



PROJECT: NET ZERO CARBON

CLIMATE CHANGE ENGAGEMENT

Montanaro Investment Team
2020

INTRODUCTION

Montanaro Asset Management is a B Corporation, a business certified for meeting the highest verified standards of social and environmental performance, transparency and accountability.

At the 2019 United Nations Climate Change Conference in Madrid (COP 25), Montanaro joined fellow “B Corps” in announcing a Net Zero Carbon target for its business which it will seek to achieve by 2030.

Montanaro has also set a target that 10% or more of the **Montanaro Better World Fund** by value will be invested in companies that have achieved Net Zero Carbon by no later than 2030¹. To achieve this, Montanaro’s Investment Team has begun a long-term engagement: **“Project: Net Zero Carbon”**.

This paper focuses on our Net Zero Carbon engagements during 2020, which build on engagements undertaken in 2019. These conversations are the first step towards meeting our target. Our efforts to achieve our Net Zero Carbon target at a corporate level will be discussed in a separate paper.

The majority of our engagements were with our investee companies, including certain holdings no longer owned by the Fund or that we rejected. We also spoke to other stakeholders such as policy experts.

About the Better World Fund

The Montanaro Better World Fund invests globally in Small & MidCap companies that make a positive impact in the world. Companies within the Fund are aligned to six themes that support the overarching framework of the United Nations Sustainable Development Goals (SDGs). The Fund is invested in line with Montanaro’s “Quality Growth” investment philosophy.



Front Cover: Cracks growing across Antarctica’s Brunt Ice Shelf are poised to release an iceberg with an area about twice the size of New York City. It is not yet clear how the remaining ice shelf will respond following the break, posing an uncertain future for scientific infrastructure and a human presence on the shelf that was first established in 1955.



¹ The full target states: that 10% or more of the Better World Fund by value will be invested in companies that are carbon neutral, or have net zero carbon emissions, or have realistic, credible strategies using currently available technologies to achieve net-zero carbon emissions by a defined target date no later than 2030.

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SUMMARY

The focus of our Net Zero Carbon engagement efforts to date have been to better understand how businesses are responding to the challenge of Climate Change; to identify the “leaders” and “laggards” across the Better World Fund; and to support our companies as they set targets and improve standards of reporting.

We conducted detailed engagements with 17 companies held in the Fund over the last year, representing 27% of the Fund by value as at 31 December 2020². We also had calls with policy experts and academics as we sought to understand the courses of action open to companies as they tackle Climate Change. Management teams were extremely willing to engage with us and we thank them for their time during what was an unprecedented year as they grappled with the impact of Covid-19 on their businesses.

What strikes us looking back on our conversations is just how complicated the route to “Net Zero Carbon” is. There is so much for companies to think about: getting staff on board with energy-saving plans (one of our companies runs energy saving “treasure hunts” for its employees); working out where to begin with global supply chains; considering what impact an acquisition might have on a company’s environmental footprint; understanding the different definitions and standards that exist; coping with the complexities of data collection across the range of Scope Emissions; and managing the extra workload this places on smaller companies who often have less internal resource.

One point of commonality was that many companies are putting in place Climate Change goals that are aligned to Science Based Targets. Pleasingly, some of our companies have signed up to the Science Based Target Initiative³, which will verify their progress towards a defined goal. This is a partnership between the CDP, the United Nations Global Compact (UNGC), the World Resources Institute (WRI) and the World Wide Fund for Nature (WWF). We find this attractive because these targets are publicly disclosed⁴; they are aligned to the Paris Climate Agreement; and progress is externally assessed and verified.

It was also interesting to see consistencies emerge in the way companies are tackling the separate challenges posed by Scope 1, 2 and 3 Emissions. Some companies have focused on Scope 2 Emissions first, which they view as low hanging fruit: for some businesses, switching their purchased energy supplier from fossil fuels to one powered by renewable energy was a relatively simple step. They now plan to focus on the challenging aspects of Scope 1 and Scope 3 Emissions.

Clearly, there is a long way to go on the path to Net Zero Carbon. In some regions, companies require more support and leadership from government; others need greater infrastructure

² This figure excludes engagements with four companies that have since been sold from the Fund.

³ <https://sciencebasedtargets.org/>

⁴ <https://sciencebasedtargets.org/companies-taking-action#table>

investment so that they can switch to renewable energy providers; certain teams are striving to make base-line calculations to include in sustainability reports; while some have already achieved targets and now aim to set more challenging goals.

We will be discussing all of this – and more – with our companies in the months ahead as we continue with our engagement project.

Ed Heaven
January 2021

Ryman Healthcare (New Zealand)

16 December 2020

Builder and operator of retirement villages and care homes in New Zealand and Australia.

Ryman Healthcare: Michelle Perkins, Investor Relations Manager

Montanaro: Gaspar Arino; Mark Rogers; Ed Heaven

Carbon is only mentioned once in Ryman Healthcare's Annual Report and there is a very brief statement on its website relating to a carbon reduction plan, but no detail is provided. Michelle immediately noted that Ryman is not reporting or disclosing enough information about its carbon reduction plan and its environmental approach.

This is curious given that in 2018 Ryman Healthcare became a Certified Emissions Measurement and Reduction Scheme (CEMARS) company. This is a certification that independently audits the carbon emissions footprint and ensures accurate measurement and reporting. This is offered each year through Toitū Envirocare.

As a part of this "Toitū Certification", Ryman compares its emissions against a reduction target and measure its progress. The original three-year target was to achieve a 5% reduction in carbon emissions per NZ\$1 million revenue by 2021 across Scopes 1, 2 and 3. Michelle was very honest and stated that this has proved easy to meet and the company aims to introduce more stringent targets for the future.

2021 will be a big year for the company's environmental plans. Michelle explained that there are lots of environmental initiatives taking place across the group (both in New Zealand and Australia) and these needed to be pulled together under a defined strategy. A driver for this is that the New Zealand government, fresh from announcing a Net Zero Carbon target for 2050, has made climate-related financial disclosures mandatory for some organisations, including publicly listed companies, large insurers, banks and investment managers.

Michelle noted that at present, it is ironically only the big emitters in New Zealand that have completed detailed work on their carbon footprints (for example Tourism Holdings which rents out campervans to tourists). Ryman have recently formed a Sustainability Committee to lead on this, of which the CFO is a member, giving it gravitas within the company.

Ryman is constantly working on ways to reduce its carbon footprint and reduce its emissions. The company has come up with a range of measures to cut back on emissions and developed a GHG emissions management plan. These measures include:

1. **Reduce Energy Consumption** at the group level:

- Air travel has significantly reduced and is substituted by electronic communications. They offset air travel (of which there was a lot pre-Covid, although this is down 95%)

via a programme with Fly Neutral and senior management have realised the benefit of Zoom: you do not need to fly from Auckland to Christchurch for a single meeting.

- **Vehicle fleet:** Ryman has a vehicle fleet of around 183 vehicles, of which 55 are hybrid and 5 electric. It is slowly transitioning the fleet from petrol-diesel to hybrid/electric vehicles. The company has introduced a taxi service (“eCab”) in some of their villages. This is a service that allows residents to hire a driver to get them around safely using electric vehicles. Ryman also offers low-emissions cars that residents can hire for a minimal charge.
- **Solar panels:** these have been trialled on care homes in New Zealand, but interestingly, there is not much point in this. 100% of Ryman’s electricity supply in New Zealand is renewable already and they questioned the environmental impact of installing solar panels, which at some point must be replaced, while battery storage options are also limited. (New Zealand sources 80% of total energy from renewables including hydropower and geothermal). Solar panels are of more benefit in Australia, where the energy supply is still very much coal based. Interestingly, environmental building regulations are tougher in Australia, however, given the 2023 carbon reporting requirements will include the group, Ryman may need to use some offsets in Australia. We provided some feedback to the company on carbon offsets and suggested working with a partner that can help to identify local offset projects that benefit local communities.
- **LED Lighting** rollout is almost completed (>95%).
- Optimise laundry energy use (i.e. time of washing etc.)

2. **Reduce waste** within each village by increasing recycle among the staff, residents and suppliers (construction sites). 80% of waste from construction sites is diverted away from landfill in New Zealand, while this figure is 90% in Australia. In addition, food waste is separated out from landfill rubbish and goes to farms and plantations to be used as compost. Green waste is sent to a company that turns it into compost which is then sent back to use in Ryman gardens.

3. **Staff and Resident education programme** at each village.

Ryman Healthcare managed to decrease its carbon footprint in its New Zealand villages by 18% and overall at the group level by 8% in 2019. This was achieved via the above methods, but Michelle noted that an annualised repeat would be difficult to achieve. Ryman needs to tackle its environmental footprint and improve its reporting, while also delivering to their clients, who want safe, warm and efficient homes. Ryman homes are built on typically small plots of land, which are less land intensive than sprawling housing estates. Many of their residents are old couples who have moved out of large, old family homes, into newly built Ryman apartments that are much more energy efficient. Their old homes are then taken over by young families who utilise the asset in a more efficient way. A nice angle to the positive impact case.

Next steps: Share best practice reporting examples; monitor progress with reporting in 2021.

Azbil (Japan)

9 December 2020

Azbil operates in the automation industry. Their products help to reduce the environmental footprint of buildings.

Azbil: Taizo Musha, Head of Investor Relations

Montanaro: Andrea Shen

The Azbil Group is focused on helping to reduce the environmental footprint of its customers and has also signed up to the Science-Based target initiative “Business Ambition for 1.5°C” (the same as Chr. Hansen) as the company seeks to reduce its own environmental footprint.

Azbil has a goal to contribute to the effective reduction of 3.40 million metric tons of CO₂ per year at customers’ sites. The Science-Based target is a pleasing initiative. The company has committed to reducing absolute Scope 1 and 2 emissions by 30% by 2030 from a 2013 base year. It has also committed to reducing absolute Scope 3 emissions by 20% by 2030 from a 2017 base year.

The targets covering greenhouse gas emissions from company operations (Scopes 1 and 2) are consistent with reductions required to keep warming to 2°C (so less onerous than Chr. Hansen who have a 1.5°C target).

Next steps: Follow up with the company in 2021 and monitor reporting.

Xylem (USA)

4 December 2020

Delivers innovative water technology solutions through the water cycle: collection & distribution; reuse & return.

Xylem: Austin Alexander, Vice President, Sustainability and Corporate Social Responsibility

Montanaro: Stefan Fischerfeier; Mark Rogers; Ed Heaven

It was clear when reading Xylem’s Sustainability Report that the company has “best in class” reporting. The granularity of the data is impressive across environmental, social and governance metrics. The company has a number of targets for each and these have been thoughtfully determined. We spoke to Austin Alexander, who has been with Xylem for 8 years, first as an Investor Relations representative and latterly as VP of Sustainability. She reports directly into Claudia Toussaint, who is Chief Sustainability Officer and sits on the Senior Leadership Team.

Xylem has a number of goals in place for 2025 that have replaced an existing set of goals for 2019. Goals are split into three categories:

1. Customer: these are product focused, e.g. Improve product energy efficiency of specific Xylem product lines;

2. Company: these are operationally focused, e.g. Reduce Xylem water use intensity by 25% by 2019;
3. Communities: focused on other stakeholders, e.g. Increase impact of Xylem Watermark, our corporate social responsibility program, through investments in non-profit partners.

The company's 2025 "Signature Goals" are worth referencing in their entirety:



Austin explained that the goals have been well-thought out and there is direct oversight from the Senior Leadership team, including internal governance guidelines to ensure all facilities are reporting on defined metrics and timelines. There is a monthly review of progress by the Environmental, Health and Safety team and a quarterly review by the Senior Leadership Team.

Austin has been heavily involved in the formulation of these goals and delivering on them is a key part of her job. She noted that she is an engineer by training and therefore wants to ensure that Xylem can source the necessary data and it is 100% auditable by third parties before they announce a target. As we have seen, some companies like to announce a target before working out exactly how they can achieve this. As an example, Austin referenced some work being undertaken with MIT on the auditing of their goals.

The entire "2025 Goals" framework is listed below and shared as a good example of how clear and easy to understand such frameworks can be for investors:

CUSTOMERS	COMPANY	COMMUNITIES
<p>SIGNATURE GOALS</p> <ul style="list-style-type: none"> → Reduce over 3.5 billion m³ of non-revenue water, equivalent to the domestic water use needs of over 55 million people annually → Treat 13 billion m³ of water for reuse, equivalent to the domestic water use needs of over 197 million people annually → Prevent over 7 billion m³ of polluted water from flooding communities or entering local waterways → Provide access to clean water and sanitation solutions for at least 20 million people living at the base of the global economic pyramid <p>OTHER GOALS</p> <ul style="list-style-type: none"> → Reduce water's CO₂ footprint by over 2.8 million metric tons, equivalent to 46 million tree seedlings growing for 10 years 	<p>SIGNATURE GOALS</p> <ul style="list-style-type: none"> → Ensure 100 percent of Xylem employees have access to clean water and safe sanitation at work, at home and during natural disasters → Use 100 percent renewable energy at our major facilities¹ → Use 100 percent process water recycling at our major facilities¹ <p>OTHER GOALS</p> <ul style="list-style-type: none"> → Achieve 50 percent gender parity in leadership positions² → Achieve 25 percent US minority representation in leadership positions² → Assess and monitor equitable pay practices with a goal to eliminate pay differences based on gender, race or ethnicity → Reduce injury frequency to an incident rate of 0.5 or below → Require preferred suppliers³ to take the WASH Pledge → Ensure packaging material consists of 75 percent reusable, recyclable or compostable content → Achieve zero waste to landfill from processes at our major facilities → Develop science-based target⁴ for GHG reduction (Scope 1,2,3) → Engage preferred suppliers³ in sustainability initiatives through audit program and corrective action plans → Provide all employees with rich learning and developmental opportunities to build Xylem's ability to solve water for decades to come. 	<p>SIGNATURE GOALS</p> <ul style="list-style-type: none"> → Give 1 percent of our company profits to water-related causes and education → Provide paid time off for Xylem employees to volunteer 1 percent of their time <p>OTHER GOALS</p> <ul style="list-style-type: none"> → Deploy humanitarian aid to 200 areas affected by water-related natural disasters → Provide 15 million people with water education to improve quality of life and raise awareness → Engage at least 95 percent of Xylem employees in volunteer activities → Engage 100,000 stakeholders in volunteer events

In addition to these goals, we noted that the company is considering announcing a Science-Based green-house-gas (GHG) reduction target next year. We wanted to understand how this was being formulated across the three Scopes.

Austin noted that on the product side they want to reduce water consumption and the carbon footprint of production processes. Again, they are trying to monitor this accurately by focusing on a limited product set, ensuring the integrity of the data, before rolling this out across more product lines. Interestingly, they are seeking to hire a Product Sustainability Expert to sit within the innovation team. This person will conduct life cycle product analysis to help better understand how efficiency gains can be made. There is a sustainable benefit to this but also a direct business benefit as such initiatives should to help save money.

In terms of direct Scope 1 and Scope 2 emissions, the Sustainability Report notes the progress in transferring certain sites to renewable energy providers. We asked Austin where the greatest challenges have arisen. The goal is for all major facilities to be 100% renewable by 2025. The biggest challenge is that a few sites just do not have available infrastructure to move away from fossil fuels (Xylem has therefore have done some credit purchasing). She did say progress had been very pleasing across the group in 2020 and “we may well meet the target earlier than 2025”, mainly due to the increasing affordability of renewable energy this year.

To get “buy-in” from the team on the energy reduction targets, Xylem run “treasure hunts” where a member of the Environmental Team spends a day with a plant manager and they search for “treasures” – things that can be immediately changed to reduce energy and improve sustainability. Although a bit gimmicky, these treasure hunts have created a fun culture that they are all part of. Some of their locations have just 10-15 people working at them and getting them excited by group level projects is important.

Xylem have done a huge amount of work on Scope 3 emissions and outlining their GHG plans to suppliers at the annual supplier conference in 2020. Xylem is asking their largest and

preferred suppliers to measure their own Scope 1 and Scope 2 emissions (which are essentially Xylem's Scope 3). They currently have EEIO⁵ reporting in place with suppliers and Austin described participation on this as "ok". They are transitioning this into the CDP supplier system for both climate and water next year and suppliers seem very positive about this. Completion of CDP reporting will become a requirement for suppliers wishing to be on the preferred list in the future.

We also asked about non-carbon related goals, such as water saving. We wanted to understand what "non-revenue water savings" are. Austin explained that these are savings created by the digital solutions portfolio. As an example, Xylem owns a business called Visenti in Singapore. This is a tech based business that uses algorithms to predict leaks before they happen and become catastrophic. The software provides accurate data on how much water has been saved by early detection.

Although not related to carbon, it is worth noting that Xylem also has interesting social targets in place, particularly around gender diversity and ethnic minority representation. We took the chance to ask about these. Xylem wants to achieve 50% gender parity among the Senior Leadership Team globally by 2025, something Austin described as very ambitious. They also want to have ethnic minorities accounting for 25% of the US workforce by 2025. Austin explained that this is only in the US as minority definitions vary by country and a global goal on this is difficult to formulate. They have had some naysayers among the workforce, but the majority of people think these targets are a good idea. It has led to diverse candidate requirements when interviewing (they always hire the best staff, but want to interview a diverse mix of people) and they are also working with the water environment agency to increase the inflow of black and underprivileged black students into certain university courses. The CEO, Patrick Decker, is very motivated by all of this.

Ultimately it is the Board who are responsible for ensuring the goals are achieved. The CEO and Chief Sustainability Officer have incentives tied to the Sustainalytics ESG score and they are exploring additional metrics for 2025. Every goal has someone on Patrick's team tied to its delivery. In the last two weeks, they have changed their messaging to place "Sustainability" at the centre of every initiative. This is a small tweak but it is an important message both internally and for their clients.

Next steps: Monitor goals announcement/Science-based target; CDP participation rate among suppliers. The page on Xylem's ESG Committee is something that we can learn from.

⁵ Top-down calculations use environmentally extended input-output (EEIO) analysis to assign the carbon emissions to products and services. These types of assessments provide a broad estimate of the overall carbon footprint and are well suited for complex systems where it can be difficult to carryout individual life cycle assessments. However, top-down calculations are not able to show the impact of specific product types/ individual products or the impact of local policies.

Siemens Games Renewable Energy (Spain)

3 December 2020

A leading supplier of wind power solutions to customers all over the globe. They are the leading provider of offshore wind.

Siemens Gamesa: Isaac Ruiz, Head of ESG; Cristina Perea Saenz, Investor Relations Director
Montanaro: Mark Rogers; Gaspar Arino; Ed Heaven

Siemens Gamesa Renewable Energy is another company that has clear targets to reduce its environmental footprint. Given the nature of its business (wind turbines) this goes hand-in-hand with its product offering.

The company's emission reduction targets are aligned with Science-Based estimates for a 1.5°C trajectory⁶. Siemens Gamesa has set ambitious targets for the next five years until 2025 in an effort to meet its net-zero goal by 2050, which include:

- Reducing scope 1 and scope 2 greenhouse gas emissions by 70% per MW installed (compared to 2017);
- Increasing the annual sourcing of renewable electricity to 100% (up from 58% in 2017);
- 30% of Siemens Gamesa's suppliers by spend covering purchased goods and services and transportation and distribution will have Science-Based targets by 2025.

The company previously had a "carbon neutral" target for 2025 which was achieved at the end of 2019. We wanted to understand how this was achieved so early. Firstly, the company increased its energy supply to 100% renewable by the end of 2019. They also offset emissions: "net positive" CO₂ is produced through certain operations which has built up a pool of carbon credits of their own. These come from projects developed under the verified CBM Green United Nations Framework and include a large wind farm in Mexico that was installed some years ago. (It is worth noting that carbon credits are available to the customer and also the supplier). This is quite a unique project and every year Siemens Gamesa uses these credits to offset emissions. They have built up ~600,000 tonnes of credits, a base which would cover their current level of emissions for 12 to 15 years.

We then wanted to understand how this carbon neutral target differs from the Net Zero Carbon 2050 target. Isaac explained that Scope 2 is essentially done with the transition to 100% renewable energy. Scope 1 is a focus for 2050: they want to bring electricity from renewables to their vehicle fleet and ensure product development is Net Zero Carbon. Scope 3 is a big part of emissions and Siemens wants at least 30% of its suppliers to sign up to Science-Based targets of their own by 2025. This is ambitious. Isaac noted that the supply chain is complicated: it is a daunting proposition, however there is big pressure from customers who want Siemens to do this.

⁶ <https://sciencebasedtargets.org/companies-taking-action#table>

On the product side, we mentioned certain articles in the press suggesting that manufacturing wind turbines is so energy intensive that it takes a long time for a wind turbine to offset its resource inputs. Isaac dismissed this idea pretty swiftly: while it depends on the model, Siemens Gamesa's life cycle assessment has found that the energy intensity of the production process is offset within a few months of a wind turbine operating.

Isaac did agree that a potentially bigger challenge comes with the decommissioning of wind turbines, as the carbon fibre blades cannot be recycled (although this is the responsibility of their clients). He noted that for Siemens Gamesa, most of its installed turbines are less than 15 years old and are not close to the end of their lifespan (not even 1% of European turbines are older than 1995). Regulation in Europe is changing on a country by country basis: landfilling of blades will be forbidden next year in Spain and France. As of now, close to 90% of a wind turbine can be recycled. A lot of work is being done across the industry and other partners to look at how blade material can be used for different uses in the future. Internally, they are looking at new solutions that will replace fibre glass with other recyclable resins. Given the young age of their wind turbine fleet, they have time to do this properly.

We ended the call by asking who is ultimately responsible for these targets. Isaac said that the Net Zero goal fell under the remit of the Global Director of Quality Management, who reports to the COO. All programmes are approved and monitored by the Executive Team. There will be more ESG targets included in compensation packages in the years ahead, including variable pay ESG targets. The Senior Executives currently have some incentives tied to the company's Dow Jones ESG Score.

Next steps: Monitor progress in 2021.

Badger Meter (USA)

2 December 2020

[Flow metering and control solutions for smart water management, smart buildings and smart industrial processes.](#)

Badger Meter: Ken Bockhorst, Chairman, President and CEO; Karen Bauer, Vice President - Investor Relations, Corporate Strategy & Treasurer

Montanaro: Stefan Fischerfeier; Mark Rogers; Ed Heaven

In a similar vein to Xylem, the nature of Badger Meter's business means that environmental initiatives and targets fit naturally into its business strategy. There are both impact and business reasons for doing this and Badger is currently looking to identify baseline figures from which to set future sustainability goals.

Currently, Badger Meter publish a biennial Sustainability Report, the last one being published in 2019. It is a relatively small business and at present does not have the capacity to publish these each year. In the next report (2021) they will outline defined 5-year environmental targets. The focus this year has been on identifying and establishing what these targets

should be. This will build on the 2019 Environmental Policy which had targets to reduce water, energy and waste intensity by 3% annually across Badger's operations. They also want to get the Sustainability Report assured or audited – there is a project to work out how to make this auditable, but again, one challenge is the size of the team.

In terms of Net Zero Carbon, in 2020 Badger began collecting Greenhouse Gas (GHG) data to set a baseline for global emissions. They developed methods to collect this internally and also bought some software to help train staff in different locations around the world for Scope 1 and Scope 2 data inputs. The idea will be to constantly reduce in accordance with some long-term target, to be defined.

Ken talked through what work is already being done to reduce the environmental footprint. They have picked much of the low-hanging fruit: installed solar roofs at large facilities in Milwaukee and Mexico; installed LED lighting. They will focus on these larger facilities and then roll out successful projects to smaller assembly facilities.

Scope 3 is more challenging and they will only focus on the supply chain after Scope 1 and Scope 2. They have completed some work with suppliers who are measured against an internally determined score card and they have introduced initiatives such as reusable packaging.

Badger Meter provides specific data points around certain environmental initiatives and we wanted to understand how these are calculated and verified (*e.g. "we estimate that this could potentially mean more than 5 billion gallons of water are saved annually. This equates to >11.5 million kilowatt hours saved each year due to a reduction in energy needed to heat, pump and treat that water. That is over 7,850 tonnes of CO2 avoided"*). Karen noted such metrics are difficult precisely calculate. The savings amount is based on studies from the US Environmental Protection Agency and American Water Works Association. The reality is that solid hard data does not exist, but they are comfortable with these estimates and the indicative savings the products can have.

Karen did note that they are trying to put in place more robust estimates and Ken stated that the birth of their cellular offering allows them to monitor exactly how much water people are using with a high degree of accuracy and compare this to customers who do not have precise water meters and related technology (apps that tell you how much money you are spending on water; leak alerts etc.).

Ken was keen to stress that there are business reasons for introducing new environmental measures. He described them as "pay-back projects". They save the company money by increasing efficiencies and reducing costs. He was also keen to stress the wider positive environmental impact of the products: Badger's advanced metering infrastructure (AMI) products can be deployed through existing cellular systems, utilising existing infrastructure. Many competitor products need proprietary systems to run and are therefore much more carbon intensive to build out.

At the end of the call, Karen again referred to the challenge the company faces to report on its environmental plans. They said that the biggest time challenge is created by the ratings firms: Sustainalytics, MSCI, ISS, TCFD, GRI. There are so many questionnaires to complete and the ratings become public. This is a refrain we hear from a number of our companies.

Next steps: Monitor and review 5-year targets in 2021 Sustainability Report.

Ansys (USA)

19 November 2020

Provider of engineering simulation software helping to bring products to market cheaper, faster, with higher safety standards.

Ansys: Annette Arribas, Senior Director, Global Investor Relations (via email)

Montanaro: Guido Dacie-Lombardo

Ansys does not have a “Net Zero Carbon” target and so far their focus has been on the following:

Measure and Disclose Carbon:

- Completed a portion of this in the 2019 CDP Report through the Carbon Emission Inventory of Scope 1 and 2 emissions.

Reduce Energy Demand:

- As part of 2021 Budget Planning (pending final approval), they plan on evaluating opportunities for site specific energy audits to highlight and identify energy reduction targets and goals.
- Through a Risk and Opportunities assessment, they are gaining an understanding of the Board’s desire to establish carbon reduction initiatives (the financial commitment of energy reduction projects into the real estate portfolio and total worker hours), which they should be able to provide for 2022 Budget Planning after completing energy audits in 2021.

Generate Balance from Renewables:

- Identify Ansys’ on-site renewable energy potential for owned locations or purchasing of Renewable Energy Certificates (Rec’s) through an energy provider. This will be completed following the energy assessments and they have identified what the targets and goals are.

Improve Verification and Rigour:

- Evaluation of other opportunities such as water and waste will also be taken into consideration.

Next steps: We have asked the company to include details relating to the outcome of this work in the next Annual / Sustainability Report.

Ember Climate Group (China)

17 November 2020

Ember is an independent climate and energy think tank focused on accelerating the global electricity transition.

Ember: Muye Yang, China Carbon Policy Expert

Montanaro: Mark Rogers; Ed Heaven

Having previously spoken to Ember Climate Group in the UK in relation to our *Biomass Report*, we contacted Ember to ask if they could put us in touch with a policy expert in Asia following China's announcement of a Net Zero Carbon target for 2060. We wanted to understand how this might be achieved and the wider impact this might have on businesses and across Asia.

Given the focus on the UK government's green agenda and the apparent lack of detail as to how their goals will be achieved, it was interesting to hear that it is really no different in China. The Communist party has made climate change a central pillar of its latest 5 year plan and now everyone is rushing around trying to figure out how to achieve it, much like here!

It was explained to us that the only real difference is that if a certain province is failing to meet a clean air pollution target, the government just forces all of the factories to shut until they are back in line.

China also faces big infrastructure challenges as it transitions away from coal. Much of their renewable power will come from onshore wind in the north, far away from the demand centre of the heavily populated coastal regions. They have a target that by 2050, 80% of electricity will come from renewables. Currently 90% of electricity comes from coal.

It was interesting to hear about the impact China's plans might have on their trading partners. Hydrogen is forecast to play a major part in some industrial processes that are difficult to electrify. China intends to import hydrogen from Australia, who will use up much of their own renewable capacity to generate the exported hydrogen. Australia will therefore have to drive their own coal capacity harder to fill the gap. What tensions might this create in the years ahead?

Next steps: Consider which other stakeholders we can engage with to better understand governmental policy in Asia (for example the B Corp Asia group).

Melexis (Belgium)

4 November 2020

Supplier of sensors to the automotive industry, increasing road safety, helping to reduce fuel emissions and facilitate the transition to autonomous driving.

Melexis: Karen Van Griensven, CFO (via email)

Montanaro: Nere Asumendi

Melexis is fabless and the majority of its products help to reduce carbon emissions. The focus within the business has been on ensuring that products help their customers reduce their own environmental footprints. The company does, however, want to better understand the impact of its operations and they are considering measuring this to get an idea of baseline figures.

Next steps: Follow up with the company in 2021.

Middlesex Water (USA)

4 June 2020

A water utility in the United States.

Middlesex Water: Dennis Doll (Chairman, CEO) and Bernadette Sohler, Corporate Affairs

Montanaro: Charles Montanaro; Mark Rogers; Ed Heaven

Dennis and Bernadette have now met us a few times and they are always very generous with their time. We took the opportunity to ask how they think about impact and Net Zero Carbon targets given we are seeing more European companies adopt such measures.

As we find with many of our small US companies, they have not given this much thought. Management discuss the issue and importance of climate change given the growing pressures this is placing on water resources, but they have not defined targets for their own operations yet. One issue is that while they would like to transition their electricity supply to renewable energy, there is not currently the infrastructure to do this near their sites yet.

As Dennis spent some time on the Board of Thames Water, we talked about the work that Severn Trent has done in this area. Severn Trent have set ambitious environmental targets⁷, including a Net Zero Carbon target and we thought Middlesex could learn from their approach. After the meeting, we sent Bernadette the Severn Trent Sustainability report as an example of a water utility in the UK that has achieved “Best in class” ESG reporting.

New steps: Monitor environmental reporting in 2021 for improvements.

⁷ Severn Trent’s targets: “We have committed to a triple pledge that by 2030 we will achieve net zero carbon emissions, that 100% of our energy will come from renewable sources and we will have 100% electric vehicles, availability of vehicles permitting”.

Belimo (Switzerland)

12 May 2020

A global technology leader in actuators and control valves for heating, ventilation and air conditioning (HVAC) systems in buildings.

Belimo: Markus Schuerch, Chief Financial Officer; Gérard Moinat, Corporate Communication & Investor Relations Manager

Montanaro: Stefan Fischerfeier; Ed Heaven

Belimo do not yet have a Net Zero Carbon target in place. They are working with multiple partners to achieve their energy aims. The University of Lucerne is the main hub for facility management in Switzerland; REHVA is a European HVAC design platform working on an energy-efficient HVAC design framework; and credited local partners monitor Belimo's building and product energy consumption. The company does report its Scopes 1 and 2 emissions and has partial reporting on Scope 3 emissions. Full Scope 3 emissions reporting is complicated by the nature of Belimo's highly diversified supply chain.

Management explained to us that there is a strong focus on carbon reduction in their product development. All products are designed with a single intention: to improve the energy efficiency of buildings, which is important given 40% of global CO₂ emissions come from the "built environment". Heating and cooling systems are a major contributor to a building's energy demand, so efficient actuators can help. Belimo devices have a lifespan of 15 – 25 years, so the energy consumption of products over their lifespan are far greater than the energy intensity of the production process. Belimo measures the energy intensity of products during the production process and has found that their products reduce energy consumption and CO₂ emissions by a factor of 24 in relation to their resource input.

Interestingly, management informed us that application of products to control HVAC systems have been found to provide better energy savings payback than roof insulation, wall insulation and window sealing. This is partly achieved by a focus on energy efficiency in the design process. Belimo co-operates on product design with suppliers to reduce energy-wasting components and establish an industry design framework to optimise design trade-offs (metal vs plastic housings). Elements in the supply chain must comply with Science-Based design protocols. Every new building complies with ever-more stricter energy standards: *"sophisticated HVAC controls are needed to achieve the Gold and Platinum standard."*

Belimo's two major plants (Switzerland and US) focus on reducing costs and energy consumption (the US plant exchanged fluorescent lights with LEDs and installed solar panels on the plant roof). They are also trying to limit the use of air travel.

Next steps: Follow up with management in 2021 to see if there has been any progress with the Net Zero Carbon studies. They seem an obvious candidate for a Science-Based target of their own.

IPG Photonics (USA)

12 March 2020 [holding sold]

A manufacturer of lasers that are more energy efficient than CO₂ based alternatives, driving manufacturing efficiencies.

IPG Photonics: James Hillier; VP Investors Relations

Montanaro: Yannis Gidopoulos; Mark Rogers; Ed Heaven

IPG currently report on Scope 1 & 2 emissions only and they have not really thought beyond this. They are at the early stages of considering how to reduce their carbon footprint but were very open to our conversation and ideas around Net Zero Carbon. We are one of the first investors to discuss this with them.

They said that they would probably need to partner with a consultant/specialist organisation to help them understand how best to start thinking about a Net Zero Carbon target. We said that we would put them in touch with the Carbon Trust who have an office in the US.

Next steps: We introduced the company to the Carbon Trust.

China Everbright International (China)

10 March 2020 [holding sold]

A provider of waste to energy, power from biomass, and wastewater treatment facilities.

China Everbright International: Grace Lee, Head of Investor Relations

Montanaro: Andrea Shen; Mark Rogers; Ed Heaven

The company does not currently have any explicit targets in relation to its carbon footprint, although the IR informed us that this is being discussed internally and it is likely that the company will appoint an external consultant to help with this in the future. The IR also mentioned that the pace at which targets may be set will be influenced by governmental pressure *[it is worth noting that this call took place before China announced its Net Zero Carbon target for 2060]*.

The IR noted that, while 121 nations have set or are proposing goals to achieve Net Zero Carbon by 2050, this currently does include some of the large CO₂ emitters such as China, the United States and India. Current national targets account for less than 25% of total global emissions. Among these 121 countries, only a few such as Sweden, Denmark and New Zealand have made the Net Zero target a legal obligation as defined by The Net Zero Challenge, a report published by the World Economic Forum.

Next steps: None, as position sold, but speak to China policy experts to better understand how the government may influence corporate behaviour in China.

US Ecology (USA)

10 March 2020 [holding sold]

An environmental services business, offering treatment, disposal and recycling of hazardous, non-hazardous and radioactive waste.

US Ecology: Jeff Feeler, Chairman, President and CEO; Eric Gerratt, Executive Vice President, Chief Financial Officer and Treasurer; Andrew Marshall, Executive Vice President of Regulatory Compliance and Safety

Montanaro: Mark Rogers; Ed Heaven

This was probably our most disappointing Net Zero Carbon call. Management described climate change as an emerging item for their business. They said that the industry was not really focused on this, but perhaps they should be doing more. They noted that the US is far behind Europe when it comes to a focus on carbon emissions for businesses. To a great extent, the regulatory environment in the US shapes the approach to the environment and there are few laws which compel companies to address climate change.

They noted Microsoft's recent Carbon Negative announcement, which was described as a very bold approach (which it is). Management did say that they do need to address the environmental footprint of their operations, perhaps with the establishment of baseline figures, but there are no reporting requirements regarding greenhouse gases.

There is some focus on the transportation side, given US Ecology operates a large fleet of trucks. Fuel efficiency measures have been put in place, but there is a way to go in infrastructure terms before they can take steps to electrify vehicles. Unlike most landfill sites, theirs do not give off methane, an issue widely misunderstood by the market.

Next steps: None as business sold.

Halma (UK)

28 February 2020

Develops and manufactures safety sensors including fire detection; water network protection; preventable disease identification; and air quality measurement.

Halma: Charles King, Head of Investor Relations

Montanaro: Guido Dacie-Lombardo; Ed Heaven

Halma has an impressive focus on ESG and Sustainability that runs throughout the organisation, starting at the very top. There is a huge degree of Board scrutiny on the environmental footprint of the business and it is a topic that has been addressed at Board meetings since the 1990s.

Assessing the environmental footprint of Halma's operations is complicated. Halma is a conglomerate business, with ~45 subsidiary businesses. They have had carbon intensity

targets in place for 10 years. Currently, they are seeking to reduce their overall carbon intensity by 10% over three distinct three-year periods.

Reporting has improved and now covers Scope 1 & 2 emissions. In terms of specific reductions, they are seeking to transition their energy providers away from fossil fuels to renewable energy sources. Scope 3 will follow but it is much more complicated (there is one supply chain for each of their businesses).

Working across their businesses, they are focusing on ensuring the largest 6 businesses take steps to reduce their environmental footprint as they account for 50% of group carbon emissions (e.g. investing in solar panel installations).

Halma have appointed Eco Act (formerly Carbon Clear) to act as a consultant. They can provide a Science Based audit certification, but only once Halma have calculated their Scope 3 emissions. The company would like to specify environmental targets later in 2020 including a Science-Based target.

Halma are considering introducing Sustainability Metrics into Executive Remuneration incentives and ideally want all 45 companies to have climate change considerations embedded within their governance codes. This would cover: supply chains; product development; and even opportunities (future M&A and organic growth strategies). They think that TCFD reporting will become a requirement by 2022.

Next steps: Follow up with company in 2021 to see if targets have become more defined.

Nemetschek (Germany)

28 February 2020

The provider of innovative software for architects and engineers that helps to save time and money in large scale construction projects.

Nemetschek: Stefanie Zimmermann, Vice President Investor Relations; Ulrike Beringer, Director CSR

Montanaro: Guido Dacie-Lombardo; Mark Rogers; Ed Heaven

The company will report on Scope 1 and Scope 2 emissions for the first time in the March 2021 Annual Report. Ulrike was very honest and said that they are not yet sure how to report on Scope 3. This will be much more challenging as they have 16 brands across 70 locations. They feel they have to do this before announcing a Net Zero Carbon target. Pleasingly, the company is getting external auditing of their ESG and carbon data done by E&Y which we said was a very positive step.

We also learned that carbon offsets are not part of their strategy: they want to “avoid and reduce”. They are also looking at the energy intensity of their software and data storage systems and are seeking to switch their data centres to green energy providers.

A further interesting point was that they are seeing groups of companies form alliances to pressure the government to invest more in renewable energy, so that there are more options available for those businesses wishing to switch their electricity supply from fossil fuel to renewable tariffs.

At the Board level, we were informed that a focus on ESG has increased in the last 1.5 years and ESG now has its own agenda item.

Next steps: Follow up after publication of Annual Report in 2021. Consider which other companies might have energy intensive software/data storage facilities.

Novozymes (Denmark)

28 February 2020

The leading producer of enzymes, helping to increase the availability of natural food ingredients.

Novozymes: Santosh Govindaraju, Head of Global Sustainability Services; Ridhima Kapur, Manager, Sustainability Strategy and Business Transformation; Tobias Cornelius Bjorklund, Head of Investor Relations

Montanaro: Nere Asumendi; Mark Rogers; Ed Heaven

Novozymes appears to be a leader when it comes to its environmental management. Environmental reporting appears “best in class”, with defined targets – and progress towards these targets – regularly disclosed.

Novozymes is proud of the fact that 2019 emissions are lower in absolute terms than in 2005, despite the fact that sales have grown by over 130% during the same period.

The company has two main carbon-related targets. There are two “*because climate change is such a huge complex issue, the time frames are long, and we want to have an interim goal*”. The two targets are:

- To reduce carbon emissions by 2030 in line with a Science-Based⁸ verified approach in line with a 1.5°C scenario. This makes Novozymes one of only three chemical companies worldwide to have committed to a science-based target;
- To increase annual sourcing of renewable electricity from 37% in 2018 to 100% by 2030;
- To reduce absolute Scope 3 emissions from purchased goods and services by 15% by 2030 from a 2018 base year;
- To reduce absolute Scope 1 and 2 emissions 50% by 2030 from a 2018 base year.

Novozymes is looking at how to reduce emissions initially, before then moving on to understanding emissions in the value chain (where their current plans are less advanced). The 2030 target is focused on their operations and the big driver for this will be purchasing more

⁸ <https://sciencebasedtargets.org/companies-taking-action#table>

renewable energy, which currently accounts for 60% of electricity consumption. The aim is to reach 100% by 2030 (already at 100% in Denmark and they have a partnership to source green steam from a wood-based Biomass power station that has replaced a local coal plant).

One challenge to this global goal is the availability of renewable energy options at all of the company's sites. For now, Novozymes must adopt a pragmatic approach and in some markets purchase renewable energy certificates. It is setting internal standards for the certificates it uses and must demonstrate that these contribute to the displacement of fossil energy in the grid.

In terms of the supply chain, Novozymes is seeking to understand where the "hotspots" are ahead of the 2050 target. This involves engagement with suppliers which takes time, while the large number of suppliers makes this complicated. They do not want to set heavy handed targets but rather want to work to get suppliers enthused by the cost efficiencies such targets can bring.

Management are incentivised to meet these sustainability targets, with progress measured to 2022. Within the governance structure they have an "Impact Board" and a "Foundation Board" comprising the Senior Leadership Team. Employees also have incentives for meeting sustainability targets (including an LTIP for the team who report into the senior leadership team).

Next steps: Monitor progress in 2021. The company also asked us if we could share any developments in the carbon pricing market / learnings from other engagements with our companies.

Rational (Germany)

28 February 2020 [holding sold]

[Manufacturer of energy efficient cookers for use in industrial kitchens.](#)

Rational: Dr. Peter Stadelmann, CEO/CFO; Stefan Arnold, Head of Investor Relations

Montanaro: Stefan Fischerfeier; Mark Rogers; Ed Heaven

Rational has not set a defined carbon related target. Its current attitude to "zero emission goals" is that they simply do not see Net Zero Carbon as realistic. On a more positive note, Rational has environmental goals embedded into the product development process. These are as much about driving cost efficiencies as they are ensuring quality products. They described this as a "market driven" approach, which we took to mean they are focused on energy efficiencies in the context of product development.

Across the manufacturing lines, 1% of energy, 1% water, and 1% of fuel must be saved annually. In addition, for a new design to be given the go ahead, it needs to be "10% better in energy intensity terms" than the product it is replacing. This is important as Rational has over 650,000 units operating in the market: by ensuring these are energy efficient they can have a very big impact on the energy consumption of clients.

Management view carbon emissions simply as a function of resource consumption. As such, as a growing company which manufactures equipment, they find it difficult to envisage a scenario in which Rational's emissions fall in absolute terms while the business continues to grow (an interesting contrast to Novozymes). Having said this, across the business, they do want to reduce energy consumption over three years by 3% p.a. - not a hard target but more a reflection that they want to monitor the long-term energy trend.

They are sceptical about the transition to renewable energy across the entire economy. For example, it is very energy intensive to run a kitchen. Using renewable energy is difficult unless supply is 100% guaranteed: *"can you do this at night?"*

Local energy distributors are offering alternative energy tariffs from hydropower plants and wind turbines, but with Germany having moved away from nuclear power, coal remains a major source of electricity. Given Nemetschek mentioned a growing number of company alliances in Germany around Net Zero Carbon initiatives, we asked Rational about this, but they were not aware of any.

Next steps: None as position sold, but continue to monitor German companies to see if Germany's Net Zero Carbon target for 2050 is having any impact on the corporate sector.

Chr Hansen (Denmark)

25 February 2020

The supplier of bioscience products helping to reduce food waste, increase farming efficiencies and provide healthy foods ingredients.

Chr. Hansen: Martin Riise, Head of Investor Relations (via email)

Montanaro: Nere Asumendi

When we engaged with Chr. Hansen, they were busy working on setting a Science-Based climate target for Scope 1 and Scope 2. They informed us that this will be formulated in line with internationally agreed recommendations for limiting global temperatures by 1.5 °C. This will include all production and energy consumption and the company informed us that this would most likely require absolute reduction targets.

Alongside this, they will also screen Scope 3 emissions (all upstream and downstream supply chain activities) and most likely set reduction targets. They will then work on getting these targets validated by the Science-Based initiative. Chr. Hansen has not considered setting a target towards climate neutrality, but they may consider this in the future.

Following the call, Chr. Hansen informed us that it joined the Science Based Target Initiative "Business Ambition for 1.5°C" in July 2020. This is another positive step for a company that we consider to be "best in class" when it comes to sustainability reporting.

Their excellent and detailed sustainability report is audited by PCW and their willingness to engage is exemplary. In 2018, Cedric, our CEO, was invited by the company to present as the keynote speaker at a network meeting of businesses as part of the UN Global Compact Danish

Network. After many engagements with the company over the years, it was our chance to give a little back, as we talked to business leaders about the relevance and importance of aligning business objectives with the UN Sustainable Development Goals.

Next steps: We look forward to continuing our engagement with the company in 2021.

[END]