Taxonomy eligible revenues

2%

Taxonomy aligned revenues

US\$75.0bn

Market capitalisation

US\$79.0bn

Enterprise valuation

4.3%

1 year sales growth

7.3%

5 year sales growth

6.2%

1 year RoE

11.6%

5 year average RoE

### **Structural growth from decarbonisation**

We see strong structural growth drivers for Nidec, particularly the shift to EVs. Nidec sees opportunities in traction motors, electric power-steering motors and next-generation braking-system motors. The company also sees good potential for its products to help achieve power savings in home appliances, driven by brushless DC motors.

### **Competitive advantage**

We believe Nidec's long history producing motors (it makes 1 billion+ motors per year) means that the company has a competitive advantage from manufacturing scale and know-how.

### **Sustainable returns**

Nidec has been in the process of pivoting its business to reduce its reliance on its hard disk drive (HDD) business by investing in new growth areas, which, while still nascent in revenue terms, are growing faster than the broader business. Returns on equity were previously depressed by weakness in the relatively cyclical HDD business, but have now bounced back to low double-digits. We would expect profitability to be less cyclical as structural growth areas linked to decarbonisation increase their contribution to aggregate revenues.

### **Engagement progress**

Nidec is no longer held in the portfolio. During our period of ownership from 2019 to 2020, we engaged with the company to address shortcomings in its carbon reporting disclosures to CDP. The company had indicated to us that it is in the process of improving its carbon disclosures to cover more of the business.

### **Proxy voting**

We voted with management on all items in 2020

### **2021 engagement goals**

Not applicable – company no longer held in the portfolio.

# Nippon Ceramic

## Environmental thesis

Nippon Ceramic’s mainstay products are ultrasonic and infrared sensors, and it has a growing business in electric-current sensors. Sustainable decarbonisation will require a complete change in ground transportation, including a move away from internal combustion engines and towards EVs powered by renewable energy, and ultimately away from individual car ownership to shared self-driving vehicles. We expect the number of ultrasonic sensors per car to more than double as we move towards autonomous cars. Infrared sensors, meanwhile, are used to automatically switch off household appliances to conserve energy. Nippon Ceramic believes it has a leading market position in Japan in electric-current sensors for EVs.

## EU Taxonomy assessment

Nippon Ceramic divides its business lines into: (1) ‘Ultrasonic sensors’ (31%); (2) ‘Infrared sensors’ (20%); (3) ‘Modules’ (25%); (4) ‘Ferrite’ (5%); and (5) other activities (19%). The company contributes to climate mitigation by manufacturing components for eligible low-carbon transport vehicles, eligible energy-efficiency equipment for buildings and other low-carbon technologies that result in substantial greenhouse gas emission reductions in other sectors of the economy. More specifically, Nippon Ceramic manufactures products and technologies which are essential components in the electric power train of EVs (sensors used in inverter systems and for battery control). Not all of these activities are directly addressed in the taxonomy currently, so we have applied a conservative assessment of 15% taxonomy alignment. This includes infrared sensors using the ‘pyroelectric effect’ and the ‘Seebeck effect’ relating to lighting (c.2% of total revenues); modules used in lighting and motion applications that are energy efficient (c. 4% of revenues); and current sensors for electronic vehicles (c.9% of total revenues).

## Environmental data progression

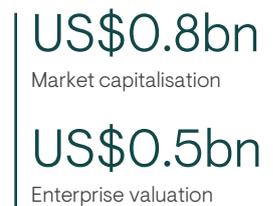
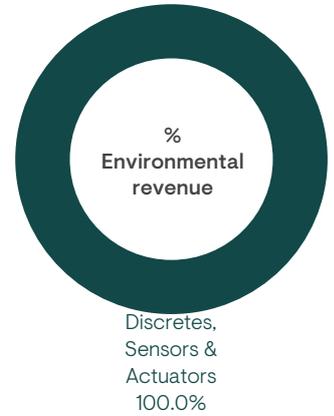
| Carbon data    | FY 2017 (2019 reporting) |                                 | FY 2018 (2020 reporting) |                                 | FY 2019 (2021 reporting) |                                 |
|----------------|--------------------------|---------------------------------|--------------------------|---------------------------------|--------------------------|---------------------------------|
|                | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) |
| Scope 1 & 2    | 8,518                    | 48                              | 1,489                    | 8                               | 21,653                   | 127                             |
| Scope 3        | 54,069                   | 307                             | 53,578                   | 303                             | 55,664                   | 327                             |
| Carbon Avoided | 19,800                   | 112                             | 17,200                   | 97                              | 132,218                  | 776                             |

We have seen slow progress over the past few years regarding carbon emissions reporting, but the company has finally started self-reporting some direct carbon emissions (Scope 2). The company admits it (and Japan as a whole) are laggards regarding carbon reporting. We continue to work with it and CDP to encourage full Scopes 1, 2 & 3 reporting over time.

The reported Scope 2 emissions highlight a significant increase relative to the estimates from previous years. Nippon’s Chinese and Philippines factories contribute towards the majority of these emissions, given these countries’ coal-heavy, carbon-intensive grids.

## Net zero targets

Nippon does not have a net-zero target. This will be a future engagement target, once we see full emissions reporting.



**-4.4%**

1 year sales growth

**-5.5%**

5 year sales growth

**4.4%**

1 year RoE

**5.0%**

5 year average RoE

## Structural growth from decarbonisation

Revenue growth in 2020 was weak due to the impacts of COVID-19, as the company had to close manufacturing sites over Q2. While historical revenue growth has been relatively low, we expect growth to accelerate as the adoption of self-driving features boosts ultrasonic sensor growth and as EVs propel electric-current sensor growth. Historical growth has been depressed as Nippon Ceramic has restructured its low growth and margin ferrites business.

## Competitive advantage

Nippon Ceramic has a share of 30-40% of the global market for ultrasonic sensors and a strong technology position. The company has excellent relationships with leading EV/motor/e-axle manufacturers and we expect its c.10% global market share in electric-current sensors to grow as EVs penetrate the mid/low end of the auto market.

## Sustainable returns

Nippon Ceramic's returns and margins have been slowly improving over the last five years, driven by automation and growth in higher-margin products. COVID-19 had a temporary negative impact, but we expect the upward trend to continue. We saw more positive evidence of this in Q4 2020 and early 2021. Nippon Ceramic aims to achieve double-digit returns on equity through growth in margins and revenues. Returns will continue to be depressed by a very inefficient balance-sheet (c.40% of the market capitalisation is cash), something we continue to discuss with management.

## Engagement progress

We continue to engage on carbon disclosure (Scope 1, 2 & 3 and carbon-avoided) as discussed above, but progress has been disappointing. The company aims to use more renewable electricity but has stated its small size makes changes here more difficult, given the additional costs. This seems to be a problem across Japan. The company has had discussions with the government on CO2 emission reductions and expects significant investments focusing on hydrogen energy in the future. Toyota has a CO2 reduction target of -3% for suppliers, which Nippon Ceramic is using as a target for this year with the aim to raise that in subsequent years. We have sent examples of how businesses conceptualise and calculate carbon avoided to help Nippon Ceramic develop its thinking on this topic.

Regarding gender diversity, women account for 60% of the company's employees, but that percentage falls dramatically at the management (11%) and board (14%) levels. Given Nippon Ceramic is predominantly based in a rural part of Japan (Tottori), it struggles to encourage women to accept management positions. The government is providing support for companies seeking to improve their gender balance by allowing more men to take childcare leave. The company has its own policies in this regard, and will continue to endeavour to improve female representation in managerial positions. We requested that it sets a (starting) minimum threshold of 20% female representation on the board. The chairman has agreed to set this as a minimum in the future.

## Proxy voting

We voted with management on all items in 2020 but have initiated a stronger line of engagement in 2021, including a formal letter (covering the aforementioned issues on emissions reporting and gender diversity) and a meeting with the Chairman.

## 2021 engagement goals

1. Full carbon disclosure (Scope 1, 2 & 3 and carbon-avoided) to CDP.
2. Monitoring of gender diversity progress.

# Novozymes

## Environmental thesis

Novozymes is a biotech and specialty chemicals company that produces enzymes and microbes which serve as catalysts to start biological processes. Novozymes uses enzyme technology to offer products that improve energy efficiency and reduce carbon emissions. Within household care, its technical enzymes replace fossil-fuel-based chemicals. This enables washing machines and dishwashers to run at lower temperatures, thereby saving electricity and reducing emissions. Within agriculture and feed, inoculants and enzymes improve processes such as plant growth and animal-feed conversion ratios, thereby improving energy and resource efficiency. Within food and beverages, enzymes reduce emissions in baking, brewing, dairy, protein and starch processes through process and energy efficiencies.

## EU Taxonomy assessment

The company's business segments are: (1) 'Household care' (35% of revenues); (2) 'Food, beverage & human health' (20%); (3) 'Bioenergy' (18%); (4) 'Agriculture, animal health & nutrition' (13%); and (5) 'Grain & tech processing' (14%). The company's manufacturing process minimises emissions and promotes the manufacture of organic chemicals with renewable feedstock so is aligned with the manufacture of lower-emission chemical products (when compared to traditional petrochemical-based alternatives). We see the whole of its operations as eligible, based on its enzymes and microbes minimising emissions and promoting renewable feedstock use. The company does not yet report specifically against the taxonomy, but it has confirmed to us that its production base has a significantly lower emission profile than the traditional petrochemicals-based products that it competes with. We are therefore comfortable that all of its revenues are aligned.

## Environmental data progression

| Carbon data    | FY 2017 (2019 reporting)      |  | FY 2018 (2020 reporting)      |  | FY 2019 (2021 reporting)      |  |
|----------------|-------------------------------|--|-------------------------------|--|-------------------------------|--|
|                | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) |
| Scope 1 & 2    | 408,426                       | 185  | 437,162                       | 192  | 330,181                       | 153  |
| Scope 3        | 518,906                       | 235  | 700,458                       | 307  | 640,624                       | 297  |
| Carbon Avoided | 76,000,000                    | 34,439                                       | 88,000,000                    | 38,589                                       | 87,000,000                    | 40,366                                       |

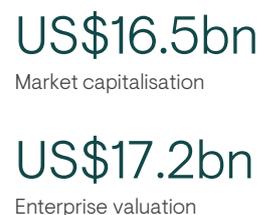
Although FY2018, saw higher emission intensity in Scopes 1, 2 & 3, we are pleased to see the progress made in 2019, particularly with Scopes 1 & 2 falling 20%. This is mainly attributable to the rise in renewable energy use. Scope 3 intensity also declined, by 3%. Novozymes' Scope 3 is largely a result of purchased goods and services (approximately 75% of emissions). Encouragingly, we saw this number decline in FY2019, and we have confidence in a further reduction given this is the focus of the company's SBT (discussed below). Novozymes has set targets to develop context-based water-management programmes at 100% of its sites, to achieve 100% circular management of its biomass, and to develop plans for circular management of 100% of key packaging materials by 2022.

## Net zero targets

Novozymes has committed to one SBT covering: 1) reduce absolute Scope 1 & 2 by 50% by 2030 against a 2018 baseline (including 100% of electricity consumption from renewable resources by 2030); and 2) reduce absolute Scope 3 from purchased goods and services by 15% by 2030 relative to 2018.



\*Based off Bloomberg's EU taxonomy eligibility assessment. However, the company has 100% environmental revenues based on our universe selection process.



-0.9%

1 year sales growth

1.8%

5 year sales growth

24.9%

1 year RoE

26.8%

5 year average RoE

## Structural growth from decarbonisation

Household care is Novozymes' largest division and a longer-term growth driver. Biological washing-powder producers are large consumers of Novozymes' enzyme technologies and this segment continues to gain market share from non-bio washing powder. End-consumer preference for environmentally friendly products is increasing and should drive further switching away from petrochemical-based, carbon-intensive products. Longer term, we could see premium pricing for biological alternatives over petrochemicals. Within food, beverage & human health and agriculture, animal health & nutrition, customers are also increasingly being offered more environmentally friendly options, with biological solutions replacing fossil-fuel based products. Novozymes' strong R&D capability also gives a huge amount of optionality on future growth from a myriad new products in development, most of which have significant environmental benefits. Novozymes' exposure to the plant-based meat industry should enable the company to benefit from a sector forecasted to grow. As well as selling enzymes into the sector, the company has announced a DKR2bn (US\$300m) investment into a state-of-the-art production line relating to a new long-term partnership with a key player in the plant-based industry. This marks its first large-scale, commercial agreement in its strategic journey to be a leader in novel proteins. This will be a completely new product which, unlike many of the products it sells into the sector, will not be a processing aid, but an ingredient critical to the make-up of the final product.

## Competitive advantage

Novozymes' strong market share (>60% in Household Care, >20% in Food & Beverage, >50% in Bioenergy, >30% in Agriculture, Animal Health & Nutrition, and >40% in Grain & Tech processing) in an oligopolistic industry should ensure pricing power into the future. Besides one or two diversified chemicals manufacturers that compete with the company in certain markets, other competitors are small and do not have R&D capacity or capabilities. Novozymes has extended its lead over its peers in the last decade and continues to spend a high percentage of revenue on R&D (14% in 2020). We believe this puts the company in a position to maintain its competitive advantage.

## Sustainable returns

The largest part of the company's customer-base operates in defensive sectors such as household care, baking, beverages and agriculture. The company has more recently begun to play a role in the sustainable agriculture transition towards plant-based meat and dairy, selling enzymes into the sector that generate positive health or product outcomes, such as enabling salt reduction or improving the texture of products. Combined with Novozymes' market-leading position, this should give the company pricing power into the future. The company's track record of improving profit margins over time stretches across 20 years.

## Engagement progress

One of our main engagement goals for Novozymes related to the reduction of Scope 1 & 2 emissions. As noted in the environmental data progression section, this is moving in the right direction. We also engaged on progress in increasing the percentage of electricity from renewable sources. The company appears on track to achieve its target to source 100% of electricity consumption from renewable resources by 2030, increasing this figure to 69% in 2020 vs. 37% in 2018. We also engaged with the company on proxy-related issues, discussed below.

## Proxy voting

In 2020 we were concerned about board independence, most notably about the re-election as directors of Mathias Uhlen (who, at that point, had served for 13 years) and Heine Dalsgaard (identified by the board as non-independent). Following discussions with the company, we concluded that the board should be viewed as excluding the three employee representatives (only shareholder-elected members have voting rights). On this basis, the board is majority independent, so we voted with management on the 2020 proxy.

## 2021 engagement goals

1. Monitoring SBT progress.



# NXP Semiconductors (Sold March 2021)

## Environmental thesis

NXP Semiconductors is a supplier of high-performance mixed-signal semiconductor devices, including radio-frequency, analogue, power-management, interface, security and digital-processing products. Sustainable decarbonisation will require a complete change in the auto sector, moving away from internal combustion engines towards EVs powered by renewable energy. NXP is one of the largest automotive semiconductor providers globally (11% market share) with strong electrification-driven growth from battery-management systems (BMS), as well as secular growth from advanced driver assistance systems (ADAS)/radar and digital clusters. Its 'industrials & internet-of-things (IoT)' business also benefits from factory automation.

## EU Taxonomy assessment

NXP's four end-markets ranked by revenues are: (1) 'Automotive' (45%); (2) 'Industrials & IoT' (21%); (3) 'Communications' (20%); and (4) 'Mobile' (14%). Given that the vast majority of NXP's products can be used for both EVs and ICE cars, the focus for taxonomy alignment is on activities (such as battery-management systems and e-motor controls) that are purely EV driven. On that basis, we could only identify a small proportion of the 'automotive' segment relating purely to EV-driven activities (1% of revenues).

## Environmental data progression

| Carbon data    | FY 2018 (2020 reporting) |                                 | FY 2019 (2021 reporting) |                                 |
|----------------|--------------------------|---------------------------------|--------------------------|---------------------------------|
|                | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) |
| Scope 1 & 2    | 1,384,687                | 147                             | 1,260,833                | 142                             |
| Scope 3        | 2,728,934                | 290                             | 8,109,650                | 914                             |
| Carbon Avoided | 58,200,000               | 6,187                           | 54,905,011               | 6,185                           |

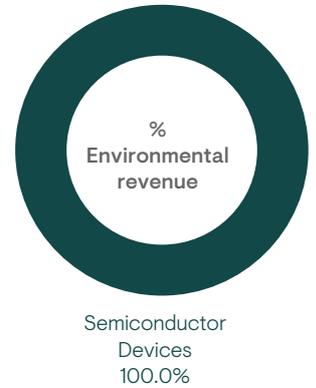
2020 is the final year of NXP's 10-year emissions-reduction goal: namely, to reduce normalised Scope 1 & 2 emissions by 30% from a 2010 baseline. NXP delivered 30.6% Scope 1 reduction over this period, a remarkable result considering the reduction was only 21% by end-2018. However, NXP's normalised Scope 2 emissions only declined by 19%, due to increasing complexity and design intensity of NXP's manufacturing processes. Overall, absolute Scope 1 & 2 emissions declined by 37%, of which 66% was from the reduction of perfluorinated compound (PFC) emissions. PFCs' contribution to NXP's total Scope 1 emissions dropped to 60% from 90%+ in 2010. Despite these efforts to reduce PFC usage, NXP's PFC use in 2020 was equivalent to 3.6 tonnes of CO2/m2, still higher than the World Semiconductor Council's 2020 target of 2.2 tonnes and Infineon's 1.2 tonnes.

NXP's Scope 3 emissions disclosure has been limited to business travel and product transport, and has been heavily distorted by COVID-19 impacts (e.g., business-travel emissions fell by 95%). Higher sector-average estimates used in our calculations result in higher absolute emissions and emissions intensity. Given the complexity of the value chain into which the company sells its products, calculating some Scope 3 categories represents a significant challenge.

NXP hasn't disclosed any carbon avoided figures, making it difficult to monitor the trend.

## Net zero targets

The company has no net-zero targets. Note this position was sold in March 2021 as we saw limited intrinsic-value upside.



-2.2%

1 year sales growth

3.9%

5 year sales growth

0.6%

1 year RoE

8.3%

5 year average RoE

### Structural growth from decarbonisation

NXP's automotive revenues are levered to decarbonisation via its BMS and ADAS offerings. An electric car has BMS content which is not present in ICE cars – NXP is a leader here and charges US\$45-120 per car. NXP's 77GHz radar solutions for level 2+ ADAS applications are supporting 25-30% p.a. revenue growth at the division level based on its design wins and contracts.

Revenue growth in 2020 was impacted by COVID-19. Automotive is NXP's largest revenue segment, and auto production fell 16% in 2020. Despite these end-market demand headwinds, NXP's auto revenues only declined 9%, helped by content gains in ADAS, digital clusters and BMS.

### Competitive advantage

NXP is the second-largest automotive semiconductor supplier (after Infineon), with a global market share of 11%. The company has a long-established focus on relative market share (rather than overall market share); i.e., it concentrates on growing and maintaining market share relative to the number-two players in a number of specific markets. As a result of its market share, it outspends competitors on R&D in absolute dollar terms, even though it has the same percentage of R&D costs.

NXP's EV BMS solutions cover all types of hybrid and pure EVs, ranging from 48V to 800V. The company has been gaining market share in BMS, and has achieved a c.75% hit ratio for 48V or less hybrids, and 40% for full-electric battery EVs. NXP also had several key OEM-customer design wins, such as for Volkswagen's modular electric drive matrix platform.

### Sustainable returns

NXP's return on equity deteriorated in 2020 due to COVID-19, with both 1-year and 5-year averages declining to about 1% from 2.4% and 4.1%, respectively, at end-2019. NXP's returns have decreased significantly since 2015, when it acquired Freescale and recognised US\$7.4bn of goodwill. The company was subsequently subject to a 18-month long takeover attempt by Qualcomm, which ultimately failed. We believe NXP could steadily improve its returns to the 'mid-teens' to close the gap to its analogue peers, if it focuses on organic revenue growth and continues to execute its successful strategies in key growth markets such as EV BMS.

### Engagement progress

In 2020, we engaged with the company on normalised Scope 1 emissions (especially PFCs) targets and on increasing its use of renewables. The results were somewhat disappointing. NXP effectively exhausted all PFC-abatement methods in its old fabs (semiconductor fabrication plants) in the US, and the company didn't believe there was sufficient financial justification for retrofitting the fabs just to tackle PFC emissions. Nevertheless, NXP has mentioned in its 2021 CDP questionnaire that it will adopt SBTs in two years, a commitment we welcome.

### Proxy voting

We voted against executive pay in May 2020, as we regard the company's 100% variable-compensation payout if NXP achieves the average-total-shareholder-return of its peer group as insufficiently ambitious. We also had doubts about the advisory role of former CEO Rick Clemmer, following his retirement from NXP, as he continues to receive payments from the company.

### 2021 engagement goals

Not applicable as we no longer own the company.

# Orsted

## Environmental thesis

Orsted is the global leader in the development, construction and operation of offshore wind farms. Sustainable decarbonisation will require a transformation in how we generate electricity, moving away from fossil fuels and towards renewable energy, predominantly wind and solar. As at end-2020, Orsted had 7.6GW of offshore wind capacity, 1.7GW of onshore wind capacity and approximately 2GW of additional renewable power-generation capacity, which includes biomass and solar. The company also has 4.1GW of renewable-energy capacity under construction in the UK, the US and Taiwan. Orsted has a power-and-heat generation business using combined heat & power (CHP) plants, and has transitioned all but one of its CHP plants away from coal to sustainable biomass (the final plant conversion will happen in 2023). In 2020, 90% of generation was from green energy.

## EU Taxonomy assessment

The company has two main segments: (1) 'Wind' (offshore and onshore) (58% of revenues); and (2) 'Markets and bioenergy' (42%). Taxonomy eligibility is determined based on lifecycle emissions being lower than 100g CO<sub>2</sub>e/kWh and declining to 0g CO<sub>2</sub>e/kWh by 2050 for wind, as well as facilities operating above 80% of GHG emissions-reductions relative to the relevant fossil-fuel comparator set out in the Renewable Energy Directive II. We have identified the 'Wind' segment as aligned; and, following company reporting, at least 7% is also aligned from the 'Markets and bioenergy' segment. Therefore, taxonomy alignment is approximately 65% at present\*.

\*For Taxonomy aligned revenues.

## Environmental data progression

| Carbon data    | FY 2017 (2019 reporting)      |  | FY 2018 (2020 reporting)      |  | FY 2019 (2021 reporting)      |  |
|----------------|-------------------------------|--|-------------------------------|--|-------------------------------|--|
|                | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) |
| Scope 1 & 2    | 4,172,000                     | 460  | 3,529,000                     | 295  | 1,850,000                     | 175  |
| Scope 3        | 13,920,797                    | 1,535  | 36,234,400                    | 3,028  | 33,864,140                    | 3,207  |
| Carbon Avoided | 6,700,000                     | 739  | 8,100,000                     | 677  | 11,300,000                    | 1,071  |

|                      | 2018 (2019 Disclosure) | 2019 (2020 Disclosure) | 2020 (2021 Disclosure) |
|----------------------|------------------------|------------------------|------------------------|
|                      | Absolute (MWh/yr)      | Absolute (MWh/yr)      | Absolute (MWh/yr)      |
| Renewable generation | 10,600,000             | 15,478,000             | 20,900,000             |

Scope 1 & 2 GHG intensity reduced 41% over the last reporting period, following a reduction of 36% the previous year. This strong positive trajectory is in keeping with the company's SBTs to become a Scope 1 & 2 neutral firm by 2025. Scope 3 absolute emissions fell 7% over the last reporting period. However, Scope 3 intensity increased by 6%, explained by lower revenue in 2019. The two major sources of Scope 3 emissions are fuel consumption/power sales (9%) and use of sold products (90%). Scope 3 emissions from use of sold products are based on sales of natural gas, LNG and biogas to end-users and wholesale customers. Given Orsted's long-term net-zero commitments (see below), we expect this figure to fall over time and will continue to monitor it. Carbon avoided has increased by an impressive 40%, and the business has maintained its global leadership in offshore wind.

## Net zero targets

Orsted has committed to an SBT to reduce Scope 1 & 2 emissions by 98% per KWH by 2025 from a 2006 base year. The company has also committed to reduce Scope 3 by 50% by 2032 from a 2018 base year. The target includes bioenergy emissions and removals from biogenic sources.

We were also impressed with Orsted's biodiversity commitments, specifically its work to avoid and reduce impacts on ecosystems throughout the development, construction and operation of all offshore wind farms. Orsted is aiming to deliver a net-positive biodiversity impact from all new renewable-energy projects commissioned from 2030 at the latest.



The revenues reported as Elec & Gas Marketing & Trading include both the company's distribution business which we would include as Environmental revenues as well as the one remaining coal power facility which we would not (and is relatively small).



**-28.8%**  
1 year sales growth

**-5.7%**  
5 year sales growth

**19.6%**  
1 year RoE

**21.6%**  
5 year average RoE

## Structural growth from decarbonisation

Orsted is the world's largest offshore wind developer and asset owner. The IEA's net-zero roadmap forecasts that wind capacity will need to increase 4x by 2030 and 11x by 2050. Offshore wind is one of the most exciting growth opportunities within our universe and becomes increasingly important over time. Over 20% of total wind additions are expected to be offshore from 2021 to 2050, compared with 7% in 2020. The IEA believes offshore wind additions will have to increase from 5GW per annum in 2020 to 80GW per annum by 2030, a CAGR of 32%. Orsted aims to reach 30GW of installed offshore wind capacity by 2030, from 7.6GW today, a CAGR of 15%. Given the company's market-leading position and strong competitive advantages, we believe this is possible. The company is targeting an ambitious 50GW of total installed capacity, including onshore wind, solar PV and biomass, by 2030.

## Competitive advantage

Orsted is the global leader in developing and operating offshore wind farms, with an 18% share of the market based on cumulative capacities installed. We believe Orsted has four primary competitive advantages: 1) legacy/experience in offshore wind development; 2) scale; 3) balance-sheet strength; and 4) in-house capabilities. Some of these advantages are interlinked; e.g., its long experience in developing offshore wind has established a brand that governments and auctioneers recognise, and also helped Orsted build market-leading development and operational capabilities. We believe these in-house capabilities are critical to Orsted's market dominance and excess returns. Given the 'high-capex, low-opex' profile of offshore wind, Orsted's demonstrated ability to improve project returns through the development phase has been critical. The business has done this through a relentless focus on planning, execution and the adoption of new technologies.

## Sustainable returns

Orsted's returns have improved significantly since 2015, with an average return-on-average-capital-employed from 2016-2020 of 13.9%, as more offshore wind projects have come online and as the company has sold stakes in the projects to external investors, which results in significant one-off gains. Over the longer term, this will be tempered by increased competition, but we expect return-on-average-capital-employed to be high single-digit, even potentially above 10% when divestments are considered, which we consider very attractive for a contracted/regulated business. It is significantly higher than the company's cost of capital.

## Engagement progress

In 2020, we engaged with Orsted on its relatively high employee turnover. Much of this could be attributed to significant company changes over the past few years, including the divestment of Orsted's oil & gas business, conversion of coal plants to biomass, and the divestment of its power distribution and residential customer businesses. We are pleased to report that employee turnover has declined from 11.6% (FY2019) to 8.4% (FY2020). Within this, voluntary turnover is only 5%, which is well within industry norms.

In early 2021, we engaged with management regarding non-audit-related audit fees and the authorisation of a share-repurchase programme. The average of non-audit-related fees over 2018-2020 was 31.5%, which is below our preferred three-year average threshold of 40% but still warranting investigation. We were encouraged that non-audit fees reduced over the period, from 43.5% in 2018, to 30% in 2019, to 21% in 2020. We gained further comfort from the rationale given for the higher fees in 2018 and 2019, relating to sustainability metric verification. Regarding the buyback programme, we were comfortable with supporting the share-incentive scheme for executive management, given that the company lost its highly regarded CEO last year, partly because of a lack of incentives and alignment with shareholders. The company assured us that its programme is similar to those of its peers, given the 10% holding limit.

As mentioned above, the company has strong biodiversity commitments. When developing new projects, Orsted will implement initiatives that ensure an overall net-positive contribution to natural ecosystems, habitats and species in and around new renewable-energy projects in offshore and onshore wind, solar PV and energy storage, and renewable hydrogen. Orsted will also seek to identify initiatives to positively impact biodiversity before 2030. A challenge to be solved is the lack of industry-wide standardised approaches for measuring biodiversity impact. To address this, Orsted has joined the Science Based Targets Network Corporate Engagement Program to help develop nature SBTs and advance the development of tools to measure impact and dependencies on biodiversity, land and water, including oceans.

## Proxy voting

We did not find any issues of concern in the proxy statement, so voted with management in 2020.

## 2021 engagement goals

Monitoring SBT progress.

# Schneider Electric

## Environmental thesis

Schneider Electric provides energy and automation digital solutions. The company therefore serves the major transitions towards a more electric, decentralised, decarbonised and digitised world. It combines world-leading energy technologies, real-time automation, software and services, leveraging its digital platform EcoStruxure to accelerate its customers' and partners' journeys towards a sustainable future. The business has a strong sustainability strategy, including a target to increase its already-high green revenues to 80% (currently 70%), and deliver 800 million tons of saved and avoided CO2 emissions to its customers. It is also aiming for a carbon-neutral supply chain.

## EU Taxonomy assessment

The specific products and services Schneider offers within each of its segments span a number of the EU taxonomy technical-screening criteria categories, which means that a technology-centric approach is the most appropriate methodology for calculating compliance. 'Green revenues' derive from 'Energy efficiency architectures' (20% of group revenues), 'Grid reinforcement and smart grid architectures' (30%), 'Green premium program products' (10%), and (4) 'Services that bring benefits for circularity and energy efficiency' (10%). 90% of the company's new investments are either green or neutral technologies. With Schneider being a leader in decarbonisation, we can be confident that this innovative approach of defining 'green revenues' offers a fair reflection of taxonomy alignment.

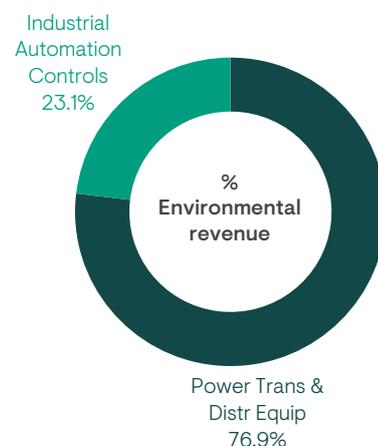
## Environmental data progression

| Carbon data    | FY 2017 (2019 reporting) |                                 | FY 2018 (2020 reporting) |                                 | FY 2019 (2021 reporting) |                                 |
|----------------|--------------------------|---------------------------------|--------------------------|---------------------------------|--------------------------|---------------------------------|
|                | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) |
| Scope 1 & 2    | 471,325                  | 17                              | 555,266                  | 18                              | 436,376                  | 14                              |
| Scope 3        | 15,357,597               | 549                             | 71,666,747               | 2,359                           | 73,538,946               | 2,419                           |
| Carbon Avoided | 51,000,000               | 1,825                           | 51,000,000               | 1,679                           | 89,000,000               | 2,927                           |

Schneider reports all 15 Scope 3 categories to CDP, as well as carbon avoided. It achieved a considerable reduction in its Scope 1 & 2 emissions intensity, which fell by 21% year-on-year. This demonstrates that the company's efforts to decarbonise its own operations are having a positive impact. Its progress has been commendable. The company reported that, as of October 2019, 45% of its operations were powered with renewable electricity; at end-2020, the share of renewable energy in its total energy mix was 80%. Its energy efficiency has been aided by the use of its own EcoStruxure and digital energy-management solutions, with the company having now achieved net-zero status at 13 of its sites. Absolute levels of Scope 3 emissions experienced a material jump in 2018. This was largely the result of a change in methodology, whereby the direct use-phase emissions of sold products over their expected lifetime (up to 40 years) were now incorporated. 2019 Scope 3 absolute emissions and intensity both rose by 3%.

Beneath these headline figures, in 2019 there was a significant jump in 'Scope 3 emissions relating to purchased goods and services', which rose by 25%. About 60% of the increase was due to a calculation-methodology improvement, especially on the accounting of emissions of 'non-production purchases'. The remaining 40% of the increase resulted from a rise in overall purchase spending. The company has committed to reduce CO2 emissions from its top 1,000 suppliers by 50%. This will be an area to continue to monitor and engage on.

There have already been some signs of progress in reducing Scope 3 emissions, including from CO2 efficiency in transportation, which fell by 4.1% year-on-year, going some way towards the 'Schneider Sustainability Impact program #2', which is aiming for 10% CO2 efficiency in transportation. Emissions related to waste generated in operations also fell, by 10%. The decrease was mainly driven by a 'Waste as Worth' programme, which helped to increase the proportion of waste recovered (meaning not sent to landfill or incinerated without energy recovery). Reported carbon avoided jumped significantly, by 75%.



-7.8%

1 year sales growth

-0.6%

5 year sales growth

10.1%

1 year RoE

10.4%

5 year average RoE

### Net zero targets

Schneider has defined climate ambitions for 2025, 2030, 2040 and 2050. It is on track to become carbon neutral in its operations by 2025. It also expects to meet its validated 1.5-degree SBT by 2030, which includes plans to reduce Scope 3 emissions by 35% by then (vs 2017). Further out, it has a target to achieve carbon neutrality in its end-to-end value chain by 2040, thus ensuring that all its products are fully carbon neutral.

### Structural growth from decarbonisation

Schneider is at the forefront of the move towards a greener global economy, and decarbonisation is embedded throughout the organisation. The company works with many businesses worldwide to make them more digital, circular, electric and more renewable. Its EcoStruxure platform contributes to this shift by helping customers reduce their CO2 emissions and improve performance. The company has significantly reshaped its portfolio in recent years, with 90% of new investments in either green or neutral technologies. As a result, we believe it is well positioned relative to its competitors in two growth areas, energy management and industrial automation, which will help it to meet its target of 80% of revenues from green solutions by 2025. With a significant installed-base globally, Schneider is able to focus on growing its software and service businesses while being directly exposed to electrification of the energy system and energy efficiency across many sectors, such as data centres.

### Competitive advantage

Schneider maintains impressive market share across many facets of its energy-management segments, driven by innovation and high-quality offerings. Within buildings, it is #1 worldwide in low voltage and building automation. Within industry, it is #1 worldwide in process safety systems, #2 in discrete industrial automation, and #4 in discrete and process automation. Within IT, it is #1 worldwide in critical power and cooling. Within infrastructure, it is #1 worldwide in medium voltage and grid automation. The company's portfolio puts it in an enviable position relative to peers and we believe the EcoStruxure platform will help it maintain and grow this leadership. Schneider maintains a large and diversified global customer base. In addition, its strong balance sheet and cashflow generation put it in a healthy financial position.

### Sustainable returns

A focus on positioning around mega-trends, innovation and quality products/services has helped Schneider build significant market share in most of its business lines. We like the fact that this is both growth enhancing and serves to de-risk the business. The company has successfully expanded its margins over the past few years. We are confident this can continue over the medium term, thanks to a focus on cost control and growth in higher-margin segments, such as software and services.

### Engagement progress

In 2020, we continued to engage with Schneider on supply-chain sustainability. This engagement focused specifically on ISO 26000 (a standard for guidelines for social responsibility). This is assessed by a third party (EcoVadis), audited by Ernst & Young, and monitored during business reviews with Schneider's buyers, with a view to continuous improvement. Schneider already insists on compliance among its key suppliers, but has been actively encouraging tier-2 suppliers to adhere to the standard as well. This will help identify risks in the supply chain, which the company can then work with its suppliers to mitigate and (where possible) eradicate. We also note that, following previous engagements on the matter, the company has committed to splitting the role of Chair and CEO before the end of Jean-Pascal Tricoire's newly extended four-year term.

### Proxy voting

We voted 'against' the re-election of Willy Kissling as a director. We recognise the valuable perspective that long-standing board members can bring. However, we believe that Kissling's 18-year tenure compromises his ability to be truly independent, and that it would be better to replace him with somebody with more relevant experience, given the evolution of the business over time. Other than this, we are satisfied with Schneider's board composition and structure.

### 2021 engagement goals

1. Engage on efforts to reduce Scope 3 emissions.
2. Monitor implementation of SBT.



# TE Connectivity

## Environmental thesis

TE Connectivity is the world leader in connectivity and sensor solutions. Sustainable decarbonisation will require a complete change in ground transportation, making the global vehicle fleet more efficient and ultimately moving away from the internal combustion engine towards EVs powered by renewable energy. EVs have double the connector content of traditional internal combustion engines. TE Connectivity offers the broadest range of technologies in this space.

## EU Taxonomy assessment

The company can be split into: (1) 'Transport solutions' (57% of revenues); (2) 'Industrial solutions' (29%); and (3) 'Communications solutions' (13%). Business linked to decarbonisation includes connectors for EVs (within the transport segment), electric utility grid networks, and products used within the solar industry. Although the company comments on the portion of revenues within the transport-solutions business that relates to EVs, it does not publish the breakdown between EV and non-EV, and so we have conservatively determined zero alignment currently.

## Environmental data progression

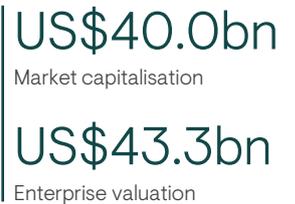
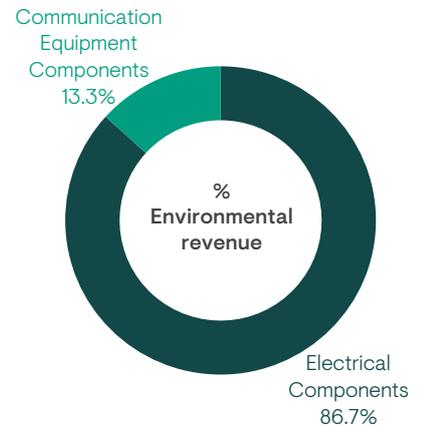
| Carbon data    | FY 2017 (2019 reporting)      |  | FY 2018 (2020 reporting)      |  | FY 2019 (2021 reporting)      |  |
|----------------|-------------------------------|--|-------------------------------|--|-------------------------------|--|
|                | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) |
| Scope 1 & 2    | 629,484                       | 52   | 771,864                       | 55   | 568,352                       | 42   |
| Scope 3        | 8,799,521                     | 722  | 10,977,477                    | 785  | 9,362,026                     | 696  |
| Carbon Avoided | 73,900                        | 6  | 73,500                        | 5  | 121,400                       | 9  |

We are pleased to be able to use reported Scope 1 & 2 emissions for TE Connectivity this year. Last year, reported figures only covered 85% of the business and hence we used estimates. Encouragingly, the reported data is significantly lower. This is likely a result of the company outperforming its '10% in 2015-2018 emission-reduction' target (normalised for production), with a 12.6% reduction over that period and a further 3.3% reduction in 2019 from a number of different energy-efficiency programmes.

Scope 3 data is still not reported, which we will continue to engage on. While estimated carbon data is very helpful in understanding a company's carbon footprint, it is not accurate enough to monitor the direction of travel. The decrease shown here is likely just due to a larger sample size. Carbon avoided continues to move in the right direction, but we are still relying on an estimate (another point of engagement).

## Net zero targets

TE Connectivity has re-committed publicly to an additional reduction of 35% over 10 years in Scope 1 & 2 emissions from a FY2020 baseline. The baseline year was reset to allow for a like-for-like comparison following the divestment of the SubCom business, which significantly reduced its Scope 1 emissions.



**-7.9%**

1 year sales growth

**4.0%**

5 year sales growth

**-2.4%**

1 year RoE

**16.1%**

5 year average RoE

### **Structural growth from decarbonisation**

2020 revenues declined significantly due to manufacturing shutdowns related to COVID-19. Going forward, TE Connectivity's management expects medium-term organic revenue growth of 4-6%, driven by strong structural-growth drivers, particularly the shift to EVs, with M&A adding another 1% annually. We are confident in the company's ability to deliver this or better, given the outlook for EV sales. Fully electric vehicles have twice the connector content per car of an ICE vehicle, and higher voltage EVs have incrementally more connector content. We expect to see a trend towards higher voltage EVs, which offer faster charging. TE Connectivity is working with every global OEM on EVs, with its engineers working onsite to assist in developing the next generation of EVs. TE is also exposed to the electrification of trucks, through its commercial transportation connector business. These areas have some of the strongest potential structural growth rates driven by decarbonisation.

### **Competitive advantage**

As an industry leader, TE Connectivity's broad product portfolio and engineering capability give the company a potential competitive advantage in addressing the needs of its global customers. We believe the company is typically the sole source for most applications with custom-designed products, which allows it to maintain pricing power.

### **Sustainable returns**

Returns last year were significantly lower because of the pandemic. However, in general TE Connectivity has generated consistently high returns (high teens/low 20s), driven by healthy margins and a capital-light business model. As management expects to expand operating margins by 0.3-0.8% annually, we would expect that returns are maintained or improved.

### **Engagement progress**

We were encouraged to see TE Connectivity report more complete carbon data and update its net-zero target, but will continue to engage on including Scope 3 and setting an SBT. We also discussed with the company an employee discrimination case that was taken to court but was subsequently dismissed.

### **Proxy voting**

We voted against the share-issuance request as it would have resulted in a potentially excessive dilution, of more than 10%, which exceeds Ninety One's limit for issuances without pre-emptive rights. We also voted against the request to adjourn shareholder meetings, as we felt it was too narrowly drafted.

### **2021 engagement goals**

1. Carbon emissions disclosure (Scope 3 and carbon avoided).
2. SBTs.
3. Labour management and supply-chain best practice.

# Terna

## Environmental thesis

Terna is an Italian transmission operator, managing large quantities of electricity over long distances via substations and transmission lines. Transmission networks connect power-generation providers to distributors that supply electricity to homes and industries. Losses between the power plant and final user range between 8-15%, so small efficiencies in transmission can make a significant positive impact on overall energy losses via the grid. More importantly, transmission networks must be upgraded to allow for the integration of renewables and to overcome the problem of intermittency. Terna's 2021-2025 development plan focuses on upgrading the transmission network to reduce grid losses, integrate more renewables and improve the efficiency of the energy mix.

## EU Taxonomy assessment

Revenues can be split into: (1) 'Regulated activities' (86%); (2) 'Non-regulated activities' (14%); and (3) 'International activities' (1% of revenues). All electricity transmission and distribution infrastructure, or equipment in systems on a trajectory to full decarbonisation, are eligible. We have assessed the company's 'regulated activities' as being taxonomy-aligned, given Terna's position in Europe, which is on the path towards full decarbonisation.

## Environmental data progression

| Carbon data    | FY 2017 (2019 reporting)      |  | FY 2018 (2020 reporting)      |  | FY 2019 (2021 reporting)      |  |
|----------------|-------------------------------|--|-------------------------------|--|-------------------------------|--|
|                | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) |
| Scope 1 & 2    | 148,282                       | 60   | 127,050                       | 47   | 133,651                       | 52   |
| Scope 3        | 1,828,524                     | 741  | 1,688,020                     | 629  | 1,875,811                     | 732  |
| Carbon Avoided | 2,200,000                     | 892  | 2,200,000                     | 820  | 2,100,000                     | 820  |

Terna's Scope 1 & 2 emissions rose in FY2019, mainly due to higher sulfur hexafluoride (SF<sub>6</sub>) gas leakage and increased electricity consumption, driven by the company's rapidly growing asset base. In Terna's case, SF<sub>6</sub> is used in circuit breakers for electrical grids. SF<sub>6</sub> remains a focus for the company, but in the past Terna had seen its SF<sub>6</sub> leakage rate remain above its target of 0.40% (as a percentage of the total equipment installed). Given the growth in Terna's asset base, this target was reset to 0.45%. While rebasing this target higher was a concern, the company actually saw its SF<sub>6</sub> fall to the lowest-ever level of 0.32% in 2020. Given the unusual nature of the year, we will be monitoring 2021 performance closely and will consider a formal engagement goal if this target is exceeded. While emissions from Scope 2 have also increased, we expect them to move lower from here, given the implementation of the company's SBT (see below). The largest component of Scope 3 emissions for Terna relates to grid losses. Although we saw a decline in Scope 3 intensity in 2018, it is disappointing to see the increase in 2019. However, encouragingly, despite Terna's growing asset base, grid losses did not increase; rather, the increase came from the company's emissions relating to capital goods. Notably, the company has not included Scope 3 within its SBT, so this will be an engagement goal in 2021. The company reports an estimated carbon saving of approximately 2.1m tCO<sub>2</sub>e, derived from reduced grid losses, improving production mix and country interconnections (which reduce congestion), although this varies depending on grid scenarios. The company expects to grow its carbon avoided to 5.6m tCO<sub>2</sub>e per year over the long-term.

## Net zero targets

Terna has committed to reduce absolute Scope 1 & 2 emissions by 28% by 2030 relative to a 2019 base year.



7.6%

1 year sales growth

4.1%

5 year sales growth

18.4%

1 year RoE

18.4%

5 year average RoE

### Structural growth from decarbonisation

Italy's climate transition is becoming increasingly ambitious. With the country expected to add over 40GW in renewable energy capacity in the next 10 years, Terna intends to invest over €18bn, up from €13bn in the previous 10-year development plan and €7bn in 2015. In the 2021-2025 industrial plan, the company expects to deploy almost €9bn, up from the €7.3bn stated in the 2020-2024 plan.

### Competitive advantage

Terna has a 100% regulated monopoly in the Italian transmission network. As a result, the company is essential in driving the decarbonisation of the Italian grid.

### Sustainable returns

Terna generates returns via its regulated asset base (RAB), which represents the cost of past investments plus any subsequent capital expenditure. Terna's regulated return is based on the methods set by the Italian regulator. To incentivise the upgrading of the energy system and grow generation from renewables, the regulated return in Italy has historically been set at an attractive level. The regulatory mechanism will be reset in 2022 and, following a recent consultation paper from the Italian regulator, it is possible the return may decline. However, there remains a high level of uncertainty as to the final regulated return, given the large number of variables yet to be defined. Given the company's central role in the energy transition in Italy and Europe, we believe the company will be fairly remunerated to ensure appropriate incentivisation. Furthermore, Terna can issue debt very cheaply, with its most recent bond issue paying a coupon of just 0.375%. Terna is therefore able to generate returns well above its cost of capital.

### Engagement progress

Previous engagement goals related to waste recycling and sustainability targets for management. Since waste recycling was discussed with the company, there has been a material improvement, despite rising levels of capital expenditure. In 2019, waste recycled improved to 94% from 86% in 2018. This has since been removed as an engagement goal, although we will monitor for declines. Management's compensation has limited links to the sustainability issues specific to Terna. We believe linking compensation to sustainability key performance indicators, such as SF6 leakages, would be appropriate, given Terna's role in the transition. We continue to discuss this with the company. As noted above, we will also be engaging with Terna on its plans to include Scope 3 in its SBT.

### Proxy voting

In 2020, we voted against an item relating to shareholders' ability to propose legal actions against company directors. The company provided little guidance as to its intention, and we would not support a proposal that reduces shareholder rights. We voted with management on all other items.

### 2021 engagement goals

1. Scope 3 inclusion in the SBT.
2. Redefine sustainability targets for management.

# Trane Technologies (added in Jan 2021)

## Environmental thesis

15% of global emissions are generated by the heating and cooling of buildings. As urbanisation accelerates, populations grow and global temperatures rise, it is estimated that this figure could approach 25% by 2030. In most cases, hydrofluorocarbons (HFCs) are used in heating, ventilation and air conditioning (HVAC) systems, which are extremely potent greenhouse gases (high global warming potential HFCs have thousands of times the warming potential of CO<sub>2</sub>). Government policies offer a supportive backdrop for a company such as Trane to replace inefficient HVAC equipment with more energy-efficient solutions. Trane is seen as the leader in the sector for energy efficiency, and has the most aggressive decarbonisation target among its peers, with a commitment to reduce customers' carbon footprints by 1 gigaton of CO<sub>2</sub>e by 2030. Its so-called 'Gigaton Challenge' is among the largest climate commitments made by any business-to-business company. Trane also has a leading consultancy, which helps customers optimise energy efficiency; in its heating business line, the company is well placed for the transition from oil & gas boilers to heat pumps, electric heating and district heating.

## EU Taxonomy assessment

Revenues can be split into: 1) 'Equipment' (67% of revenues); and 2) 'Aftermarket' (33%). Trane's activities are considered relevant to the manufacture of low-carbon technologies. 100% of revenues are taxonomy-eligible, with the manufacturing of Trane's HVAC products resulting in substantial emissions reductions in other sectors: namely, commercial and residential housing, and transport. To comply with the relevant section of the taxonomy, a company must provide evidence of higher net emissions-reductions relative to peers through a recognised/standardised carbon footprint assessment. However, given Trane doesn't split out the percentage of revenues analysed through a recognised/standardised assessment, and that the evidence is not third-party verified, we are not able to determine any alignment of company revenues. Trane expects to share more detail about efforts to bring in third-party certifications in its 2022 ESG report.

## Environmental data progression

| Carbon data    | FY 2017 (2019 reporting)      |  | FY 2018 (2020 reporting)      |  | FY 2019 (2021 reporting)      |  |
|----------------|-------------------------------|--|-------------------------------|--|-------------------------------|--|
|                | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) |
| Scope 1 & 2    | 559,006                       | 36   | 535,351                       | 34   | 446,338                       | 34   |
| Scope 3        | 283,796,779                   | 18,113                                       | 291,433,338                   | 18,600                                       | 238,541,185                   | 18,243                                       |
| Carbon Avoided | 7,700,000                     | 491  | 7,700,000                     | 491  | 7,700,000                     | 589  |

Trane's reported Scope 1 & 2 absolute emissions have declined over the past three years, but remained broadly the same on an intensity basis from FY2018 to FY2019. To calculate Scope 3, the company carries out lifecycle carbon analysis on all new products and select products from all major business lines. 'Use of sold products' accounts for almost all of Trane's Scope 3 emissions: i.e., an estimated 90%+ of Scope 3 emissions come from energy consumed during use of Trane's products, and less than 2% are from the supply chain. Consequently, the former is where the company is focusing its decarbonising efforts. The company has only recently started reporting carbon avoided (for FY2020), so we use this figure as a proxy for previous years. We expect carbon avoided to grow as Trane progresses with the Gigaton Challenge.

## Net zero targets

Trane has committed to an SBT covering: 1) to reduce absolute scope 1 & 2 emissions by 50% by 2030 vs. a 2019 baseline; and 2) to reduce Scope 3 by 48% per product sold from 'use of sold products' by 2030 vs. a 2019 baseline.



HVAC Building Products  
100.0%

100%

Taxonomy eligible revenues

0%

Taxonomy aligned revenues

US\$34.9bn

Market capitalisation

US\$37.3bn

Enterprise valuation

-5.3%

1 year sales growth

0.4%

5 year sales growth

12.5%

1 year RoE

18.7%

5 year average RoE

## Structural growth from decarbonisation

Increasingly, global policies will support companies like Trane that offer more energy efficient HVAC solutions. President Biden, for example, has proposed to upgrade 4 million commercial buildings over four years including more energy-efficient HVAC, and there is potential for legislation to set a net-zero emissions standard for all new buildings by 2030. President Biden has also indicated that he intends to increase the level of federal investment in new, affordable housing for low-income Americans, and that these homes will be energy efficient.

Efforts to tackle climate change are not the only tailwind for Trane. COVID has further accelerated the HVAC replacement cycle, with demand rising for solutions that improve air quality in commercial buildings (to reassure occupants concerned about disease transmission). This demand-driver is likely to be particularly strong for 'applied' HVAC equipment (i.e., equipment that is integrated into a building, rather than standalone) and in settings like hospitals, where controls need to be precise and there is a low tolerance of system failure.

Trane should also be a beneficiary of increasing urbanisation. The UN forecasts that 60% of the global population is expected to reside in cities in 2030, rising to 70% by 2050, up from 54.5% in 2016. Trane has a strong foothold in Asia Pacific countries, where urbanisation is likely to grow particularly fast over the next 10-30 years.

## Competitive advantage

Trane is widely regarded as selling the highest quality and most reliable HVAC equipment, and customer demand has tended to be inelastic. As noted above, the company is also a leader in consultancy, reflected in a 70-80% win rate for consultancy projects where it works with the specifying engineers. Trane has a strong reputation for employing skilled engineers, and its analytical capabilities enable it to provide bespoke solutions.

## Sustainable returns

Trane consistently generates strong margins, which have been between 32% and 34% since 2014. Management's end-2020 target of 'at least 25%' incremental operating margins over the medium to long term appears achievable. Trane's business-transformation programme is targeting US\$300m of cost savings from 2020 to 2023. The company is on track to deliver US\$90m of incremental savings in 2021, having eliminated US\$100m of stranded/fixed costs in 2020. These cost savings enable additional investment in innovation, which in turn will help Trane to sustain its competitive position and returns.

## Engagement progress

Our engagements have focused on understanding Trane's plans for transitioning to its Ecowise portfolio (the company's most energy-efficient group of products) and Ecowise equivalents, and consequently monitoring progress in the Gigaton Challenge. The company has set milestones for the challenge, including timelines for refrigerant changes, but it has not disclosed these externally. We can probably expect progress to be relatively back-ended (i.e., bigger progress towards the end of the 10-year initiative), but for significant milestones to be achieved along the way.

We also engaged on board composition. The company is focusing on the right areas in terms of the desired experience of future board members, including ESG and cyber security. We suggested to the company that a board member with air quality or medical experience would be beneficial. Given the composition of committees elsewhere in the business (such as the sustainability, corporate governance, technology and innovation committees), we feel comfortable that for now the board has sufficient decarbonisation expertise.

We also engaged on directors' tenure. The company believes its longer-tenured directors are strong contributors, but mandatory retirement at 75 years of age means that three board members will be replaced in the coming years. Other engagement efforts focused on gender diversity. Trane's workforce comprises 25% women, with 22% female representation in leadership positions. The company has a target to achieve gender parity in leadership roles by 2030; we will continue to engage on this topic.

## Proxy voting

Not applicable, as we invested in January 2021.

## 2021 engagement goals

1. Monitoring progress on the Gigaton Challenge.
2. Monitoring targets for gender diversity in leadership.
3. Monitoring progress towards SBTs.

## Vestas Wind Systems

### Environmental thesis

Vestas is the world leader in wind-turbine manufacturing. Sustainable decarbonisation will require a complete change in how we generate electricity, with a move away from fossil fuels and towards renewable energy, mainly wind and solar. Vestas designs, manufactures and services wind turbines across the globe. It has installed over 18% of the world's wind power, more than any other company. It also has 120GW of wind-power capacity under service, versus 96GW last year. A Vestas wind turbine is energy neutral after only five months of operation and delivers the highest energy payback across all technologies (30-50x). Vestas has one of the most ambitious carbon-reduction programmes of any company in the world, targeting carbon neutrality by 2030 without using any offsets.

### EU Taxonomy assessment

Business segments are split by: (1) 'Power solutions' (86.1% of revenues 2020); and (2) 'Service solutions' (13.9%). The company is involved in manufacturing products, key components and machinery essential for wind energy, which is an eligible renewable-energy technology. Its products also meet the conversion-efficiency requirements set in the Renewable Energy Directive (2018/2001/EU), and therefore all revenues are deemed aligned.

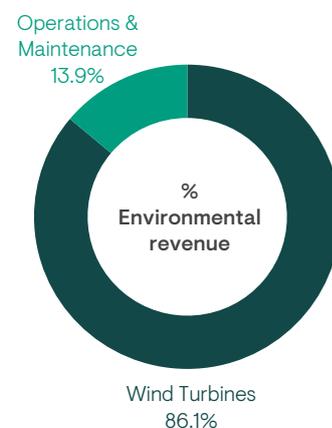
### Environmental data progression

| Carbon data    | FY 2017 (2019 reporting) |                                 | FY 2018 (2020 reporting) |                                 | FY 2019 (2021 reporting) |                                 |
|----------------|--------------------------|---------------------------------|--------------------------|---------------------------------|--------------------------|---------------------------------|
|                | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) |
| Scope 1 & 2    | 85,757                   | 8                               | 101,050                  | 8                               | 109,027                  | 8                               |
| Scope 3        | 3,860,325                | 343                             | 6,357,294                | 531                             | 6,890,923                | 507                             |
| Carbon Avoided | 317,000,000              | 28,193                          | 275,000,000              | 22,975                          | 322,000,000              | 23,679                          |

Vestas' Scope 1 & 2 emissions increased by 8% in absolute terms in FY2019, driven by continued volume growth. We were pleased to see Scope 1 & 2 emissions intensity fall 5%, as the business took steps to consume more renewable energy: renewable electricity consumption increased from 68% in 2018 to 82% in 2019. Scope 3 absolute emissions also increased, given the significant rise in volumes, but intensity fell by 5%. Over 90% of Vestas' Scope 3 emissions are from 'purchased goods and services', with the majority relating to raw materials such as steel. We expect this intensity figure to improve over time, given Vestas' commitment to improving its supply chain's carbon intensity (see net-zero targets below). In 2019, Vestas reported that it had avoided 322m tCo2e, the equivalent of the emissions generated by 125 million passenger vehicles driven for one year, or 31 million homes' electricity use for one year.

### Net zero targets

Vestas has committed to a 55% reduction in absolute Scope 1 & 2 by 2025 against a 2019 baseline. The company also has two SBTs, including: 1) a 100% reduction in absolute Scope 1 & 2 by 2030 against a 2019 baseline; and 2) a 45% reduction in Scope 3 per Mwh delivered to the market by 2030 against a 2019 baseline.



22.9%

1 year sales growth

14.7%

5 year sales growth

19.3%

1 year RoE

24.7%

5 year average RoE

## Structural growth from decarbonisation

Wind and solar are now the cheapest sources of renewable energy to generate electricity in over two-thirds of the world, including the US, China, India, Brazil and many more countries. The improved economics of onshore wind present an attractive opportunity for Vestas, the world's leading wind-turbine manufacturer and service provider. The IEA's net-zero pathway calls for scaling up wind rapidly this decade: wind capacity will need to increase 4x by 2030 and 11x by 2050, reaching annual additions of 390GW by 2030 (from 114GW in 2020). In addition, repowering, which is still at a nascent stage, centred around Europe and the US, will support a continuous high level of activity in more mature markets. Historically, revenue growth from Vestas has been strong and, although COVID-19 may have slowed growth in 2020, we expect the significant structural tailwinds to support its long-term growth.

## Competitive advantage

Vestas' primary moat is its scale, which allows the company to maintain a sizeable market share in the high-margin service segment in a consolidated industry (just four manufacturers accounted for >51% of machines deployed in 2020: GE Wind Energy, Vestas, Goldwind and Siemens Gamesa). The company is already a global leader in servicing, with c.40% more capacity covered by operations & maintenance contracts than the second-largest player. It achieved a 28% EBIT margin in services over 2020. Vestas' scale also: 1) provides purchasing power (it receives a discount compared to peers in pricing from suppliers); 2) results in strong operating leverage; and 3) enables outperformance in cashflow generation, allowing the company to make more capital expenditure (capex) than most competitors, while maintaining much lower capex-to-sales than almost all. Product development is another competitive advantage: Vestas' products are known to deliver better power curves for the same price.

## Sustainable returns

Following a cost-cutting programme that began in 2013, Vestas has consistently generated strong returns relative to peers. We believe its simple modular turbine-manufacturing system and market-leading service business (c.28% operating margin) will continue to drive return-on-capital outperformance relative to peers. Management remains confident of achieving its >10% long-term operating-margin target, which is encouraging following the acquisition of the lower-margin offshore business. Another long-term target is generating positive free cashflow each year, and we continue to expect a strong positive free cashflow yield. In addition, the company is generally in a good position to pass on increased costs to customers, which is important in the face of an outlook of increasing raw-material prices.

## Engagement progress

One of our main engagement goals for Vestas last year was monitoring progress on its target to increase the percentage of women in leadership positions (a long-running project) to 25% by 2025 and 30% by 2030. In 2020, 14% of Vestas' employees were female and 19% of leadership positions were held by women. With no change in the percentage of female leaders since 2019, we will continue to monitor this closely. We also spent time engaging with the entire wind value-chain on health & safety in blade manufacturing. The materials used to manufacture wind-turbine blades can cause acute skin conditions and it is important for management to have best-in-class health & safety procedures. In October 2020, a Vestas maintenance worker suffered an electric shock at a wind park in Chubut. The company is targeting a reduction in its total recordable injury rate (TRIR) to 1.5 by 2025 and 0.6 by 2030. Vestas' TRIR improved to 3.3 in 2020 from 3.9 in 2019, a 15% year-on-year decline. Safety is an area we will continue to monitor.

## Proxy voting

In 2020, we abstained on an item relating to high non-audit-related PWC auditor fees, whereby non-audit fees increased 100% year-on-year to 50% (2019).

## 2021 engagement goals

1. Monitoring SBT progress vs. the SBTi.
2. Monitoring gender diversity targets.
3. Auditor relationships.

# Voltronic Power

## Environmental thesis

Voltronic Power Technology is a design & manufacturing service (DMS) supplier for uninterruptible power systems (UPS) and photovoltaic (PV) inverters. Sustainable decarbonisation will require increasingly efficient power systems as the global economy moves towards electrification. UPS manufactured by Voltronic Power are eco-friendly, improving overall electrical efficiency. The company also manufactures PV inverters, which convert electricity produced by solar panels into power that can be used by the grid or homes.

## EU Taxonomy assessment

The business segments are: (1) 'UPS' (68% of revenues); (2) 'Solar inverters' (25%); and (3) 'Spare parts/accessories' (6%). The taxonomy covers a proportion of the 'UPS' segment, for revenues associated with data centres that implement the European Code of Conduct for Data Centre Energy Efficiency; and all of the 'solar inverter' segment, which meets the conversion-efficiency requirements in the EU's Renewable Energy Directive. The relevant portion of UPS is known as online UPS (37% of revenues), which tend to be higher power-density and are used in enterprise and data-centre applications. Aligned revenues are therefore 62%.

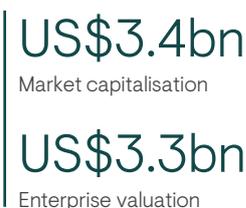
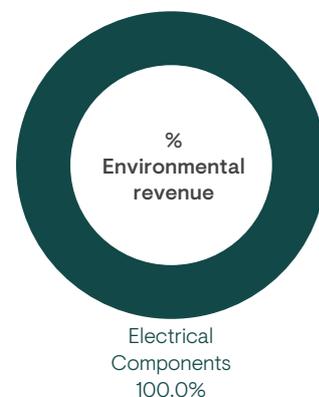
## Environmental data progression

| Carbon data    | FY 2017 (2019 reporting)      |  | FY 2018 (2020 reporting)      |  | FY 2019 (2021 reporting)      |  |
|----------------|-------------------------------|--|-------------------------------|--|-------------------------------|--|
|                | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) |
| Scope 1 & 2    | 10,374                        | 32   | 10,461                        | 28   | 14,043                        | 34   |
| Scope 3        | 435,274                       | 1,343  | 527,479                       | 1,393  | 593,899                       | 1,418  |
| Carbon Avoided | 383,000                       | 1,181  | 420,207                       | 1,110  | 516,602                       | 1,234  |

The carbon data given here reflects restated reported numbers for FY2017, FY2018 and FY2019. The restatement was due to the fact that Voltronic now reports the 'use of sold products' category of Scope 3 emissions (it previously reported most other Scope 3 categories). Overall, we are now more comfortable with the company's reported numbers, which provide a stronger base from which to monitor its carbon performance. However, some additional steps are still required, including third-party verification. The Scope 1 & 2 intensity increase was the result of the company's growing operational footprint. The 80,000m<sup>2</sup> Zhongshan facility became operational in 2018 (so FY2019 was the first full operating year). Scope 3 intensity increased marginally, also reflecting the company's larger product footprint. Carbon avoided, also a reported figure, continues to increase due to higher UPS and inverter sales. While we are pleased to see the positive momentum in this figure, we continue to discuss the development of the carbon-avoided methodology with the company to improve its accuracy over time.

## Net zero targets

Voltronic has not yet set a credible net-zero target, but it has clearly committed its intent to align with the Paris accord.



5.2%

1 year sales growth

11.0%

5 year sales growth

43.0%

1 year RoE

39.4%

5 year average RoE

### Structural growth from decarbonisation

The compound annual growth rate of the UPS industry has been over 5% historically and Voltronic continues to outgrow the market. We believe stable growth will continue in developed markets due to the build-out of data centres and enterprise servers. There are larger growth opportunities in emerging markets, where greater infrastructure development is required. Furthermore, Voltronic's inverter business is growing rapidly, driven by demand for off-grid inverters in countries including South Africa and Pakistan. The company expects this segment to grow at 20% annually, with further opportunities through entry into new markets such as the US.

### Competitive advantage

With no brand of its own – only creating bespoke solutions for other companies – Voltronic does not compete with its customers, which helps to protect these relationships. Another competitive advantage is the fact that it is far from easy for a rival to take over a customer relationship, given the extensive due diligence involved. Original design manufacturer (ODM) certification takes at least six months ; and each product must be audited and approved for sale, which takes 6-12 months. Finally, Voltronic benefits from economies of scale that enable it to design and manufacture UPS at a lower cost than other companies – an advantage that is growing due to Voltronic's investment in manufacturing facilities in China. Voltronic also benefits from economies of scale in the manufacture of solar inverters.

### Sustainable returns

Voltronic has delivered an average return on equity of 43% over the last 10 years, partly driven by global customers increasingly outsourcing UPS production to lower costs. The company offers a unique service (described below) that we believe will enable it to maintain these returns over the longer term. A more favourable product mix should also help sustain returns: Voltronic offers UPS with higher power densities (for data centres and enterprise-scale solutions), which generate better margins. Recently, returns have also benefited from growing inverter sales, which are higher margin than its UPS. Continued rapid growth in this segment would further enhance returns.

### Engagement progress

In 2020, we continued to engage with the company on its emissions reporting. We have seen good progress, with the important inclusion of 'use of sold products' Scope 3 emissions. We will now focus on ensuring that the data is as accurate as possible and third-party verified. With full Scope 1, 2 & 3 emissions now reported, we can begin to meaningfully discuss the development of more robust carbon targets, with the intention of building towards an SBT in the medium-term.

### Proxy voting

We did not find any issues within the proxy statement, so voted with management in 2020.

### 2021 engagement goals

1. Third-party emission verification.
2. Progression to SBTs.



# Waste Management

## Environmental thesis

Waste Management is the largest waste-collection and processing company in the US. Through its extensive landfill network, the company permanently sequesters carbon and other greenhouse gases. It employs methane-capture technology on an increasing portion of its landfill sites, using the gas to make automotive fuel and generate electricity for its own operations and for sale. In addition, Waste Management is a significant player in the recycling industry, collecting and sorting materials such as metal, paper, plastic and glass, which reduces the requirement for virgin materials.

## EU Taxonomy assessment

Waste Management’s business segments are: (1) ‘Collection’ (54% of revenues); (2) ‘Landfill’ (20% of revenues); (3) ‘Transfer’ (10% of revenues); (4) ‘Recycling’ (6% of revenues); and (5) ‘Other’ (10% of revenues). Several areas of the taxonomy are relevant. ‘Collection’ involves gathering refuse from households, businesses, and academic and government institutions. According to the company, traditional recycling (involving customers separating materials at source) makes up 27% of overall municipal solid-waste volumes. We can therefore ascribe this proportion of revenue relating to ‘Collection’ to the taxonomy. We can apply a similar approach to revenues from ‘Transfer’, which involves processing for aggregated collected volumes. All ‘Landfill’ revenues are considered aligned, based on the company operating its landfill sites in line with the highest industry standards. Within ‘Recycling’, more than 50% of materials input are converted, which satisfies the conditions of the taxonomy. Due to the lack of detail in ‘Other’, these revenues are not included. Overall, this results in EU taxonomy-aligned revenues of 43%.

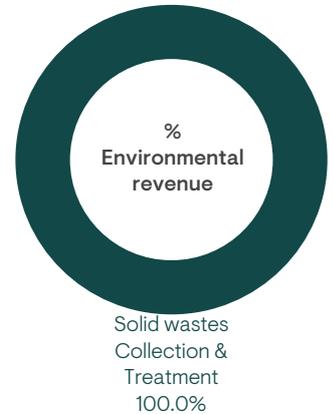
## Environmental data progression

| Carbon data    | FY 2017 (2019 reporting) |                                 | FY 2018 (2020 reporting) |                                 | FY 2019 (2021 reporting) |                                 |
|----------------|--------------------------|---------------------------------|--------------------------|---------------------------------|--------------------------|---------------------------------|
|                | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) |
| Scope 1 & 2    | 15,934,821               | 1,100                           | 16,518,235               | 1,108                           | 15,862,973               | 1,026                           |
| Scope 3        | 11,009,350               | 760                             | 11,175,200               | 749                             | 3,211,665                | 208                             |
| Carbon Avoided | 54,500,000               | 3,763                           | 53,900,000               | 3,614                           | 52,900,000               | 3,423                           |

Waste Management achieved a 7% reduction in Scope 1 & 2 emissions intensity. This partly reflected further progress in transitioning to alternative-fuel vehicles (many of them use compressed natural gas), which now comprise 50% of the company’s fleet. The company also reduced its emissions from landfill through methane capture. Scope 3 emissions intensity declined materially due to a change in data-collection methodology; specifically, more accurate collection of supply-chain data that fed into the emissions calculations for capital goods. This establishes a stronger base to measure the company’s emissions going forward. Waste Management’s reported carbon avoided declined in both FY2018 and FY2019, mainly due to lower avoided emissions from the recycling business. We expect this trend to reverse in future years, with the company targeting over 39 million tCO2e of avoided emissions from recycling by 2038 (vs. 30.1 million in FY2019).

## Net zero targets

Waste Management has committed to an SBT (still to be approved). However, the company has already set emissions-related targets, such as running 70% of its fleet on alternative fuels (Scope 1) and using 100% renewable energy at controlled sites (Scope 2) by 2025.



-1.2%

1 year sales growth

4.7%

5 year sales growth

20.6%

1 year RoE

26.7%

5 year average RoE

## Structural growth from decarbonisation

While the pandemic hampered Waste Management's short-term growth, we expect the company to recover quickly. Longer-term, it is well-placed to benefit from several structural-growth drivers, including rising volumes of waste in US households and businesses, which should drive revenues from collection contracts and landfill operations. Additionally, the scarcity of landfill and the increasing regulatory requirements for commissioning new sites should give the company pricing power in the medium-to long-term (i.e., the potential to charge higher tipping fees to non-integrated waste companies and other external users). Growing demand for the processing of materials for recycling is opening new sources of revenue, as the company can charge customers separately for this. The recycling business appears to have bottomed in FY2019. It recovered strongly in the early part of 2021 and subsequently posted its best-ever financial performance. During the last year, Waste Management has been investing in new technology and revisiting cost structures to improve operational performance, and we are optimistic about its future growth.

## Competitive advantage

Waste Management has a large market share in the consolidated US waste industry. Its competitive advantages arise from the location and network of its landfill sites, which give it strong pricing power as the volume of waste and materials requiring handling increases. Also, the company's leading methane-capture technology, its alternative-fuels fleet and truck mechanisation, and its materials recovery facilities, mean that it can process waste more profitably than its peers.

## Sustainable returns

Waste Management has delivered a return on equity of 12-34% in the last two decades, with the exception of one year. Returns have increased in recent years as the US waste industry has consolidated further and landfill commissioning has become harder. Although returns declined in FY2020, we are pleased to see they remain over 20%, and we expect a positive trend from here given the company's higher investment in 2020. Importantly, given the more inflationary environment, the company continues to demonstrate an ability to pass on cost increases. Furthermore, Waste Management's organic growth has been supplemented by small to mid-sized acquisitions. With additional consolidation opportunities likely over the next decade, we expect the company's ability to raise prices to improve further in the medium-term.

## Engagement progress

Engagement with Waste Management focused on the long tenure of directors (discussed below), the need for Board refreshment, and efforts to improve diversity. The lack of change on the board means we have retained this as an engagement goal for 2021. To date, the company has acknowledged our comments related to incorporating sustainability targets for management, but we are yet to see such targets included in incentives, so this will remain an engagement goal. Following the publication of a Nature article in late 2019 which highlighted questions relating to the measurement of methane emissions from landfill, we have been engaging with Waste Management on this issue. The company is addressing it by evolving its measurement methodologies (it is already heavily investing in methane capture). We will continue to monitor this work.

## Proxy voting

In 2020, we noted the long tenure of two directors being re-elected to the board and discussed this with the company. It provided clear answers as to the process of the nomination committee. While the board is majority independent, we still did not agree that the long tenure of these directors was justified, so voted against re-election. Refreshing these board positions would also offer an opportunity to increase board diversity, which had 25% female representation at the time of the 2020 proxy vote.

## 2021 engagement goals

1. Board tenure and diversity.
2. Sustainability targets for management.
3. Methane capture and measurement.

# Wuxi Lead Intelligent

## Environmental thesis

Wuxi Lead Intelligent Equipment predominantly designs, manufactures and sells battery-production equipment and services to leading EV battery manufacturers in China such as CATL, Panasonic and Samsung SDI. Sustainable decarbonisation will require a rapid transition towards a greener, lower-carbon transport system. We believe a key driver of this is a move away from internal combustion engine vehicles towards battery EVs powered by renewable energy. Wuxi is directly exposed to one of the largest EV markets in the world and, as such, is at the forefront of decarbonisation. It is also expanding sales internationally, with customers such as Northvolt (50/50 joint venture with Volkswagen).

## EU Taxonomy assessment

Wuxi's business can be split into: (1) 'Lithium-ion battery equipment' (55% of revenues); (2) 'Solar PV equipment' (19%); and (3) '3C, film capacitor and others' (26%). 'Lithium-ion battery equipment' and 'Solar PV equipment' can be considered enabling activities under the taxonomy and so those revenues are aligned.

## Environmental data progression

| Carbon data    | FY 2017 (2019 reporting)      |  | FY 2018 (2020 reporting)      |  | FY 2019 (2021 reporting)      |  |
|----------------|-------------------------------|--|-------------------------------|--|-------------------------------|--|
|                | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) |
| Scope 1 & 2    | 14,765                        | 46   | 68,287                        | 116  | 11,387                        | 17   |
| Scope 3        | 203,550                       | 637  | 572,257                       | 972  | 3,038,431                     | 4,480  |
| Carbon Avoided | 163,000                       | 505  | 258,000                       | 438  | 3,604,216                     | 5,314  |

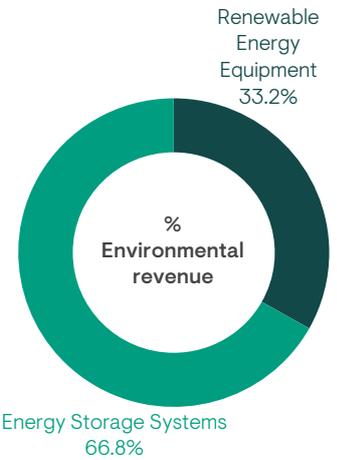
Wuxi Lead reported to CDP for the first time in 2020, a significant achievement considering we introduced the company to the concept of carbon reporting only in 2018. We will continue to engage on this issue to further improve disclosure quality and potentially establish reduction targets in the future.

The company also released its inaugural sustainability report in April 2021, again responding positively to our engagements over the past few years, as well as those of our Ninety One 4Factor colleagues based in Hong Kong.

Wuxi Lead's Scope 1 & 2 is now reported and much lower than previous estimates. Estimated Scope 3 carbon emission intensity increased dramatically, with higher sector averages feeding into our estimates. Finally, carbon avoided also increased markedly, primarily due to increased equipment sales to EV battery manufacturers, higher sector averages used in our calculation, and a more detailed carbon-avoided methodology that takes account of Wuxi's solar cell/module equipment sales (as well as the battery equipment). Ultimately, we would like to see the company report both Scope 3 and carbon avoided so we can begin to monitor its carbon performance from a stronger foundation. This remains an engagement goal.

## Net zero targets

Wuxi Lead has not set a net-zero target. We expect this will take some time as the company has only just started reporting carbon data.



23.3%

1 year sales growth

58.7%

5 year sales growth

15.5%

1 year RoE

24.6%

5 year average RoE

## Structural growth from decarbonisation

We believe the EV market is one of the most exciting structural growth opportunities in the transition to a low-carbon economy. Electrification and decarbonisation of transport are imperative if we are to come close to a 2°C world. We forecast rapid electrification of transport, with EVs going from 3% of vehicle sales today to over 50% by 2030. The IEA's 'Net Zero by 2050 Pathway' estimates that annual battery production for EVs would leap from 160GWh today to 6.6TWh in 2030. Most of this growth will come from demand for passenger EVs. China is leading the world in battery manufacturing and is the fastest-growing EV market globally. Wuxi Lead has an excellent reputation and strong relationships with leading battery manufacturers in China, putting it in a strong position to take advantage of this potential rapid growth. The company has grown revenues at an annualised rate of 59% over the past five years, and we continue to expect long-term growth in revenues and earnings.

## Competitive advantage

The business has grown its (already leading) market share, top-tier customer relationships and R&D capabilities in China over the past year. It is now supplying fully integrated EV battery-production lines and offering a cost-effective, timely service to customers. It works closely with tier-1 battery manufacturers such as CATL in China and is winning contracts with international businesses such as Northvolt, a Swedish company that is building its own 'gigafactory', and has signed a 50/50 joint venture with Volkswagen to build another. During the year, CATL (Wuxi Lead's largest customer) acquired c.7% of Wuxi Lead shares and became the second-largest single shareholder after the founder/chairman. As part of the deal, CATL agreed to place at least 50% of its key front-end lithium-battery-equipment orders with Wuxi Lead for the next three years. We remain confident that Wuxi Lead has a competitive advantage in this niche sector. In addition, the company's clean balance sheet, asset-light model and owner/staff alignment through high levels of share ownership strengthen our constructive view on the business.

## Sustainable returns

The investment in R&D and a move towards fully integrated equipment lines should help Wuxi Lead maintain reasonable margins and returns over time. Wuxi Lead is also seeing higher margins from its fast-growing international business, which should further support returns. We believe its strong competitive advantages, including durable tier-1 relationships, as well as fast delivery and service response times (relative to Japanese and Korean competitors), should ultimately support a healthy return on capital.

## Engagement progress

Our two major engagements were over a proposed asset disposal and CDP disclosure.

On 30 April 2020, Wuxi Lead announced a plan to sell its 3C, fuel cell and laser businesses to private companies owned by the chairman/CEO of Wuxi Lead, Yanqing Wang, for a total consideration of CNY200 million. The company offered explanations for the rationale and valuation of the deal, but transactions like this, where minority shareholders' interests are not well protected, give us concern over the company's corporate-governance structure. We wrote to the board secretary of Wuxi Lead at the time, as did other investors, to raise our concerns. On 25 May, Wuxi Lead terminated the transaction. In a follow-up call with us, the board secretary admitted that they had not paid enough attention to the views of minority shareholders and customers, and pledged to improve their decision-making process.

We engaged with Wuxi Lead in 2020 on various occasions on CDP disclosure. The conversation was disrupted by the change of board secretary in the second half of the year, but we discussed the issue with the new board secretary soon after his appointment. We are pleased and encouraged that the company now reports to CDP.

## Proxy voting

We voted in line with management on most proxy items, except regarding the proposed asset sale mentioned above. We voted against at the May 2020 AGM, although the company had in fact announced the day before that it was withdrawing the proposal due to customer re-verification requirements and shareholder pressure.

## 2021 engagement goals

1. Carbon disclosure verification, especially Scope 2.
2. Scope 3 and carbon-avoided reporting.
3. Plans for corporate-governance structure improvement.
4. Greater board diversity.

## Xinjiang Goldwind

### Environmental thesis

Xinjiang Goldwind is a leading wind-turbine manufacturer. Sustainable decarbonisation will require a transformation in how we generate electricity, with a move away from fossil fuels towards renewable energy, predominantly wind and solar. Goldwind is the market-leading wind-turbine manufacturer in China, with more than 73GW of installed wind capacity. It generates about 146 billion kWh of power a year, saving the equivalent of 123 million tonnes of CO<sub>2</sub> emissions compared with coal-fired power. We exited our position in Goldwind in July 2021 as we felt unable to verify its policies on labour relations and we were also concerned about the pricing environment in the industry and Goldwind's market share.

### EU Taxonomy assessment

Goldwind splits revenues into three main segments: (1) 'Wind turbine generator manufacturing & sales' (c. 83%); (2) 'Wind farm development' (c. 7%); and (3) 'Wind power service' (c. 8%). All of these segments are consistent with the EU Renewable Energy Directive (2018/2001/EU), and therefore aligned with the taxonomy, meaning that c.98% of Goldwind's revenues are aligned.

### Environmental data progression

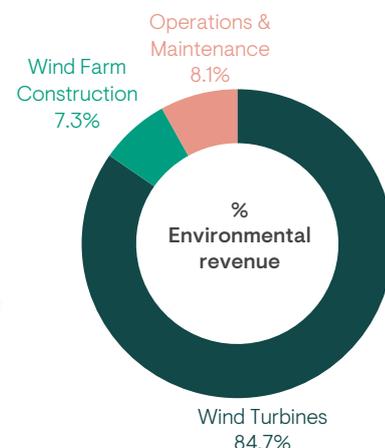
| Carbon data    | FY 2017 (2019 reporting)      |  | FY 2018 (2020 reporting)      |  | FY 2019 (2021 reporting)      |  |
|----------------|-------------------------------|--|-------------------------------|--|-------------------------------|--|
|                | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) | Absolute (tCO <sub>2</sub> e) | Intensity (tCO <sub>2</sub> e/US\$m revenue) |
| Scope 1 & 2    | 51,546                        | 14   | 74,209                        | 17   | 128,884                       | 23   |
| Scope 3        | 2,446,714                     | 661  | 4,235,506                     | 979  | 24,585,988                    | 4,440  |
| Carbon Avoided | 90,400,000                    | 24,439                                       | 102,360,000                   | 23,664                                       | 122,830,000                   | 22,182                                       |

|                      | 2018 (2019 Disclosure) | 2019 (2020 Disclosure) | 2020 (2021 Disclosure) |
|----------------------|------------------------|------------------------|------------------------|
|                      | Absolute (MWh/yr)      | Absolute (MWh/yr)      | Absolute (MWh/yr)      |
| Renewable generation | 7,645,080              | 7,806,652              | 7,488,000              |

Goldwind reports Scopes 1 & 2 emissions and carbon-avoided. It currently reports no Scope 3 emissions. We were pleased that the company committed to reporting emissions to CDP this year. As shown above, Scope 1 & 2 emissions grew on an absolute and intensity basis. Goldwind's changing business mix is the biggest driver of the increased intensity, as the carbon-intensive wind-turbine manufacturing business has grown much more quickly than the less-carbon-intensive wind-farm development business. In its sustainability report, Goldwind noted that it has explored the energy-conservation and consumption-reduction potential of each subsidiary, has set relevant targets, and monitors progress against them to ensure a decrease in overall energy consumption year-by-year. However, the company has not shared details on these targets. The large increase in estimated Scope 3 carbon emissions is due to better sector data points. The growth in carbon avoided reflects strong growth in wind-turbine sales.

### Net zero targets

As discussed above, Goldwind's emissions-reduction targets are not available for investors to review and monitor.



100%

Taxonomy eligible revenues

98%

Taxonomy aligned revenues

US\$9.1bn

Market capitalisation

US\$14.1bn

Enterprise valuation

43.1%

1 year sales growth

10.4%

5 year sales growth

9.4%

1 year RoE

12.6%

5 year average RoE

### Structural growth from decarbonisation

The IEA's net-zero roadmap requires a 4x increase in renewable energy globally by 2030 and 10-20x by 2050. China will be the biggest driver of the growth in renewables. President Xi Jinping announced in October 2020 that the country will strive to reach peak emissions by 2030 and achieve carbon neutrality by 2060. To do so, it will have to reduce carbon emissions by 76% (relative to a base case). The National Development and Reform Commission Energy Research Institute predicts that non-fossil fuel energy will account for 78% of power consumption by 2050, of which wind will account for 38.5%, making it the dominant energy source. As the market leader in wind turbines in China, Goldwind should benefit from this trend.

### Competitive advantage

Goldwind remains the clear leader in the Chinese wind-turbine market. However, its market share declined from 28% in 2019 to 12% in 2020, partly because the company struggled to keep up with the rapid growth of the sector.

### Sustainable returns

We expect Goldwind's market-leading position, management's execution of its product-consolidation plans, and the exceptional growth outlook for wind in China to drive improvements in return on capital. However, pricing in the wind-turbine industry in China continues to be very aggressive. This contributed to our decision to exit the position in July 2021.

### Engagement progress

We engaged with the company on numerous topics during the year. On carbon reporting to CDP and reporting carbon-avoided, as noted Goldwind has committed to report to CDP in 2021.

We discussed anti-corruption and labour relations policies at different points during the year. Goldwind is planning various initiatives and improvements in this regard. We would prefer that it uses an independent agency to oversee implementation and have discussed adopting the ISO 26000 standard guidance on social responsibility. Our inability to verify its policies on labour relations contributed to our decision to sell in July 2021.

Finally, we also discussed the company's policy on the treatment of toxic waste. The company is aiming to strengthen its management of hazardous chemicals and waste, and ensure clear responsibility for monitoring and supervision. Again, we would prefer independent oversight of this initiative.

### Proxy voting

We voted for the provision of guarantees we had voted against in 2019, as this year we were able to establish that the guarantees were limited in size and only applied to core subsidiaries (R&D, wind-farm technical services etc).

### 2021 engagement goals

Not applicable as no longer held.



# Xinyi Solar

## Environmental thesis

Xinyi Solar is the largest producer of solar glass in the world. Sustainable decarbonisation will require a complete change in how we generate electricity, with a move away from fossil fuels towards renewable energy, mainly wind and solar. Xinyi Solar is directly exposed to solar-sector growth. At year-end 2020, its ultra-clear solar-glass capacity was 9,800 tonnes/day, equating to over 30% of the global market. It also owns 3.47GW of solar-power projects (built and acquired).

## EU Taxonomy assessment

The company's business segments are: (1) 'Solar glass' (81% of revenues); and (2) 'Solar power electricity generation' (19%). Xinyi Solar is involved in manufacturing products and key components that are essential for solar energy – eligible renewable-energy technologies under the taxonomy. Its products meet the necessary conversion-efficiency requirements set in the Renewable Energy Directive (2018/2001/EU). We therefore conclude that all revenues are aligned with the taxonomy.

## Environmental data progression

| Carbon data    | FY 2017 (2019 reporting) |                                 | FY 2018 (2020 reporting) |                                 | FY 2019 (2021 reporting) |                                 |
|----------------|--------------------------|---------------------------------|--------------------------|---------------------------------|--------------------------|---------------------------------|
|                | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) |
| Scope 1 & 2    | 1,616,151                | 1,322                           | 1,593,977                | 1,628                           | 1,957,214                | 1,686                           |
| Scope 3        | 817,162                  | 668                             | 915,590                  | 935                             | 5,335,730                | 4,596                           |
| Carbon Avoided | 1,140,000                | 932                             | 2,070,000                | 2,115                           | 2,170,000                | 1,869                           |

|                      | 2018 (2019 Disclosure) | 2019 (2020 Disclosure) | 2020 (2021 Disclosure) |
|----------------------|------------------------|------------------------|------------------------|
|                      | Absolute (MWh/yr)      | Absolute (MWh/yr)      | Absolute (MWh/yr)      |
| Renewable generation | 1,976,000              | 2,600,000              | 2,770,000              |

We are pleased to see that Xinyi Solar started reporting carbon emissions to CDP for the first time in 2020 following our continued engagements. Previously, the company only reported a form of Scope 1 & 2 emissions within its annual sustainability reports, as well as a form of carbon avoided from its solar-power projects business.

Carbon emission intensities for Scope 1 & 2 (as reported by the company) rose by 4% from last year. The majority of this relates to Scope 1 carbon emissions generated directly by the solar-glass furnaces. Xinyi started volume production of 2.0mm solar glass during the year, which has higher unit production energy and electricity consumption. We continue to engage with the business on efficiency improvements. Estimated Scope 3 carbon emission intensity increased, reflecting a rise in our inferred number based on sector averages.

The company self-reports a carbon-avoided figure, though this is based solely on its solar-power projects, not its primary business of solar glass. In 2019, Xinyi Solar reported carbon avoided of 2.17m tonnes from 2.6TWh of solar electricity generated. This significantly underrepresents the amount of carbon that Xinyi Solar avoids, since it supplies almost one-third of the global solar market.

Our 2020 Impact Report reflected 2019 disclosure (and therefore FY2018 data) for Xinyi Solar's renewable generation, when it did not report electricity generated from the solar-farm business. In the 2020 disclosure (FY2019 data), it subsequently reported renewable generation of 2.6m MWh, a 24% increase from the prior year. Based on the year-on-year change reported, the 2019 disclosure would have reported renewable generation of 1.98m MWh. This highlighted an error in our previous estimate and we have restated this number in the table above.

## Net zero targets

The company has not set a net-zero target. We expect this will take some time as it only recently began reporting to CDP.



Other Solar Energy Components  
100.0%

100%

Taxonomy eligible revenues

100%

Taxonomy aligned revenues

US\$23.0bn

Market capitalisation

US\$23.4bn

Enterprise valuation

31.3%

1 year sales growth

15.6%

5 year sales growth

22.4%

1 year RoE

24.4%

5 year average RoE

## Structural growth from decarbonisation

The IEA's 'Net Zero by 2050' pathway calls for scaling up renewable installations rapidly this decade – reaching 630GW annually of solar PV installations by 2030, a CAGR of over 16% – spurring demand for solar glass. The move towards bifacial solar panels (two glass panes instead of one) will further drive up demand. Double-glass photovoltaic modules can generate electricity from both surfaces, unlike single-glass modules, and usually produce 10-30% more power than single-glass modules.

As the world's largest producer of solar glass and with an estimated 30%+ market share, Xinyi Solar is significantly exposed to growth in solar-glass demand. The solar-glass industry is highly concentrated, with China's manufacturers accounting for c.90% of global capacity. To maintain its market leadership and capture the structural growth trends in its sector, Xinyi Solar plans to expand capacity from 9,800 tonnes/day at end-2020 to 13,800 tonnes in 2021 and 17,800 tonnes in 2022.

## Competitive advantage

Xinyi Solar's leading technical capabilities and size allow it to produce thinner glass at lower costs than its competitors. To reduce the weight of a solar module, double-glass modules use two pieces of 2.0mm glass, rather than the 3.2mm glass used in single-glass modules. The thinner glass requires processing at advanced facilities, which Xinyi has developed. Given that 2.0mm glass consumes 37.5% less raw material than 3.2mm glass, but without a commensurate pricing differential, we expect 2.0mm glass to continue enjoying a higher gross margin.

In the past few years, Xinyi Solar has acquired several mines producing low-iron silicon sand (a key input) in Guangxi, which will help lower costs, reduce price fluctuations and ensure long-term stable supply. This capacity expansion will also help to enhance economies of scale and operational synergies.

## Sustainable returns

Thanks to its competitive advantages, Xinyi Solar enjoys a high gross profit margin and return on capital relative to its second-tier peers. The company can take advantage of its technological experience, scale effects and lower costs at its Malaysian factory, and it has a strong bargaining position regarding input costs relative to its smaller peers. We believe the company will continue to use these advantages to streamline and automate production processes, and we expect it to remain disciplined on capital allocation.

## Engagement progress

Our CDP reporting engagements over the past two years came to fruition as Xinyi Solar submitted its CDP questionnaire for the first time in 2020. As disclosed in its CDP reporting, Xinyi Solar's aim is to generate more than enough solar electricity via its own solar farms to exceed the emissions from the glass-manufacturing process. We continued to engage with Xinyi Solar to explore net-zero glass-manufacturing methods, such as electric arc or hydrogen-based furnaces. Xinyi Solar's CEO has acknowledged the importance of reaching this target eventually, but has said that safety and costs are currently the main barriers to exploring the required technologies further at the moment.

Employee training and development was another engagement topic in 2020, as one of the key risks in the solar glass industry is talent loss to new entrants. Xinyi Solar has a strong preference for 'home-grown' candidates for management roles. As with other companies, we advocated for the adoption of ISO 26000 (social responsibility guidelines).

## Proxy voting

In May 2020, we voted against Xinyi Solar's proxy item request to issue equity and authorise the reissuance of repurchased shares. The limit on equity issuance was 20%, which is a higher dilution risk than our policy prefers, and the company had also not specified the discount amount. We abstained in a vote on the chairman, Yin Yee Lee, as we had identified a number of issues with the board: 1) the executive chair is also the chair of the nomination committee; 2) the board is less than majority independent; and 3) technically the audit committee is formally independent, but other directors can attend those meetings by invitation.

## 2021 engagement goals

1. Full carbon disclosure (Scope 3 and carbon-avoided) to CDP.
2. Monitoring Scope 1 & 2 intensity and potential emissions-target setting.
3. Greater board diversity.

# Zhejiang Sanhua Intelligence Controls

## Environmental thesis

Zhejiang Sanhua Intelligence Controls is a leading global supplier of heating, ventilation and air conditioning (HVAC) components and automotive heat-management systems. Sustainable decarbonisation will require a rapid transition in both the auto and HVAC sectors, away from internal combustion engines and traditional HVAC equipment to EVs powered by renewable energy and more efficient HVAC units. Sanhua's efficient automotive heat-management solutions help maintain an optimal working temperature for battery packs. Specialised components made by Sanhua such as electronic expansion valves (EXVs) are also necessary, and in some cases mandatory, for end-customers to make products with the desired energy-efficiency attributes.

## EU Taxonomy assessment

Sanhua's revenues by end-markets are split into: (1) 'HVAC and others' (80%); and (2) 'Automotive' (20%, of which 10% are EVs). We are only comfortable in categorising the 10% of revenues relating to EV heat management as aligned with the taxonomy. HVAC-related revenues are mainly generated in China, which generally has lower standards than Europe, and disclosure on other parts of the business is insufficient to determine alignment.

## Environmental data progression

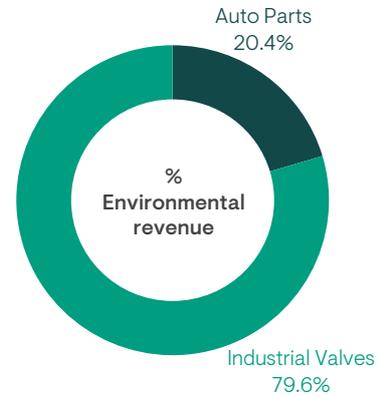
| Carbon data    | FY 2018 (2020 reporting) |                                 | FY 2019 (2021 reporting) |                                 |
|----------------|--------------------------|---------------------------------|--------------------------|---------------------------------|
|                | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) | Absolute (tCO2e)         | Intensity (tCO2e/US\$m revenue) |
| Scope 1 & 2    | 40,518                   | 25                              | 150,536                  | 92                              |
| Scope 3        | 21,185,161               | 12,923                          | 66,635,244               | 40,773                          |
| Carbon Avoided | 47,900                   | 29                              | 381,453                  | 233                             |

We have seen great progress regarding carbon emissions reporting since we initiated our position in Sanhua in October 2020 and began engaging on this issue. The company reported to CDP for the first time in July 2021. As a first time responder, it completed a shorter version of the CDP questionnaire, which omits details on low-carbon products and Scope 3 analysis. We will continue to work with the company to understand its Scope 3 footprint and potentially set emissions targets in the future.

The reported Scope 1 & 2 intensity is higher than our estimate, mainly from higher Scope 2 intensity due to eastern China's higher proportion of coal-fired power generation. Estimated Scope 3 carbon emission intensity increased dramatically with higher sector averages feeding into our estimates.

## Net zero targets

The company has not set net-zero targets. This will be a future engagement target following full emissions reporting.



80%

Taxonomy eligible revenues\*

10%

Taxonomy aligned revenues

\*Based off Bloomberg's EU taxonomy eligibility assessment. However, the company has 100% environmental revenues based on our universe selection process.

US\$13.6bn

Market capitalisation

US\$13.5bn

Enterprise valuation

6.8%

1 year sales growth

10.8%

5 year sales growth

15.1%

1 year RoE

16.7%

5 year average RoE

## Structural growth from decarbonisation

Revenue growth in 2020 was weaker due to COVID impacts. The autoparts segment grew revenues 50% year-on-year to CNY2bn, while HVAC revenues were flat. We expect continued strong growth in the autopart segment, to CNY16bn by 2025. The HVAC segment has been under some pressure, with HVAC original equipment manufactures (OEMs) continuing to face inventory impacts and weaker end-customer demand. But we continue to see Sanhua as a beneficiary of rising energy-efficiency standards in China.

## Competitive advantage

Sanhua is a one-stop shop for most HVAC and automotive heat-management system components such as pipes, valves and heat exchangers. It has a global market share of 50%+ across many of these components, especially leading products such as EXVs. The scale of Sanhua's core HVAC business results in a consistent cost advantage over competitors. Sanhua has developed a portfolio of products for all types of automotive heat-management demands. The company's Tesla and NIO contracts demonstrate its ability to move up the value chain and become a tier-1 supplier of heat-management modules. Resources shared between the two business segments also give Sanhua greater R&D efficiency and higher absolute R&D spending than competitors, which are usually only focused on one of the two markets.

## Sustainable returns

Sanhua has a strong record of improving margins and delivering stable returns. Gross margins have been rising towards 30% since the Global Financial Crisis, and the company has generated a return on equity of 10-18% and a return on invested capital of 9-15%, even including FY2020 (i.e., despite COVID challenges). Sanhua has achieved these results largely through organic development, rather than M&A.

## Engagement progress

There has been significant progress in 2021 on our key engagement topics, notably regarding CDP reporting and board gender diversity.

We identified CDP reporting as our engagement priority when we first purchased Sanhua, given its (then) lack of sustainability data disclosure (like many other Chinese A-share companies). Sanhua has never published a sustainability report before, so we focused on reporting to CDP as a first step. After a number of preliminary meetings, in April 2021 we had the chance to discuss this issue directly with Kaicheng Hu, senior VP and board secretary. Mr Hu passed on our suggestions to the Chairman/General Manager, who subsequently set up a working group to complete the CDP questionnaire. In July 2021, Sanhua submitted its CDP questionnaire for the first time. We were positively surprised by the speed of the progress, and we will continue to work with Sanhua to improve its disclosure.

Board gender diversity at Sanhua was poor last year, with only one-third of the directors independent and no female representation on the board. We raised the issue in every call we had with Sanhua, and in March 2021 the company added a female independent director (Yalan Pan) to the board. Ms Pan has been added as a financial expert (she is currently a Professor of accounting and Associate Dean of the school of accountancy at Hangzhou Dianzi University in Zhejiang Province, China).

## Proxy voting

We submitted just one proxy vote, in November 2020, and voted with management on all items.

## 2021 engagement goals

1. Full carbon disclosure (Scope 3 and carbon-avoided) to CDP.
2. Monitoring Scope 1 & 2 intensity, and potential emissions-target setting.
3. Greater board diversity.

# Appendix

## There are many different methodologies to assess net-zero alignment

### **% of companies with science-based targets (SBTs)**

We believe high-quality clearly disclosed science-based plans with measurable targets are essential to assessing net-zero alignment. This approach acknowledges the unique pathway available to each industry and company. However, there are significant sector and market-cap biases. Large European companies will be most likely to have SBTs. It will also be vital to monitor progress against the plans; not everyone will deliver against their plan.

### **Scope 1 & 2 emissions intensity reduction targets**

Scope 1 & 2 emissions intensity is a poor proxy for climate risk. However the Scope 3 data is not comparable enough across companies to monitor at the portfolio level, even though it is useful in monitoring company progress. Scope 1 & 2 emissions intensity also has significant sector and regional biases, and emissions can easily be sold or outsourced. The attribution of the reduction is more important than the pace.

### **Absolute cumulative emissions**

Ultimately to influence real world emission we need to see a reduction not just in emissions intensity but in absolute emissions, and the pace of the reduction matters as it is the stock rather than the flow of greenhouse gases that matters. In the short term, this metric will penalise companies that grow more quickly or gain market share but it is important to report.

### **Transition scores**

A number of different organisations, such as Transition Pathway Initiative (TPI) and Climate Action 100+ (CA100+), rank companies' transition capabilities. All of these systems have merits but coverage tends to be limited, they are very focused on the existence of policies rather than progress on data, and typically they rely on a single integrated assessment model. We review these scores as part of our fundamental analysis but do not rely on any one score.

### **Temperature scoring**

There are a number of tools that take emissions intensity data and translate it into a temperature-alignment score. We do not believe these methodologies are currently robust.

**Australia**

Level 28 Suite 3, Chifley Tower  
2 Chifley Square  
Sydney, NSW 2000  
Telephone: +61 2 9160 8400  
australia@ninetyone.com

**Botswana**

Plot 64511, Unit 5  
Fairgrounds, Gaborone  
Telephone: +267 318 0112  
botswanaclientservice@ninetyone.com

**Channel Islands**

PO Box 250, St Peter Port  
Guernsey, GY1 3QH  
Telephone: +44 (0)1481 710 404  
enquiries@ninetyone.com

**Germany**

Bockenheimer Landstraße 23  
60325 Frankfurt am Main  
Telephone: +49 (0)69 7158 5900  
deutschland@ninetyone.com

**Hong Kong**

Suites 1201-1206, 12/F  
One Pacific Place  
88 Queensway, Admiralty  
Telephone: +852 2861 6888  
hongkong@ninetyone.com

**Italy**

Palazzo Toschi Corneliani  
Corso Venezia 44  
20121, Milan  
Telephone: +39 02 3658 1590  
enquiries@ninetyone.com

**Luxembourg**

2-4, Avenue Marie-Thérèse  
L-2132 Luxembourg  
Telephone: +352 28 12 77 20  
enquiries@ninetyone.com

**Namibia**

First Floor, 6 Thorer Street  
Windhoek  
Telephone: +264 (61) 389 500  
namibia@ninetyone.com

**Singapore**

25 Duxton Hill #03-01  
Singapore 089608  
Telephone: +65 6653 5550  
singapore@ninetyone.com

**South Africa**

36 Hans Strijdom Avenue  
Foreshore, Cape Town 8001  
Telephone: +27 (0)21 901 1000  
enquiries@ninetyone.com

**Sweden**

Grev Turegatan 3  
114 46, Stockholm  
Telephone: +46 8 502 438 20  
enquiries@ninetyone.com

**Switzerland**

Dufourstrasse 49  
8008 Zurich  
Telephone: +41 44 262 00 44  
enquiries@ninetyone.com

**United Kingdom**

55 Gresham Street  
London, EC2V 7EL  
Telephone: +44 (0)20 3938 1900  
enquiries@ninetyone.com

**United States**

Park Avenue Tower, 65 East 55th Street  
New York, 10022  
US Toll Free: +1 800 434 5623  
usa@ninetyone.com

**www.ninetyone.com**

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