Sustainability Report 2022













Munich Venture Partners is a European venture capital investor backing entrepreneurs driving the eco-industrial revolution with transformative technologies which will fundamentally transform established value chains.

We invest in technology driven business models mutually reinforcing economic scalability, on the one hand, and environmental sustainability, on the other one.

Our commitment focuses on European investments within the most CO_2 emission-intensive value chains such as energy, mobility, agtech and food, as well as the industrial sector.

Read more at www.munichvp.com

CONTENT



1. OUR SUSTAINABILITY APPROACH



2. OUR SUSTAINABILITY INITIATIVES



3. OUR PORTFOLIO'S ESG PERFORMANCE



4. HOLISTIC VALUE CREATION ALONG THE TRIPLE TOP LINE



5. OUR CONTRIBUTION TO THE SDGs

Our sustainability approach







Implementing ESG into our investment activities

As institutional investors, we have a duty to act in the best long-term interests of our stakeholders. In this fiduciary role, we believe that environmental, social, and corporate governance (ESG) matters enhance the performance of our portfolio companies and represent three central components to measure the sustainability of our fund.

In addition to generating superior financial returns for our investors, MVP's investment strategy also focuses on investments generating positive environmental and societal impact. As a cleantech investor, our focus is on companies that address climate change and turn climate risk into an opportunity for technologies that enable resource efficiency, the adoption and utilization of low-emission energy sources, regenerative agriculture and more.

In our activities we always strive to serve our investors' interests to the best of our capabilities and actively exercising our stewardship responsibilities is an integral part of our investment approach. Our investment process is guided by the following set of principles:



MVP incorporates ESG issues into the investment and decision-making process



MVP proactively drives forward the incorporation of ESG issues in management practices of the portfolio companies



MVP will continuously improve transparency and monitoring of ESG issues in the portfolio companies



MVP is dedicated to continuously improve the implementation of meaningful ESG principles and will monitor the progress of ESG implementation and its effect on portfolio company performance



MVP collaborates to more effectively implement ESG principles within the Venture Capital and Private Equity industry

Integrating ESG into each investment phase

As a signatory of the UN Principles for Responsible Investment, MVP has a longstanding history in measuring the impact of its portfolio. We address ESG and sustainability considerations within every stage of the investment process:

- > **Pre-investment**: we have a clear cleantech mandate and conduct a dedicated ESG and sustainability due diligence
- > Holding period: yearly ESG and Triple Top Line assessment
- > Exit: focus on good quality governance; our goal is to find new shareholders that have an interest in the continuation of the well-established and sustainable business practices of the company



Considering the pre-investment phase, we have a clear exclusion policy in our, which in addition to investments prohibited by law is also excluding investments into sectors such as gambling, alcohol and tobacco, or weapons.

During the holding period, we evaluate the ESG performance of our portfolio companies on a yearly basis through company specific key performance indicators (KPIs) aligned with standards such as the ICGN, EFFAS ESG Guidelines, TCFD, or the IRIS metrics.

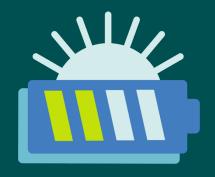


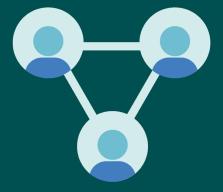
In addition to our ESG assessment, we use the Triple Top Line framework to measure the impact of our portfolio companies. With the help of the Triple Top Line, we define 9 impact KPIs strongly linked to the strategies of our investees.

The KPIs we are tracking also enable us to ensure that our investments are compliant with the EU Taxonomy and are contributing to its environmental objectives:

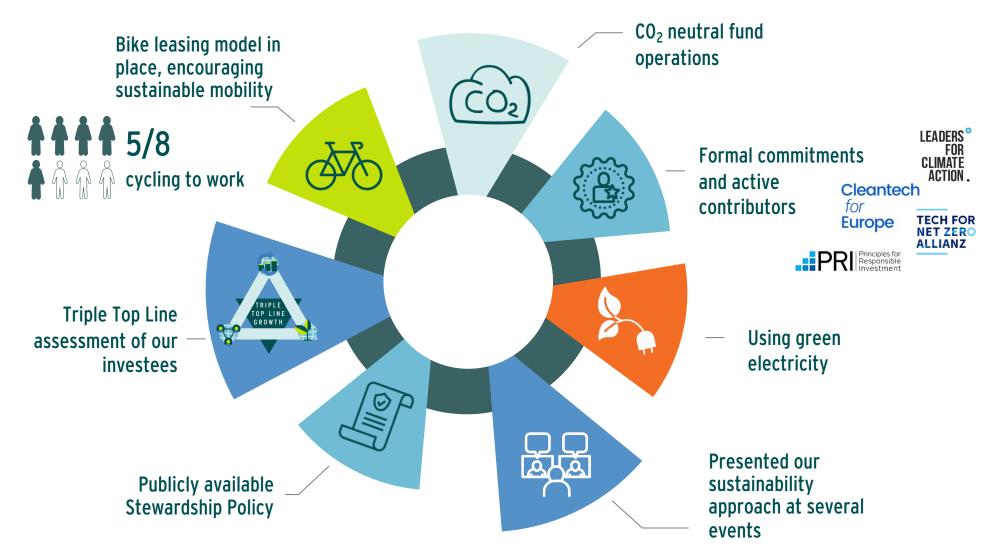
- > Climate change mitigation
- > Climate change adaptation
- Sustainable and protection of water and marine resources
- > Transition to a circular economy
- > Pollution prevention and control
- > Protection and restoration of biodiversity and ecosytems

Our sustainability initiatives

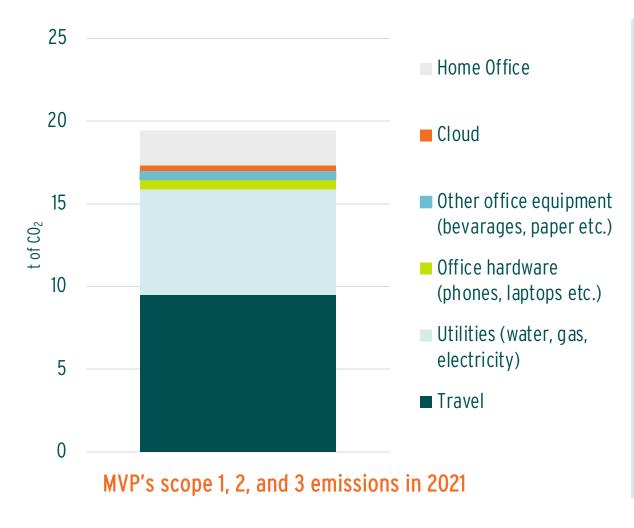




Implementing sustainable practices at MVP



CO₂-neutral fund operations





^{*}The projects used for offsetting are compliant with the Gold Standard

Holistic ESG and impact assessment



Development towards the Triple Top Line

2013 2018 2020



ESG Reporting

Tracking the ESG performance of our portfolio through company specific KPIs.





SDG Reporting

Linking investees and ESG KPIs to the SDGs.



Doing the right things.



Triple Top Line

Contributing to the SDGs through value creation on all pillars of the Triple Top Line (TTL).



Doing the right things right.

Our portfolio's ESG performance









ESG PERFORMANCE Environmental aspects

At MVP we put great attention to our portfolio companies leaving the lowest environmental footprint possible. We go even further by fostering that our investees make our planet better. Therefore, environmental issues play a central role in our reporting.

The environmental part of the questionnaire focuses on following topics:

- > Reduction of CO₂ emissions enabled by the company's technology
- > Total CO₂ emissions across the value chain
- > Energy usage and energy intensity ratio
- Number of energy efficient households created and/or connected
- Conduction of environmental risk assessments as well as the implementation of a climate resilience strategy
- > (Recycled) materials used as inputs in the manufacturing process
- > Total amount of (non-)hazardous waste
- > Water usage
- > ESG related R&D expenditures
- > Number of new patents on environmental aspects
- Number of agricultural clients and approximate increase in food production enabled by the company's technology

ESG performance - environmental aspects



> 210kt

emissions savings enabled by four investees (40% increase compared to last year)



15%

water efficiency increase realized by one investee



729%

increase in energy supplied to communities managed by one investee 48%

decrease in unsorted waste at one investee





EUR 4.951k

ESG R&D spent by four portfolio companies



50%

increase in reporting investees having a climate resilience strategy in place



>50%

increase in reporting investees conducting environmental and social risk assessments



ESG PERFORMANCE Social aspects

The factor "social" represents another central issue of responsible investing. In the 21st century, this means fighting against discrimination of any kind, equal opportunities for all employees, fair remuneration, and a healthy work-life-balance – to name only some of the central aspects.

We are convinced that these standards must be implemented in each of our portfolio companies, also because a good working environment increases retention rates and enhances shareholder value in the long-run.

Furthermore, by establishing the reputation of an attractive employer, our investees receive more applications and recruitment is comparatively easier and less costly.

Among others, MVP focuses on the following social KPIs:

- > Maturity of workforce
- > Human rights and discrimination incidents
- > Remuneration system
- Expenses on employee training and career development reviews
- > Law-suits against our portfolio companies

ESG Performance - Social Aspects



515
total jobs in active portfolio

17.8% increase in total employees

28% women (11% increase compared to last year)

173 new employees

90 exits



45% absolute increase in bonus payments

25-100%

of investee employees received a bonus for 2021



incidents of discrimination

55-100%

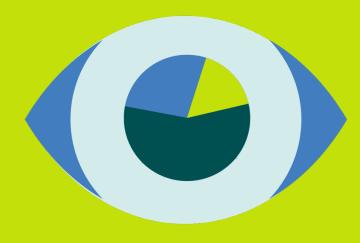
employees receive regular performance & career reviews

63%

investees have an employee feedback system

0

reporting investees increased training expenses per FTE



ESG PERFORMANCE Governance aspects

In terms of governance, Munich Venture Partners gives special attention to board and management compositions – no discrimination based on a person's gender, age, race or any other kind of preferences when it comes to management and board positions – as well as preventing and fighting corruption. In addition, we track following metrics:

- > Sanctions resulting from non-compliance with laws
- > Financial assistance received by governments
- > Total monetary value of financial and in-kind political contributions made directly and indirectly
- > Significant fines and non-monetary sanctions
- > Presence of government in the shareholding structure

These data serve as basis for MVP to monitor that its portfolio companies are governed responsibly and reputably.

MVP proudly announces that repeatedly no cases of corruption have been reported and no governance related suits against any of its portfolio companies have been filed.

ESG performance - governance aspects





15% independent board members







The MVP ESG champion



Some of last year's highlights include:

- > Outperformed previous year's growth in produced goods by >150%
- > 15% water efficiency increase realized
- > Energy intensity ratio improved by 7%
- > Spendings on maintenance & safety of production sites increased by 17%
- Reduced the quantity of unsorted waste per m³ of output produced by > 90%
- > Extended its supplier network
- > Portfolio average female-employees quota
- > Second highest increase in new employees within portfolio
- > Second highest training expenses per FTE out of reporting companies
- Highest number of individual board members within portfolio
- > Anti-discrimination and fair-compensation policies in place

Value creation along the Triple Top Line



Holistic value creation along the Triple Top Line



EQUITY

We manage our investments to promote a smart, equal, and inclusive society.

ECOLOGY

We manage our investments to drive the transition to a sustainable system.

The Triple Top Line, Adapted from: Design for the Triple Top Line: New Tools for Sustainable Commerce, W. McDonough, and M. Braungart, own representation

The integration of ESG factors into investment processes and decision making has seen tremendous growth in recent years. Additionally, as the investment world is adopting an active role in achieving the Sustainable Development Goals, we noted a rising need for a framework enabling sustainable and quantifiable value creation as well as a straightforward implementation.

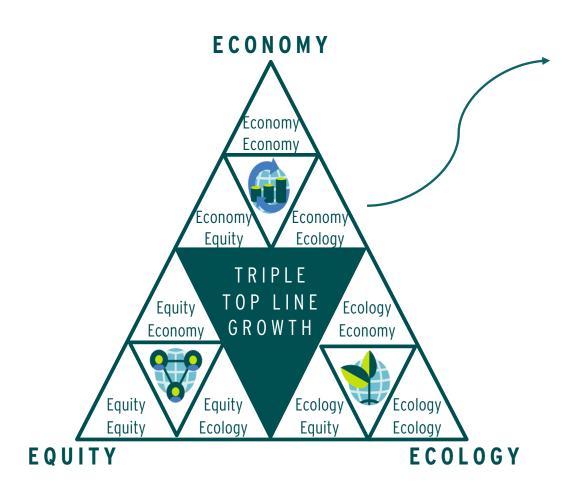
To be able to achieve this, we developed our own assessment methodology based on the Triple Top Line, complementing our ESG assessment and ensuring a sustainable strategic push for our investees.

The Triple Top Line aims for a sustainable industrial system, generating economic returns while enhancing nature and society. Rather than reducing negative effects by balancing economic, ecological, and social equity targets, the Triple Top Line chooses to employ their dynamic interplay to concurrently generate value on all three pillars. By concurrently maximizing value, the Triple Top Line points out that economic growth, environmental gains, and societal value creation are not only interconnected but even mutually reinforcing each other.

The Triple Top Line is embodied in a fractal triangle. When using this framework, the starting point is the top corner of Economy-Economy as the first aspect to be considered is whether a product can be made at a profit or not. If that is not the case, the process ends here due to lacking economic viability. Otherwise, one can start to move around the fractals and examine how progress can be generated in each.

^{*} Equity stands for social equity

Adapting the Triple Top Line fractals



What is the rationale of the fractal?

> Economy - Ecology: Will our production process use resources efficiently?
Will it reduce waste?



How can the company create value?

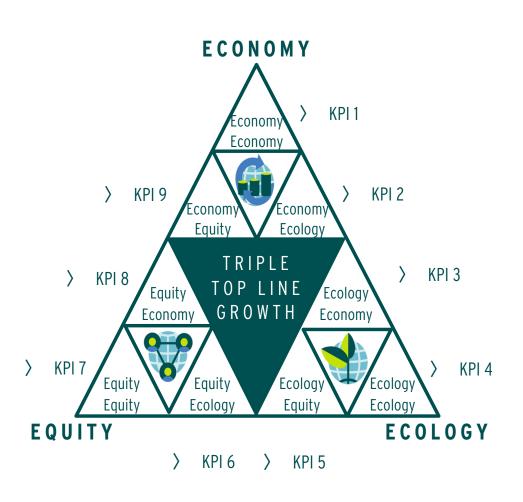
- How can Fahrenheit make use of otherwise potentially unused resources?
 - > Fahrenheit uses waste heat as a a feedstock for its climate neutral cooling



How can this be tracked?

KPI: kWh of waste heat used

The end result: 9 KPIs tracked on a yearly basis



What we particularly like about the TTL

- Employs the dynamic interplay of economic, ecological, and social equity targets rather than balancing these goals
- Points out that economic growth, environmental gains, and societal value creation are not only interconnected but mutually reinforcing each other
- Holistic approach: concurrently maximizing value on all pillars
- Efficiency and effectiveness: doing the right things the right way
- Condenses it down to nine questions and KPIs, thereby enabling an easy implementation for our investees

Portfolio Triple Top Line highlights

*FAHRENHEIT

- 3.4xincrease in kWh output sold
- 4.4x increase in tons of CO₂ emissions reductions enabled
- Doubled the number of devices sold to countries being particularly affected by increasing temperatures

> 2.5 increase in bookings



- 4.3x increase in customers connected to energy communities managed by Greencom
- > 65x increase in assets connected to the GreenCom platform
- 24x increase in old energy assets replaced by more efficient ones
- 10% increase in employees being part of VSOP and/or bonus program



- 2.4x yield increase
- > 30% increase in capacity utilization

asgoodasnew

- 26% increase in CO₂ emissions savings enabled
- High customer satisfaction: increased Customer Retention Rate and Net Promoter Score

Our investees' contribution to the SDGs



Kebony is environmentally friendly enhancing soft wood which then achieves similar characteristics to tropical hard wood. Kebony's patented technology involves impregnating the soft wood with furfuryl alcohol, a bio-based waste product of agricultural crops. The impregnation leads to stronger wood cells through the permanent lock-in of polymers, which thus result in increased stability, durability, and hardness without using any toxins.

Kebony represents one of the few technology-based countermeasures to tropical deforestation offering similar high-quality wood from faster growing trees. Through Kebony's impact, in sum, > 200,000 tons of CO₂ could be avoided in 2021.

But it's not just by avoiding deforestation that Kebony helps to mitigate climate change. In addition, Kebony's production process is also very low in CO_2 emissions compared to the common wood treatment industry as only organic products are used for the impregnation process. Furthermore, by lasting without any maintenance for 30 years, Kebony enables additional CO_2 savings. Kebony contributes to the following SDGs:

Fahrenheit produces toxin-free and low energy adsorption cooling systems, based on zeolite coating technology. The cooling process uses water as a refrigerant instead of historically used highly toxic, ozone hazardous refrigerants and excess heat instead of electricity as a power source. As a result, Fahrenheit enables e.g. heat from production processes or data centers to be used for cooling.

Fahrenheit's cooling process saves up to 80% of energy consumption compared to common compression machines. Most importantly, Fahrenheit's total CO_2e emissions for 1 KWh amount to only 13.3g compared to 144g CO_2e /KWh with a traditional compression cooling system.

This becomes very relevant, as our cooling needs are expected to triple within the next 30 years. As Fahrenheit's technology and market access develop, Fahrenheit's adsorption technology could save up to 1% of global CO₂ emissions.

Fahrenheit contributes to the following SDGs:























Prolupin produces plant-based proteins based on lupines that substitute animal-based proteins. Prolupin's alternative dairy products are sold under the fully owned brand 'Made with Luve'.

The lupine plant is particularly rich in proteins and especially resilient compared to other plant-based protein sources like soy or pea. Lupines can be cultivated at a global scale because of their ability to grow on poor and arid soil in almost every climate, without the need for fertilizers or agrochemicals. Moreover, due to their deep roots, lupines need by far less water than other alternative protein providers.

The high protein content of the lupines translates to 1ha of land generating 250kg of protein which equals approximately 14,000 liters of milk. Common milk requires on average 8.9 m^2 of land per produced liter, resulting in only 1,124 liters/ha. Thereby, cow milk emits on average 3.2kg of CO_2 per liter.

Substituting animal-based proteins is a key factor in reducing the climate impact of the food industry. By being efficient in terms of resource consumption, resilience, and soil improvement characteristics, as well as due to their low ${\rm CO_2}$ balance, lupines offer a great alternative to pave the way to a sustainable future.

Prolupin contributes to the following SDGs:











Novihum is a producer of a revolutionary natural soil enhancer based on lignite. Novihum's product is a high-value stable organic matter, identical to the humus found in natural soils, restoring soil health and increasing yields with zero impact of hazardous chemicals. The average yield increase amounts to > 15%, while Novihum concurrently enhances the drought resistance of soils. Moreover, the Novihum treatment lasts for 10+ years and does not need to be applied year on year, as common chemical fertilizers.

Overall, with the application of Novihum, up to $125t\ CO_2$ for each hectare of land treated can be sequestered. Thus, their patented technology's cradle-to-gate CO_2 emission is 3x lower than the one of existing chemical fertilizer.

Another positive impact of Novihum's technology lies in the CO_2 -low production as well as in the transformation of lignite from a vilified CO_2 emitter to a crop enhancing solutions for the future.

Additionally, by enabling soil to retain water longer, Novihum also improves the water use efficiency. This becomes particularly relevant as food demand is expected to increase due to a growing population and water quantity & quality management are among the biggest problems of modern global agriculture. Novihum contributes to the following SDGs:













Luxexcel is a 3D-printing company primarily focused on printing smooth surfaces applicable for optical components without post-processing. Luxexcel's lenses exceed market standards and are also applicable for specialty lenses and smart lenses.

Luxexcel has a large impact on material savings during the production process but also on supply chain efficiency, as the printers can be placed directly at the optician's site. The production of Luxexcel's lenses is saving 90% of waste compared to traditional production techniques.

Not requiring any post processing, the company eliminates after production waste like polishing material, which often involves toxic fluids. Especially regarding the manufacturing of smart lenses, Luxexcel is by far more efficient than common procedures, which makes Luxexcel's lenses very interesting for use cases linked to augmented and virtual reality. Luxexcel contributes to the following SDGs:

GreenCom develops a white-label SaaS platform enabling the transition to a green energy world. Greencom's platform among others:

- assembles distributed energy assets like solar PV, battery storages, or heat pumps, and makes them controllable through the use of a single platform;
- visualizes and optimizes energy flows, showing customers what's happening in their homes while helping them save money;
- > connects prosumers to energy communities, that visualize energy flows while also offering benchmarks and gamification features.

Greencom's service of setting up and managing energy communities, including the possibility to share excess renewable energy within a community, makes the company a key player in the transition towards a green energy system.

Another major benefit of Greencom's offering is that it enables endcustomers to closely monitor their total energy consumption and become aware of the individual energy consumption of the assets they are running in their homes. Thus, the end customers is provided with the basis to effectively reduce overall energy consumption, substitute high energy devices or at least operate them more efficiently. SDG contribution:















Electrochaea is commercializing a grid-scale energy storage solution. Electrochaea's proprietary power-to-gas (P2G) process converts renewable energy and CO₂ into grid-quality renewable methane for storage and distribution. The CO₂ introduced into the process can be from any available source like biogas plants, dairy farms or wastewater treatment facilities.

The patented P2G technology of Electrochaea is an active decarbonization process as it sequestrates CO_2 . The process is highly efficient as the conversion of CO_2 takes place at a 1:1 ratio to gain CH_4 , resulting in a direct proportion of produced gas to decarbonization.

A biomethanation plant of 100MWe can lead to a CO_2 mitigation of approximately 73,000 tons of CO_2 . Furthermore, the transformation process also radiates heat and water at 65° C, which can further be used in several other CO_2 -reducing use cases.

Electrochaea is thus a key enabler of the energy transition by providing the possibility of storing and distributing renewable energy. Thereby, Electrochaea actively counteracts the volatility of renewable energy and offers a long-term storage possibility. That in turn makes the deployment of renewable energy widely applicable, more effective and profitable, and can enhance the speed of the clean energy transition. SDG contribution:

7 AFFORDABLE AND CLEANENERCY









Silicon Line is an innovative, fabless, analog and mixed-signal Integrated Circuit (IC) company with a product portfolio of lowest-power analog integrated circuits for optical data communication. Silicon Line is among the world leaders in the production of ultra-low-power optical link technology that enables ultra-thin and material-saving cables.

Silicon Line achieves a size reduction of 80-90% which directly correlates with the enabled material savings.

In terms of energy consumption, Silicon Line cables need nearly only a tenth of the energy of common electrical cables. Compared to other optical cable fabrications Silicon Line has a 5 times lower energy consumption than its closest competitor. This makes a significant impact, as in 2020, 1 KWh of electricity emitted $87 - 664 \text{ g } \text{CO}_2$ in Germany.

Silicon Line contributes to the following SDGs:









Asgoodasnew is active in recommerce, which is at the intersection of the two concepts: recycling and commerce. asgoodasnew turns used smartphones, tablets, high-value cameras and notebooks into an "asgoodasnew" condition and resells them, fully comparable to new devices.

asgoodasnew is one of the leading players in the European recommerce market. The company has built up own, operations including refurbishment, which enable them to guarantee 30-month warranty of the products and thus substantially prolonging the lifetime of every device.

The company was able to save almost 10t of CO_2 in 2021 by avoiding the production of new phones. Companies like asgoodasnew are among others the key drivers of a transition towards a circular economy, which is essential to achieving the goals of the Paris Agreement, which we as an organization are supporting.

Asgoodasnew contributes to the following SDGs:







Driving the eco-industrial revolution



We drive the eco-industrial revolution with venture capital by promoting visionary startups that transform entire value chains. The innovative energy of these startups enables us to exploit significant return potential for investors, whilst simultaneously promoting environment and society.

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