



Impact Report 2022

Results in 2022



18

CORE PORTFOLIO
COMPANIES IN 2022

TOTAL CO2E EMISSIONS REDUCED
AND REMOVED BY AENU PORTFOLIO
COMPANIES IN 2022

1,240,917

715,000

PEOPLE WHOSE WELLBEING WAS
IMPROVED BY AENU PORTFOLIO
COMPANIES IN 2022



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01

About Us

Partners Review 2022

WELCOME TO AENU ERA OF
#IMPACTCAPITALISM



Dear Investors, Impact Pioneers
& Stakeholders,

2022 was marked by multifaceted challenges, including increased cost of living, stagnating GDP growth, accelerated climate change, supply chain disruptions and ongoing conflict in Europe. We see now more urgently than ever the need for a transformed capitalist system that optimizes for environmental and social wellbeing. We need #ImpactCapitalism.

Over the last year, impact startups have shown incredible resilience, with more than € 70 Bn raised in climate tech in 2022 - a 89% YoY increase - and with the rise of a new generation of mission-driven companies characterized by more experienced and diverse founding teams.

AENU is proud to be the preferred partner of choice for many of these impactful entrepreneurs, providing operational expertise, impact competence, DACH market access, and long-term support as a value additive shareholder.

As we celebrate AENU's first of many years of operation, we reiterate our commitment to increasing transparency and innovation in venture capital. We are excited to present our first-ever impact report, which showcases the fund's and its portfolio companies' contribution to solving the most pressing climate and social challenges.

We welcome your feedback and look forward to continuing this journey with all of you.

Fabian, Siobhan, Ferry, Melina
& the AENU Team

Mission / Vision

WHAT

Building Europe's leading impact technology fund

WHY

Establishing AENU era of #ImpactCapitalism that addresses the climate crisis and advances social equity

HOW

Being the long-term partner of choice for the most impactful entrepreneurs and driving systemic change in VC regarding impact, liquidity and stakeholder alignment

Meet the team

Our team is united by the ambition to drive systemic change in venture capital towards impact, accessibility and stakeholder-alignment. We are not here to fit into the system of VC. We are here to rewrite the VC rulebook for the benefit of our stakeholders. We are impact-driven, trusted, collaborative and bold. We lead the change – for others to follow.

OUR TEAM



Dr. Fabian Heilemann
Founder & CEO



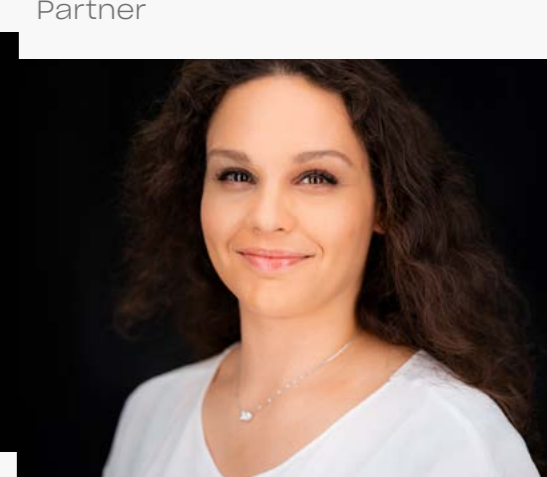
Siobhan Brewster
Partner



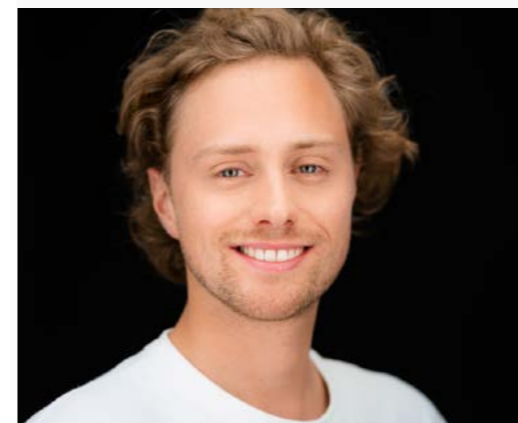
Melina Sánchez Montañés
Principal & VP Impact



Ferry Heilemann
Founder & Partner



Vanessa Brahmi
Managing Director Finance & Legal



Robert Stoecker
Impact Investor



Beatrix von Schroeder
Impact Investor



Till Thietje
Impact Investor



Elena Stark
Impact Associate



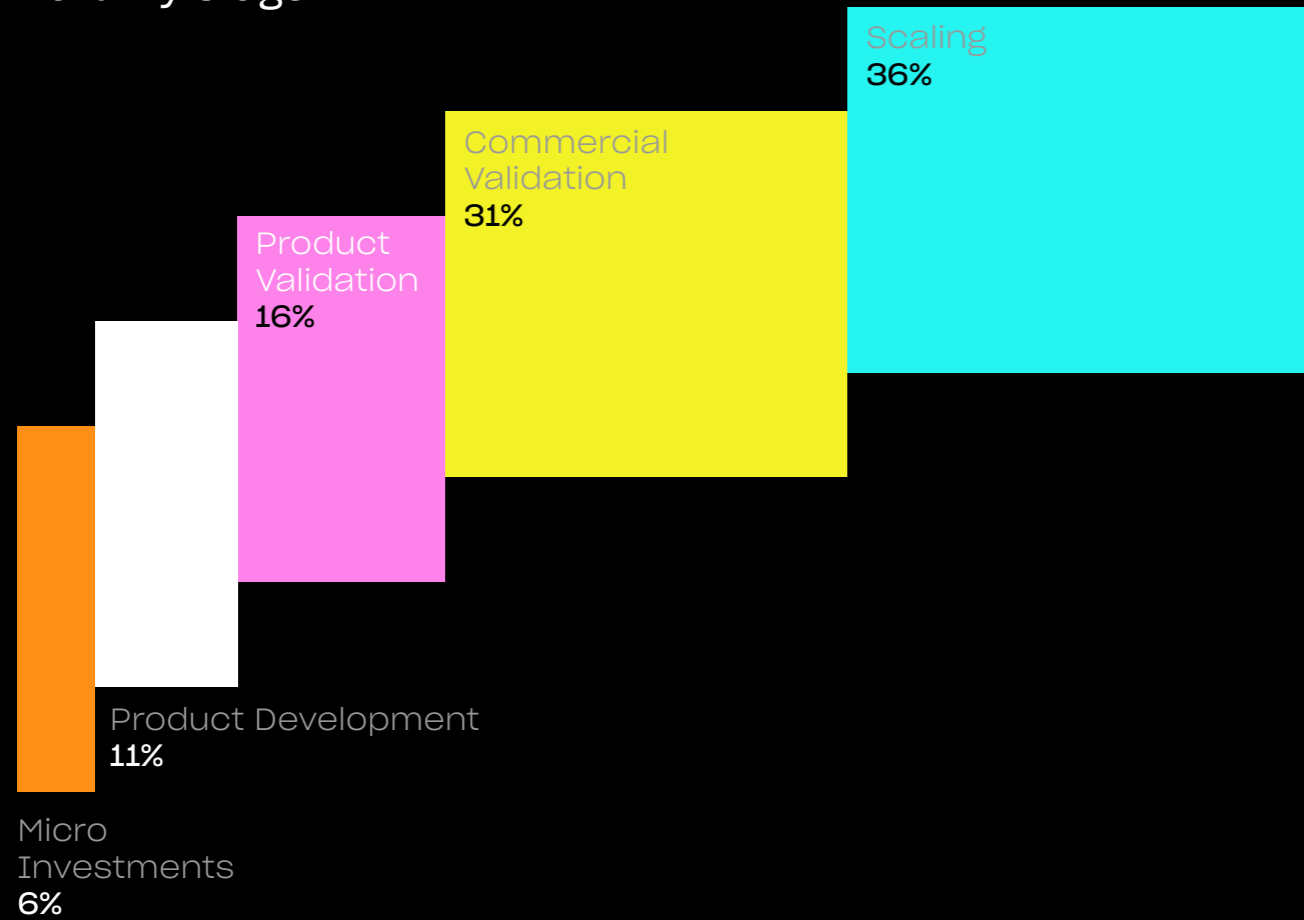
Manuel Fuchs
Finance Controller



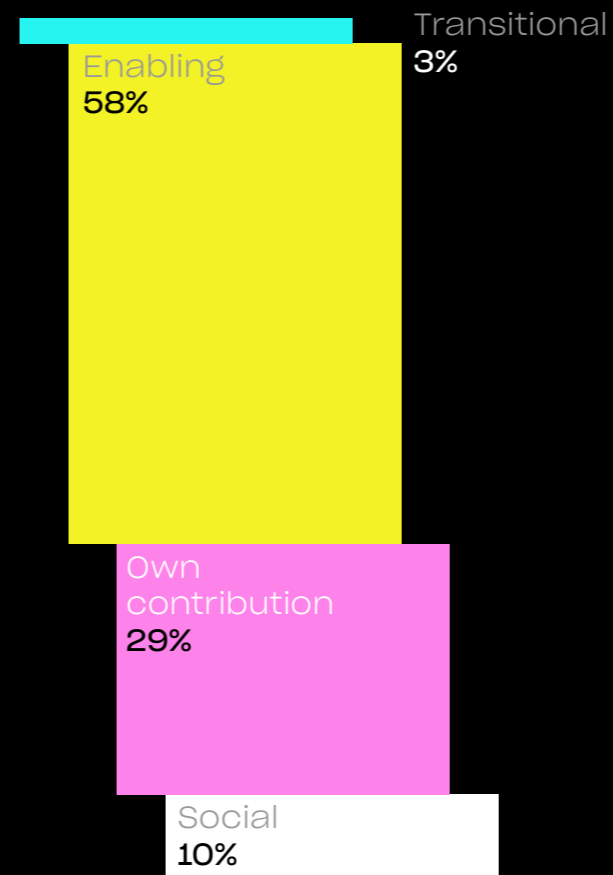
Catrin Schmidt
Executive Assistant

360° Portfolio Overview

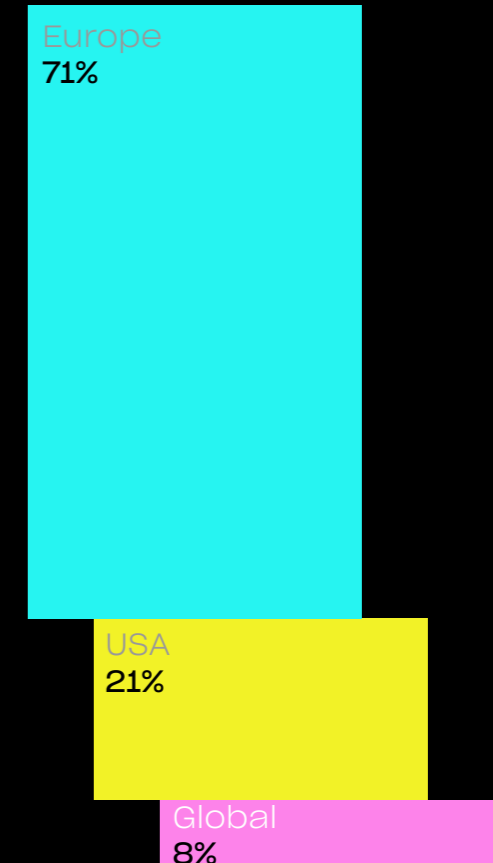
Maturity stage



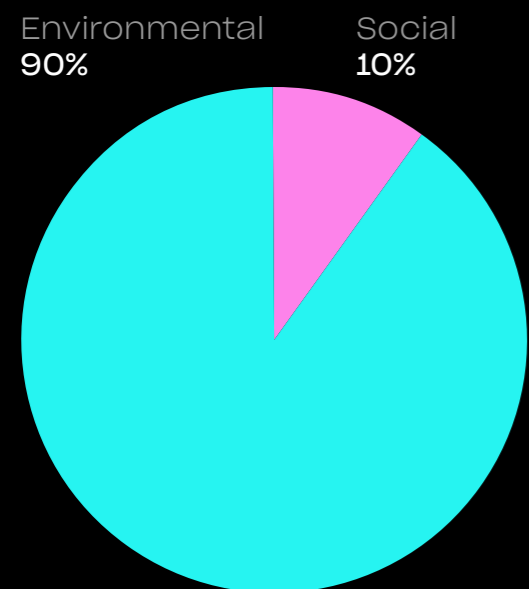
Technology types



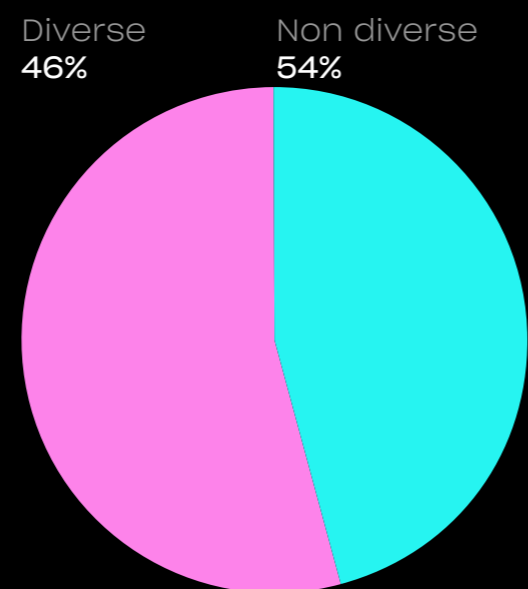
Geography



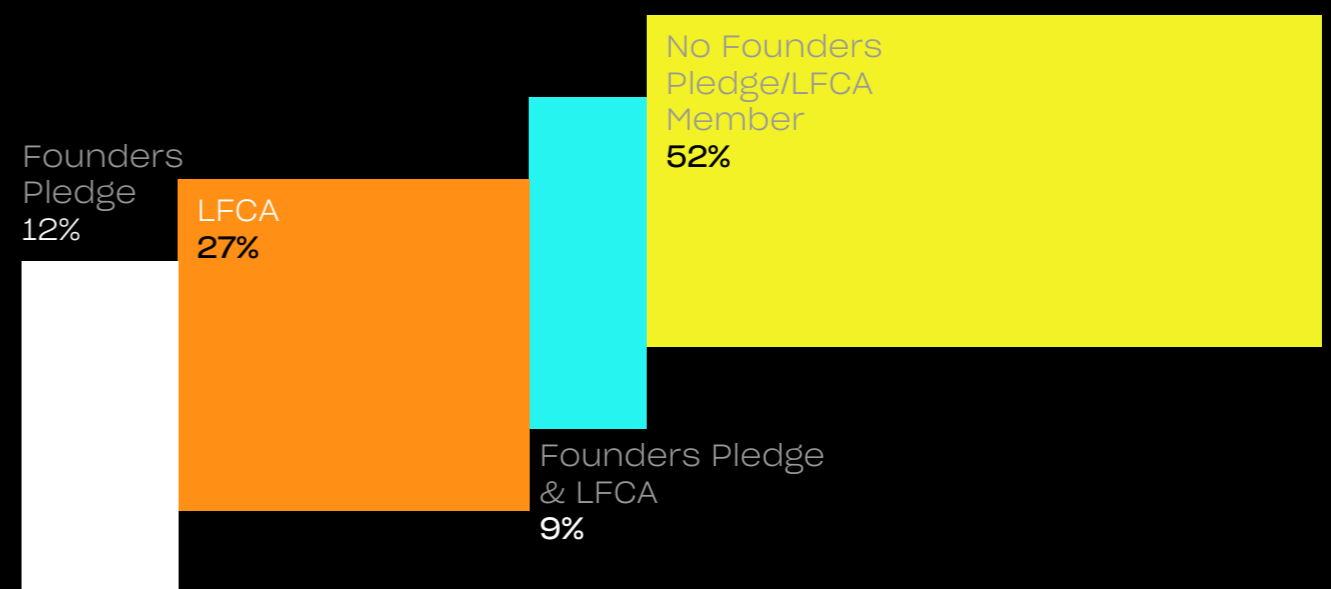
Impact category



Gender diversity in management



Voluntary sustainability commitments





02

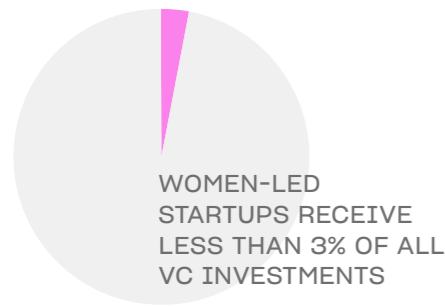
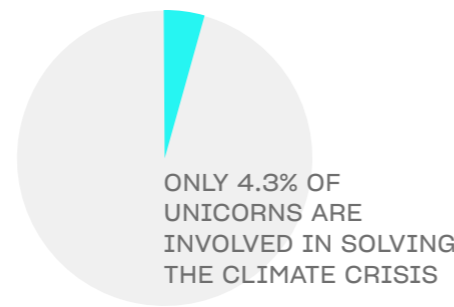
Impact Methodology

Drive for Impact

Financial capitalism is the fuel of our socio-economic system, which has led to growth, innovation, and wealth creation for the past centuries. However, its “invisible hand” has also resulted in increased social inequality and accelerated climate change, with significant biodiversity degradation. We have now exceeded six out of nine planetary boundaries, initiating an existential crisis for life on earth.

Venture capital, as part of the financial capitalist system, has contributed to the economic growth over the past decades and has shaped society by financing innovations and new technologies. Yet we also see in this asset class the shortcomings of capitalism.

Venture capital has been slow at deploying capital to existential problems: out of 1,000 unicorns, only 4.3% are involved in solving the climate crisis¹.



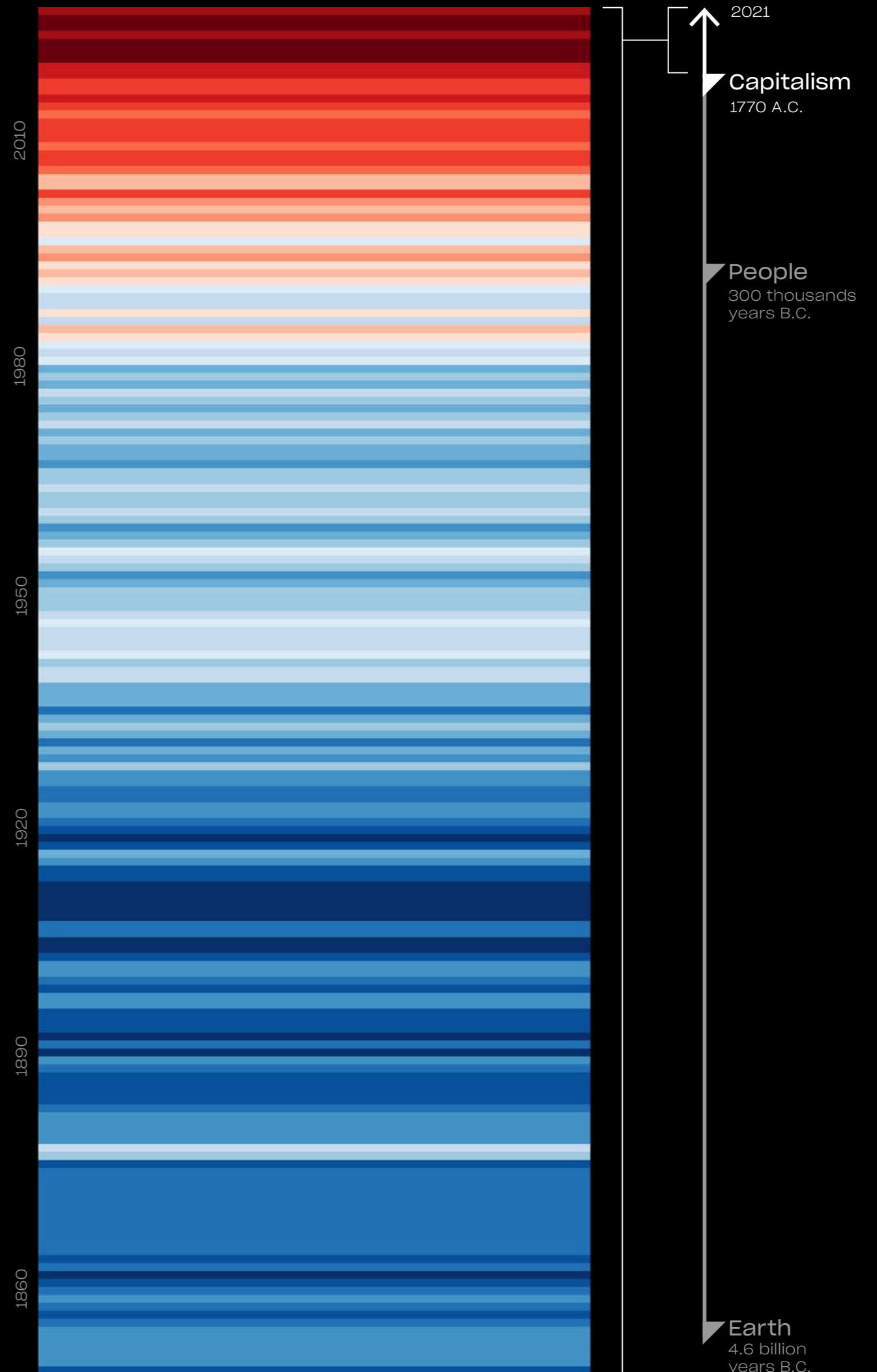
Venture capital has also perpetuated, and even accentuated, inequalities in opportunities: women-led startups receive less than 3% of all VC investments².

Despite past shortcomings, venture capital is in a unique position to fund solutions that respect and restore social and ecological boundaries. This requires a mindset shift. Venture capital needs to account for long-term, sustainable, and inclusive growth.

¹ Climate Tech VC
² Women's Agenda

WarmingStripes: Chart created by Ed Hawkins, University of Reading. Data source: UK Met Office.

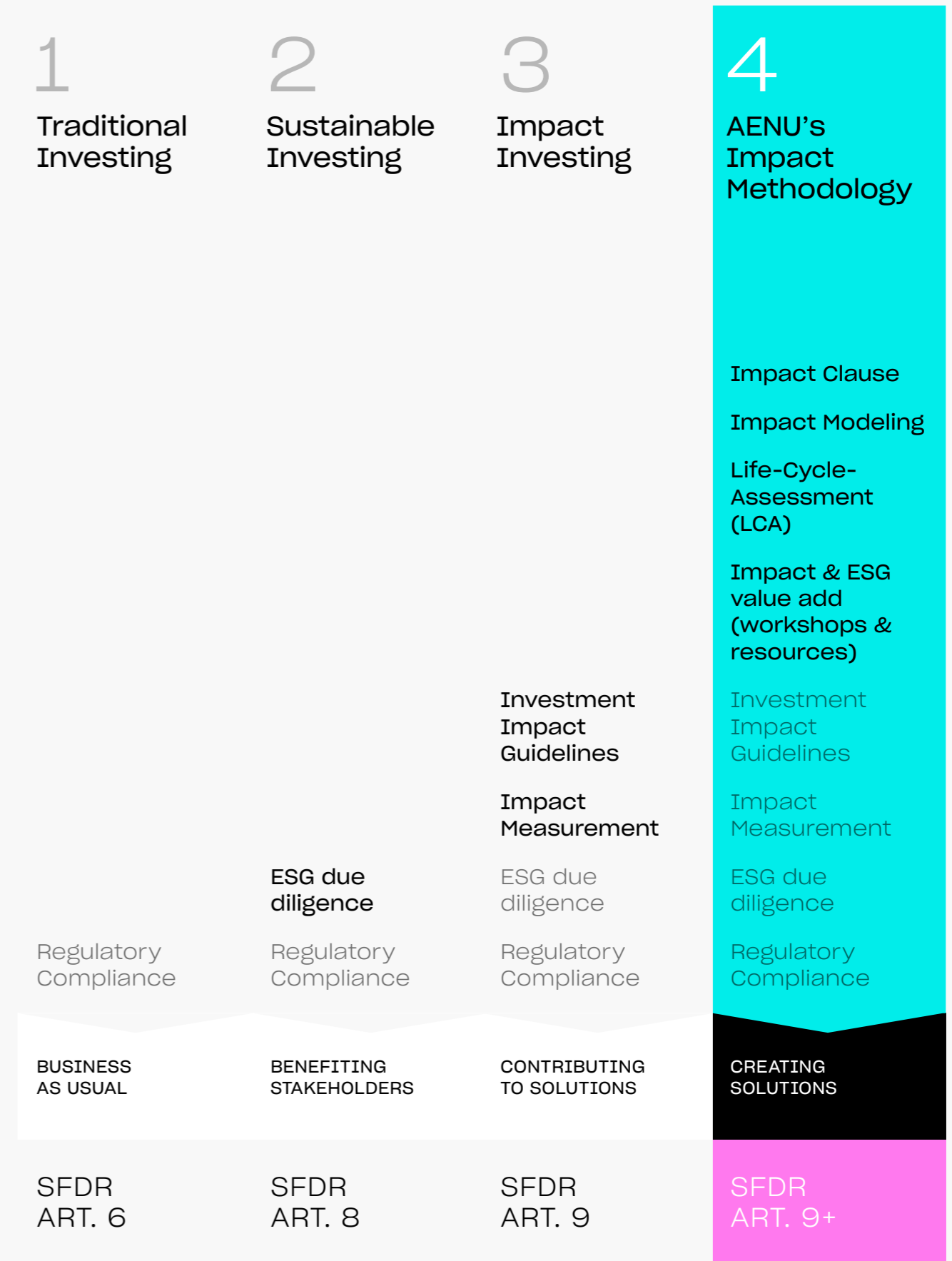
Global temperature change (1850-2021)



Our Theory of Change



The Art. 9 + Fund



AENU's Impact Framework

At AENU, we take a methodological and science-enabled approach to investing. To evaluate how companies advance our impact mission and our theory of change, we have developed a comprehensive and scalable impact framework⁷.

Systemic change requires stakeholders to work toward a common goal and to collaborate. We embrace this approach by sharing our impact framework and other resources publicly. We actively engage with the broader ecosystem of climate, impact and investment practitioners by sharing our insights and experience, and by learning from others.

To be considered for investment, companies must meet our **impact guidelines** and **impact investment thresholds**. They also must be free of material externalities or revenues from harmful industries.

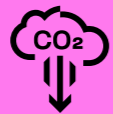

Impact Guidelines

- 1 **Founder Intentionality**
Clear intention to drive climate or social change
- 2 **Theory of Change**
Research evidence of the connection between impact problem and solution
- 3 **Interlock**
Commercial and impact success are completely intertwined
- 4 **Impact Scale**
Scalable breadth & depth of impact based on our impact thresholds
- 5 **Additionality**
Best alternative for a specific impact problem
- 6 **Impact Measurement & Management**
Quantification, tracking and reporting of impact



Impact scale

As an Article 9 fund under SFDR, we set a core set of two primary and two secondary sustainability objectives to further evaluate and measure the Fund’s impact:

Primary

<p>CO₂e emissions reduction</p>  <p>BREADTH: Potential market capture at scale, indicated by price per ton of CO₂e</p> <p>DEPTH: Annual CO₂e reduced or captured</p>	<p>Wellbeing improvement</p>  <p>BREADTH: Total number of people reached</p> <p>DEPTH: % change in specific outcome</p>
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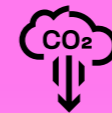

Secondary

<p>Biodiversity restoration & conservation</p>  <p>SUSTAINABLE CONSERVATION: Increased animal welfare, % land that is sustainably used/managed</p> <p>RESTORATION: Proportion of land that is protected / restored over total land area</p>	<p>Water health</p>  <p>EFFICIENCY</p> <p>STRESS / REDUCTION: Freshwater withdrawal as a proportion of available freshwater resources</p> <p>QUALITY: Pollution, acidification, eutrophication, recycling</p>
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Breadth: Refers to the range and diversity of the effects of a product/company






Depth: Refers to the intensity and significance of those effects in terms of their scope, magnitude, and duration

These sustainability objectives are accompanied by impact indicators. These indicators are the basis of our impact investment thresholds, the minimum impact scale criteria that any new investment shall meet. This also informs the impact fund goals we are aiming to achieve.

<p>IMPACT FUND GOALS</p> <hr/> <p>IMPACT INVESTMENT THRESHOLDS</p>	<p>CO₂e emissions reduction</p>  <p>By 2030, AENU aims to reduce or remove a cumulative of 300Mt CO₂e</p> <hr/> <p>At scale, a technology shall reduce or remove 100Mt of CO₂e</p>	<p>Wellbeing improvement</p>  <p>By 2030, AENU aims to improve the wellbeing of 25 million people (by means of education, empowerment, inclusion)</p> <hr/> <p>At scale, a technology should improve the wellbeing of 10 million people</p>
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Investment Clusters

AENU is a thesis-driven investor. We have identified five clusters that advance our fund's theory of change, each of which is divided into themes and sub-themes. Each sub-theme is then guided by an investment thesis.

	2022	2023
 Carbon removal	Carbon Removal, Biodiversity MRV	Nature-based Solutions, Climate Risk & Insurance
 Energy	Energy Storage	Battery Management Software, Energy & Raw Material Efficiency, Energy Management for SMBs
 Food and agriculture	Alternative Proteins, AgTech	Food Waste
 Enterprise	Infrastructure & Housing	Circularity
 Education	EdTech	Re-/Upskilling for Climate Jobs



Infrastructure & Housing Cheat Sheet

At AENU, we consistently refine our investment thesis through in-house research. These deep dives require two to three months of team effort, resulting in a 20-30 page research report. This report is then condensed into a high-level summary, referred to as a "cheat sheet," which we publicly share with our ecosystem.



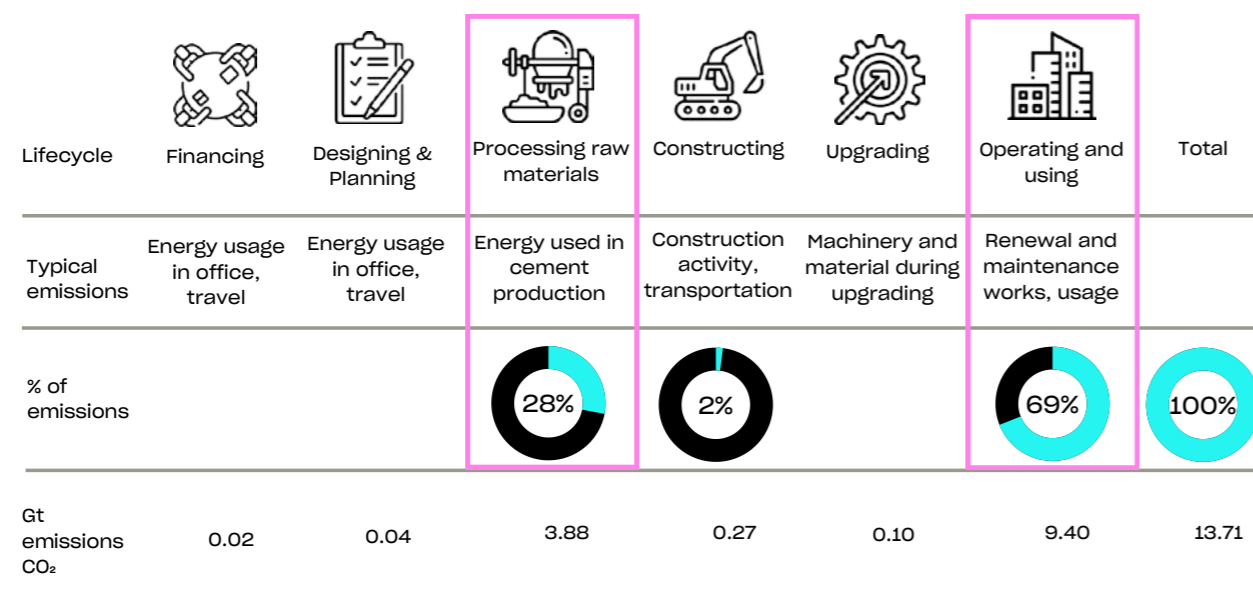
The impact problem

- ▼ 40% of global CO₂ emissions come from the construction value chain, the majority of which are from operations
- ▼ 90% of today's buildings will still be in use by 2050
- ▼ 75% of EU building stock is classified as inefficient (poor insulation, inefficient HVAC)
- ▼ EU and US annual renovation rates need to double to reach 2030 Net Zero targets

Business opportunity

- ▲ Market size for building energy retrofits is valued at \$157 Bn in 2021
- ▲ 35M building units to be renovated by 2030 in EU, requiring €275 Bn p.a. of additional investment
- ▲ Regulatory support fueled by the energy crisis: RePowerEU plan and IRA bill to incentivize energy retrofits
- ▲ Market penetration of Distributed Energy Resources and Smart meters: opportunity for software to leverage better and more accessible data to optimize energy flows

CO₂ EMISSION BY ASSET TYPE (GtCo₂e)



Buildings are by far the largest contributor to total sector emissions (90%) vs Infrastructure (10%)

Source: McKinsey

Solutions

Technology Plays

BUILDING ENVELOPE SOLUTIONS

HVAC

ENERGY MANAGEMENT SYSTEMS

HOME IMPROVEMENT PLATFORMS

EARLY STAGE

- ▶ Horizontal plays: Energy Management Systems in the multi-tenant residential space
- ▶ Vertical plays: Full-stack Building Management Systems and Smart Home IoT

GROWTH STAGE

- ▶ Home Improvement Platforms offering full-suite of services and range of hardware solutions to decarbonize homes
- ▶ Energy Management Systems in the commercial space, where competitive dynamics are high

STARTUPS TO WATCH

AENU portfolio company



03

Portfolio Impact

For the portfolio impact section, we only include data for core holdings, defined as investments over 750k Euro. Numbers are calculated on a logo count basis.

Environmental Impact & ESG

The climate crisis is rapidly shaping the world we live in. We believe climate technologies are key in reducing and removing GHG emissions, now and in the future. AENU is committed to supporting our portfolio companies in achieving the best net positive environmental performance.

Impact Highlights

1,240,971

Total CO₂e emissions reduced and removed by AENU portfolio companies

551,166

tons CO₂e emissions reduced

689,805

tons CO₂e emissions removed



THIS IS AS MUCH AS ~6 MONTHS OF GERMAN DOMESTIC AIR TRAVEL EMISSIONS.

90,429

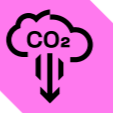
Ownership adjusted CO₂e emissions reduced and removed by AENU portfolio companies

26,295

tons CO₂e emissions reduced

64,134

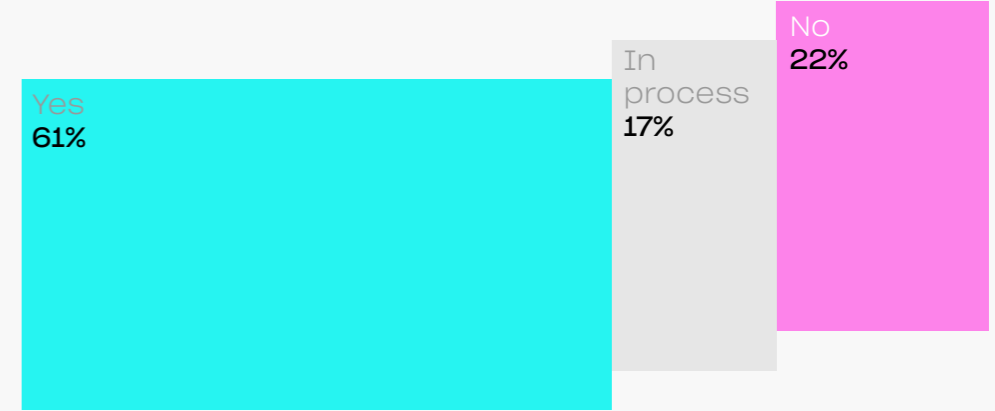
tons CO₂e emissions removed



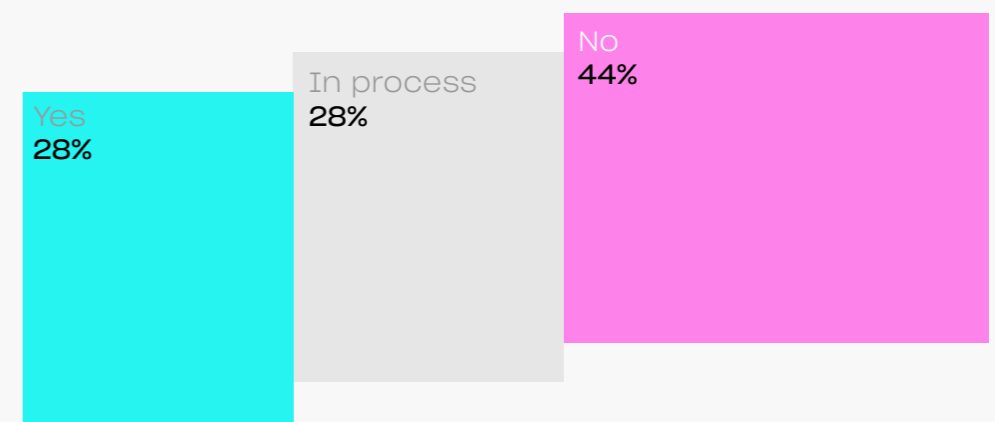
THAT IS AS MUCH CARBON AS 8,373 GERMANS EMIT PER YEAR.

ESG Highlights

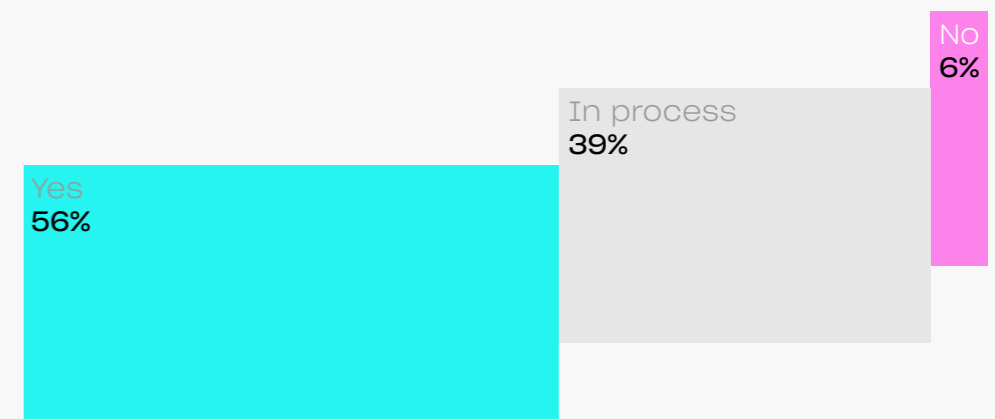
Number of Companies with an environmental officer



Companies with environmental risk assessments



Companies with CO₂ reduction initiatives



Calculated on a logo count basis.



PORTFOLIO INSIGHT

28% of our startups make use of green energy providers. Other popular carbon footprint reduction initiatives are the use of recycled materials and green travel policies.

Social Impact & ESG

At AENU, we work toward providing real opportunities in venture capital. We strive to level the playing field and deliver resources, assets and knowledge to underrepresented founders and investors. We jointly work with our portfolio companies to ensure best practices in DE&I in alignment with DiversityVC.

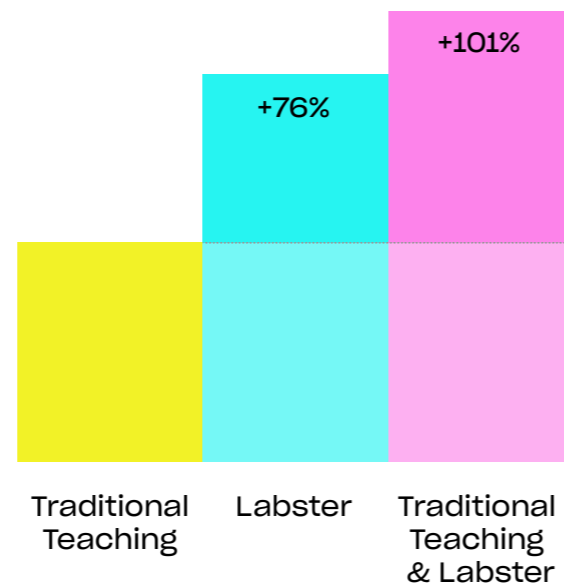
Impact Highlights

715,000

Number of people whose **wellbeing improved** thanks to products or services provided by AENU portfolio companies

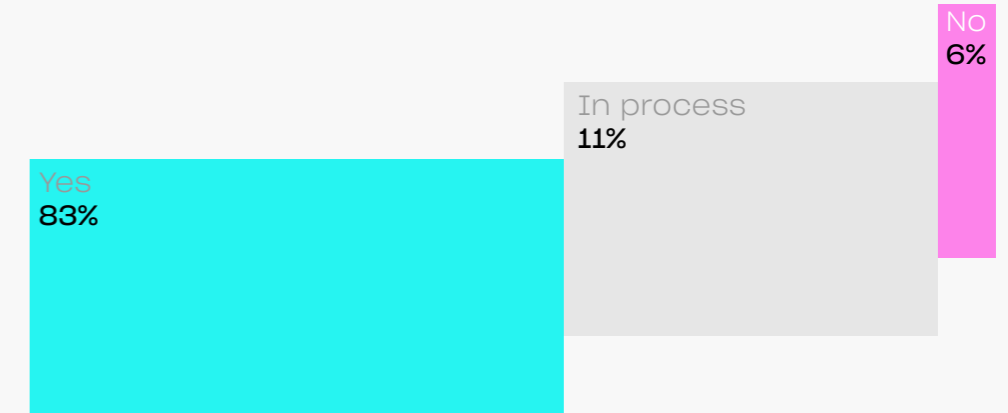
101%

Increase in **learning outcomes** (Labster)

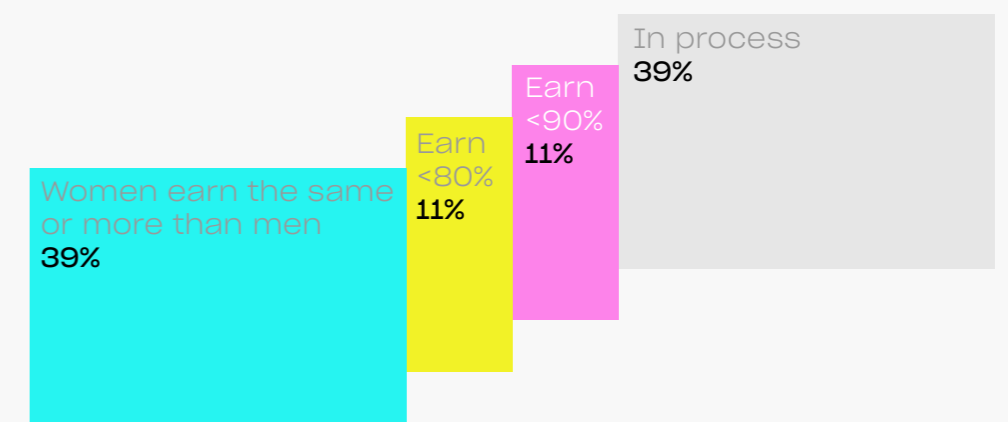


ESG Highlights

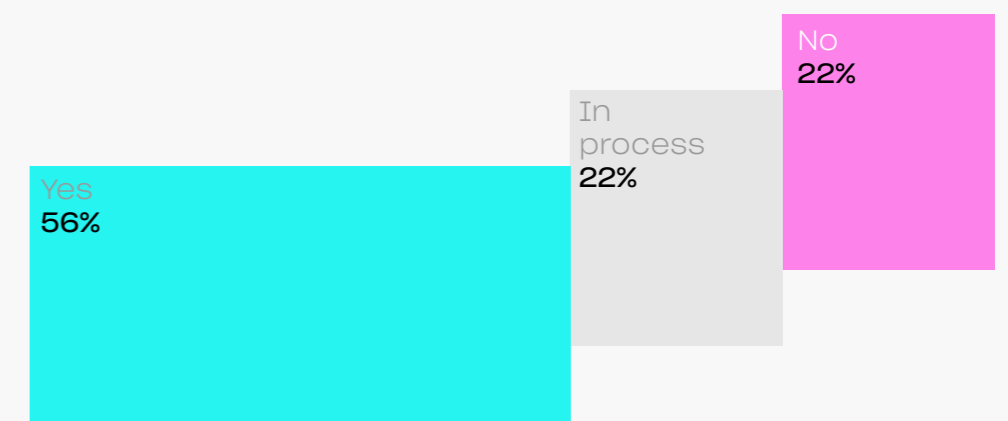
Companies with a diversity policy in place



Current unadjusted gender pay gap



Companies with social risk assessment



Calculated on a logo count basis.



PORTFOLIO INSIGHT

Employee mental health & wellbeing is the most common concern of our startups within the 'S' of ESG. To mitigate this risk, startups provide coaching sessions or regular workload check-ins, among other initiatives.

Governance Impact & ESG

At AENU, we understand that good governance is essential to creating long-term value for our investors and society. We prioritize investing in companies that demonstrate strong corporate governance practices, as we believe it is critical to achieving sustainable, impactful outcomes.

Impact Highlights

48%

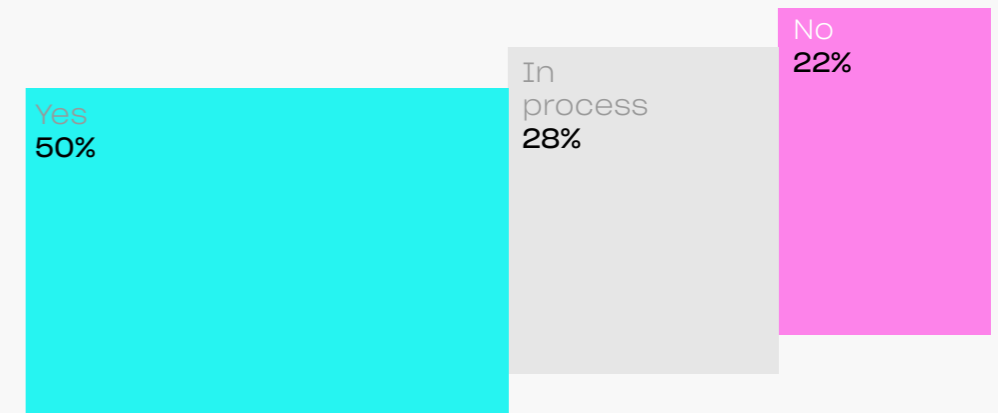
of portfolio companies have signed an **Impact/ESG clause** with AENU

22%

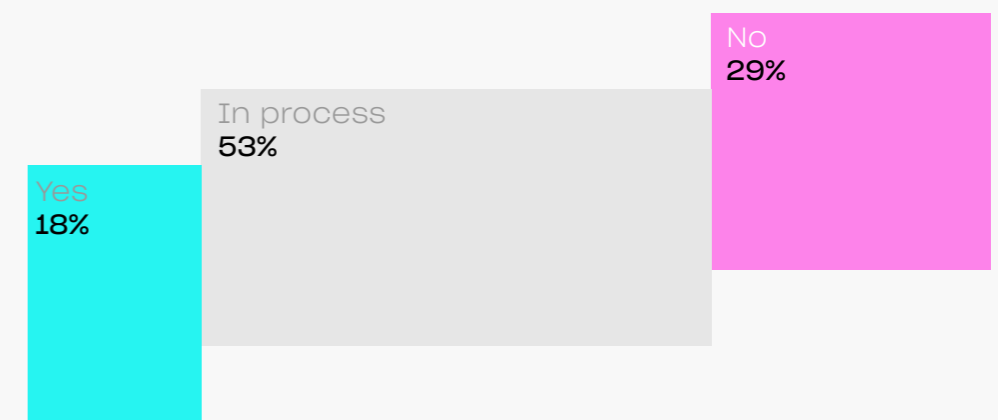
of portfolio companies are **B-Corp certified** or are in the process of becoming B-Corp certified

ESG Highlights

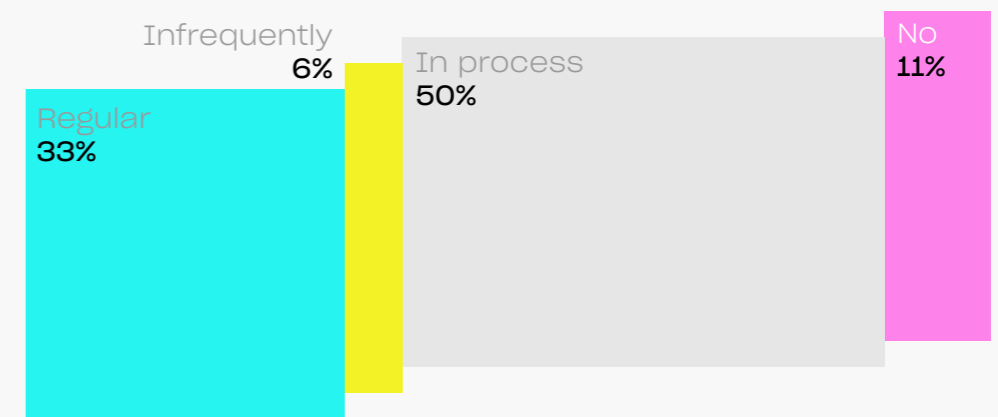
Companies with clearly assigned impact & ESG responsibilities



Companies with an ESG or Sustainability policy in place



ESG reporting to Board of Directors



Calculated on a logo count basis.



PORTFOLIO
INSIGHT

Impact & ESG responsibility often is in the hand of founders or the executive team, which is a great indicator for impact and business interlock.

Impact & ESG Value-Add

AENU takes a holistic approach to impact and sustainability performance, recognizing that solely focusing on greenhouse gas emissions will not lead to our desired paradigm shift of impact capitalism.

Our definition of impact considers a range of dimensions, beyond carbon emissions. To support our portfolio companies in achieving their full impact potential, we support with:

Impact Highlights

77%

of portfolio companies want AENU support on their Impact & ESG journey

44%

of portfolio companies took part in AENU impact and ESG workshops

Impact Management

- ▶ Net Positive Impacts: Benefits enabled by portfolio companies' products and operations
- ▶ ESG Management: Portfolio companies' adoption and implementation of sustainability best practices
- ▶ Principle Adverse Impacts: Identifying sustainable business practices that minimize negative social and environmental impacts and proactively manage potential adverse impacts
- ▶ Diversity, Equity, and Inclusion: Assessing portfolio companies' DEI and economic/social opportunities generated

Sustainability Policies & Governance










- ▶ Impact & ESG Workshops: Post-investment sessions focused on material impact & ESG indicators and on the development of a shared roadmap
- ▶ AENU Impact & ESG Hub: One-stop-shop resource platform covering the most important impact & ESG topics, including policy templates, how-to guides, membership benefits, and consultant referrals
- ▶ Sustainability Leaders Group: Quarterly impact & ESG get-togethers available to all portfolio companies

A commitment to Diversity, Equity, and Inclusion (DEI)

- ▶ DEI resources: We provide templates and best practices on DEI for founders and the wider ecosystem
- ▶ Diversity Frameworks: Collaborating with industry partners and experts to develop best practices and share knowledge with portfolio companies (e.g., DiversityVC)
- ▶ DEI consultations: Supporting portfolio companies in creating diverse and inclusive work environments

Portfolio Overview

TYPE	LOGO	SECTOR	PROBLEM	SOLUTION	GENDER DIVERSITY IN MANAGEMENT	IMPACT KPIS
Enabling		Resources & Buildings	Cement production accounts for 3% of global CO ₂ e emissions	Sustainable cement and concrete production	Mixed	CO ₂ e reduced
Own contribution		Energy	The majority of industrial steam turbines are still powered by fossil fuels	Industrial steam production with electric heatpumps	All male	CO ₂ e reduced, MW deployed
Own contribution		Carbon Removal	The latest IPCC report shows carbon emissions mitigation alone is not enough to reach the Paris Agreement goals	Carbon capture & sequestration with enhanced mineralization	All male	CO ₂ e removed
Enabling		Resources & Buildings	Residential buildings constitute 10.9% of global CO ₂ e emissions	Software platform for home decarbonization services	All male	CO ₂ e reduced, # of newly installed heat pumps
Own contribution		Food & Agriculture	World population is projected to reach 9.7 Bn by 2050, requiring a 70% increase in food production	Vertical farming in urban areas	Mixed	CO ₂ e reduced, water and land usage reduction
Social		Equality & Education	Around 50% of students starting a STEM degree will switch or quit before finishing it	Virtual reality laboratory for democratising STEM education	All male	% increase in learning skills, # of STEM students using Labster
Enabling		Carbon Removal	To achieve the Paris climate goals businesses need to reduce their carbon emissions	Carbon operating system for complex enterprises	All male	CO ₂ e reduced
Enabling		Enterprise & Mobility	Road transport emissions account for 11.9% of global CO ₂ e emissions	SaaS for electric vehicle charging and charge point management	All male	CO ₂ e reduced, # of newly installed EV charge points, Kwh charged
Own contribution		Food & Agriculture	The livestock industry is responsible for 5.8% of global CO ₂ e emissions	Plant-based protein platform	Mixed	CO ₂ e reduced, water & land usage reduction

TYPE	LOGO	SECTOR	PROBLEM	SOLUTION	GENDER DIVERSITY IN MANAGEMENT	IMPACT KPIS
Enabling		Ecosystems	2.2% of global CO ₂ e emissions are caused by deforestation	Provider of aerial imaging and farm mapping services for industrial forestry	All male	CO ₂ e removed, hectares under management
Enabling		Carbon Removal	CO ₂ in the atmosphere has reached its highest level in the last 800,000 years	Carbon operating platform with enterprise-grade API	All male	CO ₂ e reduced, CO ₂ e removed
Own contribution		Carbon Removal	Oceans have absorbed 30% of the carbon dioxide released into the atmosphere	Ocean-based carbon capture & sequestration with kelp biomass	All male	CO ₂ e removed
Enabling		Energy	Current energy storage capacity is not enough to combat intermittency of wind and solar power	Modular stationary li-lion battery storage for increased renewable energy consumption	All male	CO ₂ e reduced, # of kWh of energy storage capacity installed
Own contribution		Carbon Removal	Keeping temperature to 1.5C, as outlined in the Paris Agreement, will require us to reach net-zero emissions globally by mid-century	Platform and MRV system to enable the scale-up of enhanced weathering	Mixed	CO ₂ e removed
Transitional		Energy	Electrification is currently not feasible for long-haul and heavy-duty vehicles	Carbon neutral drop-in fuel from waste biomass for trucks, ships and aviation	All male	CO ₂ e reduced, sustainable fuel produced, % of biogenic content
Enabling		Enterprise & Mobility	Only 0.86% of total global assets under management are invested with an impact focus	Impact-investment platform for public investments	Mixed	# of customers, additional € invested in green bonds, # of company engagement / resolutions voted
Own contribution		Enterprise & Mobility	Carbon emissions from aviation are projected to triple by 2050	Zero-emission hydrogen-electric powertrain for sustainable aviation	Mixed	CO ₂ e reduced
Enabling		Energy	Reaching Paris Climate Goals requires a fivefold increase in renewable energy deployment by 2030	One-stop-shop for photovoltaic-systems for homeowners in Europe	Mixed	CO ₂ e reduced, # of newly installed photovoltaic kWp,

Decarbonising cement and concrete

ALCEMY.TECH

The problem

In an ever growing built environment, emissions from cement and concrete production are rising. Producers want to manufacture cement and concrete more sustainably while remaining cost-efficient and maintaining quality.

8%

of global emissions comes from cement manufacturing

95%

of cement's carbon emissions result from its clinker content



HEADQUARTERS
Berlin, Germany

STAGE
Early

CO-INVESTORS
Galvanize
Firstminute Capital
LocalGlobe
La Famiglia



The solution

Alcemy's predictive software allows cement and concrete manufacturers to decrease emissions and costs while improving the quality of their product. Up to 50% of the emissions can be reduced driven by reduced clinker usage.

"The AENU team has meaningfully contributed to our success by consistently going the extra mile on talent acquisition, impact measurement and strategic sparring"

LEOPOLD SPENNER,
CO-FOUNDER & CEO OF ALCEMY



SDG

- 9 Industry, Innovation and Infrastructure;
- 11 Sustainable Cities and communities;
- 12 Responsible consumption and production;
- 13 Climate Action

"Alcemy has a unique advantage when it comes to accessing the traditional and less tech-savvy customer base of cement and concrete producers. With Leopold's long history in the industry and Robert's strong data-science skills and network, the team has built credibility in the cement and concrete industry. We invested in Alcemy because we believe in its mission-driven and highly engaged team. Alcemy is ready to transform an analogue and high emitting industry into a digitally optimized and climate friendly one at international scale."

FABIAN HEILEMANN,
FOUNDER & CEO OF AENU

AENU's impact

AENU has supported Alcemy in hiring senior leadership positions, strategic sparring sessions, workshops on recruiting, marketing and PR as well as guidance on the team's impact and ESG journey.

KPIs

CO₂e Emissions avoided

Cement production volume covered by Alcemy in Mt

Average tons of clinker needed to produce one ton of cement using Alcemy

Carbon removal through enhanced rock weathering

UN-DO.COM

The problem

Anthropogenic emissions from fossil fuels, deforestation, and agriculture have caused a rapid increase in atmospheric CO₂ concentration with catastrophic consequences. Decarbonization and carbon dioxide removal are required to mitigate the impact of global warming.

50% is the amount by which atmospheric CO₂ concentration has risen in the past two centuries

10Gt of CO₂ must be removed from the atmosphere annually by 2050 to achieve net zero



HEADQUARTERS
Darlington, UK

STAGE
Early

CO-INVESTORS
Lowercarbon Capital
YesVC
One of the world's largest ESG-focused mining and shipping companies

The solution

UNDO removes carbon dioxide from the atmosphere through enhanced rock weathering (ERW). ERW is the vastly accelerated natural process of rock reacting with and binding CO₂ from the atmosphere. Using crushed basalt rock has the potential to remove up to 4.9 Gt of CO₂ per year.

"AENU are one of our most supportive investors. Specific help with customer introductions, local knowledge and in guiding our internal impact and ESG have already made a significant impact for us."

JIM MANN,
FOUNDER & CEO OF UNDO

SDG

- 9 Industry, Innovation and Infrastructure;
- 13 Climate Action



"Enhanced rock weathering represents the rare CDR pathway where permanence, scalability, and co-benefits intersect. We believe that with their proven carbon removal track record and emphasis on developing a trusted MRV methodology, Jim and the team at UNDO have what it takes to move the needle on negative emissions."

FERRY HEILEMANN,
FOUNDER & PARTNER OF AENU

AENU's impact

AENU has supported UNDO by facilitating client introductions to key industry players, as well as guiding them in their impact strategy and ESG reporting.

KPIs

Carbon dioxide removal in tons

Hectares under management

% in yield increase due to soil enhancement





04

Outlook

Timeline 2023

