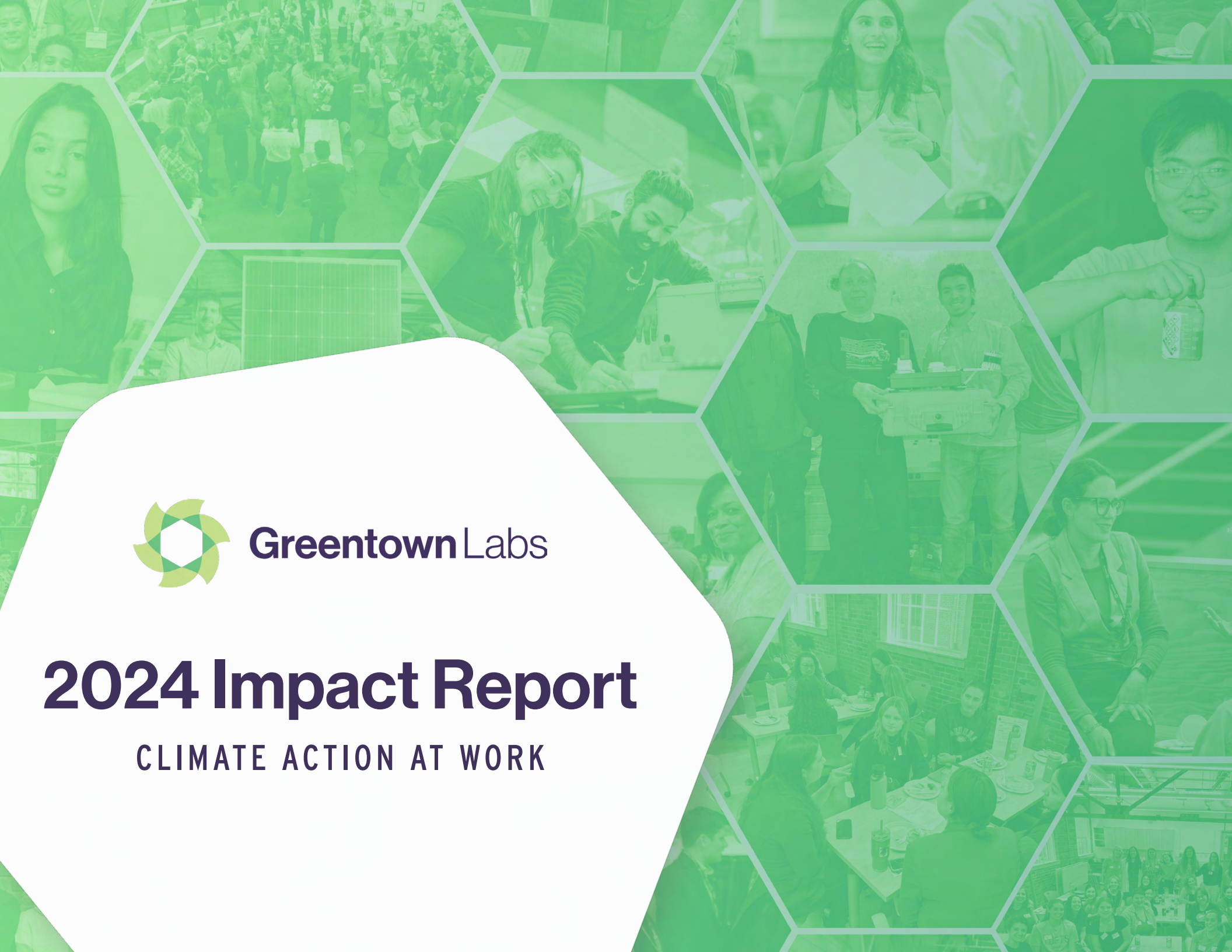


Greentown Labs

2024 Impact Report

CLIMATE ACTION AT WORK

DEAR FRIENDS OF GREENTOWN LABS,

This year we saw our tag line—*Climate Action at Work*—take a new, elevated meaning. From the solutions being developed in our incubators, to successful fundraising and deployment milestones, to our startups commercializing their technologies and growing their teams, climatetech and energy innovation was the throughline at Greentown in 2024 and resiliency and momentum are the key themes catapulting us into 2025.

As we begin this exciting new chapter and reflect on all that our community achieved in the last year, we are proud to present our annual impact report. The following pages will offer a snapshot into our 200+ member companies, 75+ partners, many accelerator programs, and the depth of resources we provide our startups.

Celebrating Startup Successes

Our member companies are at the heart of everything we do at Greentown. We were founded by entrepreneurs—and for entrepreneurs—who believe in the essential role entrepreneurship plays in climatetech and energy innovation, collaboration, and deployment. This ethos still inspires us today, 14 years later.

In 2024, we received more than 515 startup applications across our incubators and accelerator programs and 80 of those applicants became Greentown members.

Our 217 member companies are developing solutions to decarbonize the largest greenhouse-gas-emitting sectors and to help build resilient communities—and nothing makes us prouder than when we see them raising capital and deploying their technologies around the world. In 2024, 169 of our startups and alumni collectively **raised more than $2.4 billion in funding**. Throughout the year, at least 40 of our startups deployed their innovations.

Partnerships and Programs for Impact

Core to the Greentown community's success is our deeply engaged network of partners that represent a host of industries, from energy to manufacturing to consumer packaged goods. Throughout the year, our team made **more than 300 curated connections** between our partners and member companies, and 92 of our startups were featured in our quarterly pilot digest that spotlights collaboration opportunities for partners.

Access to capital remains one of the top challenges identified by our startup community, which is why our Investor Program exists: to connect our founders with the capital their teams need to thrive. Our network of investors is now more than 1,500 strong, and in 2024 our team made **290 curated introductions** for our startups.

2024 was a banner year for our accelerator programs: Greentown Go, ACCEL, and the Carbon to Value Initiative. Go Make 2023 with Shell and Go Build 2023 with Saint-Gobain wrapped up in the spring, featuring pilot studies, integration testing, market exploration, and more between the corporate partners and startup cohorts. The second year of ACCEL supported seven BIPOC-led startups by offering access to funding, networking connections, and resources. And the Carbon to Value Initiative concluded its third year and announced a new startup cohort for Year 4.

Convening and Catalyzing Ecosystems

We take great pride in serving as a convener of the climate and energy ecosystems in both of our home cities. In 2024, we hosted **52 public events and welcomed more than 10,000 unique attendees** to our gatherings. We were a founding, anchor partner for the inaugural Houston Energy and Climate Startup Week and served on the advisory board for the first-ever ClimaTech conference in Boston. A major highlight of the year for our team was Greentown's fifth annual Climatetech Summit, which brought together more than 1,800 climate and energy champions and featured industry leaders, startup pitches, and technology showcases.

Momentum and Opportunity

We were honored to close out the year with more than $4 million in funding from a dynamic mix of partners across Texas and Massachusetts, and introduced our new Board of Directors. These entities and individuals are united in their belief in Greentown, our mission, and the transformative impact we have on startups developing climatetech and energy innovations.

The world is at an inflection point—demand for energy is surging, emissions must be drastically reduced, and resilience has never been more critical. As we turn the page to 2025, we have a great responsibility and opportunity to ensure the next wave of energy and climate entrepreneurs can go further, faster.

We know your support in these efforts is critical and we're grateful for your partnership. We can't wait to see all that we'll achieve together this year. Let's get to work!

Onward,

Bobby Tudor
Greentown Labs Board Chair and Chairman of the Houston Energy Transition Initiative

Georgina Campbell Flatter
Greentown Labs CEO and Board Member

Greentown Labs Board of Directors

BILL AULET

MANAGING DIRECTOR OF THE MARTIN TRUST CENTER FOR MIT ENTREPRENEURSHIP; PROFESSOR OF THE PRACTICE AT THE MIT SLOAN SCHOOL OF MANAGEMENT

DAVID BALDWIN

CO-FOUNDER OF OPENMINDS AND TEX-E; PARTNER, SCF PARTNERS

GEORGINA CAMPBELL FLATTER

CEO OF GREENTOWN LABS

JASON HANNA

CO-FOUNDER OF GREENTOWN LABS; HEAD OF PRODUCT, AI SOLUTIONS GROUP AT ANALOG DEVICES

BOB HARVEY

FORMER PRESIDENT AND CEO OF GREATER HOUSTON PARTNERSHIP; BOARD MEMBER OF TEX-E

JOHN HITT

GENERAL COUNSEL AT THE MASSACHUSETTS CLEAN ENERGY CENTER

JUAN CARLOS MORALES

FOUNDER AND MANAGING DIRECTOR OF SURFSIDE CAPITAL ADVISORS; BOARD MEMBER OF MASSDEVELOPMENT

PAM REEVE

FORMER CEO OF LIGHTBRIDGE; ACTIVE PUBLIC, PRIVATE, AND NONPROFIT BOARD MEMBER

JANE STRICKER

SENIOR VICE PRESIDENT, ENERGY TRANSITION AND EXECUTIVE DIRECTOR OF THE HOUSTON ENERGY TRANSITION INITIATIVE AT THE GREATER HOUSTON PARTNERSHIP

BOBBY TUDOR

GREENTOWN LABS BOARD CHAIR; CEO OF ARTEMIS ENERGY PARTNERS; AND CHAIRMAN OF THE HOUSTON ENERGY TRANSITION INITIATIVE AT THE GREATER HOUSTON PARTNERSHIP

Greentown and Our Startups

ALL-TIME IMPACT SINCE FOUNDING IN 2011

575
COMPANIES INCUBATED

89%
STARTUP SURVIVAL RATE

$8.2B+
RAISED FOR CLIMATE SOLUTIONS

200+
CURRENT STARTUP MEMBERS

2
INCUBATOR LOCATIONS

300+
ANNUAL ECOSYSTEM & COMMUNITY EVENTS

13.5k+
DIRECT JOBS CREATED

All data in this Impact Report reflects 2024 only, unless otherwise stated.

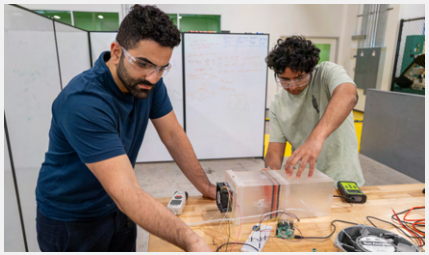
Our Incubators

Greentown Boston

Greentown's Somerville, MA campus is nearly 100,000 square feet and is home to about 140 member companies. With operations spanning three buildings, Greentown Boston offers multiple prototyping labs, a machine shop, a BSL-2 wet lab, an electronics lab, a tool shop, and event and office space.

Greentown Houston

Located in Houston's Ion Innovation District, Greentown Houston supports about 70 startup members. This 30,000-square-foot incubator includes a prototyping lab, machine shop, electronics lab, and tool shop, alongside office and event space.



Climate Solutions for a Decarbonized, Resilient Future

At Greentown Labs, we define climatetech as technological solutions that mitigate the impacts of climate change and build resilient communities.

Mitigation technologies capture or reduce greenhouse-gas emissions, and our startup members are innovating to decarbonize the five key greenhouse-gas-emitting sectors: agriculture, buildings, electricity, manufacturing, and transportation. **Resilience technologies** prepare people, communities, and infrastructure for the impacts of climate change, with a focus on equity.

Check out just a sampling of our members in each sector!

AGRICULTURE
14 STARTUPS

Clean Crop Technologies

Clean Crop's Clean Current technology combines food-grade gasses and electricity to remove contaminants from seed and food surfaces, improving food safety and reducing food waste. Clean Current is up to 10x more energy efficient than incumbent technologies.

Lignium Energy

Lignium Energy transforms cow manure—a major climate and logistical problem on farms—into odorless combustion pellets that can be used as inexpensive, climate-friendly fuel and provide a new source of revenue to farmers.

BUILDINGS
18 STARTUPS

frakktal

frakktal's biobased polymer replaces polyvinyl chloride (PVC), a harmful plastic polymer made from fossil fuels. Working in the building industry—which uses 70 percent of all PVC—frakktal's beachhead market is flooring.

Stepwise

Stepwise enables home electrification without expensive electric panel upgrades. Its EV Tap product balances homes' energy demand by increasing power sent to an EV charger when other electrical demands are low, and vice versa.

ELECTRICITY
60 STARTUPS

Fervo Energy

Fervo Energy applies proven technologies—such as horizontal drilling and distributed fiber-optic sensing—to geothermal-reservoir development, unlocking geothermal power in previously uneconomic locations and dramatically increasing the resource potential for geothermal globally.

Form Energy

Form Energy is transforming how we power our world with a new class of cost-effective, multi-day energy storage systems that will enable a reliable, fully renewable electric grid year-round.

TRANSPORTATION
18 STARTUPS

GreenIRR

GreenIRR's carbon-accounting platform for the trucking industry enables users to measure real-time fleet emissions and generate regulation-compliant reports. The platform integrates with existing IoT and vehicle-monitoring systems.

SWTCH

SWTCH provides scalable, future-proof EV-charging and energy-management solutions for high-density urban settings. As an end-to-end service provider, it supplies, installs, and manages EV-charging infrastructure based on client- and site-specific requirements.

MANUFACTURING
58 STARTUPS

H2Ok Innovations

H2Ok Innovations is developing an IoT platform for optimizing industrial liquid and fluid systems in supply-chain, manufacturing, and data centers. By unlocking previously untapped information to drive data-driven decisions, H2Ok Innovations maximizes its customers' sustainability and efficiency.

Hertha Metals

Hertha Metals is developing technology to cost-effectively produce steel from low-grade iron ores with 98 percent less CO_2 emissions than the conventional process.

RESILIENCY + ADAPTATION
49 STARTUPS

Capwell

Capwell is pioneering a modular, transportable, and affordable technology that fits onto end-of-life oil and gas wells to capture and destroy leaking methane. It's estimated that there are 3.7 million of these wells in the United States, leaking 290 kilotons of methane annually.

rStream

rStream's autonomous waste-sorting system leverages innovations in computer vision and data science, allowing waste-haulers to capture more recyclables than ever before.

Startup Support

Entrepreneur <> Entrepreneur Collaboration

250
INTERNAL EVENTS

39
EXECUTIVE ROUNDTABLES

The heart of Greentown is a thriving community of climatetech entrepreneurs who are always willing to lend expertise, support, and connections to their fellow members. Here are some ways we help them engage with each other:

- CEO and founder roundtables
- CTO and technical-lead roundtables
- Operations-lead meetup group
- Investor Program featuring peer-driven pitch-practice sessions
- Monthly meetings of members' safety representatives
- Women of Greentown initiative
- Social events, including Town Halls and member networking
- Greentown Resources + Information Directory (GRID)—our LinkedIn-style intranet
- Community-wide Slack workspace

Investor Program

1,500+
INVESTORS IN NETWORK

238
STARTUPS FEATURED IN DEAL FLOW DIGESTS

290
CURATED CONNECTIONS

Our investor program's mission is simple: to connect our startups with the capital they need to scale and succeed. From curating investor-startup matches to facilitating pitch practice and feedback, we're committed to helping our startups navigate the fundraising process. Members can:

- Get direct introductions and access to investors through our curated investor network
- Connect with key investors in their industries at Sector Pitch Days, our Investor Speaker Series, and other investor-networking sessions
- Meet one-on-one with investors and partners via office hours
- Be featured in Deal Flow Digests for accredited investors, which highlight our startups that are actively raising
- Receive fundraising coaching and support
- Source peer-driven pitch feedback at biweekly Fundraising Forums

Venture Development Services

Greentown leverages our network to connect startups with subject-matter experts and later-stage founders who can provide much-needed mentorship on topics ranging from product development, to go-to-market strategy, to financial modeling, and beyond.

Our experts and advisors bring vast experience from diverse corners of the climatetech industry and startup venture development. Some have operational experience; others bring expertise in finance or professional services. Many of them are former founders themselves or have made their careers out of helping early-stage companies. All of them are passionate about helping Greentown startups.

EXPERTS-IN-RESIDENCE

Our three experts-in-residence (EIRs) in 2024 worked intensively with our startups' leadership teams on organizational development and venture development, covering topics including business and revenue modeling, value propositions, culture building, conflict management, onboarding systems and processes, and more.

45

STARTUPS COACHED BY EXPERTS-IN-RESIDENCE, WITH MANY MORE ON THE WAITLIST

"The EIR Program has been an invaluable resource. This program is more than just technical support; it's about human connection and fostering growth in a way that feels deeply personal. I truly hope the EIR Program can be expanded, because its impact goes beyond business—it empowers founders to dream bigger and push through adversity. The effect of this program is profound, and its continuation would benefit many more entrepreneurs like myself, ensuring that we can continue to innovate and thrive."

—Annie Rabi Bernard, CTO at Sol Clarity

COMMUNITY ADVISORS

Greentown's network of community advisors meet regularly with our entrepreneurs to offer guidance in their areas of expertise. Spanning a wide range of subjects—including diversity, equity, and inclusion strategies; fundraising; managing a board of directors; technical expertise; and more—these advisors provide invaluable knowledge and advice to our startup community.

52

COMMUNITY ADVISORS

25+

STARTUPS MENTORED BY COMMUNITY ADVISORS

Labs + Equipment

Our labs are where the magic happens. Here, our members take their technologies from initial R&D to rapid prototyping while preparing for manufacturing and commercial development.

$1M+

WORTH OF EQUIPMENT

PROTOTYPING LABS

Our incubators' prototyping labs are home to startups working side by side to build the technologies that will shape our decarbonized future. These labs give members space, freedom, and support, with industry-leading best practices in place to keep everyone safe. We take care of startups' basic operational needs with hands-on, high-touch support—including electricity access, waste sorting and disposal, safety infrastructure, and loading dock shipping and receiving—which frees them up to focus on their innovations.

MACHINE SHOPS

Our machine shops are where Greentown members construct their initial prototypes—designing and experimenting with the inventions that one day they'll have manufacturers produce at scale. Modifying manufactured parts and assemblies quickly allows members to rapidly turn their ideas into tangible parts and components. The machine shop is full of equipment climatetech startups need to build their hardware, and we offer equipment trainings, manage consumables, and keep the machines running smoothly.

TOOL SHOPS

Our tool shops feature $50,000 worth of tools and equipment to help our community of climatetech startups develop their hardware solutions. These shops include hand tools, power tools, organized toolboxes, measuring gear, clamps, drill bits, manual cutting tools, and more from the brands Stanley, DEWALT, Irwin, Lenox, and Craftsman.

WET LAB

Greentown Boston's 26-bench chemistry and BSL-2 wet lab has been home to startups creating everything from long-duration energy storage, to energy-efficient manufacturing membranes, to silk coatings that extend the freshness of produce and proteins. The 1,800-square-foot lab is located right next to the incubator's prototyping lab space, allowing for innovations both inside and outside the wet lab, and has a meticulous safety program in place.

ELECTRONICS LABS

Members bringing hardware products to market need to validate their work through exhaustive test and measurement work. The Keysight Electronics Labs at Greentown offer a suite of shared equipment designed to enable just that: confidence in testing.

SAFETY PROGRAM

Our safety team engages with members across our labs and shops to explore what levers we can pull to help them carry out their work—knowing that 1) while we may be the experts on safety, our entrepreneurs are the experts on their technologies, and 2) startups need to move *fast*. Key components of our safety program include:

- Trainings for members, including OSHA, HAZMAT, RCRA, AED, CPR, First Aid, and more
- Monthly meetings of members' safety representatives
- Safety education for members as they prepare to open their own labs

Software, Business, + University Resources

We know what climatetech startups need to succeed, and we transform their growth every day. From software licenses to recruitment support to IP legal services, Greentown offers the resources startups need to thrive.

150
STARTUPS USE SOFTWARE + BUSINESS RESOURCES

$1M+
WORTH OF SOFTWARE + BUSINESS RESOURCES

PROFESSIONAL SERVICES

- **Capital, fundraising, + grants**
  - AngelSpan
  - Carta
  - Fidelity for Startups; Shoobx Cap Table
  - LTSE Equity
  - MassVentures
  - StartEngine Crowdfunding
  - SustainChain
  - Visible
- **Professional + business growth**
  - Climate Techies
  - Cummings Properties
  - Next Rung Technology
- **Legal**
  - Chubb & Hilb Group
  - Foley Hoag
  - Vinson & Elkins
- **Marketing**
  - Design Match
  - Root & Leaf
- **IT + cybersecurity**
  - Casserly Consulting
  - Skillcloud Consulting Group
  - Tech Superpowers
- **Hiring + HR**
  - Continuum Solutions
  - Facet Search
  - FloCareer
  - Justworks
  - S Brown Consulting LLC
  - Techsquads
  - Vacaré Group
  - Vensure Employer Services
- **Manufacturing**
  - Boston Industrial Consulting
  - CSC Leasing
  - FORGE
  - Re:Build Manufacturing
  - SPEC Process Engineering + Construction

SOFTWARE

- **Prototyping Software**
  - Altium
  - Ansys
  - AspenTech
  - CodeValue
  - GitHub
  - Keysight Advanced Design System
  - MathWorks
  - Onshape
  - SOLIDWORKS
- **Business Software**
  - Amazon Web Services
  - HubSpot
  - Microsoft for Startups

UNIVERSITY RESOURCES

- **Center for Nanoscale Systems at Harvard University**
- **Olin College of Engineering**
- **Northeastern University**
- **University of Massachusetts Lowell**

Incubator Partnerships Program

Large, established private-sector players—corporates—have a critical role in climatetech innovation. Through their domain expertise and financial scale, corporates can contribute specialized resources and capital to accelerate technology development. Their position as incumbents in a largely B2B space also means corporates can unlock key commercialization pathways for innovation. And when it comes to achieving worldwide deployment, corporations' global footprints can serve as springboards for climatetech innovation to jump borders for sweeping transformation.

Our Incubator Partnerships Program engages corporates in industries from energy to consumer packaged goods and invites them into dialogue with our community of climatetech startups through private pitch events, topic roundtables, industry deep dives, and more. These partners become advisors, mentors, investors, and pilot customers for our startups—and our startups, in turn, help them to advance their own innovation and sustainability priorities.

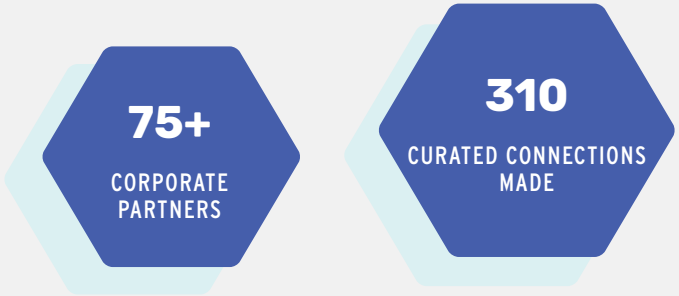
Pilot Digests

Pilot digests connect our startups that are ready to pilot their technologies with the industry partners that have the resources to run these critical deployments. Sent to our corporate partner network, these quarterly newsletters promote collaboration and help startups reach crucial milestones for testing and validating their solutions.

92
STARTUPS FEATURED IN PILOT DIGESTS

91
ORGANIZATIONS RECEIVE PILOT DIGEST

430+
INVESTORS AND CORPORATE LEADERS RECEIVE PILOT DIGEST



Here are just a few ways Greentown startups worked with our partners in 2024:

- **Sublime Systems** announced a sale of 2,000 tons of its low-carbon cement to Vineyard Offshore, the parent company of Greentown partner Vineyard Wind. Learn more about Sublime Systems on page 24!
- **Element Resources** signed a surface lease agreement with Greentown partner Rio Tinto at Rio Tinto's Borax mine site in Boron, CA for the development of a green-hydrogen production facility powered by a dedicated off-grid-solar electric-generation facility.
- **Raptor Maps**, a startup building AI software to increase solar farm power production, signed an agreement with Greentown partner ENGIE to digitize and maintain ENGIE's global solar asset base with its software.
- **Form Energy**, developer of long-duration iron-air battery systems, raised a $405M Series F from investors including Greentown partner GE Vernova.
- **Transaera**, a startup pioneering a novel, energy-efficient approach to cooling and dehumidification, raised an $8.2M Seed-2 round led by Greentown partner Clean Energy Ventures, augmented by $2.3M in grants from the U.S. Department of Energy.
- **Capture6** announced it would collaborate with Greentown partner Veolia Water Technologies & Solutions to deploy its carbon-removal tech into Veolia's integrated water-management systems.

Member Success

What does it look like when climatetech startups succeed? Crucial progress can take the form of technical milestones, team growth, investments, partnerships, deployments, and more! Greentown helps startups navigate technological and business advances in these areas and beyond.

40+
STARTUPS PUBLICLY MADE NEW TECH DEPLOYMENTS

169
MEMBERS AND ALUMNI RAISED FUNDING

$2.4B+
RAISED BY MEMBERS AND ALUMNI

AVERAGE PROFILE OF AN INCOMING GREENTOWN MEMBER

- Number of employees: 4
- Stage: Pre-seed
- Technology Readiness Level: 3

AVERAGE PROFILE OF A GRADUATING GREENTOWN MEMBER

- Number of employees: 15
- Stage: Series A
- Technology Readiness Level: 8

Member Success in Action

Our 200+ startups never fail to impress us with their hard work and commitment to scaling their climatetech solutions! Check out just a handful of their biggest accomplishments from 2024:

- **Fervo Energy**, which delivers next-generation, carbon-free geothermal energy, raised $244M—including from Greentown partner Mitsubishi Heavy Industries—and then another $255M; announced 320MW of power purchase agreements (PPAs) with utility Southern California Edison; and achieved record-breaking commercial flow rates at its Cape Station project—making it the most productive enhanced geothermal system in history.
- **American Battery Technology Company** completed construction of its battery-grade lithium-hydroxide pilot plant in Nevada and began commissioning. It also received $294M from the U.S. Department of Energy to build its second commercial-scale lithium-ion-battery recycling facility, which will process about 100,000 metric tons of battery materials annually.
- **Dandelion Energy** raised a $40M Series C led by Google Ventures that will support the home-geothermal company's nationwide expansion of what it says is the world's most efficient geothermal heat pump, which it developed and tested in Greentown's prototyping lab.
- **Ebb Carbon** signed a marine-CO_2-removal deal with Microsoft that commissions the removal of 350,000 metric tons of CO_2 over 10 years.
- **Nth Cycle** began operations at its state-of-the-art refining facility in Fairfield, OH, marking the United States's first production of nickel and cobalt mixed hydroxide precipitate—critical metals for the energy transition—from scrap.
- **Haffner Energy** signed an agreement with IðunnH2 to integrate its biomass-to-clean-fuels tech in IðunnH2's 65,000 metric tons/year electro-sustainable aviation fuel facility.
- **QuantAQ**, which develops durable, low-cost, professional-grade air-quality monitoring sensors, announced it would use sensor data to help create Northeastern University's iSUPER—one of the world's most comprehensive air-quality-monitoring networks; deploy a network of air-quality monitors in Bedford, MA, in an initiative funded by the U.S. Environmental Protection Agency; and deploy more than 50 of its air-quality sensors in Madison, WI.
- **Kanin Energy** signed a PPA for a first-of-its-kind partnership with Tallgrass, the University of Dayton, and the AES Corporation for a sustainable waste-heat-to-power project that offsets the university's consumption and reduces its carbon footprint.

AT A GLANCE: GREENTOWN GO IN 2024

2
PROGRAMS CONCLUDED

1
ADDITIONAL PROGRAM KICKED OFF

12
STARTUP GRADUATES

57
MENTORSHIP RELATIONSHIPS FORMED

With a mission of decarbonizing the key greenhouse-gas-emitting sectors, Greentown Go programs inject momentum and traction into startup-corporate collaborations, unlocking the power of climate solutions at scale.

Each track—Go Build, Go Energize, Go Grow, Go Make, and Go Move—leverages the same proven, year-long Greentown Go framework. These accelerators zero in on a technology area within one of the key greenhouse-gas-emitting sectors, connecting one or two corporates with a small cohort of startups through a structured accelerator that speeds up successful collaborations.

2024 Greentown Go programs resulted in ongoing momentum toward:

- 2 validation studies
- 2 pilots
- 4 joint R&D and testing collaborations
- 4 site visits

Check out just two of these collaborations in action:

- **Endeavor Composites,** which intercepts landfill-destined post-industrial fibers and sustainably repurposes them into semi-finished goods for the composite industry, conducted two pilot trials to fabricate new construction products by combining the startup's technology with Saint-Gobain's materials. Endeavor Composites's corporate mentors from Saint-Gobain invited the startup to pitch to dozens of additional business lines within the corporate.
- **Circularise** collaborated with Shell to explore how the startup's traceability tech can help Shell manage its life-cycle analysis and carbon footprint data, as well as verify the sustainability of its products. Circularise presented a series of workshops to the Shell team and has identified three potential follow-on projects.

Thank you to our 2024-2025 Go program partners!

Evonik, Saint-Gobain, and Shell

CARBON TO VALUE INITIATIVE

The Carbon to Value Initiative (C2V Initiative) is driving the creation of a thriving innovation ecosystem for the commercialization of carbontech, developed in response to the gigaton-scale need for CO_2 removal.

This program:

- Features an annual accelerator for carbontech startups
- Connects startup cohort with the initiative's Carbontech Leadership Council (CLC)—a group of corporate, nonprofit, and government leaders—to foster commercialization opportunities
- Is run by the Urban Future Lab at NYU Tandon School of Engineering, Greentown, and Fraunhofer USA

35
STARTUPS SUPPORTED (ALL-TIME)

630+
BUSINESS CONNECTIONS MADE (ALL-TIME)

$520M+
RAISED BY PARTICIPANTS AND ALUMNI (ALL-TIME)

9
STARTUPS PUBLICLY ANNOUNCED PARTNERSHIPS WITH CLC MEMBERS (ALL-TIME)

YEAR 3 AT A GLANCE (2023-2024)

8
STARTUP PARTICIPANTS

160+
STARTUP APPLICATIONS

13
CLC PARTICIPANTS

135
BUSINESS CONNECTIONS MADE

19
MENTORSHIP/ADVISOR RELATIONSHIPS FORMED

YEAR 4 (2024-2025)

Year 4 of C2V Initiative received 123 applications from 29 countries, representing a wide variety of carbontech innovations. After a highly competitive deliberation and selection process, nine companies were chosen to participate in the accelerator:

- **Ardent** is a process-technology company that is developing membrane-based solutions for point-source carbon capture and other chemical separations.
- **CarbonBlue** develops a chemical process that mineralizes and extracts CO_2 from water, which then reabsorbs more atmospheric CO_2.
- **MacroCycle** develops a chemical recycling process to turn polyethylene terephthalate (PET) and polyester-fiber waste into “virgin-grade” plastics.
- **Maple Materials** develops an electrolysis process to convert CO_2 into graphite and oxygen.
- **Oxylus Energy** develops a direct electrochemical process to convert CO_2 into fuels and chemical feedstocks, such as methanol.
- **Phlair** develops a renewable-energy-powered direct-air-capture (DAC) system using an electrochemical process for acid and base generation.
- **Secant Fuel** develops a one-step electrocatalytic process that converts flue gas into syngas.
- **RenewCO_2** is developing an electrochemical process to convert CO_2 into fuels and chemicals, such as sustainable aviation fuel or propylene glycol.
- **Seabound** builds carbon-capture equipment for new and existing ships.

ACCEL

Advancing Climatetech &
Clean Energy Leaders

ACCEL is an accelerator from Greentown and Browning the Green Space (BGS) that's dedicated to bolstering BIPOC-led startups as they develop critical climatetech solutions by offering access to funding, networking connections, resources, and opportunities that structural inequities often put out of reach. This year-long program combines acceleration with a curated curriculum, incubation through Greentown membership, and extensive mentorship from Greentown and BGS's networks of industry experts.

2024 was the second year of ACCEL, and it featured seven incredible startups that built a tight-knit, supportive community. The cohort went through comprehensive training with our Curriculum and Resources Partner VentureWell, diving into everything from product-market fit, to value proposition development, to customer discovery and relations. They met regularly with expert mentors, reached key milestones, and charted their paths forward.

"Thanks to the ACCEL program, we are now at TRL 6. We are so much further than we had ever anticipated. ACCEL is the most organized and supportive accelerator we have been a part of." *—Myung Bender, co-founder of EcoForge*

79
APPLICATIONS RECEIVED

$175K
IN NON-DILUTIVE STIPENDS FOR STARTUPS

16
EXPERT MENTORS

7
STARTUPS SELECTED

30
WORKSHOP SESSIONS

MEET THE STARTUPS

- **AtmoSpark Technologies** is an atmospheric-water-generation company with a patented electro-condensation technology, which has a lower energy footprint than that of current water-generation methods.
- **Aquasaic** is harnessing biology to clean water for planetary and human health.
- **Axis Sky Renewables** creates innovative wind solutions, specializing in vertical-axis wind turbines that are less expensive to produce, deploy, and maintain than traditional wind turbines.
- **Carbon Negative Solutions** is creating smart-city-ready, carbon-negative concrete products.
- **Cellsense** develops interactive bio-embellishments that create new possibilities for designers while eliminating microplastics and replacing fossil-fuel-based material at scale.
- **EcoForge** is a building-material technology company developing affordable, high-performance building materials from local agricultural residues, replacing energy-intensive, fossil-based materials, filtration, and more through its versatile material-platform technology.
- **Sankofa Dynamics** creates low-cost, eco-friendly solutions for water, air, and energy problems.

FEATURED COHORT MILESTONES

- **Aquasaic** secured a water-treatment pilot with the city of Antioch, CA.
- **Cellsense** won the Redesign Everything Challenge from What Design Can Do and will receive funding, mentorship, and training through the Redesign Everything Accelerator Program. It was also a finalist for the inaugural Earthshot Innovation Challenge: Northeast U.S. Edition, winning $25k.
- **EcoForge** was accepted to the Cleantech Open Northeast 2024 accelerator program and the IMPEL program.
- **Carbon Negative Solutions** was accepted into Village Capital's impact investing program, VertueLab's 45Camp accelerator, and Creative Destruction Lab. The startup won the All Things Innovation pitch competition and a Technology Game Changer award from Greentown and was named a semifinalist in the 2024 Black Ambition Prize Competition.

Thank you to ACCEL's Year 2 funders—the Massachusetts Clean Energy Center, Microsoft, Equinor, The Ion, Barr Foundation, bp, and Somernova—and its Curriculum + Resources Partner, VentureWell!

"Through the wet lab resources and support provided to us by ACCEL, we have successfully completed R&D for our proprietary formula, applied for patents, and tested our novel manufacturing systems." *—Aradhita Parasrampuria, founder of Cellsense*

Events

Greentown prides itself on being a convener of the climatetech ecosystem, both within and across the cities we call home. One of the primary ways we bring key ecosystem players—from our entrepreneurs, to corporate executives, to investors, to policymakers, and beyond—together is through events that foster connections, showcase our startups' innovations, and champion collaborative climate action.

52
PUBLIC EVENTS

10,297
UNIQUE ATTENDEES

Here are just a few examples of events we hosted in 2024:

- **EnergyBar: New Member Spotlight**
  At this edition of Greentown Boston's signature networking event, we were proud to feature the dozens of startups that joined our community in 2024.

- **ACCEL Showcase**
  At the Year 2 showcase for ACCEL—an accelerator from Greentown and Browning the Green Space to support BIPOC-led climatetech startups—the seven startup participants presented their technologies and shared how ACCEL supported their growth. Learn more about ACCEL on page 18!

- **Climatetech Career Fairs**
  Building strong teams is critical for early-stage startups—and building a diverse, inclusive workforce is critical for the climatetech industry. We hosted career fairs at both of our incubators in 2024, connecting folks who were eager to work on climate with our startup community.

- **Startup Showcase: Circular Economy in the Buildings Sector**
  This event featured six startups developing solutions for circularity and decarbonization in the built environment, all of which participated in Greentown Go Build 2023 (which ran 2023-2024) and worked closely with Saint-Gobain to advance their technologies. Learn more about Greentown Go on page 15!

- **Climate Impact Awards Dinner**
  The Climate Impact Awards Dinner celebrated Greentown Houston's groundbreaking community of 70+ startups, honoring startups in several categories—Climate Impact Startup of the Year, Climate Responsibility Award, and Rising Star Award—as voted on by their fellow members. The awards dinner closed out the inaugural, citywide Houston Energy and Climate Startup Week, of which Greentown was a lead partner.

CLIMATETECH SUMMIT

Our annual Climatetech Summit brings the climatetech ecosystem together for hands-on exploration with our startups and their climatetech solutions; keynotes and sessions featuring leaders across the climatetech industry; and networking with key climate-action trailblazers—including entrepreneurs, corporate executives, investors, policymakers, and more.

The 2024 summit explored topics including the importance of scalability, building a diverse capital stack to fund climatetech companies, the public sector's potential for de-risking novel technologies when equity financing is insufficient, and the critical role of collaboration in scaling novel climate technologies.

Dozens of Greentown startups pitched during the summit, and many more presented during the startup showcases and made valuable connections during general and investor networking sessions.

219
CURATED CONNECTIONS MADE

117
STARTUPS FEATURED

1,850
ATTENDEES

Career Pathways

At Greentown, we firmly believe that building a thriving, diverse, and just climatetech workforce is key to deploying climate solutions. Green job opportunities are increasing rapidly, which means we need more people, inclusive of all backgrounds and experiences, to put their skills to work on climate.

This need, combined with the importance of team growth for early-stage startups, is why Greentown works hard to foster career pathways with our community of climatetech startups.

13.5k+

DIRECT JOBS CREATED BY GREENTOWN STARTUPS (ALL-TIME)

Across fields from engineering, to business administration, to policy, and beyond

538

CAREER FAIR & INTERN FAIR ATTENDEES

235

JOBS AMPLIFIED

On Greentown's website, social media channels, and newsletters

A CAREER IN CLIMATETECH

Wiley Philibert first joined the Greentown community as a co-op on Greentown's operations team, while completing his bachelor's degree in mechanical engineering at Northeastern University. In that position, he gained experience across a wide range of prototyping tools and learned the ins and outs of lab safety.

Soon after that role concluded, Philibert became a full-time test engineer at Greentown member Transaera, where he helped advance the startup's energy-efficient air-conditioning tech.

In fall 2024, after developing his hands-on mechanical skills for two years as a cabinet maker, Philibert returned to the Greentown community once again as a pilot plant technician for Sublime Systems. Now, he brings his experience operating and maintaining machinery and his systemic engineering mindset to the development of Sublime Systems's decarbonized cement.

"When I was in school, my primary career goal was, broadly, to do hands-on work in the climatetech sector, and talking directly with people doing that kind of work at Greentown has helped me imagine a world of specific possibilities for my future," Philibert says. "The cooperative mindset of the Greentown community has allowed me to explore my strengths and passions without constraining myself to a specific field early in my career."

"In my experience, members of the Greentown community are open-minded, generous, and genuinely excited about the work that they're doing," he adds. "Being surrounded by that kind of energy motivates me to stay dedicated and hopeful while working tirelessly toward climate-change mitigation."

SUBLIME SYSTEMS' PATH FROM BENCH-SCALE PROTOTYPING TO COMMERCIAL DEVELOPMENT

Cement is ubiquitous in our world, from our buildings, to our bridges, to our roads. Factor in that cement is responsible for eight percent of global CO_2 emissions, and it becomes clear that decarbonizing this material is a critical step in decarbonizing the global economy.

Greentown member Sublime Systems is pioneering an electrochemical process to create low-carbon cement without a fossil-fuel-powered kiln. Its material functions as a drop-in replacement for traditional, ready-mix concrete and enables a 90 percent reduction in greenhouse gas emissions.

If this sounds like a game changer, it is—and industries are taking notice. In 2024 alone, Sublime Systems deployed its cement in its first commercial construction project, Boston's largest net-zero-carbon office building that's leased by Greentown partner Amazon; announced a sale of 2,000 tons of cement to Vineyard Offshore, the parent company of Greentown partner Vineyard Wind; signed an MOU with Microsoft; and brought in new investments from the U.S. Department of Energy and Greentown partner Holcim.

But how does a novel technology like Sublime Systems's get ready for this level of commercial deployment? In the four years since Sublime Systems became a Greentown member, it's seen immense growth—going from its first gram of cement to a 250-ton-per-year pilot plant, from a team of two to more than 85, and from $0 raised to over $200M. It's tapped into Greentown's co-located prototyping lab, wet lab, machinery, and office space, as well as our networks of corporate partners, investors, and software and business resources.

The Sublime Systems team worked tirelessly to rapidly progress through stages critical for materials-science startups: bench-scale iteration, product testing, and pilot-system production. Greentown's operations team supported Sublime Systems's innovations by meeting its chemical, electricity, space, safety, and hazardous-waste requirements—applying its expertise from supporting more than 575 climatetech startups to anticipate the startup's needs, help embed safety into the process and product, and offer hands-on support throughout.

"Greentown is a place where it's very easy to start a science or technology-based company," says Leah Ellis, CEO and co-founder of Sublime Systems. "They take care of everything so you can grow from two to 30 people easily. The founders don't have to worry about facilities, waste management, permitting, working with the fire department, or providing training for their employees. Everything is taken care of, so you can just focus on what matters the most."

Sublime Systems is rapidly becoming a major player in the climatetech industry and an economic driver, as it builds a low-carbon cement plant in Holyoke, MA that will produce 30,000 metric tons of cement per year and bring about 70 jobs to the region.

YEAR-BY-YEAR GROWTH

- **Q1 2020:**
  - Cement-production capacity: 1 gram
  - Number of employees: 2 founders
  - Funding raised: $0
- **Q1 2021:**
  - Cement-production capacity: 1 kilogram
  - Number of employees: 4
  - Funding raised: $800k
- **Q1 2022:**
  - Cement-production capacity: 10 kilograms
  - Number of employees: 10
  - Funding raised: $16.4M
- **Q1 2023:**
  - Cement-production capacity: 100 tons
  - Number of employees: 40
  - Funding raised: ~$50M
- **Q1 2024:**
  - Cement-production capacity: 250 tons
  - Number of employees: 65
  - Funding raised: ~$57M
- **Q4 2024:**
  - Cement-production capacity: 250 tons
  - Number of employees: 85
  - Funding raised: >$200M

MARS MATERIALS 'STORES CARBON IN THE SUPPLY CHAIN' WITH SUSTAINABLE ACRYLONITRILE

You may have never heard of the chemical acrylonitrile, but it's likely in many objects you use every day—from computer keyboards, to car dashboards, to pickleball paddles.

Acrylonitrile powers a $13B+ industry and poses a significant climate challenge, as the substance is made from petrochemicals and creates toxic byproducts. Every person uses one kilogram of acrylonitrile in products annually, corresponding to three to 10 kilograms in CO_2-equivalent emissions depending on where the chemical is produced.

Mars Materials is disrupting this market with a captured-carbon-based acrylonitrile that serves as a drop-in replacement for the traditional chemical.

"We need this molecule; it's really useful for our modern world," says Mars Materials's CEO and Co-founder Aaron Fitzgerald. "And Mars Materials's process is the only commercially validated, carbon-negative approach for acrylonitrile production."

The Greentown member's climate impact is three-fold. First, it's utilizing captured CO_2, projecting to store 35 million metric tons by 2050. Second, it's capable of replacing petrochemical-based acrylonitrile in countless products and in processes including wastewater treatment and paper-pulp manufacturing. Third, it's creating a sustainable replacement for other problematic materials—acrylonitrile is the sole feedstock for carbon fiber, a hugely useful substance that can serve as a

substitute for steel and other materials.

"The biggest impact for us comes in the products that we're targeting downstream," Fitzgerald says. "Enabling the widespread proliferation of carbon fiber is a large part of our vision. You can leverage carbon fiber in various applications as a replacement for steel—think in transmission lines, in hydrogen-storage tanks—and these have gigaton-scale impact potentials."

Mars Materials is starting its mission—of "turning everyday products into carbon sinks," Fitzgerald explains—in the chemical-processing space, specifically in the $1.5B and fast-growing acrylamide market. Acrylamide is used for flocculants in water treatment and paper-pulp manufacturing, as well as in slickening agents, adhesives, and coatings.

Mars Materials is working closely with three of the four major acrylamide manufacturers on supplier validation and has received letters of support from them, according to Fitzgerald. Mars Materials has finished fabrication of its pilot reactor unit—a project funded by Bill Gates's Breakthrough Energy—and is now beginning commissioning to produce a kilogram per day of its purified material. Mars Materials recently opened its piloting lab at Greentown partner's Shell Technology Center Houston and hosted Gates for a tour of the space.

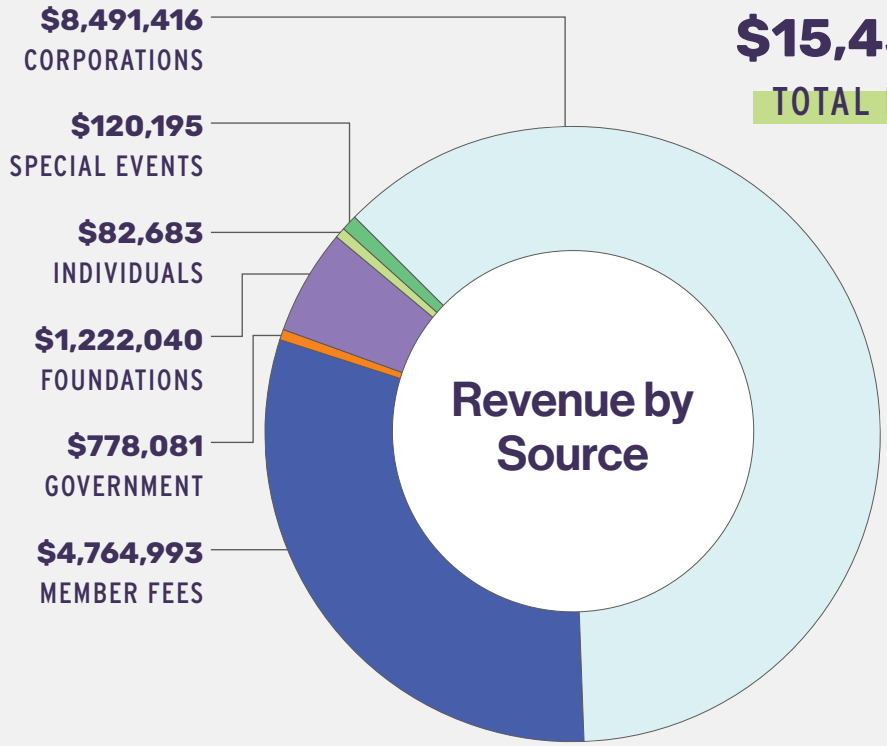
Mars Materials participated in the inaugural year of the Carbon to Value Initiative in 2021 before becoming a full-time Greentown member.

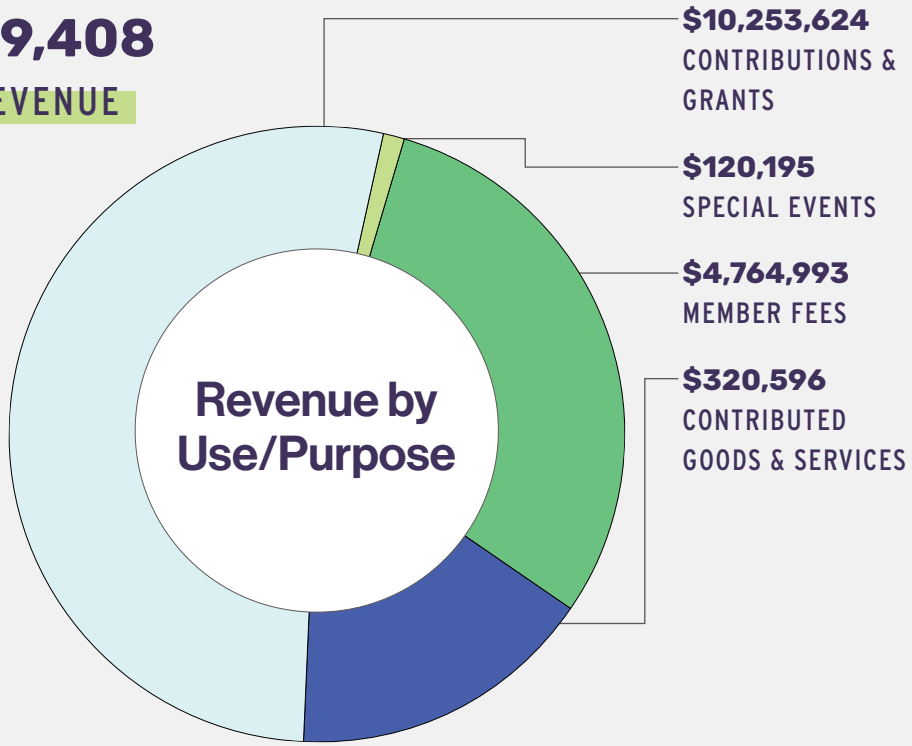
"Half our investors for our oversubscribed pre-seed in 2022 came from Greentown's Deal Flow Digest," Fitzgerald says. "We were fortunate to get part of our pilot lab set up here at Greentown Houston before moving our lab operations to Shell's Technology Center Houston. Working at Greentown Houston enabled us to unblock our experimental roadmap. And the community members here are experts in their domains and have helped when we've needed spare parts or to connect with electricians and other industry stakeholders. It's been a really great community to join."

Financials

2023 AUDITED FINANCIALS

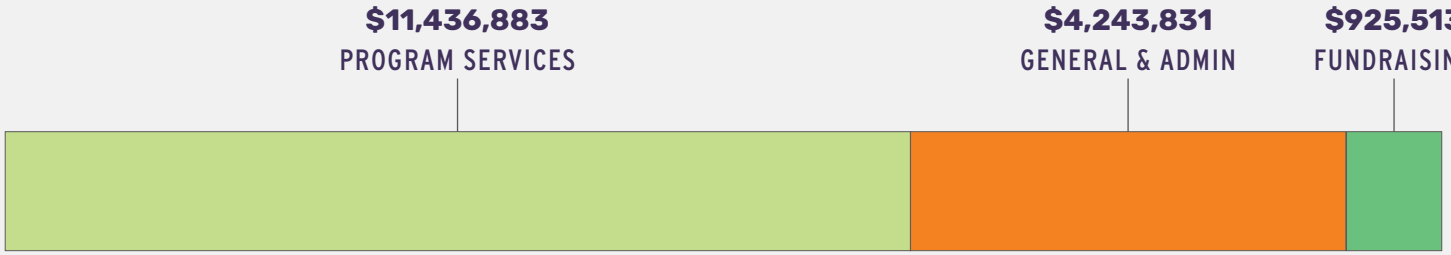
$15,459,408
TOTAL REVENUE





Expenses

$16,606,227
TOTAL EXPENSES



This report will be updated with 2024 financials once audited data is available.

Thank You to Our Partners + Donors

TERAWATT

GIGAWATT

MEGAWATT

In December 2024, we were thrilled to announce more than $4M in funding from a dynamic mix of partners in our home ecosystems of Houston, TX and Somerville, MA:

- Bobby Tudor
- David Baldwin
- Rice University
- MassDevelopment
- City of Somerville

In 2024, further major donors and grantors included:

- Barbara Burger
- Beverly Craig
- Breakthrough Energy Ventures
- Byungman Yoon
- Chirag Sukhadia
- City of Somerville
- Commonwealth of Massachusetts
- Curiosity Foundation
- David and Felice Silverman
- Dawn James
- EIV Capital
- IT Solutions
- Jennifer Daloisio
- Katherine Hamilton
- Kevin Dutt
- Kevin Knobloch
- Kunal Sethi
- Leo Vercollone
- MAG Fund
- Martin Heffler
- Massachusetts Clean Energy Center
- Mitch Tyson
- Monica Kabel
- Nina Birger
- Scott Bruns
- Steve and Alicia Bolze
- Susann Wilkinson and Michael Fischer
- Tibor Toth
- Wiesler Family Foundation
- Woka Foundation

Listed alphabetically

Act on climate with Greentown!

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