

Portfolio Insights

More projects. More funding. More impact.

December 2023



Unlocking the next chapter of climate innovation

Each year we gather 90+ founders from our portfolio in the place where we founded Elemental, Hawaii. This October, a CEO shared something that stuck with me, "There is no success binary. Much of what you've built will continue on no matter the final result." There's no one point at which all impact happens. We all have impact every day with everything we say, every action we take.

This has been a year of enormous change. We are reckoning with an investment landscape that is in rapid evolution. In a year of significant market recoil, including a banking crisis, we also saw new policies (Inflation Reduction Act and others!), new capital, new players and new market dynamics.

At Elemental, our focus continues to be on investing in projects with deep community impact – that is our constant throughout 14 years of building. While our focus is unwavering, so too is our drive to innovate. For climate companies beyond the early stages of development and ready for project deployment, we know there is both a support and capital shortfall, with the financial gap of more than \$150B according to our recent study with Boston Consulting Group.

Early in 2023, acutely aware of the persistent funding and support gaps in the industry and within our portfolio, especially for those projects needing investment of less than \$100M, we asked ourselves: how can we do more?

We launched a campaign to fund more projects, in more communities, with more impact. Here are a few highlights from 2023, where we:

- increased our investments into projects with deep impact.
- offered 900 hours of coaching for CEOs, including project finance, policy and project development to unlock scale.
- convened co-investors at our annual Interactive event, Climate Week and COP28 to catalyze more capital into climate solutions.

With every investment, we learn. In this report, we share highlights with the hope this accelerates our work together.







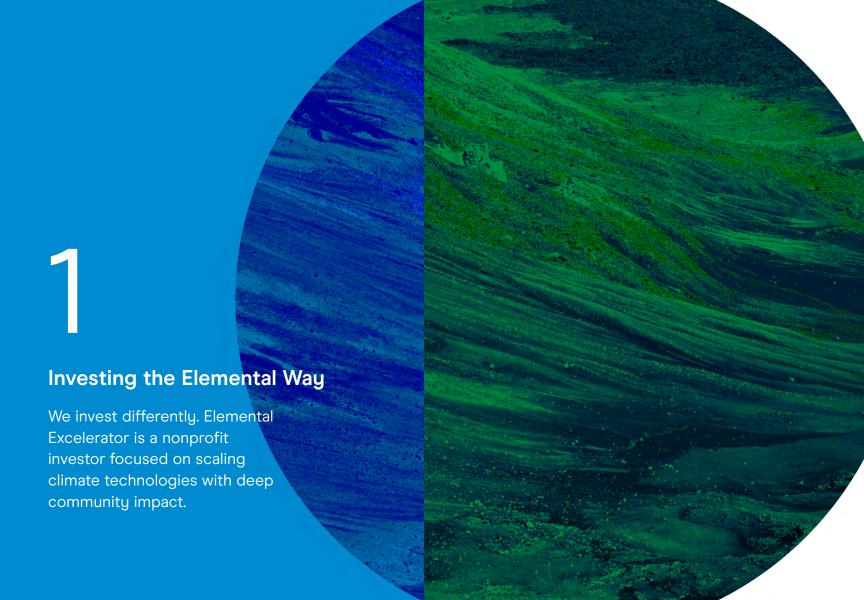






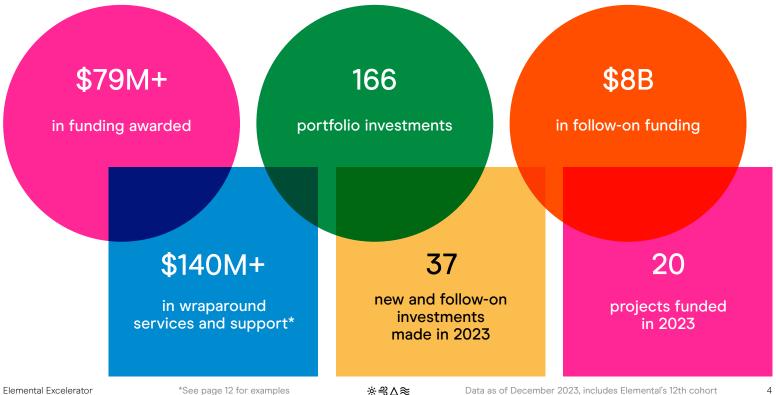
Dawn LippertElemental Founder & CEO

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We invest in transformative technologies

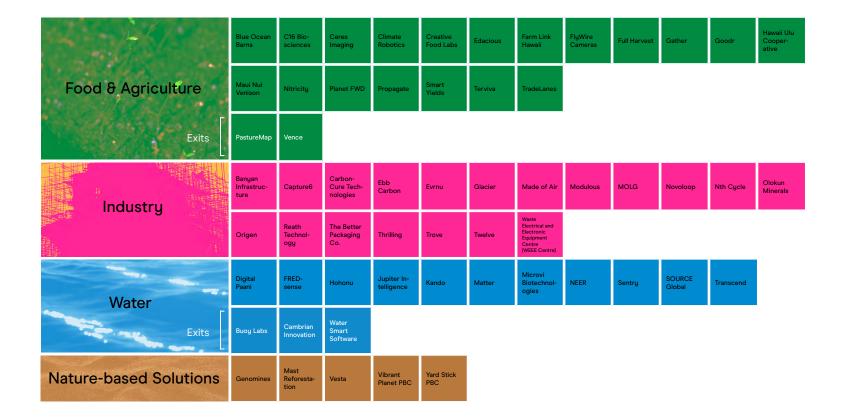
Every year, we source and diligence thousands of climate companies and select the most impactful solutions to deploy in communities around the world. Once selected, we provide catalytic capital and customized support to ready our portfolio companies to scale their impact. And it's working.



Meet the Elemental Portfolio



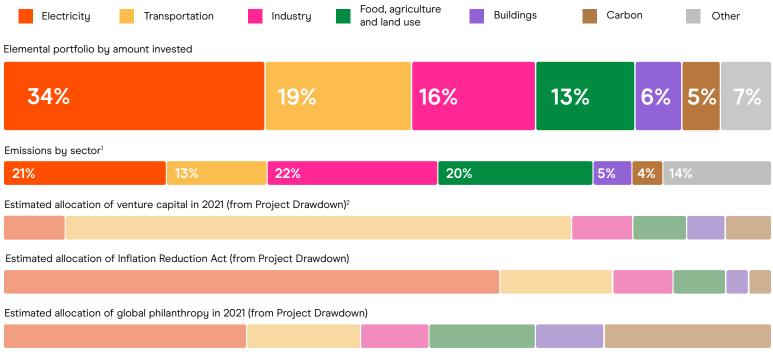
Meet the Elemental Portfolio



Driving capital into our highest emitting sectors

We have invested more than \$79M since 2012 into transformative technologies crucial for cutting greenhouse gas emissions across all sectors. By design, our investments closely map the source of greenhouse gas emissions by sector.

U.S. DOLLARS INVESTED COMPARED TO GHG EMISSIONS BY SECTOR (MAPPED TO IPCC CATEGORIES)



Our footprint

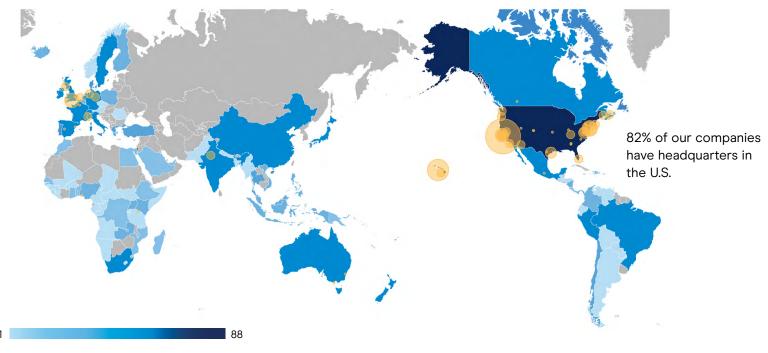
The Elemental portfolio spans all 50 U.S. states and supports customers and/or operations in more than 100 countries.

5,300+

jobs created in 2022

\$355M+

in revenue in 2022



Number of companies with operations and customers in each country

Places with 1 or more company headquarters

Projects rooted in community



Terviva plants regenerative pongamia trees in Hawaii for carbon-negative protein.



Nth Cycle opens critical minerals refining and scrap recycling facility in Ohio.





Bedrock Energy brings geothermal technology to commercial buildings in Texas.





Mast Reforestation accelerates post-wildfire reforestation in Oregon.



We invest in diverse climate leaders

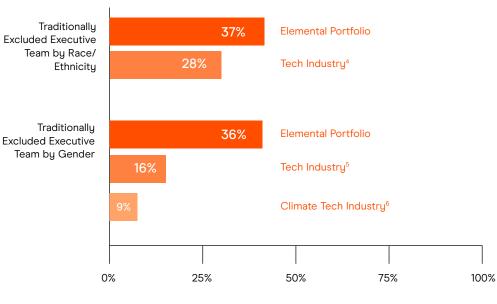
More than half of our portfolio is led by traditionally excluded³ CEOs and diverse executive teams — exceeding industry benchmarks. Diverse representation is one aspect of what we call "equity in," which involves <u>building diversity</u> and equitable practices into company culture from an early stage.

54% of Elemental's funding

has been awarded to startups with diverse leadership teams



HOW ELEMENTAL'S FUNDING OF TRADITIONALLY EXCLUDED EXECUTIVE TEAMS COMPARES WITH VC FUNDING



137% + 36% - traditionally excluded by both race and gender = 54%

We center community in project deployments

Our companies <u>promote prosperity and diversity</u> outside of their teams by prioritizing equitable access to their technologies. This is what we call "equity out."

Companies do this by partnering with community-based organizations and leaders, creating financial and workforce opportunities during project deployment and addressing unintended consequences early in their growth.

56% of our companies report serving low- to moderate-income communities



66%

of our companies worked with community-based partners in 2022.



93%

of our companies working with community-based partners say it improved project success.

100%

of projects since 2021 have included an "equity out" framework in their project deployment.





We go beyond capital investment

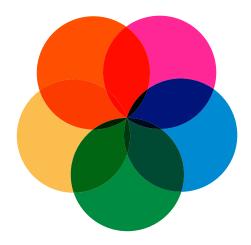
We do more than write a check. Our customized model of supporting companies means we find innovative and creative ways to unlock growth. In addition to funding, we provide tailored, wraparound support to address critical gaps in operations, sales, equity and access, policy, corporate agreements and more.

Development & infrastructure support

We provide resources to help companies navigate the scale gap, from project financiers-in-residence to community engagement coaching.

Policy strategy & engagement

Our <u>Policy Lab</u> coaches entrepreneurs on effective policy practices, engages in advocacy and relationship building and creates frameworks for project implementation.



Community-centered projects

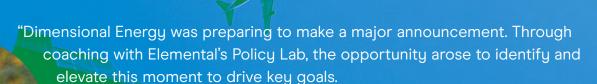
We support our companies in <u>building</u> the right partnerships and incorporating community feedback in project sourcing and selection.

Access to corporate customers & funders

We <u>connect corporate partners</u> to growth-stage climate startups for investments, acquisitions, pilot projects and commercial-scale rollouts.

Pipeline of diverse talent

Our internship program, Empowering Diverse Climate Talent (EDICT), works with employers to create inclusive cultures, and with early career professionals to develop skills and join a powerful network of rising leaders.



Elemental brought in the communications, storytelling and advocacy expertise to complement and boost our capacity and resources for the event, and a collaboration was born to bring this moment to a new level. We put on a successful and highly effective event that yielded positive media coverage."

— Dimensional Energy Co-Founder & CEO Jason Salfi

Welcome Cohort 12

In addition to providing catalytic investments and supporting our expanding portfolio, we welcomed <u>our latest cohort</u>:

15 companies with transformative technologies for heating and cooling our homes, reimagining critical resource extraction, advancing carbon removal, electrifying transportation, accelerating distributed renewable energy generation and reshaping our food system.



























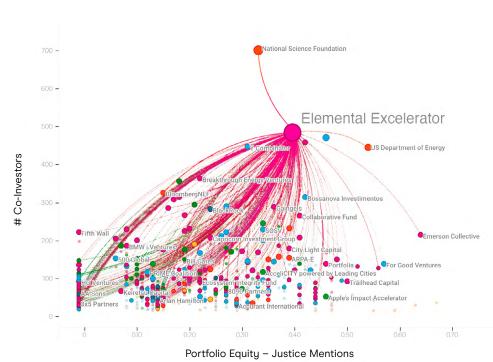






Connecting a network of public and private investors

After the National Science Foundation, Elemental is the most highly networked climate investor, according to the independent Climate Finance Tracker. To build a bridge between available funding and climate projects that need it most, we convene a broad network of public and private sector co-investors, including at our annual Interactive event. This year, we also brought together 100 public and private investors at Climate Week NYC to evaluate climate projects in key communities across the U.S.



Elemental has collaborated with:

public and 1000 private funders

deal flow partners 530+ and investors

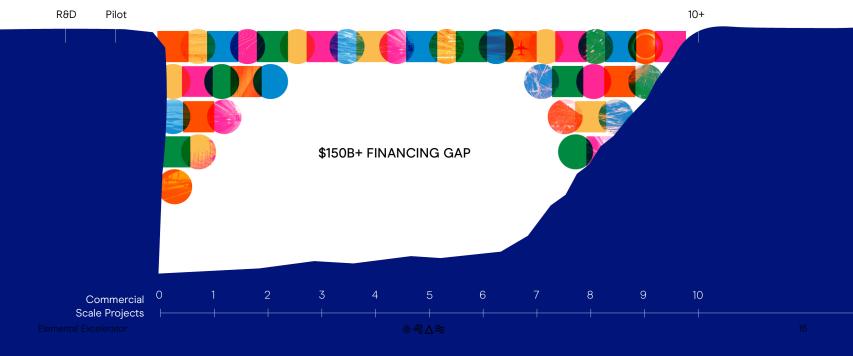
project partners



Elemental bridges the "missing middle"

We have spent 14 years identifying and filling gaps for climate technology companies that are ready to scale. Our portfolio companies face a significant funding gap⁸ between early-stage VC funding and later-stage growth capital — often for the first through tenth project deployments. We know this to be a more than \$150B financing gap according to our recent study⁹ with Boston Consulting Group, and S2G Ventures labeled this gap the "missing middle."¹⁰

Elemental is focused on scaling companies through the missing middle so that they can attract this later stage financing. We also see these projects, needing investment smaller than \$100M, as having the biggest potential for local community impact.



More funding, more projects, more impact

In 2023, we launched a campaign to fund more projects and scale our catalytic investments to bridge the funding gap.



IN 2022

Our investments catalyzed 20x in follow-on funding

\$9.2M of our funding in 2022 helped to catalyze more than \$194M in 2023 for our portfolio companies scaling from initial pilot to market leader.

IN 2023

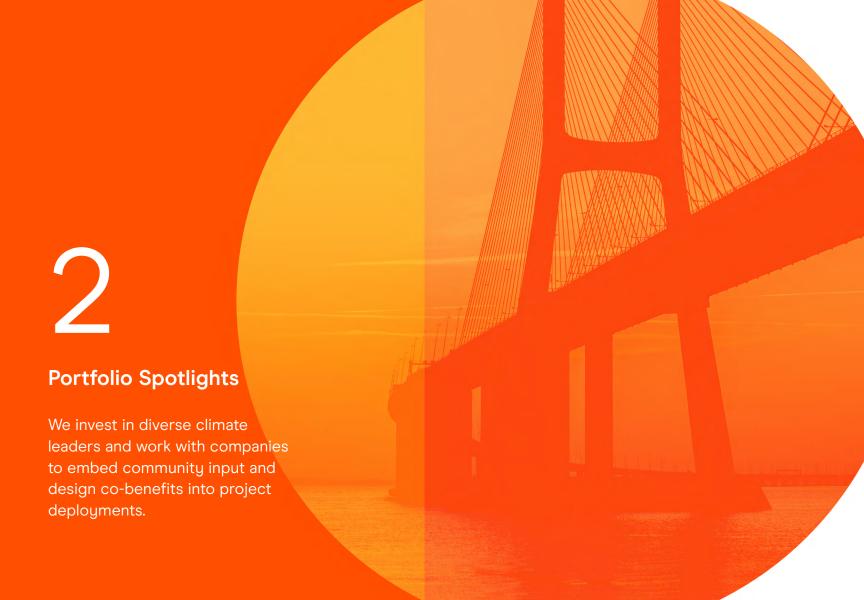
We scaled up and funded 20 Elemental projects

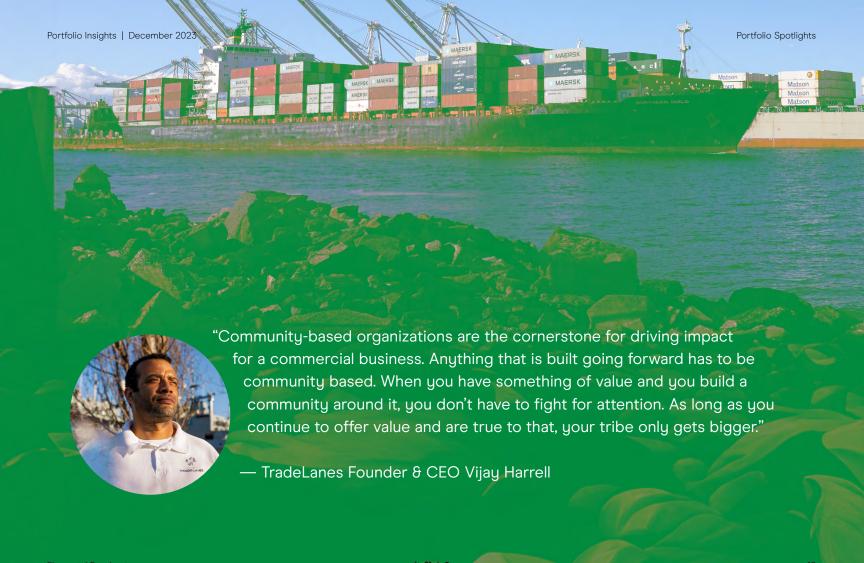
We made 37 investments and grants in 2023 alone, including 20 into transformative projects delivering meaningful community benefit.

FOR 2024 AND BEYOND

We'll scale further and tap a \$4.7B pipeline of 300+ portfolio projects

We know we could go faster. A 2023 survey of projects ready to deploy revealed a \$4.7B pipeline¹¹ of 300 projects, with 70% located in frontline communities.





Portfolio Insights | December 2023 Portfolio Spotlight: Energy

Allume Energy makes solar accessible and affordable for multi-unit residents

Allume's SolShare technology distributes energy from a single solar system to multiple units. This means more multiunit residences can access clean, affordable energy. Through a recent partnership with Elemental, Allume will bring rooftop solar to more than 4,000 residents across the Southeastern U.S., starting with shared solar projects in Florida, Georgia and Mississippi.

Allume's new business model also will ensure building owners have no upfront costs for installation and that savings are passed along to tenants.

SolShare users have saved an average of up to 40% off their energy bills. The first U.S. pilot project in Orlando indicated an average annual savings of \$1,166 per apartment in the first year

of operation. Allume expects its new projects across the Sun Belt over the next year will prevent over 10,000 tons of CO₂ emissions (equivalent to taking over 2,000 cars off the road for a year).¹²





Progress Unlocked

40%

average reduction in energy bills for SolShare users.¹⁴

Status Quo 5.6%

of household income in low-income multifamily buildings is spent on energy (which is over 2x higher than all multifamily households).¹³

al Excelerator



"We passionately believe that working with underserved communities who need the help the most, and the local leaders who understand how to deliver it to them, is going to be a fruitful place to do business, and the only way that we can truly transition to a renewable future."

— Allume Co-Founder δ
CEO Cameron Knox

Portfolio Insights | December 2023 Portfolio Spotlight: Mobility

Dollaride offers clean rides to underserved New Yorkers in transit deserts

Dollaride is a commuter-van rideshare option for communities not adequately served by public transit. It also reduces carbon emissions by helping existing "dollar van" networks convert to electric vehicles. For New Yorkers living in transit deserts — the majority of which are low-income citizens — the health hazards and economic challenges can be severe.

Dollaride's Clean Transit Access Program will provide affordable electric shuttle buses as well as charging infrastructure to certified commuter van drivers operating in disadvantaged communities throughout New York City.



2M

New Yorkers live in transit deserts.¹⁵

23%

of GHG emissions come from single occupancy vehicles.¹⁶

Dollaride was part of Cohort 9 in 2020 and partnered with Elemental again in 2023 to deploy 3 affordable electric vehicles and chargers as part of a local electrification pilot.

Portfolio Insights | December 2023 Portfolio Spotlight: Mobility



"These vans are not just an electric transport to get commuters from point A to point B. These vehicles unlock access to fresh food, clean air and quality medical care. The funds from Elemental will allow us to try out a handful of new electric vans before purchasing 100 in a couple months. The funds provide us the opportunity to ensure we smooth out logistics so we can quickly scale and serve more in New York and beyond by offering a cleaner ride as the way forward."

— Dollaride Co-Founder & CEO Su Sanni



\$10M

of funding awarded by the New York State Energy Research and Development Authority to help Dollaride buy EV vans serving transit deserts.¹⁷ 5400

metric tons of CO₂ emissions

removed by Dollaride annually.¹⁸

Portfolio Insights | December 2023 Portfolio Spotlight: Mobility

Forum Mobility builds electric truck charging depot and enables accessible ownership

With Elemental's support, Forum is building an integrated electric truck charging station at the Port of Long Beach— the busiest port in America— while collaborating with the Harbor Trucking Association to establish the area's first community charging

depot. This will provide the charging infrastructure necessary to help fleets and independent owner operators make a seamless transition to zero emission.

About 39 million people in the U.S. live within three miles of a port,¹⁹ a high

percentage being low income and minority populations who are often disproportionately impacted by higher levels of diesel emissions.

The project is modeling how to rapidly decarbonize the drayage industry that transports goods to and from seaports, and prevent hazardous pollution from impacting nearby communities.





33,500

diesel-fueled trucks need to be switched to electric that serve busy seaports in California. These trucks shuttle cargo containers from ports to inland distribution centers on a daily basis.²⁰

80%

of the 33,500 trucks are owned by independent operators, many of them sole proprietors.21

12 years

until 2035, when the California Air Resources Board targets to make the transition to EVs mandatory.



Progress Unlocked

\$400M

in joint venture funding secured by Forum Mobility to build a comprehensive charging network for heavy-duty trucks to make the transition to electrification.

50,000+ tons

Projected emissions reduction of CO₂ from Forum projects in the Port of Long Beach for up to 48 trucks.²²





Portfolio Insights | December 2023

SOURCE Global's Hydropanels use sunlight and air to make drinking water, anywhere

SOURCE Global is the world's first renewable, off-grid drinking water system. It transforms moisture from the air into pure, clean water, without requiring electrical input or existing water infrastructure. Over the last five years, SOURCE has launched multiple projects with Elemental.

Elemental and SOURCE first piloted a

new business model in Australia: a Water Purchase Agreement where customers could buy water by the liter and avoid the upfront costs of purchasing an array of panels. By establishing a successful water production, bottling and distribution business with an Indigenous-owned partner in Australia, SOURCE gained a valuable proof point to replicate this model globally, fueling

its growth in over 50 countries.

In 2022, Elemental and SOURCE partnered together again, working with the unincorporated community of Sand Branch, TX, where contaminated wells left people without access to safe drinking water since the 1980s.



"Elemental Excelerator has been an important part of SOURCE's journey from an earlystage technology company to one that provides renewable drinking water solutions to households, communities and governments in more than 54 countries around the world."

— SOURCE Global Founder & CEO Cody Friesen



Portfolio Insights | December 2023 Portfolio Spotlight: Water



2.8M

plastic water bottles (the alternate source of clean water for this community) eliminated, as well as their associated emissions.²³







19,920

gallons of water generated for threefourths of households in Sand Branch each year on SOURCE Hydropanels.²³

In partnership with local community-based organizations, including the Chisholm Legacy Project and the Until Justice Corporation, SOURCE completed Hydropanel installations at 21 residences, and is now planning for a community garden where its clean water will be used to grow crops for Sand Branch residents.

Vesta is turning shorelines into carbon-removing powerhouses

Vesta protects coastlines and amplifies the ocean's natural ability to absorb CO₂. Vesta adds a carbon-removing mineral, olivine, to sand at shorelines, where it reacts with seawater to simultaneously reduce acidity and increase its capacity to durably remove CO₂. By mimicking and vastly accelerating Earth's natural rock weathering process, Vesta's "Coastal Carbon Capture" is an ideal solution to help the shoreline-protection

industry and ocean-based communities become more climate resilient.

Together with Elemental, Vesta has embarked on its second U.S. project — open sourcing its science to ensure the industry learns and grows alongside the adoption of this nature-based solution, and working closely with the local community to shape the adoption of this technology.





"For climate solutions to really scale, we know that both climate and community have to win. That's why we've embedded this principle into our DNA since the very beginning"

Vesta President and Co-Founder Kelly Erhart



Status Quo

60M tons

of sand deployed each year to restore and protect beaches in the U.S., a largely untapped opportunity to sequester CO₂ from the atmosphere.24



Progress Unlocked

500 tons

of CO₂ to be removed from the atmosphere by Vesta's project site in South Hampton, NY (equivalent to more than a million miles driven by the average gas-powered vehicle).25

14x

increase in scale from Vesta's first pilot to its second pilot, being deployed in partnership with Elemental in 2024.







Portfolio Insights | December 2023 Portfolio Spotlight: Industry

Evrnu® converts textile waste into fibers that can be recycled again and again

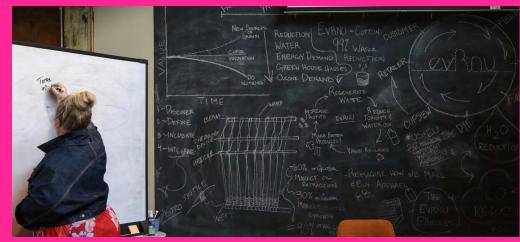
In 2021, with Elemental's support, Evrnu® brought its prototype technology, Nucycl®, to commercial scale and proved it was possible to create high-performing fibers from textile waste. As a direct result of our work together, Evrnu® created its first commercial fabric for Stella McCartney.

Evrnu credits Elemental's investment as the "tipping point" that kept the company on its growth trajectory while closing its \$15M Series B funding in 2021, and for securing project-finance commitments.

Up next, Evrnu® is taking insights from our initial project to bring its pulping process in house. Elemental will fund a portion of its first commercial-scale facility in South Carolina in 2024.







Portfolio Insights | December 2023 Portfolio Spotlight: Industry



93B

cubic meters of water used annually by the fashion industry (which is 4% of all global freshwater use).²⁶

2,150

pieces of clothing thrown away in the U.S. each second.²⁷



98%

less water used by Nucycl® than virgin cotton production.²⁸

90%

less CO₂ emitted by Nucycl® than polyester.²⁸





Blue Ocean Barns created a seaweed-based powder that, when added to a cow's or goat's diet, significantly reduces the formation of methane

After an initial investment in 2019, Elemental awarded Blue Ocean Barns at Square Partnerships Prize in 2022. The prize incentivizes climate technology companies to engage with community partners in an equitable and effective way. The portfolio company utilized it to create the world's first low-methane goat cheese and a new category of climate-friendly food products. Blue Ocean Barns had demonstrated success with cows, and was eager to explore the market for goat dairy products, which is a \$12.5B industry.²⁹

Blue Ocean Barns, together with a local Hawaii farm, Hawaii Community College, local high school interns and a local restaurant group, created ultra-low-emissions Hawaii goat dairy products. Blue Ocean Barns' emissions-reducing product — Brominata — is based on a red seaweed grown in Hawaii.









25%

of agricultural GHG emissions come from livestock digestion.³⁰



85%

emissions reduction from feeding seaweed to goats.³¹



"It's thrilling that three Hawaii companies (Blue Ocean Barns, Merriman's and Hawai'i Island Goat Dairy) could get together to introduce this historic product to the world. We couldn't be prouder to team up with two innovative partners for this big win for Hawaii."

Blue Ocean Barns Co-Founder
& CEO Joan Salwen



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Laurene Powell Jobs Board Chair

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Dawn Lippert Board Member

Founder & CEO Elemental Excelerator



Kelvin Taketa Board Member

Past President/CEO Hawaii Community Foundation



Cheryl Martin Board Member

Founder & Principal Harwich Partners



Naveen Sikka Board Member

Founder & CEO Terviva



Vivian Yasunaga Board Member

Director Kamehameha Schools







Thank you to our audacious and dedicated funders

As a 501(c)(3), we seek philanthropic and government partners to stay nimble and on the edge of the market. Our nonprofit structure ensures that returns are recycled into future climate projects that bring real benefits to local communities in the form of jobs, reduced utility bills and improved health outcomes.







































Stella Lee Family Charitable Foundation









Thank you to our community of founders



Methodology

Unless indicated otherwise, all data and insights presented in this report are from 2022 and are self-reported by Elemental Portfolio companies in a series of surveys (with a response rate of around 96%) we conduct each year on their growth, opportunities and challenges.

External Sources

- Intergovernmental Panel on Climate Change (IPCC) (2022), Working Group III contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change
- Estimated allocation data is shared with permission from Project Drawdown
- We define "traditionally excluded race/ethnicity" as Black/African American, Asian (incl. Southeast, East, and South), Latinx, Middle Eastern/North African, Native American/Alaskan Native and Native Hawaiian/Pacific Islander. We define "traditionally excluded gender" as cis-female, trans-female, trans-male and genderqueer/non-binary/agender
- 4. RateMyInvestor (2020), <u>Diversity in U.S. Startups</u>
- Pitchbook (2023), <u>US VC female founders dash-</u> board
- Crunchbase via TechCrunch (2022), VC funding of women climate tech founders is abysmal. Here's how it could improve
- Climate Finance Tracker (2023)
- Elemental Excelerator (2022), <u>The Commercial</u> Inflection Point Scale for Climate Tech Startups
- Elemental Excelerator (2023), <u>Traversing the Scale</u> <u>Gap at Climate Week NYC</u>
- S2G Ventures (2023), The Missing Middle: Capital Imbalances in the Energy Transition

- 11. Elemental's pipeline opportunity projects are based on survey data and projections submitted by our portfolio companies. These projects will be subject to further due diligence to ensure they meet our investment standards and align with approved investment policies by Elemental
- 12. Environmental Protection Agency (EPA) (2023), Greenhouse Gas Equivalencies Calculator
- American Council for an Energy-Efficient Economy (ACEEE) (2020), National and regional energy burdens
- Data from <u>Allume Energy</u>
- New York State Energy Research θ Development Authority (NYSERDA) (2022), <u>Dollaride First/Last</u> <u>Mile Connections</u>
- Journal of Cleaner Production (2020), <u>Tackling</u> single-occupancy vehicles to reduce carbon emissions: Actionable model of drivers' implementation intention to try public buses
- NYSERDA (2023), Governor Hochul Announces Ten Grand Prize Winners in the \$85 Million New York Clean Transportation Prizes Program
- 18. Data from **Dollaride**
- Environmental Protection Agency (EPA) (2016), <u>National Port Strategy Assessment: Reducing Air</u> Pollution and Greenhouse Gases at U.S. Ports
- 20. California Air Resources Board (CARB) (2023),

- Advanced Clean Fleets Regulation Drayage Truck Requirements
- Climate Tech VC (2023), <u>Draining Drayage of</u> Diesel
- 22. Data from Forum Mobilitu
- 23. Data from SOURCE Global
- Ocean and Coastal Management (2020), <u>A century of U.S. beach nourishment</u> (note: the source provides this data as 37 million cubic yards which roughly translates to 60M tons from <u>MN Stormwater Manual</u>)
- 25. Data from Vesta
- 26. Ellen MacArthur Foundation (2017), A new textiles economy: Redesigning fashion's future
- Bloomberg (2022), The Global Glut of Clothing is an Environmental Crisis
- 28. Data from Evrnu
- Grand View Research (2022), Goat Milk Products
 Market Size, Share & Trends Analysis Report By
 Type (Liquid Milk, Powdered Milk), By Distribution
 Channel (B2B, B2C), By Region, And Segment
 Forecasts. 2023 2030
- Environmental Protection Agency (EPA) (2023), Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2021
- 31. Data from Blue Ocean Barns





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Elemental Excelerator is a 501(c)(3) nonprofit focused on scaling climate technologies with deep community impact