Capital-efficient decarbonisation solutions to accelerate scaled impact, a profile of Climate Investment

With #QVCS, Maddyness profiles different funds to give founders and entrepreneurs the information they need to choose the right investor. Today, we speak to Cindi Bough, Managing Director at Climate Investment.

Temps de lecture : minute

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I grew up in the Silicon Valley with a serial entrepreneur father, who started five startup companies. When I left university, I went down a more traditional route of investment banking; however, as an idealist wanting to the change the world, I wanted a higher purpose. My journey in climate tech began in the Cleantech 1.0 era, not as an investor, but as a founder of an electric vehicle start-up delivering battery solutions to the automotive industry.

Despite a failed entrepreneurship attempt, I joined another high-growth startup company, SunPower, who went from $1M to $1B in four years! SunPower, a global solar company is where I did my first venture capital investments and I eventually led all corporate development activities for the company after nearly a decade there. I played a temporary role as the Chief of Staff to the CEO for a 60% sale of SunPower to TotalEnergies, the French energy company. It had reviewed over 300 companies in the solar space, before targeting SunPower for acquisition. After five years of working side by side with TotalEnergies colleagues, I was asked by the

company to join its corporate venture arm in 2017 to lead investment activity in Europe in Paris, and subsequently in the US to lead North America investments in the San Francisco office.

In 2023, my family and I relocated to London to join *Climate Investment* (CI) as Managing Director. I was inspired to join the CI team to drive climate investments in startup companies that reduce greenhouse gas (GHG) emissions.

CI was founded by the Oil and Gas Climate Initiative (OGCI) companies in 2016 with a mission to deliver 1GT per annum of potential GHG impact by 2050 via investments into scalable technologies and business models. Investing since 2017, CI is today a specialised decarbonisation investor, and our LPs are both investors in our venture and growth equity strategies and deployers of our portfolio companies' innovations.

CI supports its portfolio companies and corporate partners with a cross-functional team with deep expertise across investing, industry operations and technology; with an incredible global network of industrial and financial partners; and with an unwavering focus on delivering financial and climate impact.

Which industries are you working in?

At CI, we invest to solve some of the big climate problems, focusing on decarbonisation of:

- Energy Systems
- Industry (including cement, steel, chemicals & agriculture)
- Buildings
- Transportation

Together, these industries accounts for >80% of global GHG emissions

and the reality is that we can’t get to net zero without accelerating their decarbonisation journeys.

Within each of these industries, our focus is on the solutions that either avoid, reduce, recycle or store emitted methane or carbon dioxide.

What do you look for in a founder?

Agility, active listening and execution. Markets, policy, technology and competition rapidly evolve, so companies often need to navigate both complexity and a multitude of changes both internally and externally. As such, a founder who can make decisions quickly, innovate iteratively, listen to the customer and pivot the company as needed is key in a startup company’s early days.

Can you talk about your current portfolio?

Since 2017, we’ve built a portfolio of 37 early-stage companies across our four investment verticals. Some of these innovative companies include:

Boston Metal (US), Boston Metal’s patented molten oxide electrolysis (MOE) solution takes the coal out of steelmaking, replacing the most carbon-intensive manufacturing steps (e.g., coking) with a process that produces molten ore with renewable electricity and generates no CO2 emissions. The company unveiled the first commercial application of its technology in March, when it opened a facility in Brazil that will recover high-value metals from slag and mining waste. Not only does this empower mining companies to create new revenue streams while advancing the circular economy, but it also provides training and upskilling opportunities for local workers to invigorate the local economy.

Converge (UK), is accelerating the decarbonisation of the construction sector through specialist concrete sensors that work with AI to

significantly reduce carbon, improve efficiency and lower costs. Its AI sensors optimise in real-time the cement cure time as well as the cement composition itself, saving both time and money on site.

Metron (France), is an expert in energy efficiency and industrial performance improvement, reducing energy costs and the carbon footprint of companies and industrial facilities. Metron provides a single platform real-time overview across a customer's multiple industrial facilities, providing customers with a complete picture of what's going on across its processes in each facility. The solution has been rolled out across multiple sectors and industry customers, including Danone, a global food and beverages group, which has deployed Metron's solution at more than 200 sites worldwide since 2016 and achieved ~15% of energy savings.

Carbon Upcycling (Canada) takes low-value waste materials from tailings or landfills and converts them into high-performance building products to reduce the use of cement. With its novel process, CUT produces "Supplementary Cementitious Material" (SCM) which partially replaces virgin clinker, reducing cement carbon emissions by up to 60% while also improving the strength and durability of the resulting concrete.

Svante (Canada), develops and manufactures filters and rotary contactor machines that capture and remove CO2 from multiple industrial emissions sources and the air. Based on environmentally friendly solid sorbent technology, Svante's carbon capture and removal solutions offer companies in heavy emitting, hard-to-decarbonise industries a commercially viable way to capture and remove CO2 emissions. The CO2 Svante captures is concentrated to pipeline grade purity, which can be safely transported and stored underground or used to make other products.

Aeroseal (US), has developed highly effective industry-leading products

that seal air leaks the width of a hair safely and can reduce the energy consumption of a building by 30%. The unique and innovative award-winning solution blows a sticky polymer that finds, then sticks to and seals air leaks through commercial and residential walls and ducts.

Econic Technologies' (UK) proprietary catalyst turns ordinary household goods into permanent CO2 sequestration devices. Its technology transforms waste CO2 into polyols and surfactants that replace fossil-based materials and in cars, clothes, mattresses and more.

Norsepower (Finland),has invented a Rotor Sail™ which harnesses the power of the wind to drive down the average fuel consumption and CO2 emissions of commercial ships by 5–25%, or even more. Around 3% of global annual GHG emissions are generated by shipping. Norsepower has already fitted eight ships with rotors and its large order book includes a substantial agreement to fit six 35-metre rotors to each of three new cargo ships being built for Louis Dreyfus Armateurs, a French shipping owner, for charter to Airbus.

CI takes a holistic approach to decarbonisation, backing solutions that integrate digital with physical 'hardtech' innovation because we believe those can deliver the most efficient, low-emitting results.

Through 2023, our portfolio has enabled a CO2e reduction of >90MT. To give some idea of the scale of that figure – it's equivalent to 60GW of onshore wind operating for one year … or the global emissions of New Zealand.

This impact was delivered through our Catalyst programme, which commits capital to early-stage technology and project development companies with demonstrable potential to deliver near-term emissions reduction.

And while early-stage opportunities have been our focus since inception,

last year we expanded our investment strategy to include growth equity-stage opportunities. It’s a natural extension of our Catalyst strategy and will help bring our experience and industry relationships to a wider range of companies ready for market expansion.

What does the future look like?

On the technology front, momentum is continuing to build around Carbon Dioxide Removal (CDR), which I believe will only grow in importance as we collectively push to keep the planet below the 1.5°C threshold. The analogy has been used before, but if you imagine the earth as a bathtub filling to the brim with CO2 emissions, then we have to be addressing the problems at both ends. This means reducing the flow of the tap through uptake in renewable energy and increasing energy efficiency measures – but also by opening the drain and removing existing emissions from the system through the application of CDR.

Within CI’s targeted industrial sectors, we see interesting opportunities ahead within industrial agriculture and food, which account for ~30% of GHG emissions – for example, addressing methane emissions, crop protection alternatives and regenerative farming practices; and multiple avenues for the decarbonisation of maritime, aviation, trucking and bus transportation.

Outside of a specific sector or industry, I think we’re also going to see more movement to address the so-called ‘Missing Middle’ for climate tech investment generally. This refers to the huge gap between the ready availability of early-stage funding and startups meeting the risk requirements to access infrastructure capital at the other end of the financing spectrum. Since our inception CI has been focused on helping companies narrow this gap and we’re increasingly seeing more funds move towards this Missing Middle, helping startups progress their technologies out of the lab to achieving First Of A Kind (FOAK) project

funding further down the line. The issue here is the de-risking that banks and other major capital providers require to lend, and it’s an area where public money needs to step in to help these capital-intensive projects get off the ground. By providing that early stage and development capital, we’re helping these companies ‘de-risk’ in the eyes of infrastructure investors and banks so they can access the funding needed to scale climate tech technologies to a meaningful level.

What makes Climate Investment different?

As discussed earlier, three key points differentiate CI, all underscored by the firm’s capital-plus model. First, we bring a combined 500 years of experience across investing, industry operations and technology to the table; this expertise helps us identify high impact, innovative companies, how they can support our targeted sectors’ decarbonisation journeys and the market adoption opportunities.

Second, we combine this deep expertise with an extensive network of global partners, including our OGCI member companies, and the wider industrial ecosystem; the objective is to bridge the gap between innovators and adopters and expand demand for these market-ready decarbonisation solutions.

And third, we have a laser focus on an investee’s quantifiable planned impact and on transparent impact reporting. We’re one of the few decarbonisation investors to set demanding targets that are tied to published climate goals of delivering >100 MT CO_2e pa of GHG reduction by 2030. And we believe GHG reporting requires the same rigour and transparency as financial returns – accordingly, all our portfolio companies use our independently assured methodology.

Furthermore, we also think that standardising impact measurement has a critical role to play in accelerating the journey to net zero and as a co-

founder of the non-for-profit *Project Frame* initiative, CI is has helped to develop common principles for emissions estimation and reporting that are now being followed by over 340 investment firms with a combined $472B AUM.

What one piece of advice would you give founders?

Focus, focus, focus.

Focus the company: Know your north star and create simple, clear objectives the entire company knows and can deliver to.

Focus on the customer: Win a market and do not chase every opportunity everywhere.

Focus yourself: Fight distractions. Organise your time effectively. Know your strengths and focus on them; hire those who are better at the areas you are not.

Cindi Bough is Managing Director at *Climate Investment*.

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