



World's First **Super Cooling** Carbon Capture Solution.

The UNICORN of Direct Air Capture.
Decarbonising affordably with net energy produced.

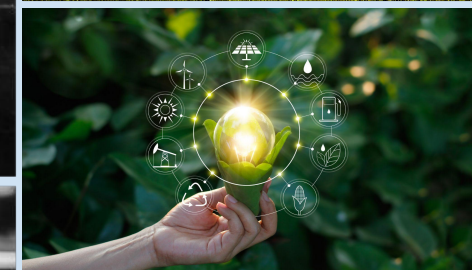
Vinny Patel

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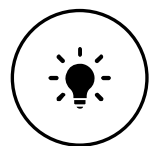


"Let's Reverse
Climate Change,
Together!"



Our Vision

Taking Direct Air Capture (**DAC**) and Carbon Capture Utilisation & Storage (**CCUS**) to the next level:



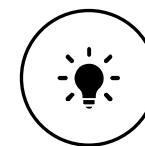
Reverse

the impacts of climate change
using our proprietary
technology. We aim to bring
down the global temperatures



Provide

DAC solution for users to
affordably decarbonise
their operations at £30/ton
of CO₂



Leave a sustainable

Future for generations to
come and scrub the
atmosphere of pollutants

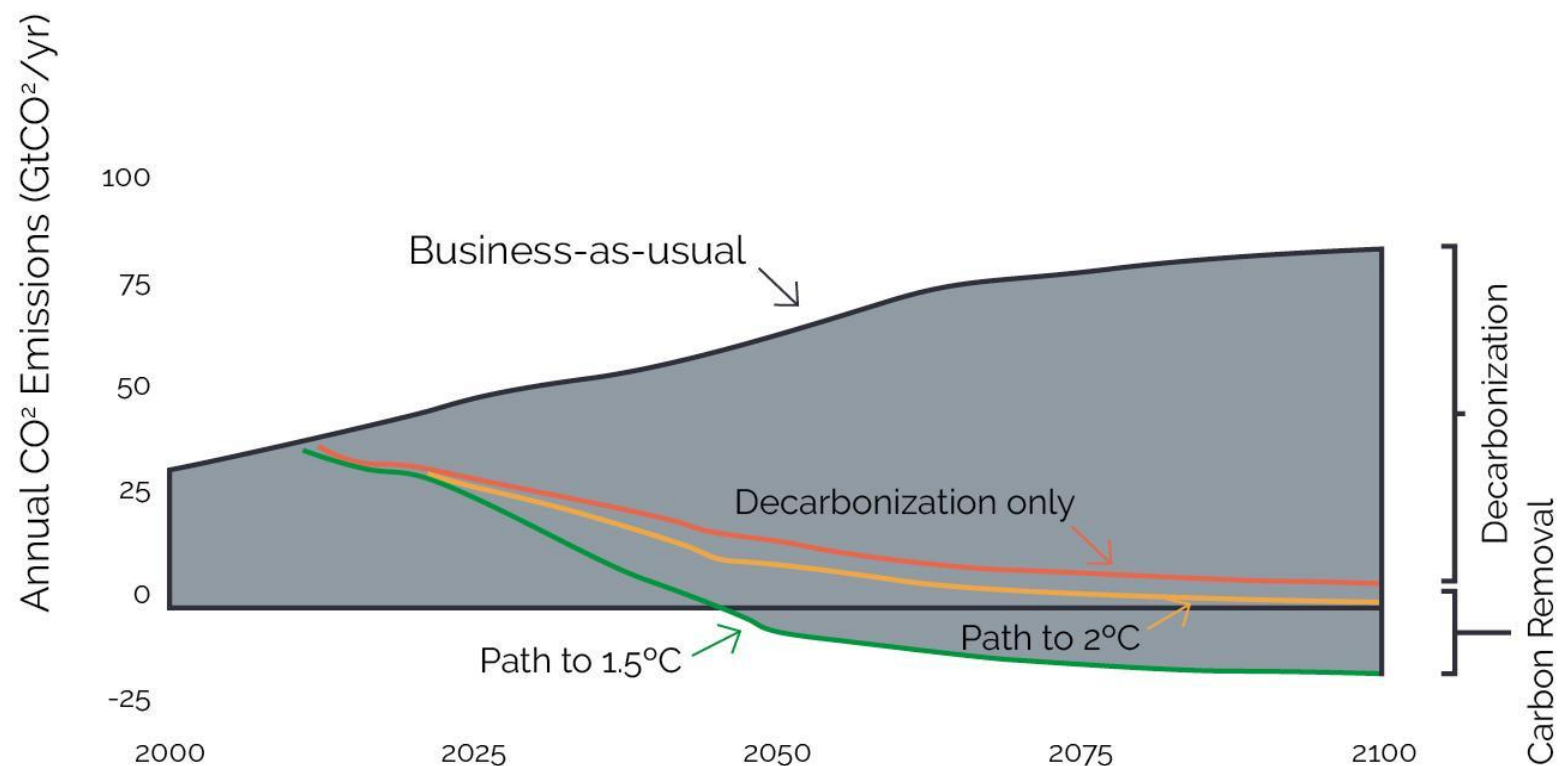


Direct Air Capture of carbon is expensive

Global emissions amount to 36bn tonnes of **CO₂** and are increasing. Direct Air Capture costs approx. **£500** per tonne of **CO₂** which doesn't give any incentive for companies to reduce their carbon footprint.

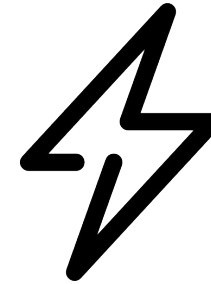
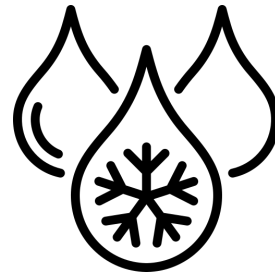
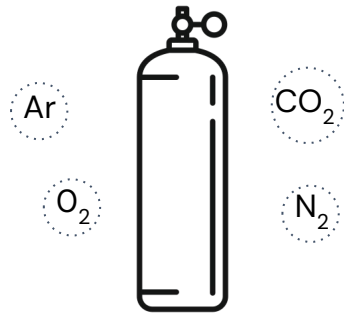


Annual CO₂
Emissions / yr



All pathways to stay below 1.5 degrees of warming require negative emissions technologies
(Source: Modified from IPCC Special Report on Global Warming 1.5°C)

Our technology efficiently uses cryogenic and phase changing processes in our technology



Liquid Nitrogen & Air
liquefies different gas
constituents of the air.

Condensing gases without
mechanical intervention.

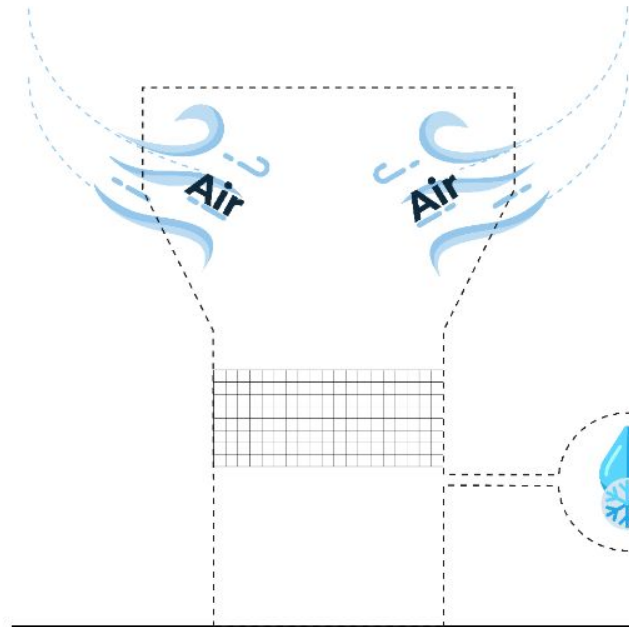
Liquid Air converts to power by
absorbing thermal energy from
the air and changing phase.

We supercool the air to capture carbon dioxide.

REVFRACC (Reverse Fractionation of Carbon Capture) is a patented Energy Positive Agnostic Direct Air Capture solution.

Air Capture

Towers with Nitrogen heat exchangers captures and cools the air. No fans required unlike traditional solutions - 90% of OpEx saved.

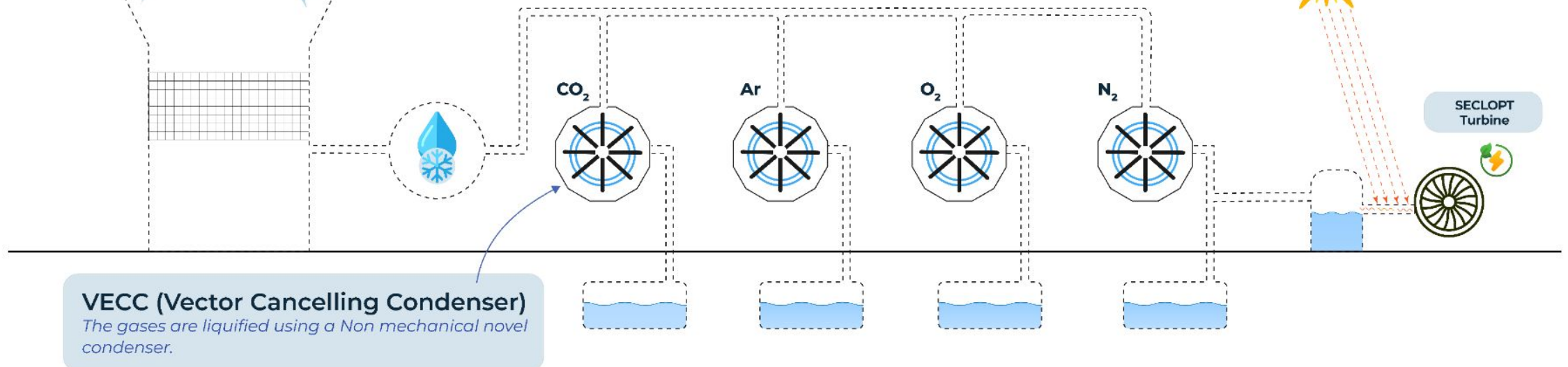


Emissions

The air is super - cooled and liquidifies GHG's and other gases eg. O₂, Argon & Nitrogen.

Carbon-Free Power

World's FIRST Patented phase changing turbine. Uses the liquid gases combined with thermal energy to generate & supply clean base-load power.



VECC (Vector Cancelling Condenser)

The gases are liquified using a Non mechanical novel condenser.

This makes us 90% cheaper than other solutions.

A DAC solution that does more than just capture emissions – we generate power to facilitate the running of business operations. Our technology is patented.



Scalability

REVFRACC is geographically agnostic for deployment and modular. A modular system that captures more than 2000 tonnes per tower annually.



Cost Reductions

No Fans, Low OpEx – reducing carbon capture costs to **£30** per tonne of CO₂.



Power Generation & Utilisation

Generates enough base load to power your operations whilst being energy positive.

Proof of Concept Pilot

We have completed our proof of concept pilot where we have proven the following:

- Air is captured without the need for fans.
- CO₂ is extracted super cooling methods.
- Generation of clean power using our patented phase changing turbine. This used the thermal energy in air and converted it into work for power generation.

The Video of the pilot can be seen on: [REVFRACC Pilot](#)



The potential for Direct Air Capture



Total Addressable Market (TAM)

Global ETS Market



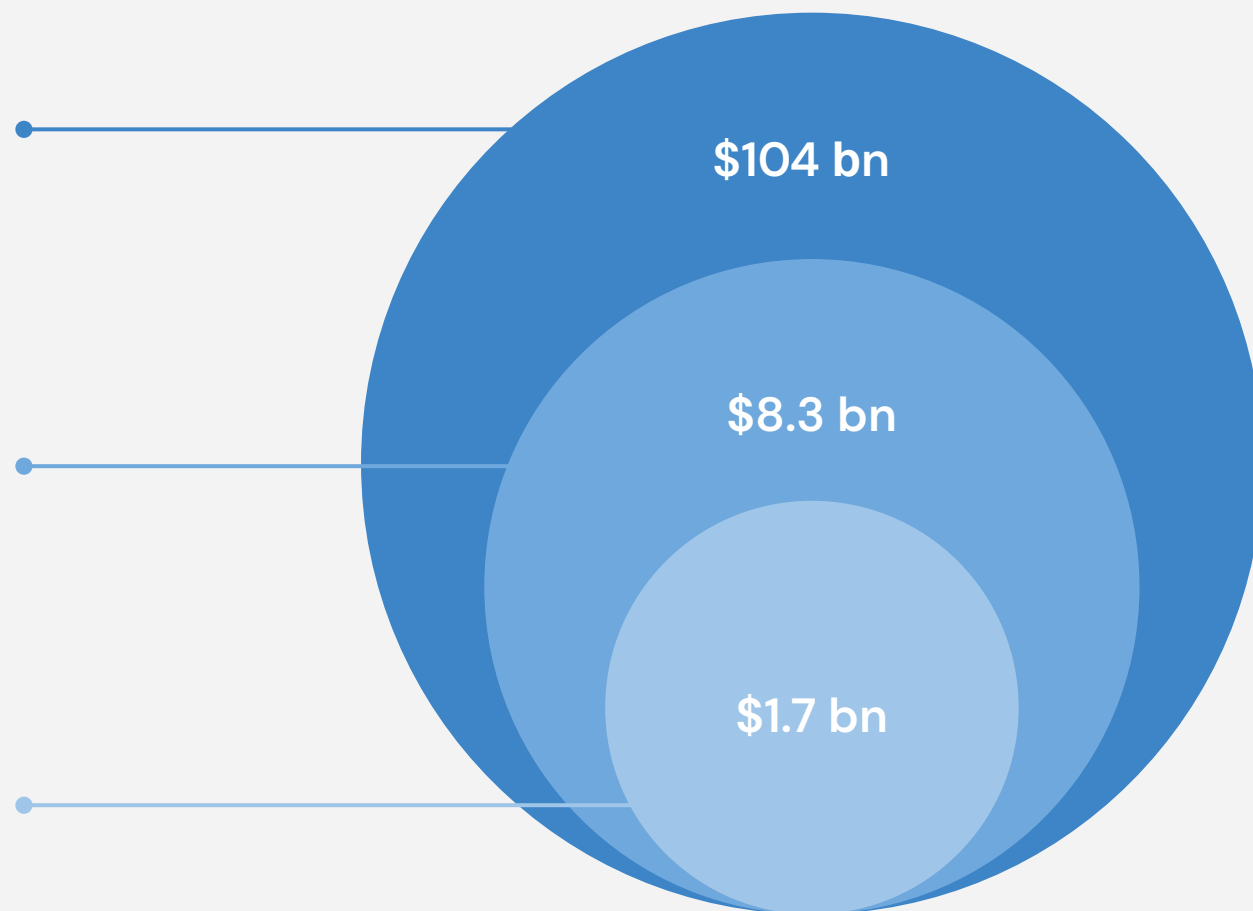
Serviceable Available Market (SAM)

EU ETS Combined Market based on 1.4bn MtCo2 2024



Serviceable Obtainable Market (SOM)

EU ETS Steel Industry Emissions based on 1.4m MtCo2 2024



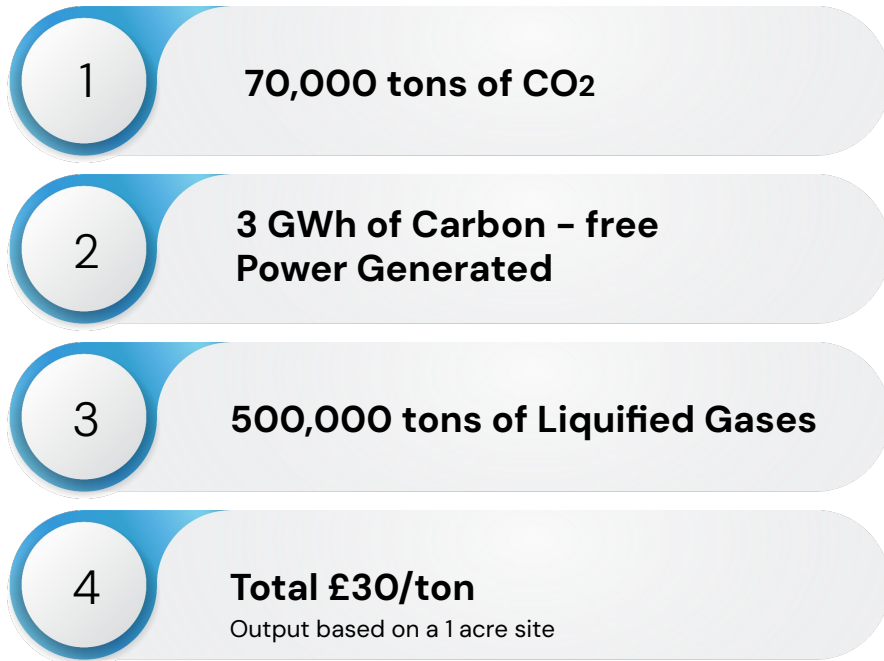
REVFRACC: Affordable, Scalable & Permanent Removal

Competitors main cost of capture is their use of fans. We reduce costs to **£30/ton** of CO₂ simply because there are no fans in our solution. Furthermore, we generate carbon-free power which is unique to other competitors.

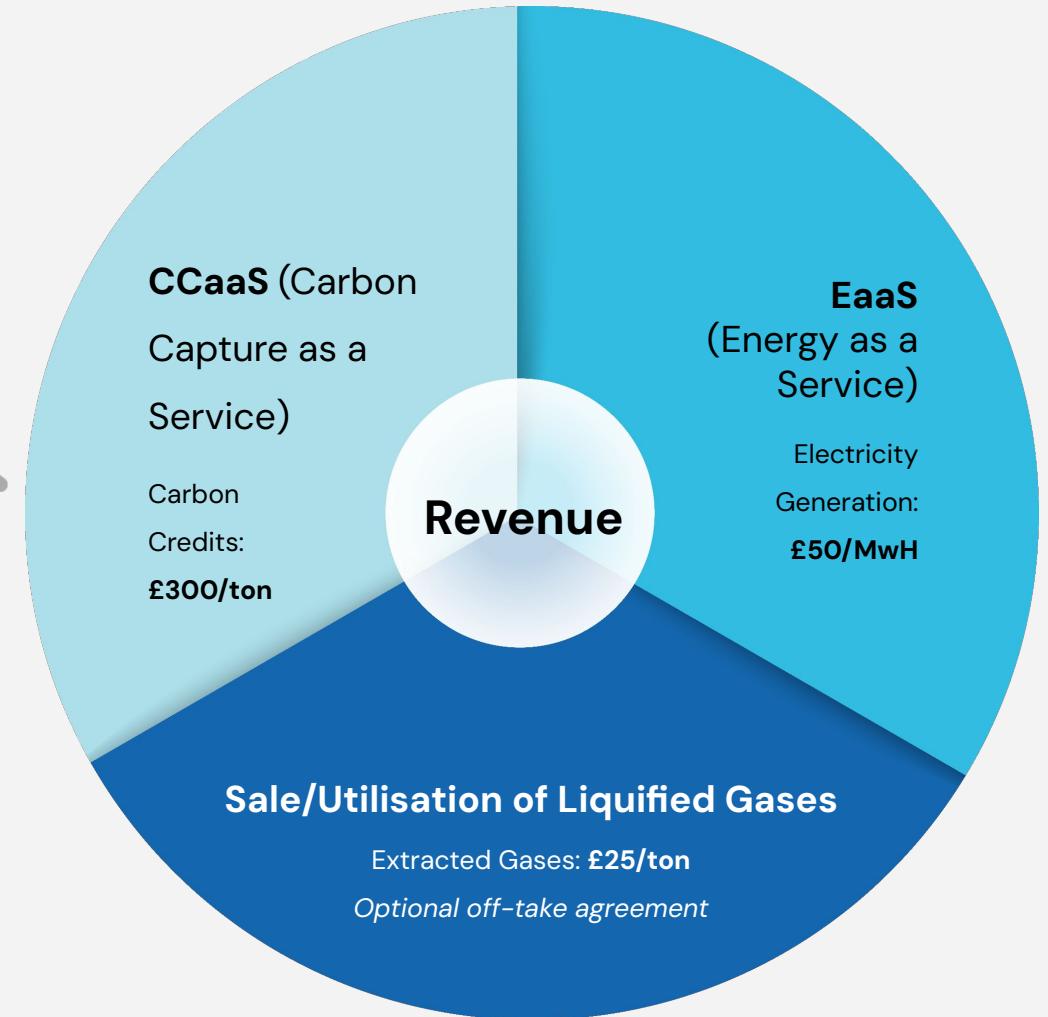
	Reforestation/ Afforestation	BECCS	Soil Carbon	Carbon Mineralisation	Traditional DAC	Atmosfuture's REVFRACC
Low Cost	✓	⊗	✓	✓	⊗	✓
Modular	?	?	?	✓	✓	✓
Verifiable	⊗	✓	⊗	⊗	✓	✓
Scalable	✓	✓	✓	✓	✓	✓
Low Land Space	⊗	⊗	✓	⊗	⊗	✓
Permanent	⊗	✓	⊗	✓	✓	✓

Business Model

Output/Cost per Annum



CO₂ captured utilised in permanent storage of chalk beds



Our first pilot project lined up

A collaborative project based in Orkney, Scotland to deploy a 4 tower pilot which will per annum:

- capture 5000/T Co₂
- supply 200,000 MWh



Route to Market



Investment

- Equity & Grant funding in Energy & CCU calls
- Participate in conference & networking events



Expand Core Team

- Use of agents to recruit C- Suite level Board Members
- Build a sales team with experience in the market



Digital Marketing Campaigns

- Active presence on Social Media platforms
- Media outreach to raise awareness on the company & tech



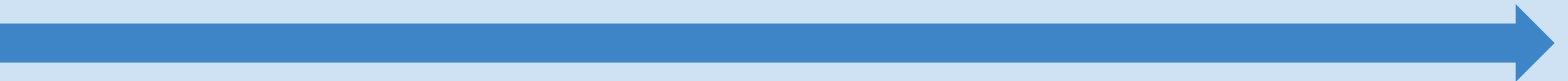
Customer Engagement

- Interviews & Networking to understand pain points
- Exclusive Offers on Pre-sales



Product Demonstrations

- Partner Collaborations with industry tech experts
- Obtain external data and validation from partners



Our Team Gets Stuff Done



Vinny Patel – Co-Founder & CEO: Former director of an Energy company growing the company from nothing to circa £66m in 18 months. Vinny has a passion for using innovative technology to combat environmental challenges whilst making it into a profitable venture.



Shamir Budhdeo – Co-Founder & CTO: Inventor & Serial Entrepreneur successfully developing renewable tech for over 10 years. Sam's motto is *"if we sent a spaceship into interstellar space (Voyager 1) using the technology of a basic calculator, then reversing climate change should be a walk in the park."*



Daryna Radionova – Financial Board Advisor: investment banker with 15+ years of experience across M&A, debt advisory, capital structure analysis and financing. I have been involved with many new businesses, taking them to scale with innovative equity and debt financings.



Daniel Fernandes – Head of Engineering: Has 5+ years of experience in innovation and mechanical structural designs working with the like of Ion Exchange Ltd. With his technical expertise in mass manufacturing and rapid prototyping methods.



Pallavi Mane – Technical Analyst: Vast experience in building and maintaining supply chain activities. She is primarily responsible for sourcing and procuring the right material vendors for the Engineering Team.

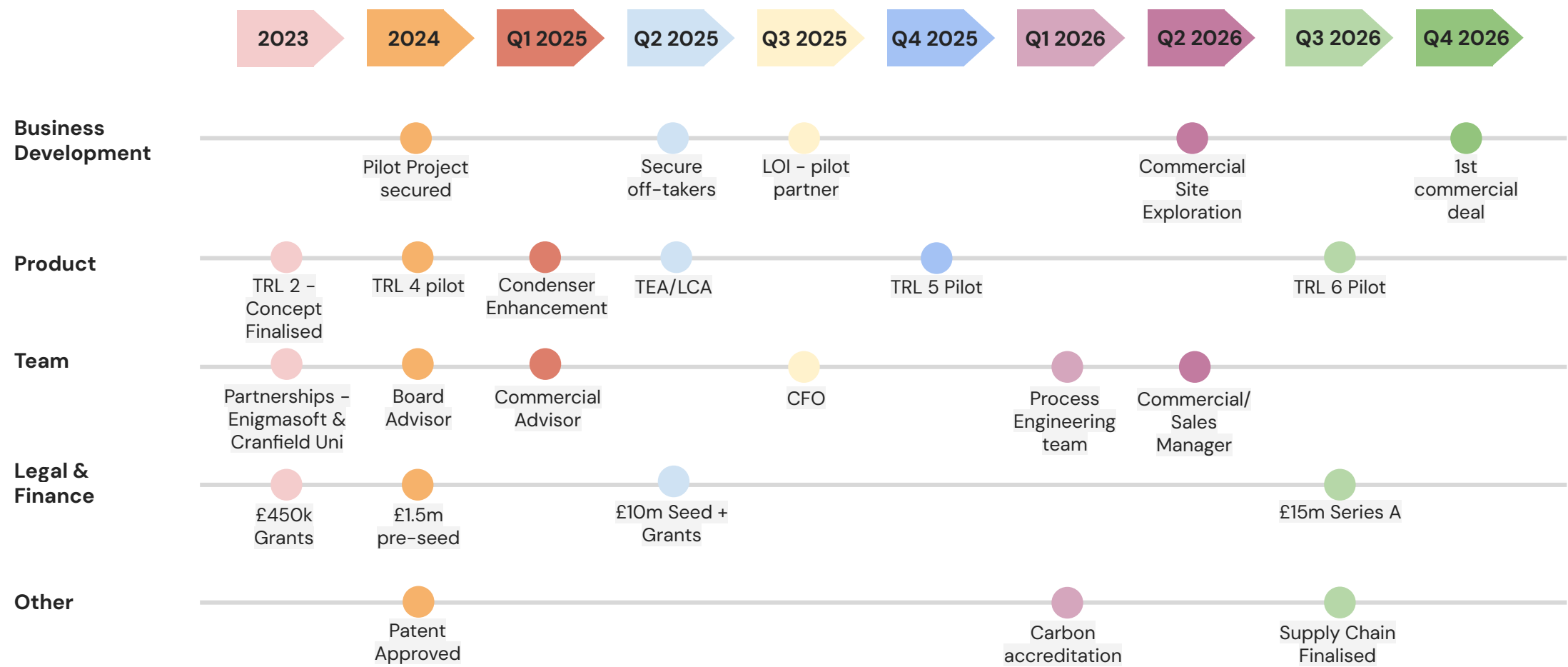
Tech & Development Partners



Commercial & Strategic Partners



We've achieved these pieces of traction and this is our roadmap



Our Ask

The company is **SEIS** and **EIS** approved. We successfully raised **£1.7m** in pre-seed and grant and have a pilot to validate proof of concept. We are now looking to develop a pilot (TRL 5) in the live environment.

