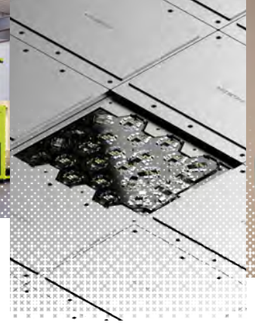
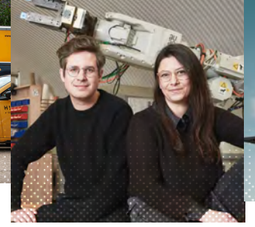
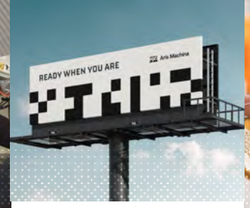



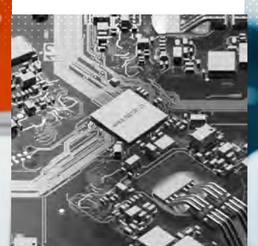


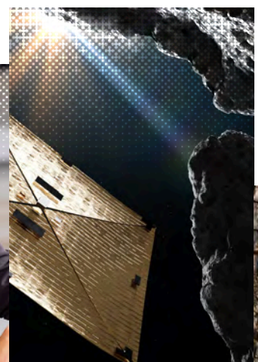

planet A

IMPACT REPORT 2025



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PLANET A – AT A GLANCE

FUND I SIZE:

€160M

GEOGRAPHY:

Europe

TICKET SIZE:

€500k to €4M

TARGET PHASES:

Pre-seed, Seed & Series A

Recognised as Top innovator by WEF Uplink; Earth Shot Prize nominator

Art 9 EU SFDR Fund

INTRO

> *"The systems that powered the last era are fracturing. What we build now will define the next one."*

LENA THIEDE
CO-FOUNDER, GENERAL PARTNER
& HEAD OF SCIENCE

We are living through a structural break. Environmental stress is accelerating. Geopolitical fault lines are hardening. Supply chains, energy systems and trade relationships are being weaponised. The fiction of frictionless globalisation has faded. What replaces it is a world defined by strategic autonomy and the ability to withstand pressure.

In times like these, old assumptions break down. And new companies are born. *Krisenzeiten sind Gründerzeiten.*

Climate is no longer a niche sector. It is the operating system of the next economy. Energy, industry, food, digital and physical infrastructure - all are being rebuilt under the constraints of geopolitics, economic demand and planetary boundaries. Amid strong political tailwinds in the EU, competitiveness, decarbonisation, and security - once seen as trade-off - are converging.

Meanwhile the limits of what is possible are rapidly expanding. A Tech Supercycle meets science and systems thinking to unlock transformation at scale. Energy abundance. Labour automation and robotics. Critical infrastructure security. Resource mastery. These shifts are not incremental. They redefine value creation itself. Our North Star remains unchanged: investing within the planetary boundaries, grounded in rigorous science.

But the stakes are rising.

As power, production and technological leadership are being re-ordered globally, capital must become more deliberate. Europe's innovation capacity, industrial depth and democratic foundations are the bedrock of long-term sustainability, stability and growth.

Planet A was built on the conviction that solving our greatest challenges defines the next era of economic leadership. That conviction has only deepened.

We back founders where science, systems and scale converge. For whom global challenges are not crises to lament, but markets to unlock. Every unresolved constraint signals unmet demand. And the opportunity to build lasting value.

In this report, we share the impact of our portfolio so far, our learnings, and spotlight a new generation of founders building solutions the world can't afford to ignore.

1

FRAMING THE STATE OF PLAY

Turning volatility into value

WE ARE IN A TRANSITION MOMENT

ENVIRONMENTAL *BREAKDOWN.*
ECONOMIC *FRAGILITY.*
SOCIAL *INSTABILITY.*

The systems we rely on are faltering.

Yet at the same time technology is accelerating exponentially.
We have an era-defining opportunity to deliver radical
solutions to the world's greatest challenges.

THE SAFE OPERATING SPACE *is shrinking*

SEVEN OF NINE PLANETARY BOUNDARIES ARE NOW BREACHED. WE ARE OPERATING OUTSIDE THE SAFE ZONE.

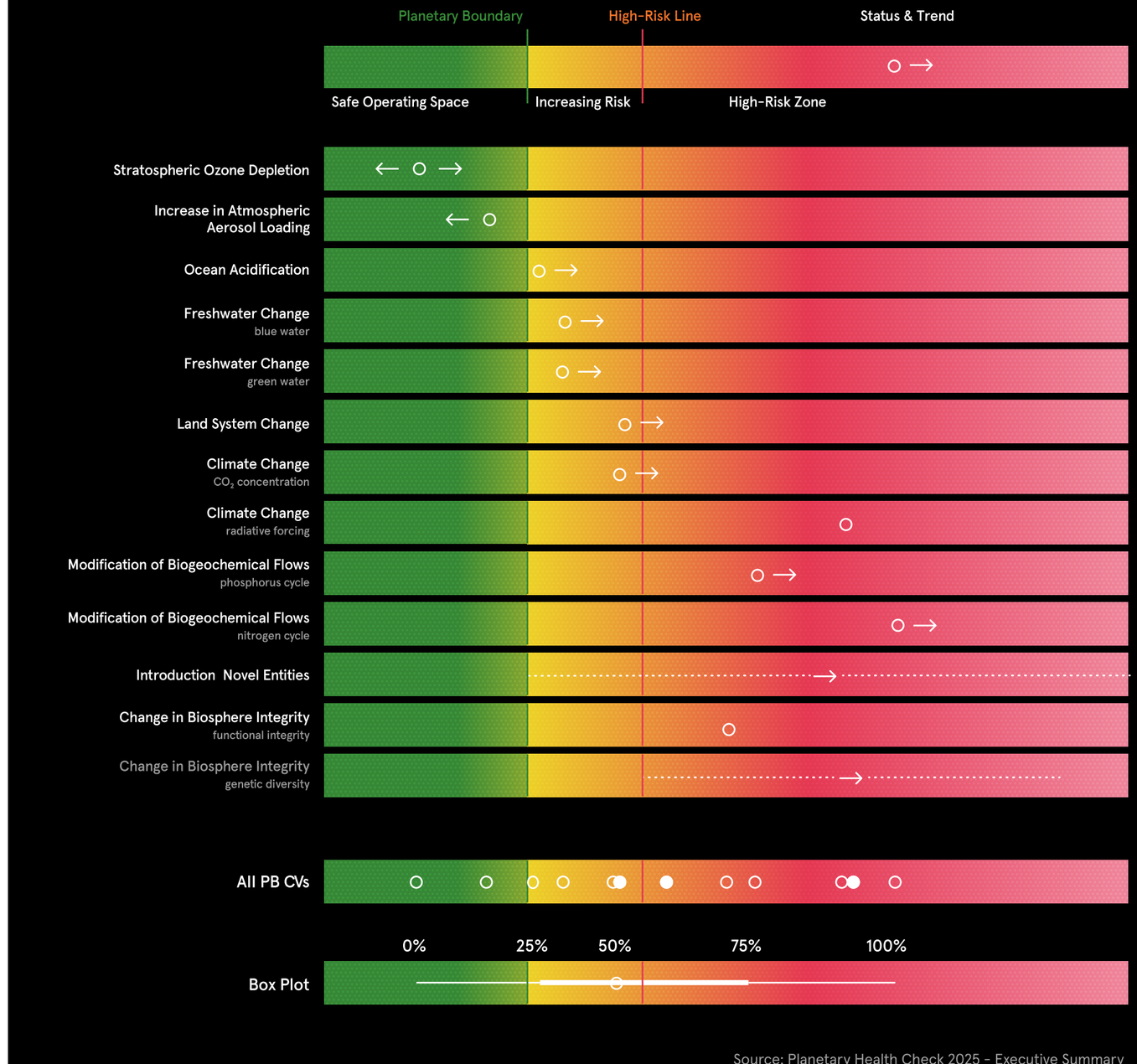
Climate change is no longer the only red flag. Ocean acidification has now crossed its boundary. Forest cover has fallen to ~59% of its natural state (boundary: 75%). Freshwater systems are destabilising across ~22% of global land area - nearly double the safe threshold.

Nitrogen and phosphorus flows exceed safe levels by 2–3x. Extinction rates are more than 10x the boundary.

Only two boundaries remain within safe limits: stratospheric ozone and atmospheric aerosols.

The system is under stress across multiple dimensions - and these risks compound. When boundaries interact, tipping risks rise.

We are now navigating the instability of the Earth system.



Source: Planetary Health Check 2025 - Executive Summary

Big picture:

NOT YET AT THE TIPPING POINT FOR TRANSITION

RECORD RENEWABLES. RECORD FOSSIL FUELS. NO STRUCTURAL DECLINE.

The energy shocks radiating from conflict in the Middle East lay bare just how dependent we - and the entire global economy - still are on fossil fuels. Despite record renewable deployment, fossil fuels still account for roughly ***80% of global primary energy.***

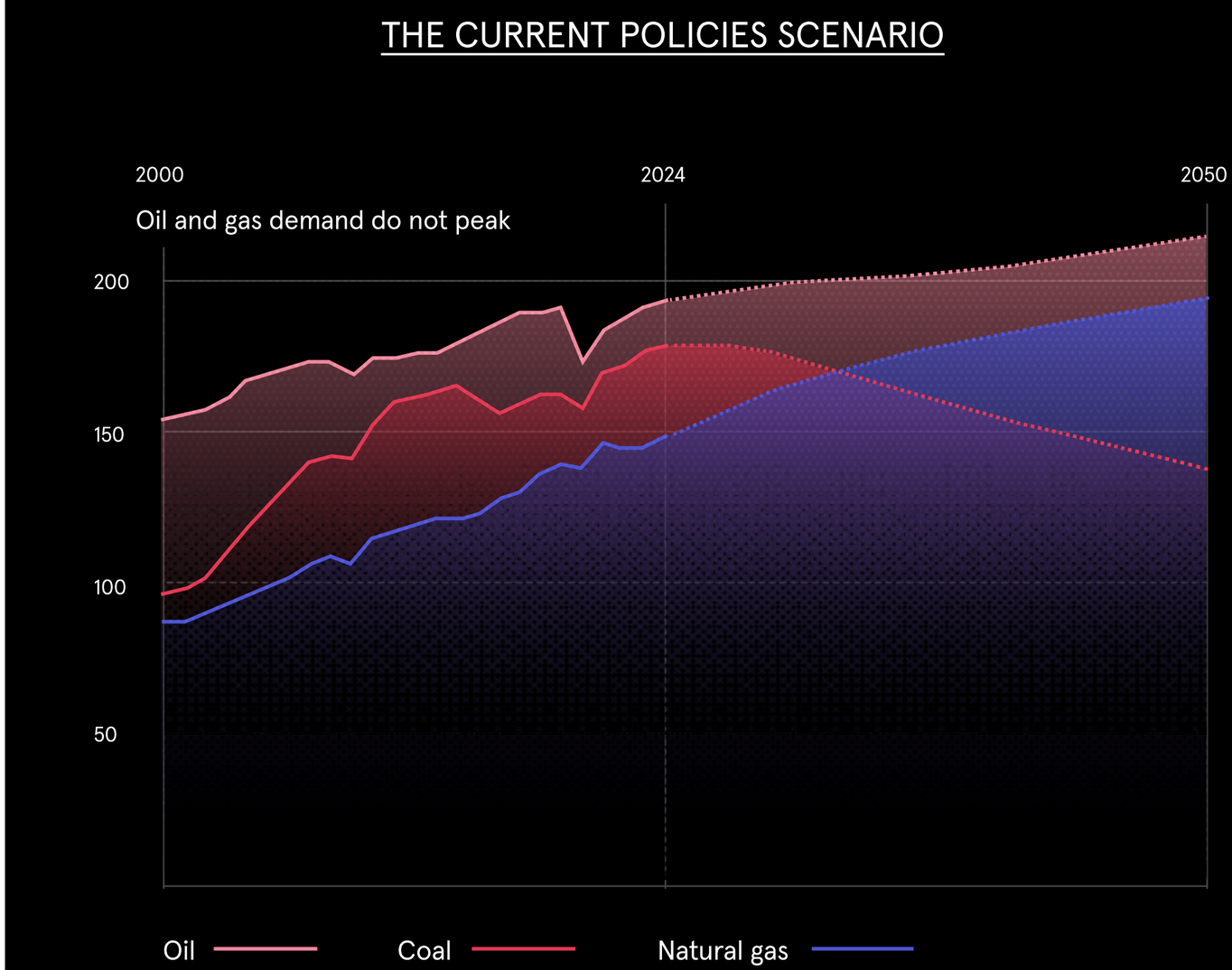
The numbers tell a clear story: global energy supply is expanding. But fossil fuels are not retreating. In 2025, coal, oil and gas production all reached record levels. Energy-related CO_2 emissions rose again to ~38 Gt.

Oil demand has not structurally peaked. Under a Current Policies Scenario, the IEA sees demand continuing to rise into the 2050s. Even under a Stated Policies Scenario, oil merely plateaus around 2030 before declining slowly. Gas demand grows well beyond 2030 in most scenarios. Meanwhile, global LNG export capacity is set to expand by ~50% by the end of this decade - locking in additional supply.

Renewables are scaling rapidly, but they are adding to total energy supply rather than replacing fossil fuels at system level. AI is exacerbating this: 75% of the power equipment planned to be used on site at data centers is natural gas.

The result is not substitution, but addition. Fossil fuel production is still rising. Structural decline has not begun.

Source: IEA 2025



Source: Energy Institute - Statistical Review of World Energy (2025)

Under the hood:

THE ENERGY TRANSITION IS UNEVEN BUT ACCELERATING

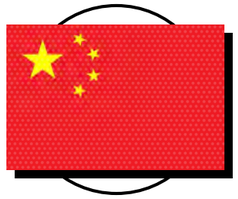
SHIFT FROM REGULATORY TO COMMERCIAL; AI, SECURITY AND INDUSTRIAL POLICY AS DRIVERS

One thing is clear: today clean energy is a matter of industrial competitiveness, security, and sovereignty. Geopolitical tumult and the AI energy surge are putting systems under acute pressure.

The big picture remains complex.

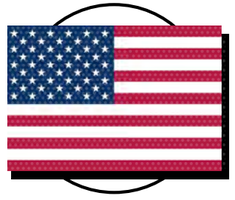
China dominates solar, batteries and EVs and may have already peaked its emissions - yet still builds coal. The EU leads on regulation but faces competitiveness constraints. India is the fastest-growing clean energy market, but with emissions still rising. The US has a clean tech manufacturing base that proved harder to dismantle than the policy that created it.

The short term is uncertain - but the destination is not: clean, abundant, secure energy is within reach. The commercial, competitive and security forces now driving the transition are more durable than any policy cycle.



CHINA

- ↑ Largest renewable buildout globally
- ↑ Dominates solar, batteries, EV manufacturing ("electrostate")
- ↑ May have peaked CO_2
- ↓ Still building coal capacity
- ↓ Energy security prioritised over rapid phaseout



UNITED STATES

- ↑ Private investment momentum
- ↑ Domestic manufacturing revival
- ↑ Rapid battery & EV scale
- ↓ Political volatility
- ↓ Fossil fuel production at record highs

EUROPE

- ↑ Strong regulation (CBAM, ETS, Green Deal, IAA)
- ↑ Urgent buyer pool growing
- ↑ Grid-scale renewables expansion
- ↑ Electrification progress
- ↓ Slow permitting
- ↓ Industrial competitiveness concerns
- ↓ Capital fragmentation

INDIA

- ↑ Fastest growing renewable market
- ↑ Solar manufacturing expansion
- ↑ Electrification of 2/3 wheelers
- ↓ Coal still dominant
- ↓ Emissions still rising with growth

THE MONEY IS MOVING

CLEAN ENERGY INVESTMENT NOW DOUBLE FOSSIL FUEL INVESTMENT

In 2025, USD 2.3 trillion went to renewables, nuclear, grids, storage, low-emissions fuels, efficiency and electrification, **twice** as much as the USD 1.1 trillion going to oil, natural gas and coal.

Solar and wind are no longer marginal technologies. Renewables now generate roughly one-third of global electricity, up from one-fifth a decade ago (IEA 2025).

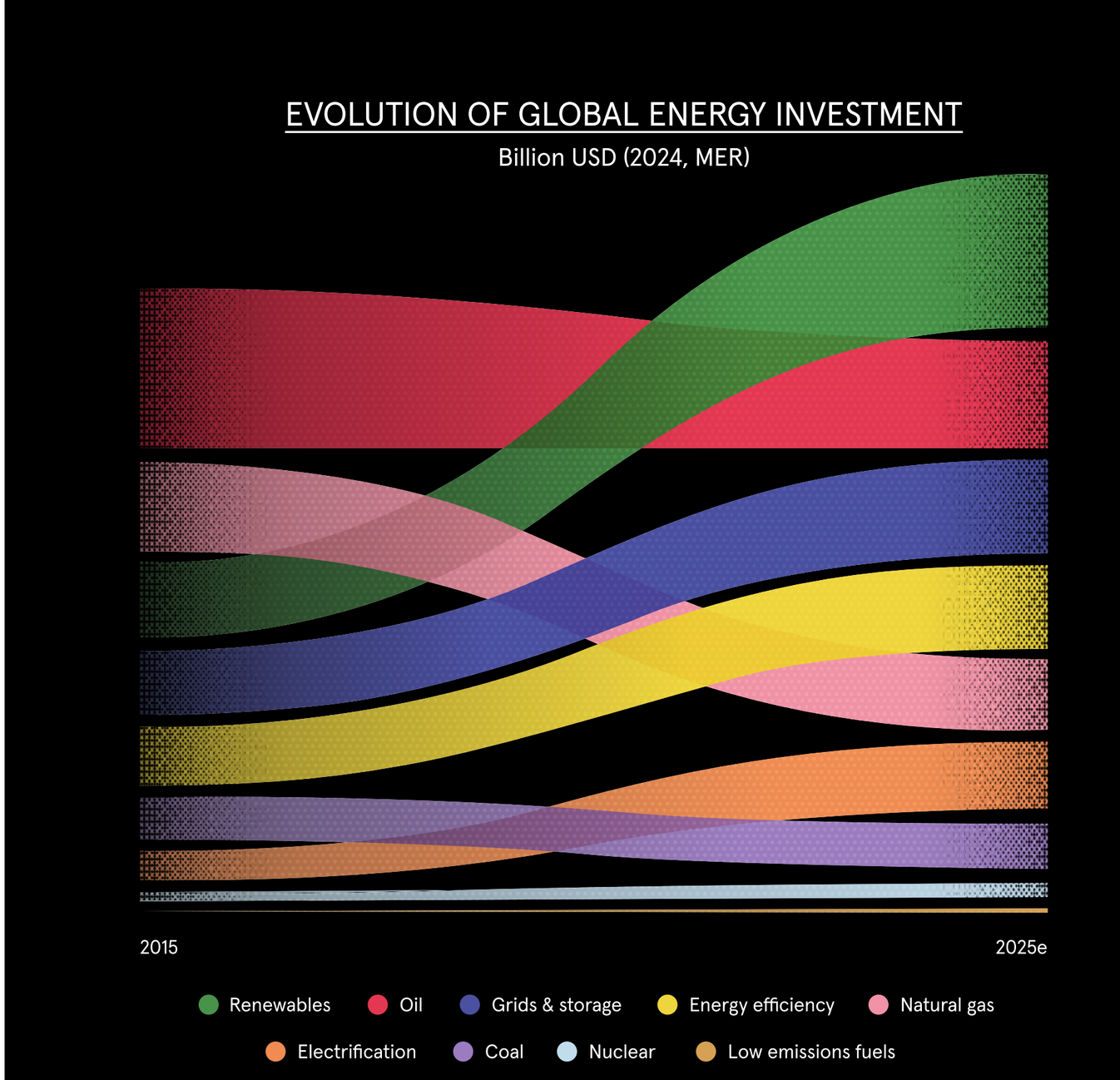
Manufacturing capacity for solar modules and batteries exceeds current deployment levels - the bottleneck is no longer technology, but grids, permitting and execution.

TLDR: THE ELECTRIC ERA IS COMING:

Electricity demand is rising rapidly, driven by AI, electrification and industrial growth. Most of that incremental demand is being met by renewables. The system is electrifying at speed.

Capital markets have made their bet.

Clean energy is scaling, costs continue to decline, and the infrastructure of the 21st century is increasingly electric.

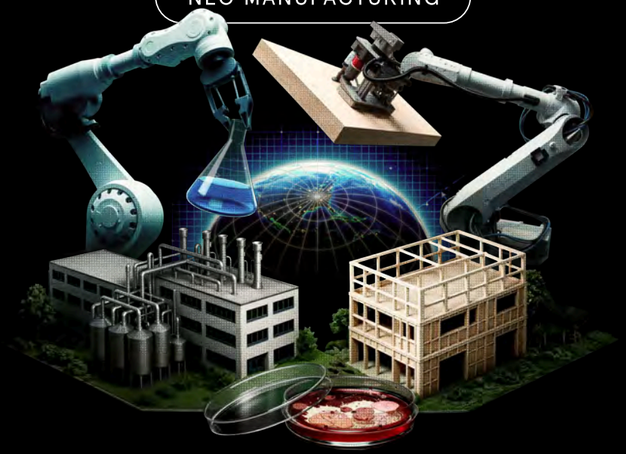


Source: IEA World Energy Investment 2025

4 SYSTEMIC SHIFTS RESHAPE WHAT IS POSSIBLE

PLANET A BACKS THE FOUNDERS WHO GET US THERE

NEO MANUFACTURING



sustainable *production* at scale

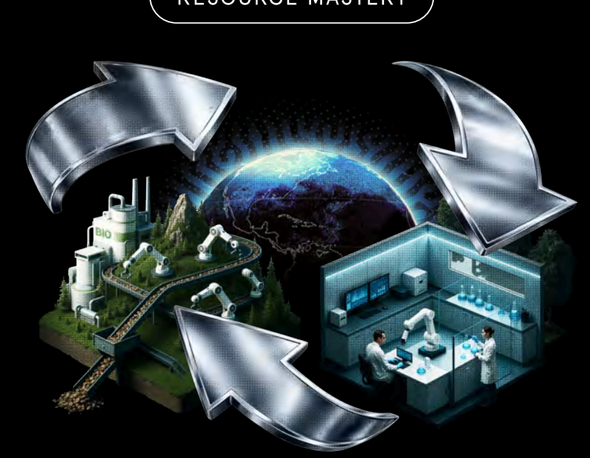
Reinventing production at scale through next-gen robotics and AI becoming *cornerstones* of manufacturing.

ENERGY

clean, accessible, affordable *energy*

Powering *infinite* possibilities by achieving abundant, affordable, clean and reliable energy.

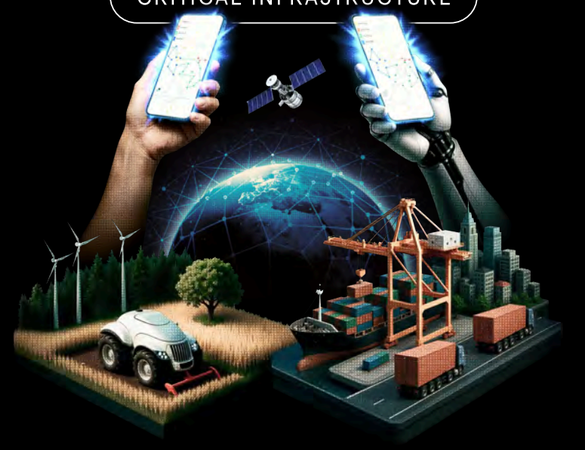
RESOURCE MASTERY



resilient, efficient, material *supply*

Recycling, biomanufacturing and resource generation to maximise efficiency across all industries and decrease raw material *dependence*.

CRITICAL INFRASTRUCTURE



securing the systems we rely on

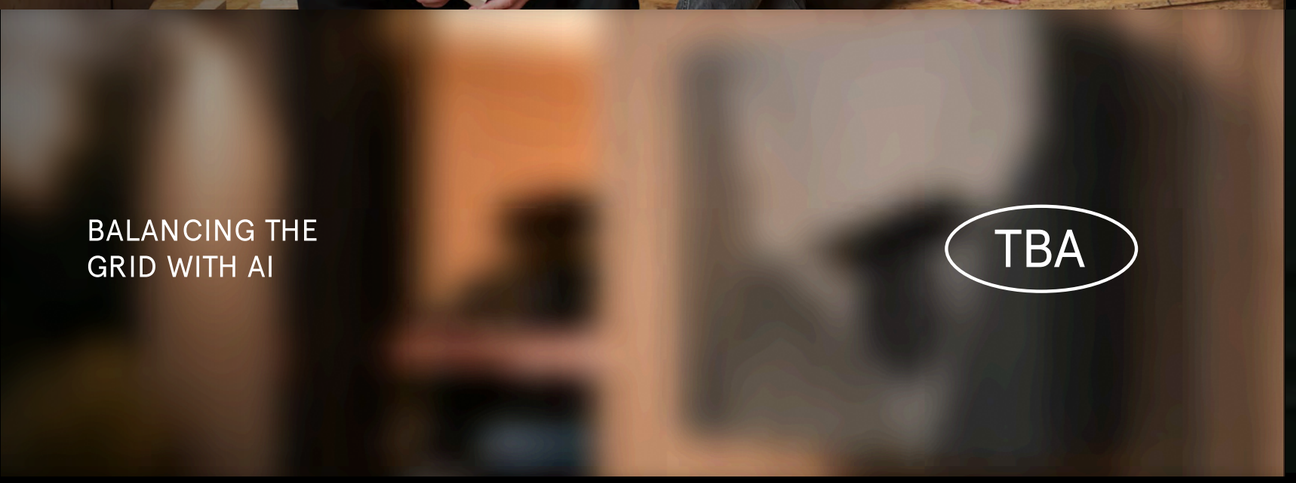
Safeguarding the future by *protecting and enabling* natural and human-made systems and supply chains.

2 SOLUTIONS THE WORLD CAN'T AFFORD TO IGNORE

Meet foundational technologies powering the next economy

NEW INVESTMENT HIGHLIGHTS *2025*

From construction automation and supply chain resilience to stabilising the grid and energy security, 2025's investments lie at the heart of Europe's strategic priorities, paving the way to long-term stability, sustainability and growth.



NEW INVESTMENT HIGHLIGHTS 2025

From construction automation and supply chain resilience to stabilising the grid and energy security, 2025's investments lie at the heart of Europe's strategic priorities, paving the way to long-term stability, sustainability and growth.

SPATIAL ARTIFICIAL INTELLIGENCE
FOR ROBOTS

TBA

BREAKTHROUGH
BIO PLASTICS

TBA

CRITICAL
INFRASTRUCTURE
FOR SPACE

TBA

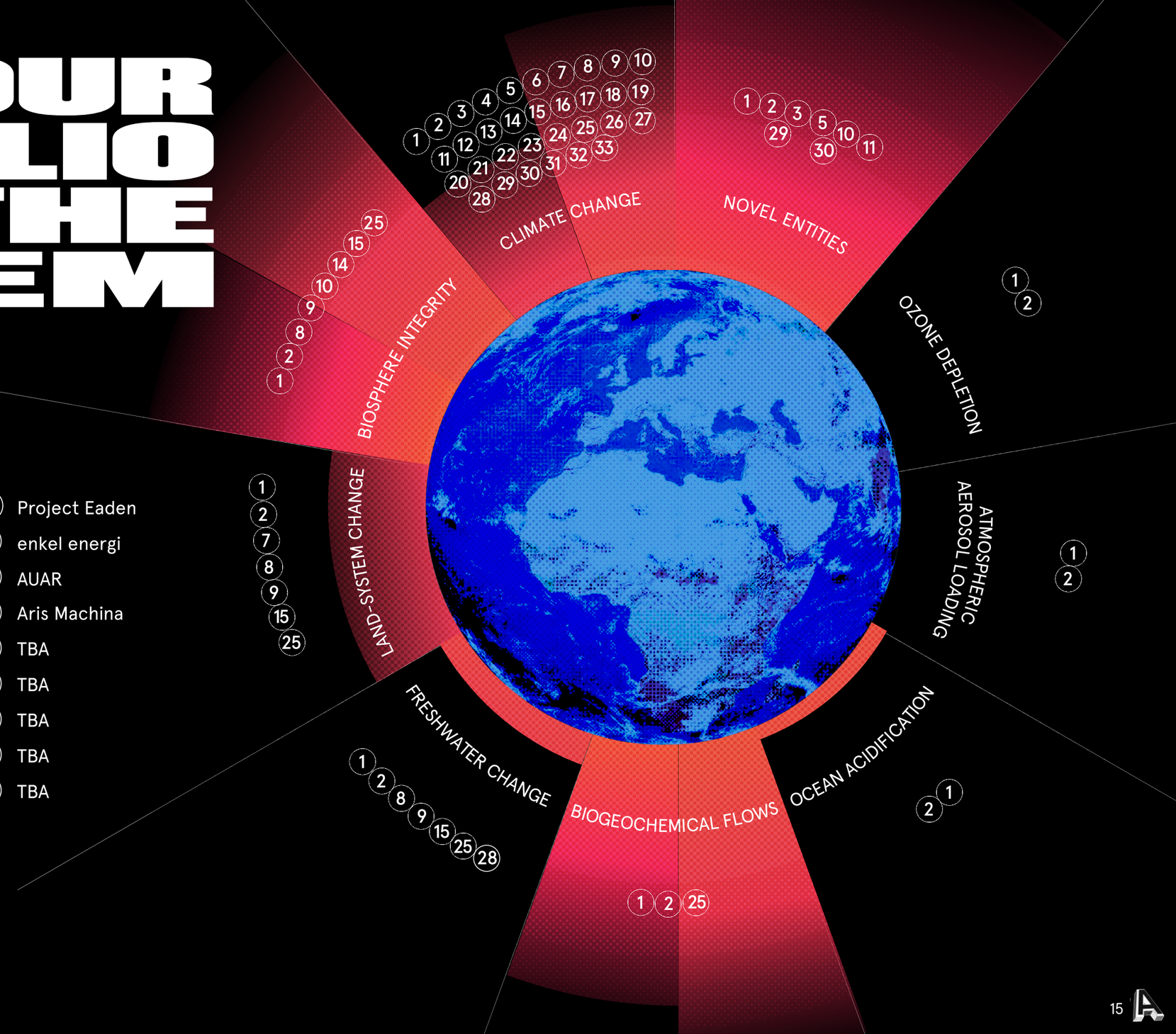
OUR PORTFOLIO

Invested in some of the hottest deals in deeptech & green tech

traceless	Fully biodegradable plastic substitute made out of agricultural residues	mondra	Product level intelligence for supply chain resilience	PROJECT EADEN	Fibre-spun meat alternatives with a technological moat
	Quantum-chemistry based green methanol catalyst producer	goodcarbon	Carbon marketplace with proprietary access to blue carbon credits	PULSETRAIN	Optimising EV battery performance and lifespan through advanced multi-level inverter technology
Makersite	Automated LCA calculations to reduce manufacturing emissions	PHLAIR	Unlocking affordable CO2 capture, at scale	podero	Demand-side flexibility software supporting the energy transition
INERATEC	Modular approach and novel process for the production of sustainable aviation fuel	GA Drilling	Proprietary plasma drilling head to tap geothermal energy potential	TBA	Long-duration energy storage through sub-sea flywheels
THE LANDBANKING GROUP	Building a bank for nature	one•five	Pioneering next-gen sustainable packaging materials	TBA	Innovation in biomineralisation to produce a carbon-negative material that can replace cement
44.01	1,000 year lasting carbon storage	UPRIGHT PROJECT	CSRD SaaS tool with AI-based data collection across all sources	ARSENALE BIOYARDS	Revolutionising the infrastructure for the bio economy
Gigaton	AI based SaaS tool to decrease hard-to-abate industry emissions like steel and cement	unwritten	Calculating climate transition risks for Asset Managers	ECAIR	Financing Europe's energy transition
paleo	Precision fermentation for plant based (GMO free) myoglobin	Optiml	Real estate decision intelligence for capex optimisation and low carbon investment	AUAR	Automated architecture and robotics based wood frame construction
HIVED	Decarbonised, AI-driven last-mile delivery customers love	TBA	Dynamic charging for homeowners	WILDPLASTIC	Plastic recycling company, using plastic waste as a valuable resource
Aris Machina	Industrial AI software for complex manufacturing	TBA	Spatial artificial intelligence for robots	TBA	Critical infrastructure for space
TBA	Break-through bio-plastics	STAY TUNED! FRESH INVESTMENTS ABOUT TO DROP.			

HOW OUR PORTFOLIO MOVES THE SYSTEM

Our portfolio mapped against the planetary boundaries



1. Makersite
2. Mondra
3. Wildplastic
4. INERATEC
5. traceless
6. C1 Chemicals
7. GA Drilling
8. Goodcarbon
9. The Landbanking Group
10. The Upright Project
11. One.Five
12. Gigaton
13. 44.01
14. unwritten
15. Paleo
16. HIVED
17. Optiml
18. Ecair
19. Thaleron
20. Arsenale BioYards
21. Biozeroc
22. Phlair
23. Pulsetrain
24. Podero
25. Project Eaden
26. enkel energi
27. AUAR
28. Aris Machina
29. TBA
30. TBA
31. TBA
32. TBA
33. TBA

Deepdive:

CRITICAL INFRASTRUCTURE

FOOD SUPPLY CHAINS

1/3	*2.3B*	*400%*
of GHG emissions come from the food supply chain	people faced food insecurity in 2024	cocoa price surge after extreme weather hit Ghana and Côte d'Ivoire (WEF)

Security has returned to the global agenda – yet one foundational system remains underappreciated: food. Recent shocks have exposed the fragility of global systems. The Suez Canal blockage, Covid-19, the war in Ukraine, and renewed tensions in the Middle East have shown how quickly disruptions cascade through global trade. At the same time, soil degradation, water scarcity, and climate volatility are destabilising the ecological foundations of agricultural production itself. As a result, food price volatility is increasingly becoming a structural feature rather than an exception.

Against this backdrop, resilience is emerging as the defining challenge – and opportunity – for the next generation of food systems to solve and take root.

Three technology-driven shifts are beginning to reshape what a more resilient food system could look like: First, digitising the food supply chain. Food supply networks remain highly opaque, making it difficult to identify vulnerabilities or reduce environmental impact. New digital platforms are bringing transparency to ingredient flows and production systems, enabling companies to track supply chains in real time, quantify emissions, and identify where interventions can reduce risk, waste, and climate impact. In a more volatile world, supply chain visibility becomes strategic infrastructure.

Second, strengthening agriculture through precision farming and next-generation crops. Advances in precision agriculture – from satellite monitoring and sensors to AI-driven decision tools – are helping farmers optimise water, fertiliser, and crop protection while improving yields. At the same time, regenerative farming practices are gaining momentum as a way to restore soil health, increase biodiversity, and improve the resilience of agricultural systems to drought and extreme weather. Innovations in agri-biotech and biological inputs are further enabling crops that can better withstand heat, drought, and pests, helping agriculture adapt to a rapidly changing climate while rebuilding the ecological foundations of food production.

Third, decoupling food production from land and climate through biotechnology. Precision fermentation and other microbial platforms allow key food ingredients to be produced without traditional agriculture. By using microbes to convert diverse feedstocks – including agricultural by-products or waste streams – into proteins and functional ingredients, these systems can operate independent of soil quality and weather patterns. This opens the door to more distributed and resilient food production.

Taken together, these innovations point to a fundamental shift. The next generation of food systems will be built not only around sustainability, but around resilience – powered by data, biotechnology, regenerative agriculture, and smarter farming systems.

WHAT EXCITES US

- Agri Biotech
- Precision farming
- Digital Agri platforms

FOOD PRICES HAVE SEEN EXCESSIVE VOLATILITY SINCE 2020

Source: WEF | Original data: FAO 2025

mondra

The Problem

Volatile, complex supply chains and climate shocks are threatening food affordability and availability. Meanwhile, companies are under pressure, as they strive to balance supply resilience with decarbonisation and biodiversity protection.

The Product

Mondra's digital twin technology helps the world's leading food companies de-risk and decarbonise global supply chains. Mondra is building the data intelligence foundation driving the food industry toward greater resilience, sustainability, and long-term competitiveness. Product-level data, planet-level scale.

The Market

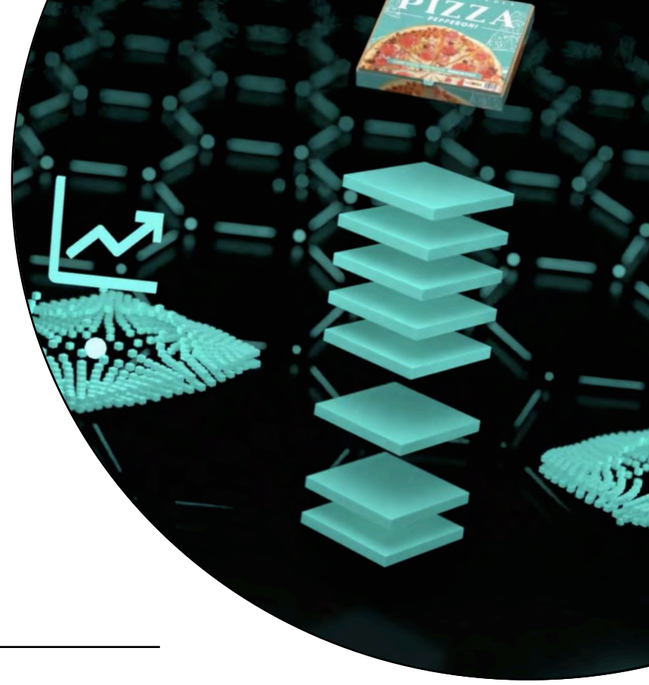
Carbon accounting and supply chain resilience software adoption in the food industry is rising rapidly, driven by regulations and consumer demand for sustainability.

The global market was valued around $15.6 billion in 2023 and is expected to grow to around $82.6 billion by 2032, at a compound annual growth rate (CAGR) of over 20%.

The Founder

JASON BARRETT

Experienced technical leader, data and analytics expert with a background in environmental science



The Impact

Mondra brings transparency and traceability of product emissions to the food industry. Their software solution automates product Life Cycle Assessments, facilitating collaborations and emissions tracking across the supply chain.

See Systemic Impact Assessment here →

The Co-Investors

AlbionVC

Deepdive:

AI TURNS VOLATILITY INTO FLEXIBILITY AND REVENUE

$21T	*9,088*	*2/3*
investment in grid upgrades needed by 2050 to hit net zero (WEF)	Hours of negative power prices in the EU in 2024 (Acer, Pexapark)	EU electricity to be generated from renewables by 2030

Europe's power grid is breaking under the weight of its own clean energy success. Renewables are set to reach ⅔ of EU electricity by 2030 - but their intermittent nature introduces structural volatility that the grid was not designed to handle. More wind and solar means more price swings, grid congestion, and wasted energy on a massive scale.

Negative electricity prices, once rare events, surpassed 9,000 hours in 2024 - a 10× increase since 2017, and still accelerating in 2025. Every one of those hours is a distress signal: the grid cannot absorb the clean energy being produced. In some markets, 8–9% of all hours now see negative prices. Generators are literally paying consumers to take their electricity.

The answer isn't just more generation or more storage - it's smarter demand.

Flexibility - the ability to shift when assets consume or produce power - smoothes the curve and unlocks value from volatility. But at the household level, this capability has barely been touched. Distributed Energy Resources (DERs) like EV batteries, heat pumps and home storage sit idle, representing hundreds of billions in untapped grid value.

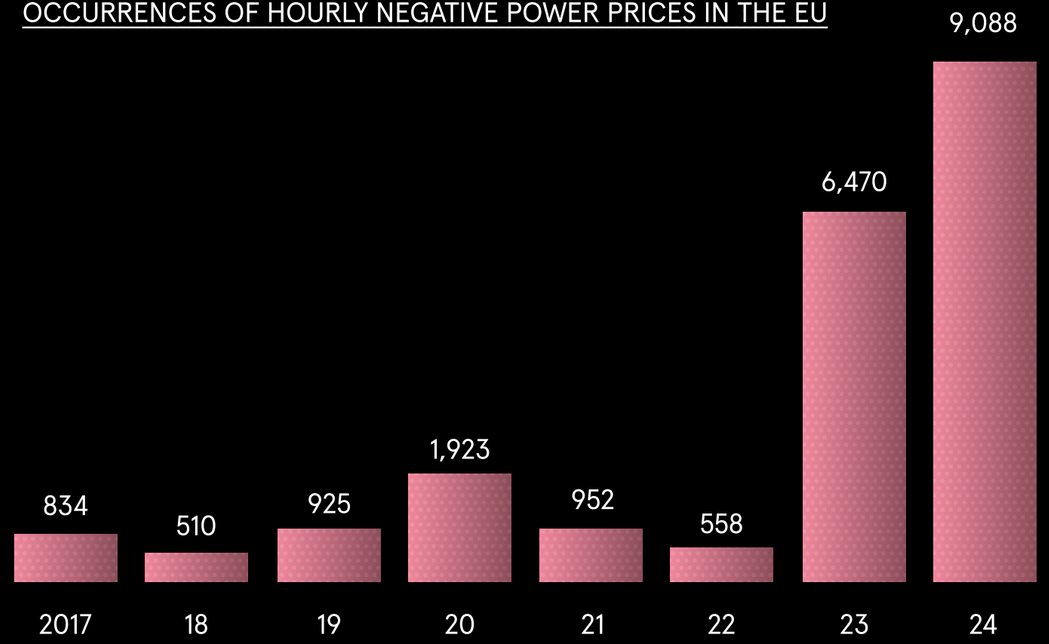
AI changes the game. For the first time, it is possible to bring the flexibility trading model that B2B energy markets have used for decades directly to consumers - aggregating idle assets, reading live market signals, and turning a passive grid cost into an active revenue stream.

The opportunity is a triple win: lower bills for consumers, resilience for grid operators, and faster absorption of clean energy.

WHAT EXCITES US

- AI-driven flexibility trading - real-time optimisation of EV charging against live power market signals, moving beyond simple "charge when cheap" to active revenue generation.
- Distributed assets as grid infrastructure - aggregating millions of EV batteries into a virtual power plant that replaces costly centralised storage.

OCCURRENCES OF HOURLY NEGATIVE POWER PRICES IN THE EU



Note: one occurrence corresponds to one hour during which prices are negative in a price zone

Source: ACER, Pexapark

Deepdive:

SUSTAINABLE PRODUCTION AT SCALE

AUTOMATION FOR INDUSTRY

~500 jobs/day	12%	700.000+
Lost in European manufacturing amid accelerating restructuring	Growth of the productivity gap between the EU and US in 2023 alone	Industrial robots to be installed globally by 2028

Modernising Europe's industrial base is critical to unlocking sustainable production at scale. But our factories are in a structural squeeze. Manufacturing employment is still half a million workers short of pre-pandemic levels, the replacement pipeline is ageing out, and mid-tech industries produced 9% less in early 2025 than two years prior - squeezed between Chinese competition and energy costs running 2.5× higher than in the US.

The labour shortage isn't cyclical. All 31 EURES countries report shortages across nearly every skilled trade - welders, electricians, maintenance technicians, the people who actually keep factory floors running. In the UK, the manufacturing workforce has shrunk from 4 million to 2.5 million over 25 years. You can't hire your way out of that. And it's not just factories - construction faces the same structural wall, with one in three workers set to retire by 2035 and one million additional workers needed in the UK alone by 2032.

And yet Europe is automating less, not more. In 2024, robot installations across Europe fell 8% to 85,000 units. China installed 295,000 - 3.5× more - and grew. Germany lost 120,000 manufacturing jobs in the same year.

The opportunity is real. Robot installations have more than doubled globally over the past decade and will surpass 700,000 units annually by 2028. But the next wave isn't arms on assembly lines - it's intelligent systems that can perceive, adapt, and work in the messy, variable environments that define European manufacturing.

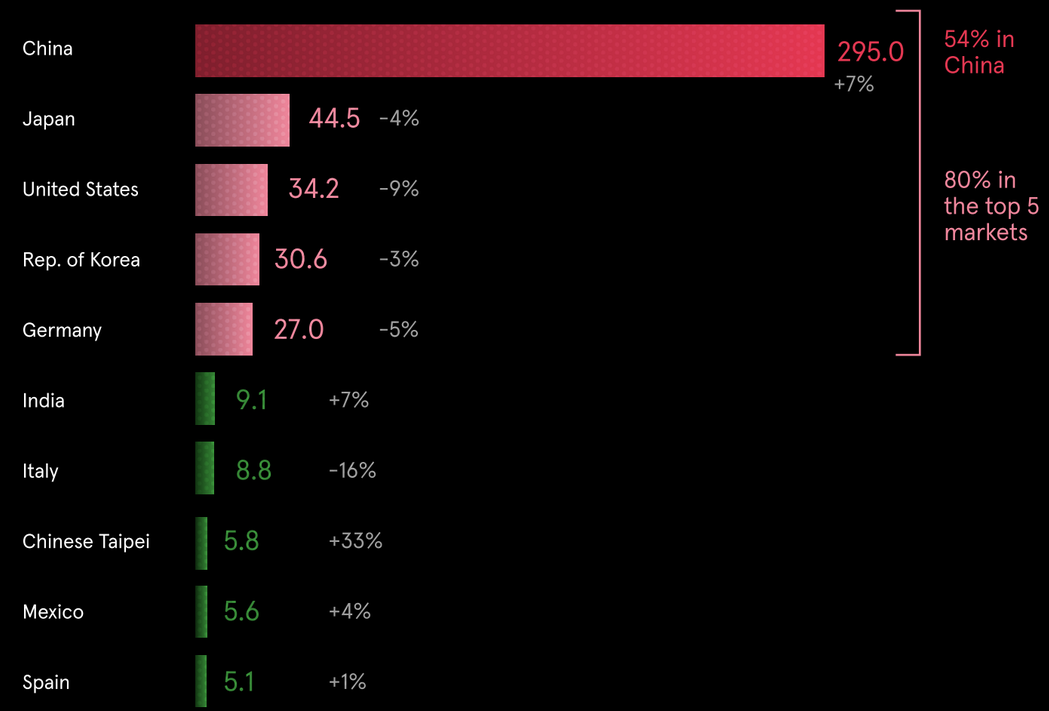
Here's what makes this a European moment: 2.2 million STEM graduates per year and €403 billion in R&D spend in 2024 - the talent is here. EU manufacturing generates €2.5 trillion in value added - the industrial base to deploy into is enormous. And $4.7 trillion in reindustrialisation investment is coming over the next three years, with every new factory built under geopolitical pressure needing to be automated from day one, because the workers to staff it simply don't exist.

The factories being rebuilt right now will define European competitiveness for the next 20 years. The ones that embed intelligent automation from the start won't just survive the squeeze - they'll widen their advantage permanently. And pave the way to clean, competitive, industrial leadership.

WHAT EXCITES US

- Sovereign robotics intelligence labs
- Deploying robotics to solve specific and hard industrial problems

ANNUAL INSTALLATIONS OF INDUSTRIAL ROBOTS 10 LARGEST MARKETS 2024



Source: World Robotics 2025

Aris Machina

The Problem

Complex manufacturing faces 3 hurdles: fragmented systems and siloed data; incompatible technologies, and unpredictable deployment cycles.

Existing solutions are clunky & costly; struggling to integrate across systems and deliver the agility & intelligence modern manufacturing demands.

The Product

Aris is building a digital twin of advanced manufacturing plants, creating the foundation for real-world LLMs.

An AI-native architecture designed to modernise and unify factory shop floor systems through integrated data, domain-specific intelligence, and real-time AI applications.

The Market

The global market for manufacturing software is expected to track that growth in demand and reach $355 billion by 2030 at a CAGR of 13.5%. $40bn+ lies in priority segments including batteries.

Further growth expected as OPEX spending shifts to automation spending as other costs like labour fall.

The Founders

SIDDHARTH KHULLAR

Former Apple Health engineer. Northvolt VP of Software Engineering & AI — leading software development for gigafactories and cell R&D.

PETER CARLSSON

Former Northvolt CEO and founder. 20+ years exec leadership across Automotive, Cleantech, Telecom, Consumer Electronics, and Semiconductors. Strong focus on operations and supply chain.

The Impact

Aris Machina reduces manufacturing waste and associated emissions by enabling early defect detection and improving production efficiency.

See Systemic Impact Assessment here →

The Co-Investors

earlybird AENU village capital

AUAR

The Problem

The World Bank estimates that a global shortage of housing could impact 1.6 billion people in 2025, and up to 3 billion by 2030.

Inefficient use of materials, labour shortages and slow building speed are creating huge bottlenecks to addressing this.

The Product

AUAR has developed a full stack solution for automating decentralised timber construction at scale.

AUAR's proprietary building system, design software and robotic microfactories solve key challenges across the construction value chain, unlocking timber adoption in residential construction at scale.

The Market

The residential construction market in Europe and the US was worth €1.3 trillion+ in 2025.

Assuming the core and shell represent 15% of the build cost of a single family home and adjusting for current timber adoption rates, this results in an addressable market of more than €100 billion by 2030.

The Founders

MOLLIE CLAYPOOL

Author and professor at the Bartlett School of Architecture. Co-founder & Director of an award winning architectural research institute at UCL.

GILLES RETSIN

Pioneering architect whose work has been featured in the Museum of Art & Design in New York, The Royal Academy in London and Centre Pompidou in Paris.

The Impact

Switching to AUAR's technology can massively cut GHG emissions by replacing high-carbon materials. In Europe, net savings average 291 kg CO_2-eq./m^2 (Single Family Home) and 241 kg CO_2-eq./m^2 (Multi-Family Home).

See Life Cycle Assessment here →

The Co-Investors

Miles Ahead · ABB · SHADOW VENTURES · COMMON MAGIC

Deepdive (bonus!):

RESOURCE MASTERY

THE BIG BUSINESS OF BIO-BASED MATERIALS

$396B	*4.69M tonnes*	*1.2B tonnes*
- valuation of the global bio-based materials market by 2033	bioplastics by 2030, with global production set to more than double	biomass (dry matter) used by the EU / year

What IS the bioeconomy? An industrial system that converts renewable biological inputs into scalable commercial products. It can theoretically span any sector where biological resources can replace fossil-based inputs. Every major technological leap in history has been enabled by a breakthrough in materials - now is the time for materials of bio-based origin to take center stage.

Today we are witnessing the convergence of two major forces. On one hand, there is a strong regulatory push for sustainability and a bioeconomy. A clear example is the 2025 EU strategy, positioning the bioeconomy as a core pillar of competitiveness and industrial resilience. On the other hand, advances ranging from improved biomass processing and better simulation tools to faster strain engineering are turning biology into a truly industrial manufacturing platform. "Made with Biology" is today more real than ever.

Despite the promise to transition from fossil fuel-based input, new bio-based materials continue to face big challenges in scaling reliably and achieving cost competitiveness. These hurdles include feedstock variability, process robustness at industrial volumes, high capital intensity, and the difficulty of matching the quality consistency and pricing of fossil-based incumbents within established supply chains.

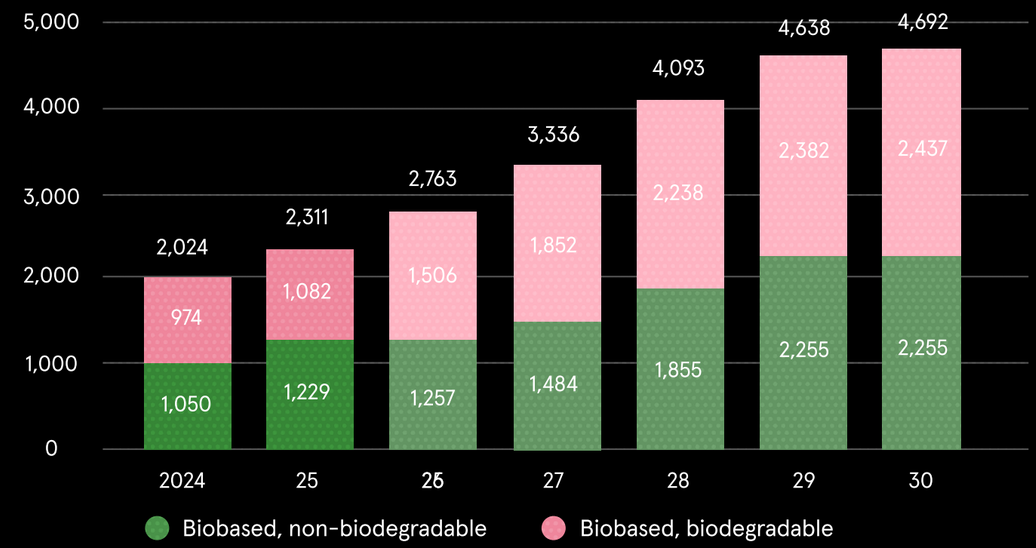
And this is precisely where the opportunity lies. Today, a new generation of startups are overcoming these scaling and economic constraints, paving the way to become category-defining companies. EXCITING STUFF.

WHAT EXCITES US

- The ‘picks and shovels’: these companies are attractive because they solve the core scaling and cost bottlenecks in bio-based material manufacturing unlocking value across an entire industry.
- Material discovery platforms: powered by AI, these companies have the potential to expand the search space for new bio based materials shortening R&D time and potentially de-risking manufacturing.

GLOBAL PRODUCTION CAPACITIES OF BIOPLASTICS

in 1,000 tonnes



Source: European Bioplastics, nova-Institute (2025)

3 INVESTING THROUGH A SYSTEMS LENS

Science as unfair advantage

A SCIENTIFIC APPROACH TO INVESTMENT

1. Quantification via Consequential LCA

Our in-house science team assesses impact using consequential Life Cycle Assessment (cLCA), aligned with ISO 14040/14044 and the GHG Protocol.

2. System Mapping

We examine how a solution performs within the broader system, including full value chain modelling, incumbent substitution, infrastructure and policy dependencies, and potential scaling bottlenecks or rebound effects.

3. Dealing with Uncertainty

We apply sensitivity analyses, scenario ranges, adoption modelling and rebound assessment to reflect real-world system dynamics rather than single-point estimates.

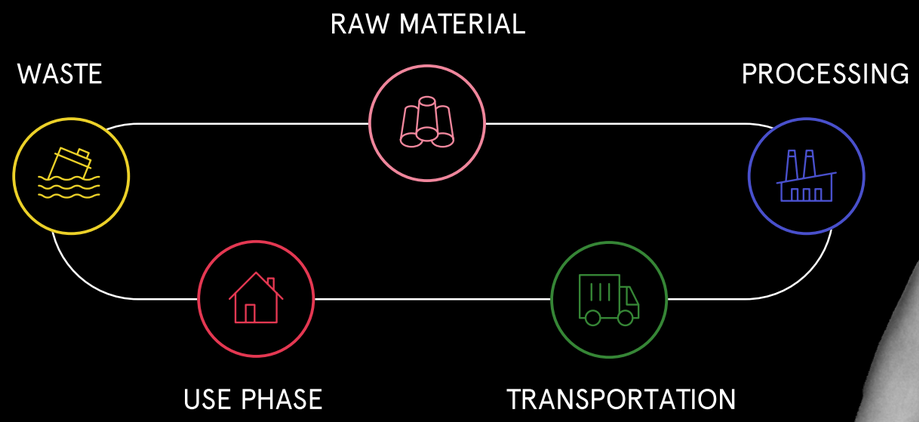
4. Impact Management

Impact KPIs are reviewed annually and models refined as companies scale. All investments align with SFDR Article 9 requirements.

WHITEPAPER →

WHAT IS 'SYSTEMS THINKING'?

Systems thinking is a paradigm shift in understanding the world. It is a way of solving complex problems by looking at the whole system and understanding how the dynamic interplay of different elements impact the big picture.



DR. BENEDIKT BUCHSPIES
Senior Scientist

AINA SINOL
Scientist and Investment Analyst

H!VED OUR APPROACH IN PRACTICE

The Problem

- Parcel delivery dominated by diesel fleets
- Massive GHG footprint + urban pollution
- UK alone delivers 4.2B parcels annually; E-commerce continues to grow >20% YoY

The Solution

- Fully electric last-mile delivery
- Circular packaging model: reusable EPP boxes + return logistics
- AI-enabled routing improves efficiency and reduces miles driven

Science-driven optimisation & commercial value

- Operational improvements unlocked (routing, packaging lifetime, cold-chain efficiency)
- Clear unit-level footprint advantage vs. incumbents
- Impact evidence used in enterprise sales & fundraising
- Science didn't just validate the model - it improved it

Verified Environmental Impact

- 0.13–0.17 kg CO_2e saved per parcel
- Reduced NOx & particulate emissions
- Material & waste reduction from circular model

See LCA here →

$42m Series B (2025)

Led by Nordic Ninja & Marunouchi Innovation Partners

SCIENCE VALUE ACROSS THE PORTFOLIO

REPEATABLE COMMERCIAL VALUE ACROSS THE PORTFOLIO – DELIVERED IN 2025

Company	*What We Delivered*	*Value Created*
traceless	Impact evidence for grants & fundraising	Won non-dilutive funding
podero	GHG reduction calculator	Commercial traction with utilities
WILDPLASTIC	Footprint calculator	Sales enablement
AUAR	First-of-a-kind LCA of robotic construction system	Strengthened business & investor traction
PULSETRAIN	LCA of battery management system	Successful grant application
44.01	LCA of carbon dioxide-mineralisation process	Deeper insight guiding R&D and efficiency innovation

OUR SCIENTIFIC WORK REPEATEDLY TRANSLATES INTO COMMERCIAL TRACTION AND STRATEGIC CLARITY.

VALIDATION FROM OUR PORTFOLIO

"We won a €6m contract over three years with a global coffee retailer thanks to the quantitative evidence of our sustainability performance and GHG reduction."

MURVAH IQBAL
Co-Founder
HIVED

"Building our LCA alongside Planet A has not only given us a deeper understanding of the carbon negativity of our process, but also allowed us to think about our R&D roadmap from a fresh perspective, which is driving us to innovate towards even greater efficiencies."

KARAN KHIMJI
Co-Founder
44.01

Systems perspective:

THE DOUBLE EDGE OF AI EFFICIENCY

REBOUND CAN BREAK – OR BUILD – THE TRANSITION

The rebound effect (Jevons Paradox) shows that when technologies become more efficient and cheaper, total consumption often rises. AI illustrates this dynamic:

- Falling inference costs → exploding demand
- Compute growth outpacing hardware efficiency
- Rising data centre energy use

Point in case: AI chip efficiency doubles roughly every 2.3 years, but training compute has been doubling every 3.4 months. Without steering, AI efficiency can lead to higher absolute resource use.

BUT REBOUND CAN WORK FOR US

Rebound is not inherently negative. It depends on what system is being amplified. When clean technologies become cheaper:

- Solar → rapid capacity expansion
- Batteries → accelerating electrification
- Heat pumps → fossil heating displacement

Efficiency → adoption → fossil replacement → system decarbonisation. This is positive rebound.

OUR APPROACH

We invest where efficiency gains:

- Reduce absolute emissions
- Accelerate fossil displacement
- Strengthen circular and resilient infrastructure

Example: Optiml

AI for energy efficiency and retrofit planning in buildings.
Lower retrofit costs → higher adoption rate → higher adoption → faster building stock decarbonisation.
I.e. cost reductions reinforce rather than offset decarbonisation. Lower transaction and planning costs increase retrofit adoption rates, shorten capital stock turnover times, and support electrification, generating system-level emissions reductions.

Efficiency is powerful.
Direction determines impact.

Read more

Systems perspective:

AUTOMATION IN CONSTRUCTION

TACKLING SUSTAINABILITY AT SCALE WHILE ADDRESSING MAJOR SOCIETAL AND ECONOMIC CHALLENGES

The Problems

1. Affordable housing has become one of the top societal challenges of our times.
2. Shrinking workforces drive costs and slow the development of new projects.
3. More buildings means higher demand for resources and higher GHG emissions.

The Solutions

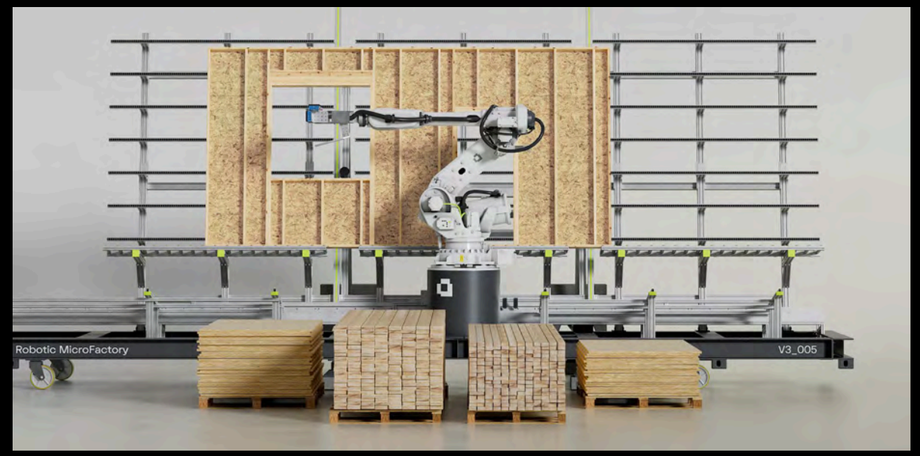
1. More affordable houses need to be built.
2. Automated construction can enable fewer workers to build more.
3. More sustainable building materials are needed that improve the operational and embodied GHG emissions.

AUAR

KEY INSIGHTS FROM OUR FIRST-OF-A-KIND LCA ON AUAR'S AUTOMATED TIMBER CONSTRUCTION SHOW HOW SUSTAINABILITY CAN BE DELIVERED AT SCALE IN DIFFERENT GEOGRAPHIES

Timber construction is less prevalent, so the shift to AUAR's technology can lead to substantial GHG reductions, primarily by replacing more carbon-intensive materials like concrete and steel. The average net avoidance is estimated at 291 kg CO2-eq./m2 for single-family homes (SFH) and 241 kg CO2-eq./m2 for multi-family homes (MFH). Sustainable forest management is key to drive sustainability comprehensively.

Timber frames are already dominant, the benefits come from increased material efficiency, reduced workforce transportation, and the incentivisation of sustainable insulation materials, resulting in average net avoidances of 141 kg CO2-eq./m2 for SFH and 135 kg CO2-eq./m2 for MFH. Efficiency gains can reduce pressures on forests and biodiversity.



SYSTEMIC IMPACT

Through collaboration

Real change doesn't happen in silos. It takes collaboration across sectors to drive real transformation. That's why we're working beyond VC, engaging with policymakers, industry and corporates. Systemic change needs systemic action.

LEADERS FOR CLIMATE ACTION.

Sustainable Finance

SPRIN-D

THE EARTHSHOT PRIZE

IMPACT VC

European Women in VC

uplink

eXIST Existenzgründungen aus der Wissenschaft

WORLD ECONOMIC FORUM

Finance for Biodiversity Pledge

Cleantech for Europe

TECH FOR NET ZERO ALLIANZ

PRI Principles for Responsible Investment

spring A PRI stewardship initiative for nature

PROJECT FRAME

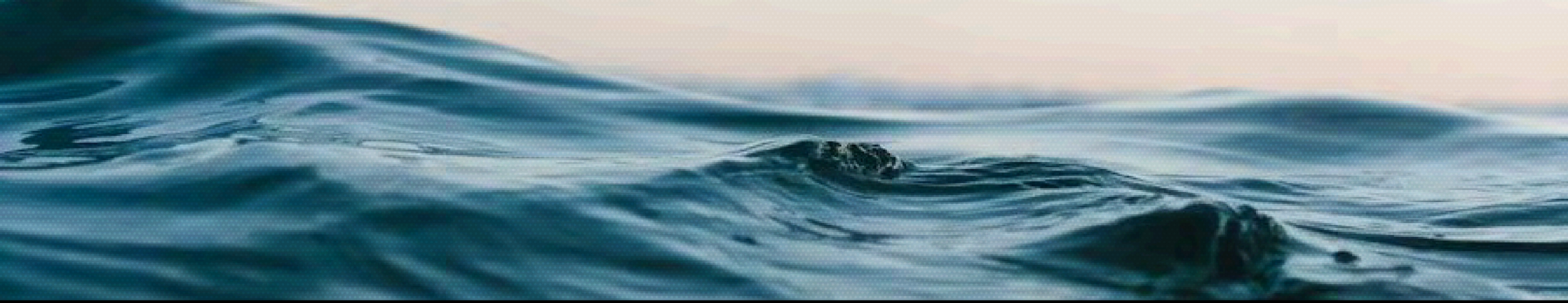
SUPERNOVAS

Super Climate

REFRAME VENTURE

4 DRIVING IMPACT AT SCALE

Our portfolio by numbers



I M P A C T H I G H L I G H T S

INVESTMENT

NEW INVESTMENTS

8

FOLLOW-ON INVESTMENTS

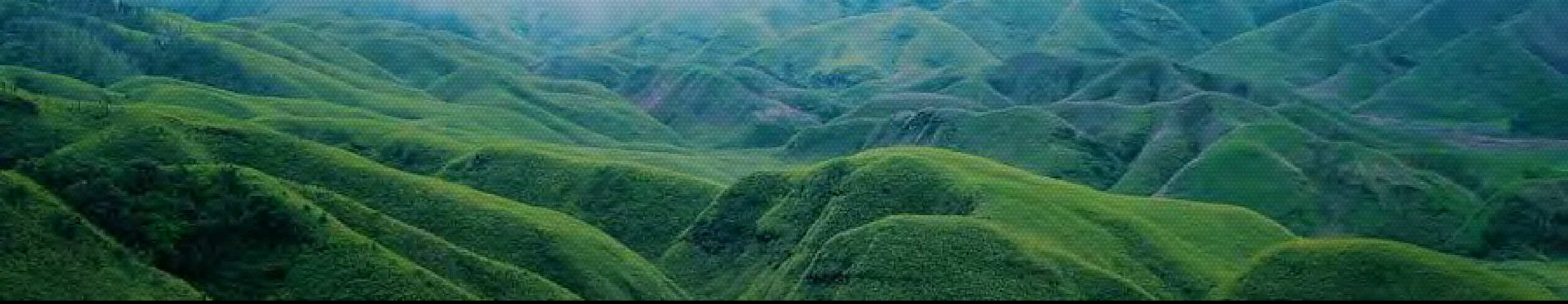
7

CARRIED INTEREST ALIGNED WITH IMPACT TARGETS

50%

% OF OUR INVESTMENTS = EU TAXONOMY ALIGNED

90%



IMPACT HIGHLIGHTS

ENVIRONMENT

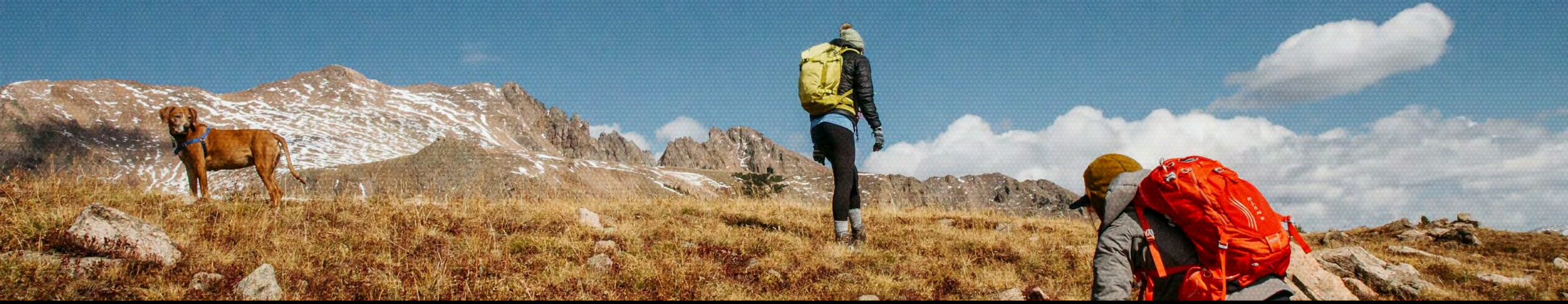
GHG AVOIDED OR REMOVED *818,762 t*

WASTE REDUCED *1769 t*

ENERGY SAVED *13,572,350MJ*

BIODIVERSITY PROTECTED *15,588 ha*

WATER SAVED *279,169 m3*



IMPACT HIGHLIGHTS

SOCIAL

FEMALE CO-WORKERS AT PLANET A

28%

COMPANIES WITH FEMALE FOUNDERS

32%

TOTAL JOBS ACROSS PORTFOLIO

1,201

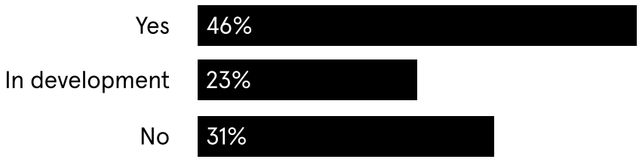
5 STEWARDSHIP & ACCOUNTABILITY

Embedding ESG into how we invest and operate

ESG BY NUMBERS

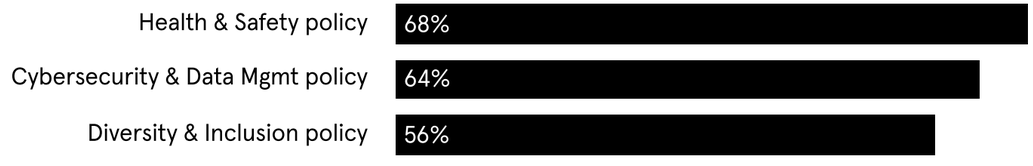
Data: Planet A ESG campaign 2025 Fund I · 27 portfolio companies

ESG / CSR POLICY



CARBON FOOTPRINT ASSESSED

GOVERNANCE



RENEWABLE ENERGY

People & Diversity

28.7%
WOMEN IN WORKFORCE
2024: 30.2% ↓ 1.5pp

21%
WOMEN ON BOARD
2024: ~21% — stable

~16%
GENDER PAY GAP (UNADJ.)
2024: 10.5% ↑

0
FOSSIL FUEL & WEAPONS
Zero exposure — unchanged

84%
RENEWABLE ENERGY SHARE
2024: 80% ↑ +4pp

0
ESG / UNGC VIOLATIONS
Clean record — unchanged

WHERE ESG IS HARD *(and what we do about it)*

ENABLING EARLY-STAGE FOUNDERS FOR SUCCESS

WHERE PORTFOLIO COMPANIES STRUGGLE

Incomplete or evolving ESG data

Early teams often lack structured reporting systems. Scope 1–3 emissions, workforce metrics, supply chain indicators and PAI data are not yet tracked consistently, especially in hardware and complex value chains.

Limited supply chain transparency

Key ESG risks and impact drivers sit upstream. Reliable supplier data on emissions, labour standards or material sourcing is often unavailable or shifts as companies scale.

Uncertainty in baselines and targets

EU Taxonomy alignment, climate pathways and PAI reporting require clear definitions and counterfactuals. Geography, grid mix and growth dynamics introduce complexity into disclosures.

Resource constraints

Founders are scaling product, organisation and revenue simultaneously. Formalising governance, policies and reporting compete with other business priorities.

HOW PLANET A SUPPORTS FOUNDERS

Science-backed impact insights

Founders have access to up-to-date, decision-grade impact data. We run consequential LCAs and climate risk analyses from due diligence onwards and update them as the company scales.

→ Credible numbers for sales, fundraising and strategy.

Clear ESG roadmap

Our Sustainability Clauses create early structure:

- Carbon footprint measurement
- Diversity&Inclusion strategy within 12 months
- ESG & PAI reporting
- Governance aligned with OECD & UN GP

→ Regulatory readiness from scratch.

Hands-on enablement

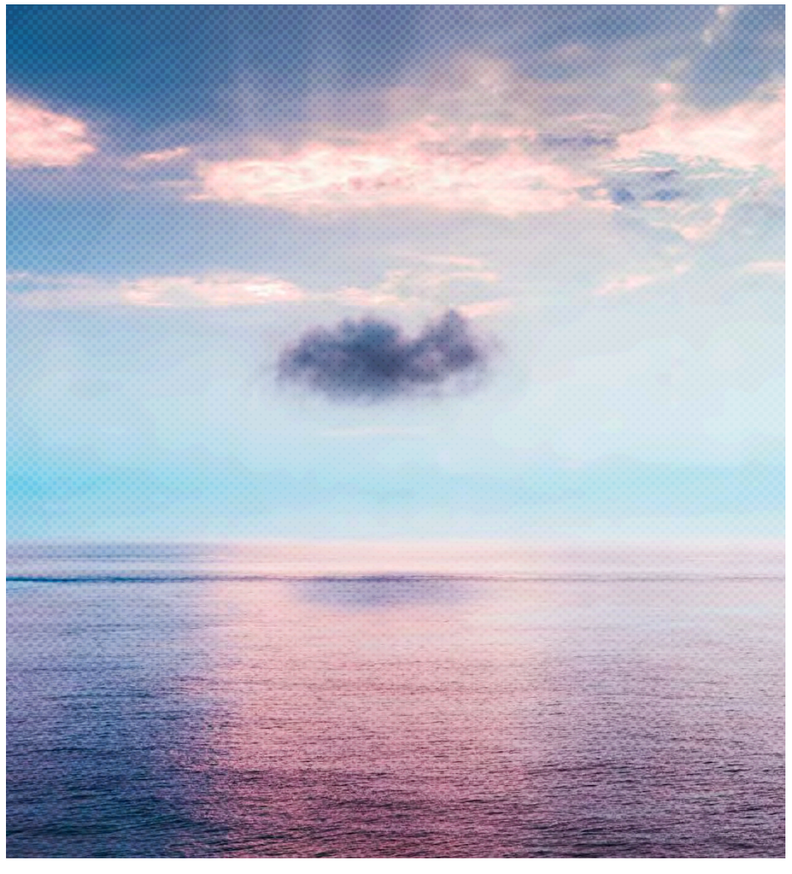
We reduce reporting friction:

- ESG data platform for streamlined investor reporting
- Policy templates & tools
- Webinars and tailored workshops

→ Less admin, more focus on building the business.

A COMMITMENT TO TRANSPARENCY

ARTICLE 9 EU SFDR SETS THE STANDARD WE CHOOSE TO OPERATE AGAINST



Impact objectives defined and disclosed

For every investment, we define a concrete environmental objective, a clear theory of change and measurable KPIs upfront. These targets are embedded in our investment documentation and reviewed at LPAC level.

Standardised assessment and reporting

We assess systemic impact based on ISO standardised LCA framework and apply consistent methodologies across the portfolio. Companies report annually on ESG and Principal Adverse Impact indicators.

Alignment with EU sustainability frameworks

Each investment must 1) make a substantial contribution, 2) do no significant harm, and 3) promote good governance. Exclusions and sustainability clauses are legally embedded.

Oversight

Impact KPIs, ESG performance and climate risk exposure are reviewed annually at Management Board and LPAC level.

What transparency means in practice

- **WE DISCLOSE ASSUMPTIONS AND UNCERTAINTY**
  Baselines, counterfactuals and scenario logic are made explicit.
- **WE SHOW INDIRECT AND SYSTEM EFFECTS**
  We model what changes in the system, not only operational footprints.
- **WE REPORT LIMITATIONS, NOT JUST POSITIVES**
  Where impact is uncertain or constrained, we say so.
- **WE MAKE OUR ASSESSMENTS PUBLIC**
  Methodologies and impact results are shared. See here on our website.

OPERATIONAL RESPONSIBILITY

WHAT OUR NET ZERO PRACTISE LOOKS LIKE AT PLANET A

In 2025, Planet A's operational emissions amounted to 151 tCO_2e across Scopes 1–3, with the majority stemming from business travel. While operational emissions for venture firms are relatively small compared to the impact of the technologies we back, we believe accountability starts at home.

To internalise this responsibility, we implemented an internal carbon fee that assigns a cost to our emissions. These funds are invested in high-quality climate solutions through the Milkywire Climate Transformation Fund and carbon removal and sequestration portfolio companies like Phlair, GoodCarbon or 44.01, supporting long-term carbon removal and reduction.

TOTAL 2025 GHG EMISSIONS

151 tons CO2e

SCOPE 3 EMISSION SOURCES (IN TONS Co_2e)

	% of emissions	tonnes CO_2e
Business travel	59.2%	78.6
Purchased goods + services	40.8%	54

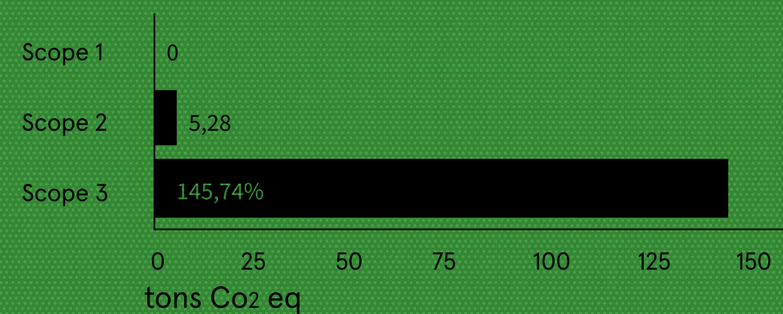
SCOPE 3 ENERGY SOURCE (IN KWH)

32% Heating

68% Elecritiy

100% Renewable electricity

TOTAL EMISSIONS 2024



Note. We transitioned to the Business Carbon Accounting Calculator by Normative in 2024. Some deviation from the 2023 numbers might be due to the change in the underlying method.

THE A-TEAM

WORKING TOGETHER FOR AN ECONOMY WITHIN THE PLANETARY BOUNDARIES

Jan Christoph Gras
General Partner

Tobias Seikel
General Partner

Nick de la Forge
General Partner

Lena Thiede
General Partner

Fridtjof Detzner
General Partner

Kim Dang
Head of Ecosystem

Alexander Seel
CFO

Siyana Marinova
Finance Manager

Christian Schad
Venture Partner

David Wortmann
Venture Partner

Sam Baker
Investment Manager

Dr. Christian Gonzalez
Investment Manager

Aina Sinol
Scientist & Investment Analyst

Dr. Benedikt Buchspies
Senior Scientist

David Zahn
Head of Brand and Communications

Ulrike Schütze
Executive Assistant

Ashul Sinha
Finance Analyst

Niha Kondhalkar
HR Generalist

Alexander Stevens
BeNeLux

Tassilo Wanner
Policy & Mobility

TBA
Partner/Principal

TBA
Associate

Kritesh Shridhar
Life Cycle Assessment Analyst

Mehmet Çelimli
Data Engineer

Sarah Gill
Brand & Comms

Lily Jabbour
Platform & Ecosystem Manager

Dr. Milica Iličić
Chief of Staff

Stefan Müller
Energy

INVESTMENT SCIENCE PLATFORM FUND OPS VENTURE PARTNER

BACKING SOLUTIONS

The world can't *afford* to ignore.

planet A VENTURES