



Impact report 2020

Vontobel Fund - Clean Technology

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All business activities have an effect on the environment, some positive, many negative. Not giving enough attention to, or even ignoring ecological consequences of these activities has led to enormous environmental challenges such as climate change, depletion of resources or loss of biodiversity.

The Vontobel Fund - Clean Technology takes a proactive approach to deliver change, and to achieve a positive environmental impact alongside financial returns.

The strategy focuses on six impact pillars, where action is most urgently needed, but where we as investment team also see strong progress with regard to eco-friendly technologies and services offering promising solutions. In our view, companies that address environmental challenges will experience rising demand for their products and services.

We believe we can tackle large-scale challenges by actively selecting and owning shares of companies offering scalable business models in areas requiring billions of dollars of investments over the next decades.

Measure and report the social and environmental performance is a fundamental aspect of impact investing. In this report, we use again nine environmental indicators to illustrate the positive impact of our investment strategy. In response to new regulation and recent initiatives from the European Union as well as international organizations, we further expand our reporting with a climate-related risk assessment and a section on the EU taxonomy of sustainable investment products. However, we acknowledge that the available data is still limited and vague.

Today, a large part of our engagement efforts is therefore to convince companies to expand and improve their environmental reporting. This should allow us to improve the quality as well as the scope of our reporting over time.

Creating positive impact through investment in listed equities

General framework

The amount and diversity of capital for impact investing has increased substantially in the past ten years, with the current overall impact investing market estimated at USD 715 billion¹. There is no doubt that this market segment will grow further.

Traditionally, impact investing was confined to private markets, often in the form of microfinance, where it can create a direct, deep impact, reduce poverty and change the lives of the world's most vulnerable people. These challenges are so huge that other means of investments are essential. This is why this term and investment strategy is increasingly used across all asset classes. Today, impact investing in listed markets has the necessary scalability and global reach, representing a complementary approach to private markets.

Capital allocation and engagement strategies represent the most powerful tools for investors to make a difference in the listed equity space. Investing in listed equities helps to reduce companies cost of capital, supporting future growth. The actual impact is then – by definition – achieved by the portfolio holding through products and services that help to reduce the ecological footprint and improve our lives. Active ownership, most importantly in the form of direct engagement and voting, is the other instrument to influence portfolio companies. This improves transparency and fosters positive change.

To put impact investing into perspective, it is useful to look at a set of respective guidelines. Among them are the UN Sustainable Development Goals (SDGs)², the Operating Principles for Impact Management – developed by the International Finance Corporation (IFC) of the World Bank Group – and the Core Characteristics of Impact Investing by the Global Impact Investing Network (GIIN). The latter set of characteristics defines this segment in terms of measurable impact as well as financial returns. There are four key elements:

- **Intentionality:** The aim of impact investing is to contribute to improvements in social and environmental areas. This differentiates them from other strategies such as ESG investing, responsible investing, and screening strategies.
- **Financial returns:** Impact investors seek financial returns on the invested capital that is in line or above market rate. This distinguishes them from philanthropy.
- **Range of asset classes:** Impact investing is applicable in most asset classes.
- **Impact measurement:** A hallmark of impact investing is the commitment of the investor to measure and report the social and environmental performance of underlying investments.

Solution-based companies offering sustainable and scalable products and services will play a crucial role in this endeavor. And here's where the measurement aspect comes in. A listed company offering measurable benefit provides investors the opportunity to enter the impact investing market.

¹ Estimate from the Global Impact Investing Network (GIIN) in their 2020 Annual Impact Investor Survey, including both private and public markets.

² The 17 SDGs were adopted by all United Nations Member States in 2015 as a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. The individual goals are defined in a list of 169 targets with progress towards these targets being tracked by 232 unique indicators.

Our impact strategy

The Vontobel Fund - Clean Technology reflects the above-mentioned principles. We strive to create a positive impact based on investments in listed equities that fit in one of six clearly defined impact pillars and post a substantial part of their revenue with innovative products and solutions. The UN SDGs provide a global framework to identify, define and prioritize the intention of our investment strategy. A clear focus makes sure that the impact objectives and investment strategy are consistent. The investment process includes an assessment of the company's impact categories and its alignment with our impact pillars. We also evaluate whether all activities are in line with industry standards such as the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB) and the IRIS+ Impact Measurement and Management. We are actively engaging and communicating with the invested companies, especially regarding the relevant environmental impact topics, and encourage them to improve their reporting standards.

The companies in our portfolio are aligned with at least one of the UN SDGs and contribute to at least one of our nine key impact indicators. We regularly ask the companies to report on our environmental indicators. We are thus able to measure the fund's impact. These figures are at the core of the annual impact report, a document verified by a third party, the climate research consultant ISS ESG.

Our investment process also includes a systematic and documented analysis of environmental, social and governance (ESG) risks. We do not invest in companies that give rise to severe controversies³ or are in breach of international industry norms and practices (e.g. UN Global Compact; OECD Guidelines).

³ Controversies are defined as such: MSCI red flag or Sustainalytics level 5 severe controversies



How our “impact pillars” unfold in the portfolio

The Vontobel Fund - Clean Technology tries to capture the opportunities arising from long-term structural shifts such as growing population, increasing urbanization and rising income. We focus on six core impact pillars listed below. These are not mutually exclusive and consequently, companies can sometimes fall into more than one category. We target companies with products and services along the whole value chain, which can offer a way out today’s pressing problems of resource scarcity and pollution.



Clean energy – replace fossil fuels with renewables

Since energy accounts for the vast majority of greenhouse gas emissions, clean energy is key to addressing climate change and represents a significant component to reduce the human impact on the environment. The overall focus lies on electricity, hydrogen and heat generated from renewable resources and technologies enabling not only a reliable but also smarter and greener grid.



Building technology – build with an eye on efficiency

Housing and residential applications account for a large share of global energy consumption. We search for technologies and materials to lower the environmental impact of a building over its entire lifecycle from site selection through design and materials choices, construction, operation, maintenance and demolition. The focus is usually on minimizing the energy use in buildings (especially for heating and cooling) through energy-efficient measures and adopting renewable energy to meet remaining energy needs.



Resource-efficient industry – make processes simpler and cleaner

Resource-efficient industries play a vital role in a move towards a more environmentally friendly world. Clean and efficient production processes will reduce energy and materials consumption while increasing the output needed to cope with rising demand. Importantly, digital transformation is paving the way for new approaches to development, production and the entire logistics chain.



Clean water – let the right kind of liquidity flow

Rising water consumption as well as water pollution remains a global problem. Challenges include not only the delivery or treatment of drinking water in arid regions, but also the maintenance of the existing infrastructure in industrialized countries. We focus on companies providing infrastructure and technological solutions for efficient water usage, wastewater treatment as well as purification and desalination.



Low-emission transportation – travel without shame

The logistics and transportation sector is a significant contributor to global emissions and pollution. We concentrate on companies that shape the future of mobility by offering innovative solutions and key technologies to better connect a global and converging world through improved logistics as well as low-emission transportation that saves time and resources.

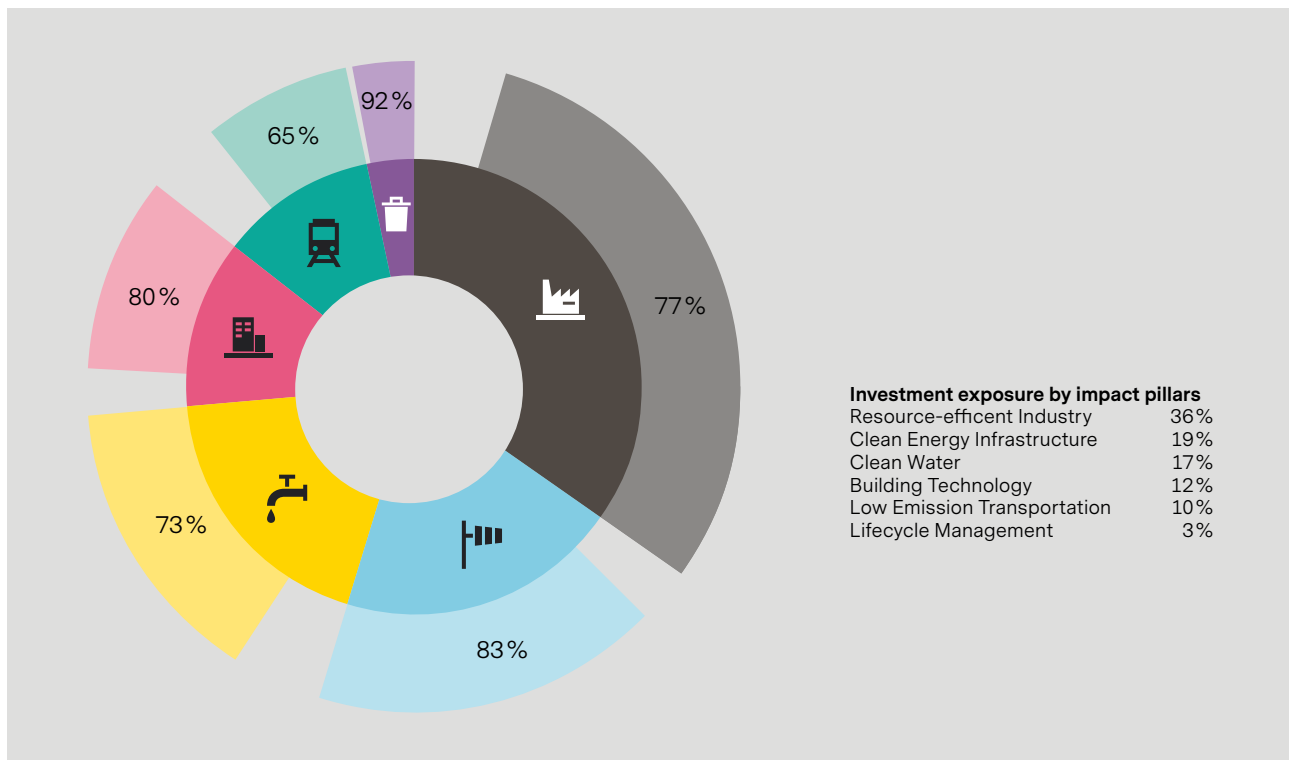


Lifecycle management – think of disposal before production

Reusing resources and reducing waste is increasingly important. We focus on companies that offer recycling solutions or integrate product lifecycle concepts from inception, through engineering design and manufacturing, to service and disposal of the manufactured products into their processes.

We analyse the revenue mix of each company in the portfolio and identify the individual “impact-relevant” revenue portions. The inner circle in figure 1 shows the portfolio’s allocation to the six impact pillars of the clean tech strategy, while the outer circle represents the percentage of relevant revenues within each pillar. Across the whole portfolio, approximately 77% of all revenues of the portfolio companies provide a positive impact.

Figure 1: Each holding contributes significantly to the strategy. About 77% of revenues create a positive impact.



For companies with activities (revenue) in several impact pillars, all relevant revenue shares are allocated to the main impact pillar.
 Source: Vontobel Asset Management, as of 30.06.2020

SDG mapping

The data showing how companies do in sustainability matters is often hard to come by. We track their progress using the SDG compass⁴, which provides guidance on how individual companies can work towards realizing the goals. As not all 17 SDGs are applicable, we focus particularly on areas relevant for our environmental-orientated portfolio that have an positive impact on the environment.

SDG 6:

Clean water and sanitation

- Water efficiency (reduce, reuse, recover, recycle, replenish)
- Water quality and treatment
- Affordable and safe water access, sanitation, and hygiene
- Protection of water-related ecosystems and biodiversity

SDG 7:

Affordable and clean energy

- Renewable energy
- Electricity access, availability and reliability
- Energy efficiency

SDG 9:

Industry, Innovation and infrastructure

- New and resilient infrastructure in developing countries
- Upgrade of existing infrastructure and retrofitting of industries to make them sustainable, with increased resource use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes

SDG 11:

Sustainable cities and communities

- Sustainable transportation and solutions for future mobility needs that minimize the environmental impact while making transportation safer and more affordable
- Sustainable buildings (in particular heating, cooling, lighting)
- Air quality and management of municipal and other waste

SDG 12:

Responsible consumption and production

- Resource efficiency of products and services
- Materials recycling and upcycling
- Sustainable sourcing and waste reduction

SDG 13:

Climate action

- Decarbonizing of operations and supply chains through improved energy efficiency and reduced carbon footprint of products, services and processes

In addition, some companies also contribute to some extent to SDG 3 “Health and well-being” and SDG 8 “Decent work and economic growth”. The remaining SDGs are broader societal goals that are beyond the scope of our investment strategy, but positive contributions occur here as well, as the SDGs are often interlinked.

A growing number of fund holdings generated a contribution to the SDG No 12 “Responsible Consumption and Production”. The SDG icons are illustrated in figure 2 with some sub-sector descriptions to illustrate what businesses contribute most to a corresponding SDG.

⁴ SDG Compass: The guide for business action on the SDGs; developed by GRI, UN Global Compact and WBCSD

Figure 2: Number of holdings with material contribution to UN SDGs



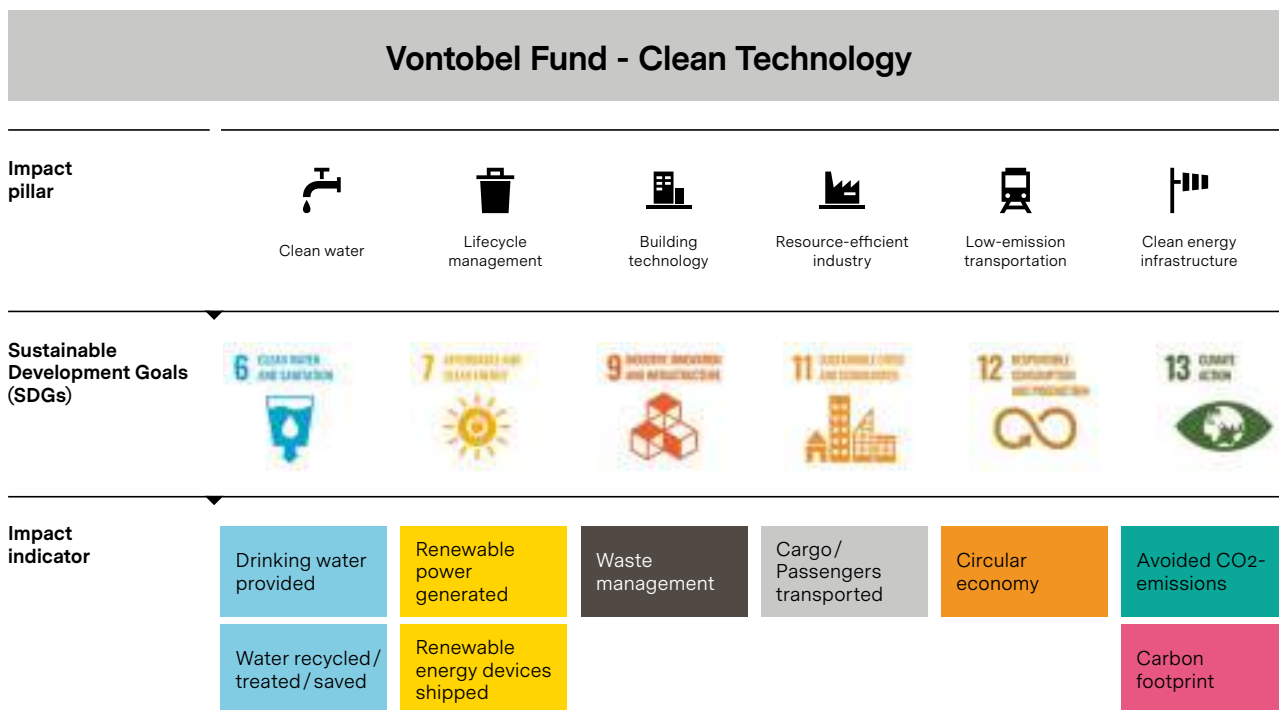
SDG = The Sustainable Development Goals reflect the megatrends that are shaping the world's future. They are adopted by 193 member states of the United Nations. The agenda contains 17 Goals and 169 targets. Note: For illustrative purposes only. Source: UN, Vontobel Asset Management, as of 30.06.2020

Quantifying our impact

The six impact pillars of the Vontobel Fund - Clean Technology support predominately six SDGs. To measure this relation we use nine indicators, and to make the result more tangible, we compare the impact with more com-

mon figures. After introducing the impact calculator in 2019, we have this time added an indicator on efficient environmental operations and processes (circular economy, see figure 3).

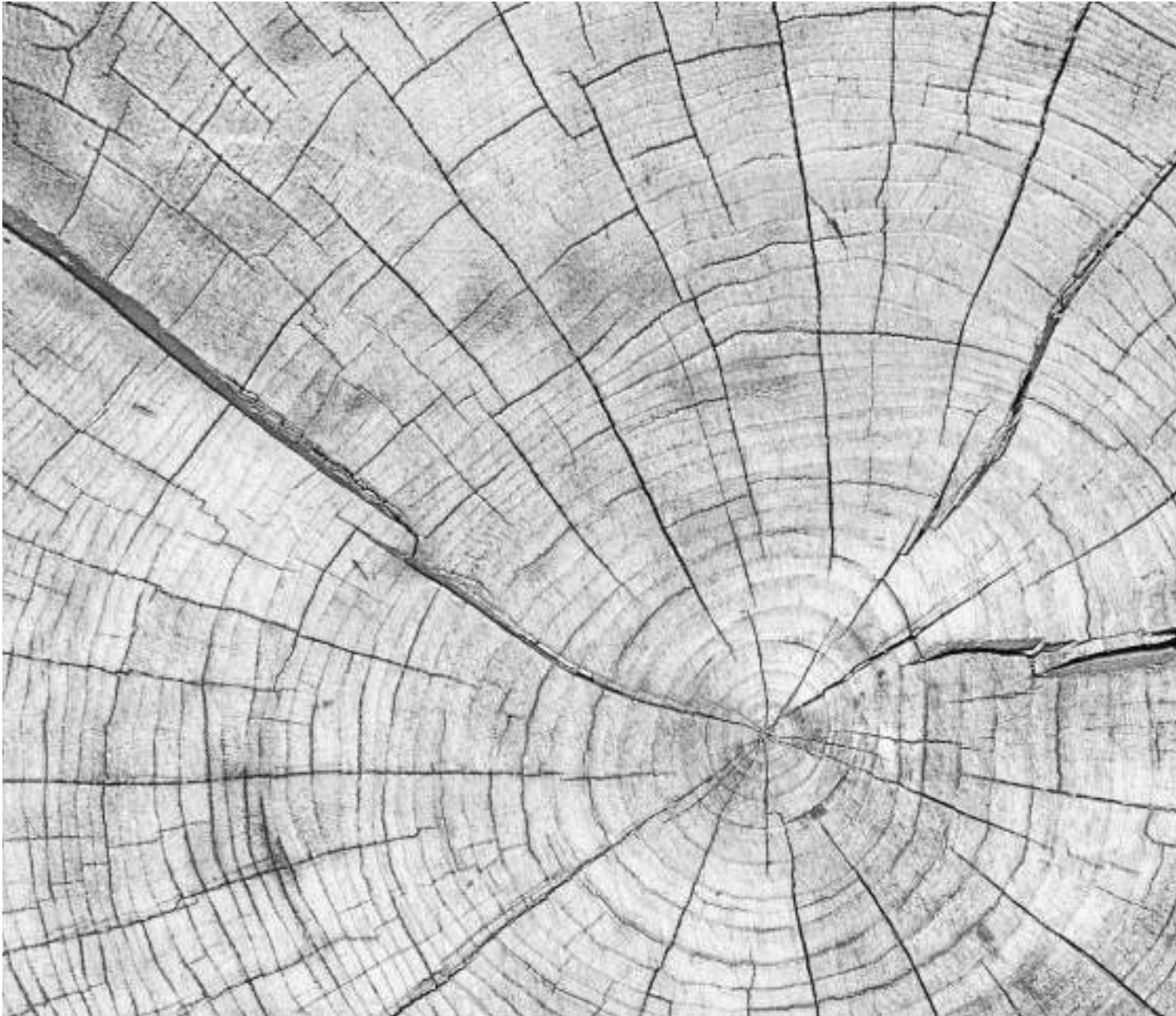
Figure 3: From impact pillars to indicators, via UN SDGs



Source: United Nations, Vontobel Asset Management; for illustrative purposes only

We use the above-mentioned nine indicators, which are related to the products or services that a company offers, to measure the positive impact a holding in the Vontobel Fund - Clean Technology creates. To calculate the impact in renewable energy, for example, we take the total capacity of equipment for solar and wind power generation that was manufactured over a year in megawatts (MW). The positive impact of companies operating solar or wind farms is measured in terms of gigawatt hours (GWh) of renewable energy generated. To assess the impact of clean water companies we focus on how many liters of drinking water were provided and how many liters of water were saved, recycled or treated over a year. We

introduced a new impact indicator that reflects strategies relevant for a circular economy. We received data from 36 companies that showed the level of reused or recycled materials within the manufacturing processes and the related reduction of raw material input. This complements the indicator on waste management, which measures the waste quantities collected and diverted from landfills and treated accordingly by dedicated waste management companies. Given the small number of relevant investments, we have now combined the previous two transport indicators into just one KPI. The two indicators on carbon footprint and potentially avoided emissions (PAE) are unchanged.

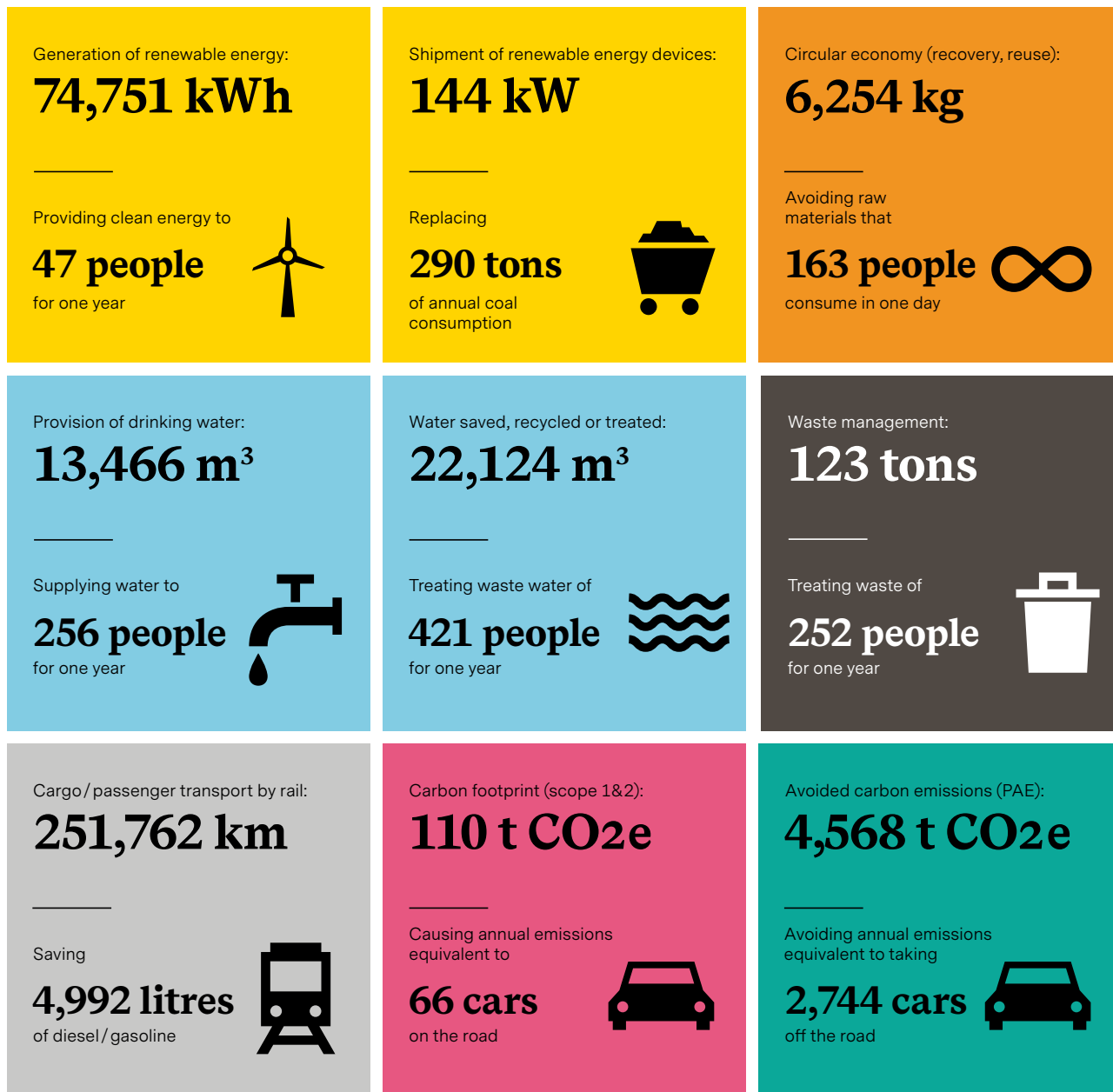


We have compiled and calculated the impact indicators of all companies in the portfolio (as of June 30, 2020). The holding companies were associated with a positive impact over a year equivalent to:

155,402 GWh	renewable energy generated
45,472 MW	annual renewable energy capacity shipped
7.4 million t	materials captured for circular economy
7,153 million m³	drinking water provided
14,828 million m³	water recycled, treated or saved
1,500 billion km	cargo/ passenger transported by rail
76 million t	waste collected, treated, processed and partially recycled
186 million t	CO ₂ e emitted (carbon footprint, scope 1&2)
2.9 billion t	CO ₂ e potentially avoided (PAE)

To make the indicators tangible, we illustrate each positive impact through the following visuals. Investing one million euros in the Vontobel Fund - Clean Technology can be associated with:

Figure 4: Impact calculator



Source: Vontobel Asset Management. Portfolio as of June 30, 2020.

Carbon footprint and avoided emissions

Global situation and trends

Global greenhouse gas emissions need to be at or around net zero by 2050 in order to halt climate change and achieve the goals outlined in the Paris Agreement. This means we must move from 53.5 gigatonnes of CO₂ equivalent (GtCO₂e) annual emissions today to net zero by balancing the amount of emissions that are released into the atmosphere with those taken out. However, the solutions needed to make this a realistic target continue to be a source of debate.

To be on track for a 2-degree scenario, energy related CO₂ emissions must fall by 55% to 1.92 tons per capita. Since the 1960s, the lowest recorded emissions have been 3.1 tons per capita.

Potential Avoided Emissions from the Vontobel Fund - Clean Technology

Avoided carbon emissions are emissions that would have been released if an action or intervention had not taken place. The emissions avoided by using a more efficient product or service are often conditional to either consumer or market behavior. This analysis does not make absolute predictions about behavior or market developments. Consequently, ISS ESG has chosen to use the term "PAE" to underline that the avoided emissions presented are not assured or verified by a third party and are dependent on certain behaviors. This analysis looks

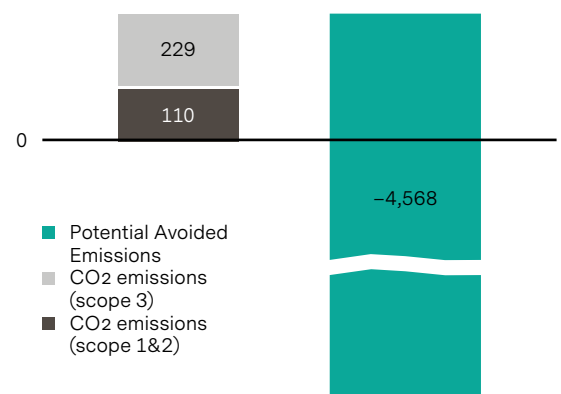
at the potentially avoided emissions for equity holdings of the Vontobel Fund - Clean Technology. It was already the fifth time that we conducted such a study. No significant methodological changes have occurred since the previous year. ISS ESG analyzed 60 out of 66 individual companies in the portfolio, of which 51 contribute to PAEs. This is a 10% increase versus last year, indicating that companies are getting more responsive to carbon-related queries. As such, 15 companies had no relevant PAE business activities or did not report any data. For the analysis, we used the market cap and fund holdings as of June 30, 2020 while the company data is based on the latest fiscal year (usually 2019). The fund is associated with approximately 2.6 million tons of potentially avoided CO₂e emissions (PAE). This corresponds to 4,568 t PAE per one million euro invested in the Vontobel Fund - Clean Technology. The biggest contribution to avoided emissions comes from the clean energy, building technology and efficient industry areas. The three biggest PAE contributors are Saint-Gobain, Canadian Solar and Andritz accounting for 35%, 20% and 9%, respectively, of the fund's total avoided emissions. Overall, the fund has a large positive impact in terms of CO₂ emission reduction across all investment pillars and the portfolio holdings avoid significantly more CO₂ than they emit (figure 5 and 6). The carbon footprint per one million euro invested is 110 tons of CO₂e. Further details on the PAE methodology can be found in the appendix.

Figure 5: Portfolio holdings avoid more CO₂ than they emit

DATA: t CO ₂ PER EUR 1 m INVESTED	CARBON FOOTPRINT (SCOPE 1&2) ⁵	CARBON FOOTPRINT (SCOPE 3 UPSTREAM) ⁶	POTENTIAL AVOIDED EMISSIONS (PAE)
MSCI World (for reference)	129	380	
Total Fund	110	229	4,568
Efficient Industry	17	30	547
Lifecycle Management	16	43	7
Low Emission Transportation	8	23	31
Clean Water	24	34	45
Clean Energy Infrastructure	26	47	2,080
Building Technology	20	52	1,858

Source: Vontobel, calculations and estimates in cooperation with ISS ESG. Data as of June 30, 2020.

Figure 6: Summary comparison of carbon footprint vs avoided emissions
t CO₂ per EUR 1m invested



⁵ Scope 1 and 2: Carbon emissions generated during a company's manufacturing process

⁶ Scope 3: Emissions of suppliers to a manufacturing company (upstream)

Climate-related risk assessment

Global situation and trends

With wildfires, floods and violent storms becoming a global problem, and climate change potentially affecting between 3–7% of global GDP, there is a growing sense that action has to be taken⁷ according to an OECD report. This report suggests that investing in climate change technologies and pursuing the objective of sustaining longer-term growth can actually be compatible. The authors point out that G20 economies that invest in the right technologies can expect to get a boost to growth of 2.8 percentage points on average, which would at least partially offset the impact of climate change. They estimate that investments to make infrastructure climate proof would increase the “regular” infrastructure bill by 700 billion US dollars annually to a total of USD 6.9 trillion per year between 2018 and 2030. This seems like a long shot given the notorious shortfall in infrastructure spending in many regions. According to the OECD, only USD 3.4 trillion are currently invested in infrastructure.

Assessing the risks of climate change has been at the heart of recommendations by various stakeholders such as the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB), and the Task Force on Climate-related Financial Disclosures (TCFD). In February 2019, the UN Principles of Responsible Investment

(PRI) stated that its climate risk strategy and governance indicators, which are aligned with the TCFD guidelines, would become mandatory for PRI signatories from 2020 but voluntary to disclose publicly.

The well regarded TCFD provides a voluntary disclosure framework organized around four themes, designed to facilitate better disclosure. These are governance, strategy, risk management, as well as metrics and targets. For organizations to disclose in line with TCFD recommendations, they must be able to quantify or qualify the risks and opportunities facing them and be able to describe policies, procedures and systems in place to monitor and address climate related issues. As of February 2020, support for the TCFD has grown to over 1,027 organizations, representing a market capitalization of over USD 12 trillion from a wide range of sectors. At the same time, 340 investors with almost 34 trillion dollars in assets and 36 central banks and supervisors are encouraging the use of TCFD.

This growing support may generate promising information and data that can lead to a valuable assessment of climate-related risks for each holding, and also aggregated on a portfolio level.

Figure 7: Core elements of recommended Climate-Related Financial Disclosures



⁷ OECD Report: Investing in Climate, investing in Growth – A synthesis. www.oecd.org/environment/cc/g20-climate/

To gauge how current trends and new requirements reflect on the corporate world, we rely on our in-house research, but also on the expertise of our longstanding partner ISS ESG. We expect them – and also other ESG data providers – to increasingly deliver relevant data on climate risk in the near future. Our climate risk evaluations include an assessment of our portfolio companies' resilience to rising carbon taxes, e.g. through carbon pricing schemes – currently, there are 21 emissions trading systems (ETS) in place, and another 24 are under development or under consideration⁸. The 51 portfolio holdings which provide PAE show the following proportion relative to their CO₂ emissions they cause:

Figure 8: CO₂ Footprint vs PAE of our portfolio holdings

NUMBER OF COMPANIES	PAE LARGER THAN SCOPE 1+2 FOOTPRINT	RESILIENCE TO INCREASING CARBON PRICING
16	> 50 x	Very high, expected to benefit from increased carbon prices
15	> 5 x	High, potential benefit
9	> 1 x	Neutral, little impact
11	< 1 x	Vulnerable, potential negative effect

Source: Vontobel Asset Management

In general, companies with high positive multiples reflect a better resilience towards increasing carbon pricing and economic climate risk. For example, activities within building and construction tend to cause high carbon emissions, but companies providing much more potential avoided emissions may fare better. Companies with a factor over 50 times, such as St. Gobain, Kingspan or Schneider Electric, which offer solutions to lower costs for heating and cooling, may even benefit from higher carbon prices. Higher energy costs make investments in energy efficiency more attractive; savings from lower consumption shorten the payback time of such investments.

⁸ <https://icapcarbonaction.com/>

EU Taxonomy alignment

On its path towards climate neutrality by 2050, The European Union works on legal changes to direct private sector funds into “green” and sustainable development. At the same time, the EU wants to make sustainability investing more transparent. A key element in the EU’s endeavors is the so-called EU Action Plan for Financing Sustainable Growth. As one of the three pillars, the EU Taxonomy is a classification system to determine whether an economic activity is sustainable. The two other pillars cover disclosure and reporting aspects as well as how sustainable products should be presented to clients.

The EU taxonomy lists six environmental objectives (see figure 9). Financial products aspiring to a sustainability label must assess the activities of their holdings accordingly. For a company’s revenues to be eligible, the business must support at least one of these objectives, and not fail in any of the other five – referred as DNSH (do no significant harm). Moreover, a company must meet minimum social and governance requirements – referred as compliant with minimum safeguards. The OECD Guidelines on Multinational Enterprises and the UN Guiding Principles on Business and Human Rights serves us as a guidance (see figure 10).

Figure 9: The six environmental objectives of the EU taxonomy



Source: Final report of the Technical Expert Group on Sustainable Finance, March 2020

The EU Taxonomy has direct implications for both holding companies, as well as investment managers in terms of reporting and disclosure requirements. Banks or asset managers will either have to show that they fulfill them, or accept a “non-compliant” verdict. Likewise, companies will have to disclose how their businesses are linked to taxonomy-relevant activities. This aims at providing investors with the necessary information when making an investment decision. In March 2020, the Technical Expert Group on Sustainable Finance (TEG) recommendations defined technical criteria for two of the six environmental objectives of the EU Taxonomy (climate mitigation and climate adaptation). Meanwhile, the European Parliament gave its approval in June.

Asset managers are expected to report on their investments using EU Taxonomy definitions starting in 2021, which is before EU companies will be required to make their own disclosures. Therefore, institutional investors will in the meantime need to rely on own research.

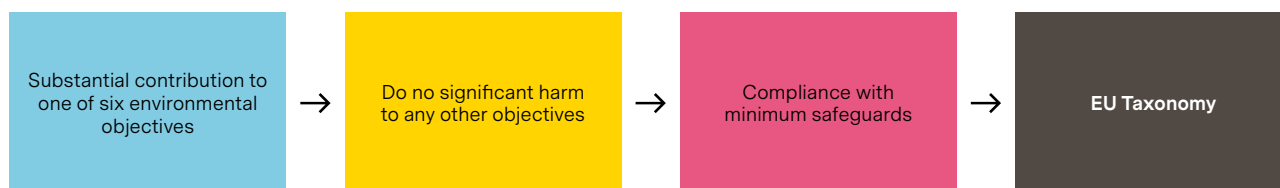
The key challenges we faced are tied to the granularity of some taxonomy requirements while others still being vague:

1. Lack of company disclosure specific to the EU Taxonomy criteria
2. Lack of technical data and required efficiency measurements of products to be considered eligible.

We decided to do the following proxy to cover all the taxonomy requirements:

- a. We assessed each company of the Vontobel Fund - Clean Technology and estimated potentially eligible activities based on data provided by companies already today. As a result, the considered revenues are from activities only potentially being eligible. (see figure 11)
- b. Do No Significant Harm criteria we assessed via business involvements and environmental controversies, whereby data points from Sustainalytics served as a guidance.
- c. Furthermore, we use the UN Global Compact Compliance as assessed by Sustainalytics. With its ten principles in the area of Human and Labor Rights, Environment and Business Ethics, Global Compact covers the required social safeguards.

Figure 10: Steps towards taxonomy-eligible activities



Source: Final report of the Technical Expert Group on Sustainable Finance, March 2020

Figure 11: Potential eligibility of the portfolio holdings**EU Taxonomy (% of revenues from activities potentially eligible)**

Exposure to potentially eligible revenues: 44%

Number of contributing holdings: 47

	CLIMATE MITIGATION			CLIMATE ADAPTATION	WATER	CIRCULAR ECONOMY	POLLUTION	ECO-SYSTEMS
	own	enabling	transition					
Fund level	8%	33%		1%	1%	0.5%		
Efficient Industry	7%	19%		0.3%	0.3%			
Lifecycle Management	7%				21%	14%		
Low Emission Transportation		54%		0.1%				
Clean Water	9%	12%		4%				
Clean Energy Infrastructure	18%	55%		0.4%	1%			
Building Technology		60%		2%	4%			

Source: Vontobel Asset Management

The fund shows an overall 44% of potentially eligible revenue to the EU taxonomy, as figure 11 illustrates. Not surprisingly, we find most of such activities in companies contributing to climate mitigation (overall 41% on a fund level). The majority is enabling their customers to reduce GHG emissions. Manufacturers of wind and solar equipment are probably the most typical enablers (55%), while electric utilities contribute themselves to mitigation thanks to power generation from renewable sources (18%). Within building technology, those manufacturing insulation materials, such as Kingspan or Saint Gobain, enable mitigation, as their customers' buildings will require less energy for heating or cooling. Another example would be equipment manufacturers for the rail industry which enable railway companies to offer low-emission transportation for people and cargo. But also automotive suppliers can reduce the fuel consumption of a car through electrification or innovative engine components. Climate adaptation might be less easy to understand.

While many of the companies we invest in take climate change adaptation very serious, they do not separately disclose investments to improve resilience of their operations against the harmful impact from physical climate change; such expenditures would also look rather small compared to the annual turnover. However, companies such as Daikin sell more air conditioners in countries, where extreme heat make cooling of buildings an imperative for healthy living. Cooling technology is therefore a typical example for climate change adaptation.

Another illustrative example is our investment in Tetra Tech. The management sees large opportunities in the future stemming from climate change. There is a growing recognition that being more proactive could save money. There are assumptions that one dollar spent on adaptation would save four dollars on disaster recovery work. Coastal engineering is one field of expertise where Tetra Tech sees additional demand.



Appendix

Latest on ESG at Vontobel (policies, organization)

With its wide range of actively managed investment solutions and around 25 years of experience, Vontobel is one of the pioneers of sustainable investing in Switzerland. In the first half of 2020, Vontobel's assets under management that are managed according to sustainability criteria grew from CHF 30 billion (as of December 31, 2019) to over CHF 32 billion (as of June 30, 2020). In 2020, Vontobel once again received an above-average score from the "Principles for Responsible Investment (PRI)" – a UN initiative – for its sustainable investment strategies. In the 2020 reporting, Vontobel's rating was higher than average for five of the seven modules that were assessed. We have been a signatory to the PRI since 2010. The UN initiative has more than 3,000 signatories globally, mainly consisting of companies from the finance industry. In addition, the sustainability rating agency ISS-oekom awarded Vontobel the rare "prime" status.

Voting and engagement

We consider active ownership as a very important contributor to the development of sustainable economies, societies and the environment. Material ESG issues can negatively impact the future success of a company and its return potential. Consequently, we put a strong emphasis on direct engagement with our portfolio holdings, particularly on environmental issues but also related opportunities. We deem this is an integral part of our research activities. The Voting & Engagement Guidelines for this Fund were updated and specified in 2019. They are based on the overarching Vontobel Voting & Engagement guidelines and describe the key objectives of our engagement, which are relevant for the investment pillars of the Vontobel Fund - Clean Technology.

Impact indicators: data, calculation and data quality and references

Wherever possible, we rely on reported data from the portfolio holdings. This includes annual reports, CSR reports, websites or other investor information. Requesting additional data and motivating companies to measure and publicly disclose the required data and indicators is part of our engagement work. A questionnaire explaining our needs, comprising last year's impact report plus a list with possible KPIs was e-mailed to all portfolio holdings in March 2020. More than 30 companies took the time to answer our survey. The relevant environmental metrics for the portfolio companies were applied where data was available or could be estimated. The analysis included all companies in which the Vontobel Fund - Clean Technology was invested as of June 30, 2020. We aimed to obtain the most recently available environmental data and for over 90%, the data are for the fiscal year 2019 or ending March 2020. The percentage owned of each invested company was applied to measure the environmental benefit attributable to the fund.

Figure 13: Data availability by companies

No of stocks in Portfolio: 66

IMPACT INDICATORS	NO OF RELEVANT COMPANIES	DISCLOSED	ESTIMATED
Carbon footprint	66	65	
avoided carbon emissions	51	39	12
renewable energy generated	18	18	
renewable energy capacity shipped	7	7	
Circular Economy (recovery, reuse, etc.)	36	36	
Drinking Water provided	5	5	
Water saved, recycled or treated	36	36	
Waste Management	3	3	
Cargo/passenger transport by rail	2	2	

Source: Vontobel Asset Management

To translate the KPIs into more tangible measures (see figure 4), the following assumptions were applied:

- Renewable energy generated: Electricity consumption per capita in the households sector in the EU in 2018 was 1,582 kWh per capita. Source: <https://ec.europa.eu/eurostat>
- Generation capacity for renewable energy shipped. Assumptions: Wind and solar power – average capacity 30%. 1 kW of renewable capacity replaces 2.01 t of Coal in a power plant. <https://www.agora-energiewende.de/>
- Circular economy: Approx. 14 t of raw material footprint per capita in 2015 in the EU-27. Source: www.bafu.admin.ch/
- Drinking water provided: European environment agency: On average, 144 litres of water per person per day is supplied to households in Europe. (2017: per year: 144 l × 365 days = 52,560 l or 52.56 m³). www.eea.europa.eu
- Water recycled/treated/saved: see drinking water
- Waste treated/processed/recycled: EU average of 489 kg waste per capita and year (2018). Source: <https://ec.europa.eu/eurostat>
- Cargo/passenger transport by rail: Passenger: train transport replaces car travel, average car occupancy rate in Germany is 1.46 passenger / car and average fuel consumption is 7.4l / 100 km
- Cargo: net load of a 40t truck is 27t and average diesel consumption is 35l / 100 km
- Carbon footprint: Car average annual distance in Germany 2019: 13'602 km; Average CO₂ emission of newly registered EU cars in 2019: 122.4 g CO₂ / km. Source: European environment agency (EEA) → Total CO₂ per car / year: 1665 kg CO₂ / year; Source: www.kba.de/;
- Avoided carbon emissions (PAE): see carbon footprint

Figure 14: Allocation of KPI to the Clean Technology impact pillars

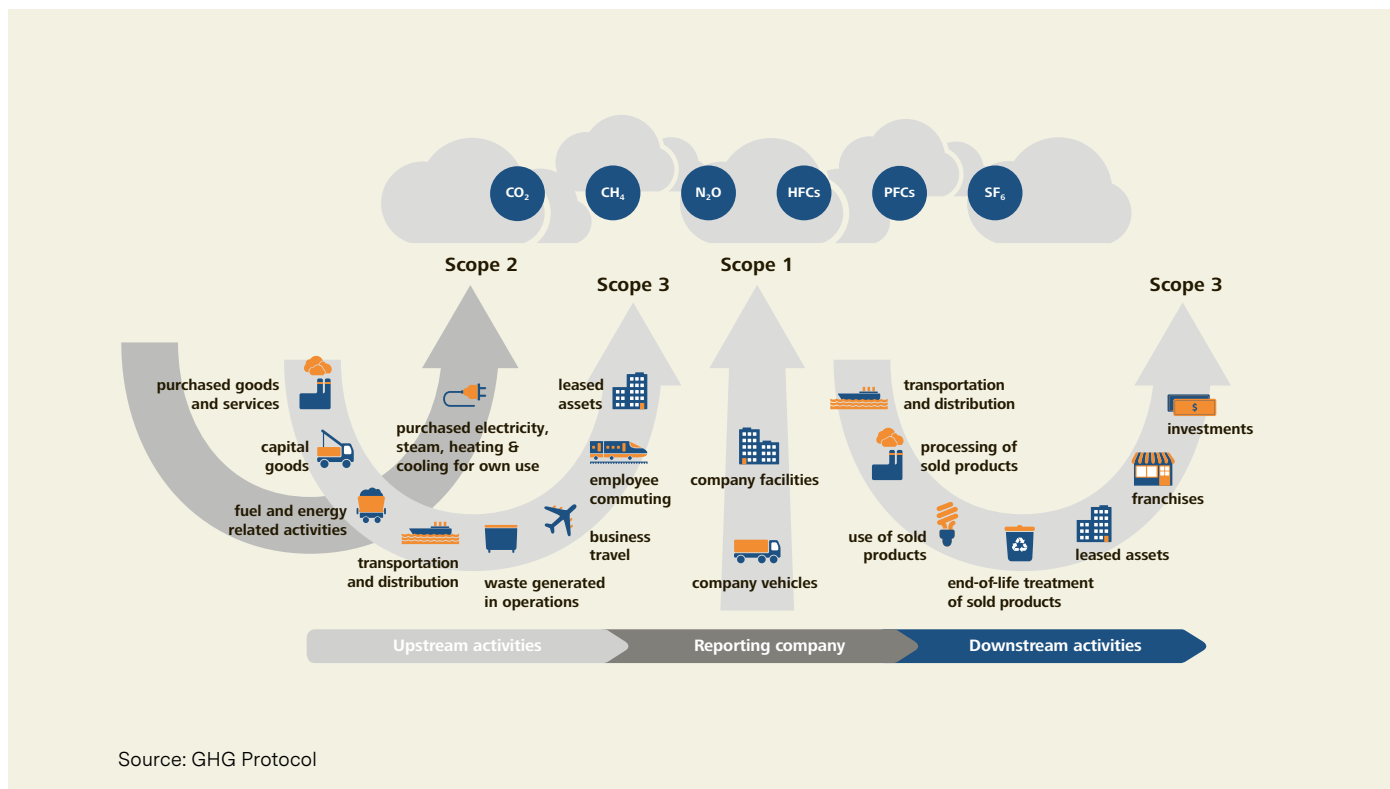
IMPACT PILLARS	GENERATION OF RENEWABLE ENERGY	GENERATION CAPACITY FOR RENEWABLE ENERGY SHIPPED	CIRCULAR ECONOMY (RECOVERY, REUSE)	WASTE MANAGEMENT	PROVISION OF DRINKING WATER	WATER SAVED, RECYCLED OR TREATED	CARGO/PASSENGER TRANSPORT BY RAIL	CARBON FOOTPRINT (SCOPE 1&2)	AVOIDED CARBON EMISSIONS (PAE)
	GWh	MW	tons	tons	million m ³	million m ³	million passenger-km	tons CO ₂ e	tons CO ₂ e
TOTAL KPI ON FUND LEVEL	42.6	82.0	3,563	70,255	7.7	12.6	143.4	62,906	2,602,697
Efficient Industry	0.1	6.3	139					9,925	311,495
Lifecycle Management	4.3		872	11,835		0.8		9,233	4,180
Low Emission Transportation	0.2		264				143.4	4,305	17,638
Clean Water	11.1		249	58,419	7.7	11.5		13,427	25,825
Clean Energy Infrastructure	26.8	75.7	1,124			0.1		14,820	1,185,186
Building Technology	0.1		915			0.2		11,196	1,058,372

Source: Vontobel Asset Management. Portfolio as of June 30, 2020. Asset under Management: 569.7 EURm.

Potential Avoided Emissions (PAE) Methodology

Avoided emissions are “emissions that would have been released if a particular action or intervention had not taken place”. Avoided emissions can appear in Scope 1, 2 and/ or 3, depending on the type of product or service offered and how it affects the third parties¹⁰ value chain.

Figure 15: The GHG Protocol’s division of greenhouse gas emissions into Scopes



Source: GHG Protocol

2020 PAE edition

This is the fifth time we have conducted such an analysis. No significant methodological changes have been implemented since the previous year’s analysis. The emissions occurring during the use of a product falling into the producing entities Scope 3 emissions, can be much larger than the emissions from the product’s production. Hence, the assessment of Scope 3 emissions are of utmost importance. The emissions avoided by using a more efficient product or service are often conditional to either consumer or market behaviour, although this analysis does not make absolute predictions about behavior or market developments. Consequently, ISS ESG has chosen the term “potential avoided emissions” (PAE) to underline that the avoided emissions presented in this report are not assured or verified by a third party and are dependent on certain behaviours. Furthermore, the com-

panies included in this report provide popular services with a proven market demand, sometimes using infrastructure that has been in place for over a century. It is therefore difficult to establish additionality. For instance, if one company were to cease operation, it is likely that a company with a similar offering would take its place in the market.

Baseline

To quantify an amount of potential avoided emissions, a baseline has to be established. The baseline describes what would have occurred if the product or service had not been available. The PAEs are calculated by taking the difference in GHG emissions between the baseline made and the scenario where the product or service is made available.

¹⁰ CDP, Technical note: Glossary terms

Calculations

Each holding was contacted and asked to provide data on avoided emissions. If a holding was able to provide their own avoided emissions calculations, either via direct communication or publicly available information, these calculations were reviewed and used. In some cases, if the holdings' calculations were deemed imprecise, the calculations were amended. If no data was provided, a variety of methods would be applied, such as an analysis of climate friendly product lines, or an extrapolation based on key figures from projects or companies in the same sector. The choice of assumptions and emission factors has followed a conservative approach. In other words, when choosing data points, the value generating the lower amount of PAE has been chosen. It is possible that the results would be higher if in-depth company-specific calculations were made.

For companies providing products or services where the PAE is expected to occur over a longer period, such as via an energy efficient battery or renewable energy technologies, an ex-ante approach considering the lifetime of the product or service has been applied.

If a holding was unable to provide data, and the products and services provided were difficult to define from an environmental perspective, the holding would be given the rating 'No Potential Avoided Emissions' (No PAE).

The data request concerned 2019. If data from 2019 was unavailable, the latest available data was used instead.

Double counting

From an opportunity perspective, a company that is providing PAE is contributing to building a solution to the challenges posed by climate change. In an interlinked society with complex value chains it is nearly impossible to completely exclude double counting. A couple of companies can provide interlinking services, each reporting how their service helps third parties avoid emissions. To illustrate, ISS ESG can look at the example of a wind farm. A wind turbine producer will report the avoided emissions from installed capacity. Engineering consultants may do the same after having assisted the wind farm developer to install the turbines. The energy generated can then be used by a rail service lowering the travel emissions of

their passengers. All entities, being part of the same value chain, might report avoided emissions from the same source. This does not pose a problem on a company level, but the possibility of double counting on a portfolio level can be quite high. A portfolio analysis however, gives the stakeholder an overview of the holdings' priorities and overall climate strategies, and creates a mapping of positive impact.

Explanatory power and limitations

The primary limitation of this exercise has been the availability of relevant data. The process of analyzing the activities of a company is time consuming and presents several challenges, including the interpretation of unstandardized reports and a lack of available information. The results are therefore always dependent on the quality of the available data.

All results presented in this report are based on approximations and assumptions. The data used in this report is derived from a couple of sources. For companies that were not able to provide data but whose offering enable PAEs, generic data has been used.

Allocation rules

The emissions and PAEs are proportionally allocated 'per share' to the investor. If an investor owns 0.1% of a company, 0.1% of that company's emissions or PAE's have been apportioned to that investor. On a fund level, these PAEs and emissions are being aggregated based on the respective ownership of each holding.

Intensity metrics

In this study, ISS ESG presents the results with a primary intensity metric of emissions and PAE per million euro (EURm) invested, attributing an investment's share of emissions to the investor.

This metric displays how many tonnes of CO₂e emitted or avoided an investor would finance in relation to the respective ownership in a certain company or portfolio. A company's portion of PAE is determined by the value of shares held / the company's market cap.

Figure 16: Major findings on company specific changes

COMPANY	DIFFERENCE 2019/20	REASON/COMMENT
KION GROUP AG	221%	Significant more e-trucks (battery or fuel-cell powered fork-lifts) compared to previous year.
LKQ CORP	204%	Thanks to organic growth and acquisitions, numbers of cars processed for recycling components increased significantly
FIRST SOLAR INC	152%	The new generation 6 production line and increased capacity utilisation expanded shipment of solar moduls
NIDEC CORP	74%	The company doubled the amount of its premium efficiency motors compared to last year
ORSTED A/S	45%	The ramp-up of new wind parks increasaed generation of renewable power
KINGSPAN GROUP PLC	25%	Improved disclosure made an adjustment of PAE-calculation possible
REGAL BELOIT CORP	-20%	Reduced revenues from its climate solutions products leads to lower PAEs
ANDRITZ AG	-55%	Fewer installations of hydro power equipment caused the drop in attributable PAEs

Figure 17: PAE data of all holdings as of June 30, 2020

IMPACT PILLARS/ SUBTOPICS	HOLDINGS	TOTAL PAEs (tCO _{2e})	PAE PER EURm INVESTED	% OF OWNERSHIP	PAE PER OWNERSHIP
Building					1,058,372
Building Technology Materials & Insulation					
	COMPAGNIE DE SAINT GOBAIN	1,200,000,000	68,102	0.08 %	916,727
	FERGUSON	91,897,916	5,781	0.05 %	50,486
	KINGSPAN GROUP	57,333,333	5,476	0.07 %	42,396
Building Technology Technologies					
	DAIKIN INDUSTRIES	67,000,000	1,634	0.02 %	14,035
	JOHNSON CONTROLS	241,322	11	0.02 %	56
	NIBE INDUSTRIER			0.03 %	
	REGAL BELOIT	10,435,172	3,369	0.31 %	32,694
	TRANE TECHNOLOGIES	4,300,000	226	0.04 %	1,919
Smart Lighting					
	UNIVERSAL DISPLAY	82,919	13	0.07 %	60
Clean Energy Infrastructure					1,185,186
Alternative Energy					
	CANADIAN SOLAR	103,339,600	103,260	0.53 %	548,873
	FIRST SOLAR	84,993,052	18,162	0.18 %	156,124
	ORSTED	11,300,000	260	0.02 %	1,736
	SIEMENS GAMESA RENEWABLE	263,695,622	24,690	0.08 %	202,165
	SOLAREEDGE TECHNOLOGIES			0.11 %	
	VESTAS WIND SYSTEMS	322,000,000	18,325	0.05 %	176,540
Electric Utility					
	IBERDROLA	22,920,441	349	0.02 %	5,473
	NEXTERA ENERGY	23,747,671	229	0.01 %	1,467
Power Equipment					
	PRYSMIAN	25,260,274	4,558	0.22 %	55,446
	QUANTA SERVICES			0.13 %	
	SCHNEIDER ELECTRIC	120,000,000	2,146	0.02 %	20,585
	SIEMENS AG	48,000,000	544	0.01 %	4,448
Smart Grid					
	ITRON	5,253,364	2,271	0.23 %	12,329
Clean Water					25,825
Clean Water Analysis & Chemicals					
	HENKEL	12,530,000	373	0.02 %	2,249
	THERMO FISHER SCIENTIFIC			0.02 %	
Clean Water Equipment					
	AALBERTS	78,673	25	0.10 %	75
	GEBERIT	3,993,600	244	0.04 %	1,524
	PENTAIR	712,117	129	0.10 %	727
	A.O. SMITH	3,314,148	497	0.09 %	2,821
	XYLEM	7,621,236	740	0.07 %	5,352
Clean Water Infrastructure					
	TETRA TECH	29,899	8	0.20 %	59
Clean Water Supplier & Disposer					
	AMERICAN WATER WORKS			0.08 %	
	GUANGDONG INVESTMENT	12,260	1	0.09 %	11
	SUEZ	10,217,000	1,558	0.13 %	13,008

IMPACT PILLARS/ SUBTOPICS	HOLDINGS	TOTAL PAEs (tCO _{2e})	PAE PER EURm INVESTED	% OF OWNERSHIP	PAE PER OWNERSHIP
Efficient Industry					311,495
Industrial Engineering					
	AIR PRODUCTS	69,000,000	1,470	0.03%	18,967
	NVENT ELECTRIC			0.17%	
	ANDRITZ	131,854,483	37,532	0.19%	246,856
	CHROMA ATE			0.17%	
	DAIFUKU	63,326	6	0.06%	40
	MITSUBISHI ELECTRIC	77,000,000	3,172	0.02%	17,412
	OMRON	965,000	80	0.07%	714
	ZEBRA TECHNOLOGIES			0.08%	
IT & Software					
	ANSYS			0.03%	
	APPLIED MATERIALS	1,059,864	22	0.03%	327
	ASML HOLDING			0.01%	
	EQUINIX			0.03%	
	INFINEON TECHNOLOGIES	56,000,000	2,080	0.03%	15,194
	KEYSIGHT TECHNOLOGIES			0.07%	
	NVIDIA			0.01%	
	NXP SEMICONDUCTORS	185,499	7	0.04%	75
	POWER INTEGRATIONS	5,204,477	1,691	0.21%	10,672
	ROPER TECHNOLOGIES	67,173	2	0.03%	19
	SYNOPSYS	700,000	27	0.07%	510
	TEAMVIEWER			0.08%	
Consulting & Services					
	HANNON ARMSTRONG	204,951	112	0.35%	709
Low Emission Transportation					17,638
Auto Supplier					
	CONTINENTAL	3,181,901	182	0.02%	651
	NIDEC	13,278,820	378	0.02%	2,247
eMobility & Alt. Fuels					
	KION GROUP	6,964,909	1,077	0.12%	8,290
	MURATA MANUFACTURING			0.02%	
	SAMSUNG SDI	870,000	47	0.06%	493
Rail Infrastructure					
	CRRC	2,488,484	134	0.02%	603
	ZHUZHOU CRRC TIMES ELECTRIC	138,083	53	0.09%	122
Rail Operator					
	EAST JAPAN RAILWAY	16,236,682	693	0.02%	3,080
	UNION PACIFIC	25,000,000	250	0.01%	2,152
Lifecycle Management					4,180
Waste Management & Recycling					
	CHINA EVERBRIGHT	6,567,099	2,269	0.04%	2,628
	ECOLAB	1,500,000	30	0.02%	374
	LKQ	2,120,125	303	0.06%	1,177

Third-party verification of this Impact Report



REVIEW STATEMENT

Impact indicators for Vontobel Fund - Clean Technology
29.09.2020

Review Summary

ISS ESG has reviewed the KPI's reported by Vontobel Asset Management.

- *ISS ESG has reviewed the key impact indicators reported by the Listed Impact Team of Vontobel Asset Management. A questionnaire was sent by Vontobel Asset Management to the holdings to gather the necessary data points.*
- *ISS ESG reviewed a self-selected sample of 2-3 data points per type of metric provided by Vontobel Asset Management.*
- *The information reviewed corresponds to that communicated by the investee companies and reflects the positive impact of the holdings in the Vontobel Clean Technology Fund.*

ISS ESG provides corporate and country ESG research and ratings that enables its clients to identify material social and environmental risks and opportunities, including through advisory services.

Contact us

We would welcome feedback or suggestions from investors and companies to help us further develop our impact report.

For companies



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