

The Tyre Collective, capturing tyre wear for a cleaner environment

The global climate tech sector has never been more buoyant. But innovation in air quality has been slower. With Breathable cities, designed by Growth Studio we met the clean air startups tackling the devastating effects of air pollution that kills 7 million people worldwide every year and today we introduce Hanson Cheng, cofounder of The Tyre Collective.

Temps de lecture : minute

26 September 2023

We started looking at microplastics at large and were shocked by the massive issue of tyre wear and the lack of awareness and solutions. As impact driven designers, engineers and researchers we saw this as an opportunity.

Tyre wear is the second-largest microplastic pollutant in our oceans, toxic to marine life and a major source of air PM pollution. This problem gets worse with electric vehicles, producing up to 2.5 times more tyre wear from the added battery weight and torque. What started with rubbing a balloon against a sweater evolved into the first on-vehicle device to capture tyre wear using electrostatics.

Tell me about your business, what is it, what it aims to achieve, who you work with and

how you reach customers?

The Tyre Collective is a clean-tech startup spearheading the capture and monitoring of tyre wear for a cleaner, healthier planet. We are developing the first on-vehicle device to capture tyre wear. Our patent-pending technology uses electrostatics and airflow to attract tyre particles. Once captured, these particles are processed and can be upcycled in a variety of applications, creating a closed-loop system. We have received tremendous inbound interest across industries and work with commercial fleets, automotive manufacturers and researchers to develop, pilot, and scale our technology.

Tell us about your working culture?

We started The Tyre Collective because we are passionate about the environment. Collaboration is core to our working culture, starting with the team to our industry partners. We are an impact-driven, interdisciplinary team of 10 (part-time and full-time) with expertise across design, business, engineering, and research. We have a network of subcontractors and advisors to support us, bringing knowledge from other industries to tackle this stealth pollutant. As a startup, our partnerships with automotive manufacturer, fleet operators, and researchers have been vital to pilot and develop our device.

How are you funded?

We are primarily funded through grants, equity investments, and competition wins.

What has been your biggest challenge so far

and how have you overcome it?

Education and Awareness. Public awareness on tyre wear and non-exhaust emissions is limited, however we found that within industry, it is a well-known problem with no solutions, until now. As a company, we have been taking a solution-based approach to raise awareness on this problem and showcasing our device through talks, exhibitions and trade shows.

The logo for 'Breathable Cities' is set against a dark blue background. The word 'BREATHABLE' is in a large, white, sans-serif font. Below it, a thin white horizontal line spans the width of the word. To the right of this line, the word 'CITIES' is written in a larger, white, sans-serif font. To the right of 'CITIES' are two vertical bars: a taller grey one and a shorter yellow one. Below the main text, the words 'BY GROWTH STUDIO' are written in a smaller, white, spaced-out sans-serif font.

BREATHABLE
CITIES
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How does your service answer an unmet need?

With Euro 7 emissions standards being introduced in 2025, companies will need to meet new regulations on tyre and brake wear. Non-exhaust emissions (tyre, brake and road wear particles) contribute to over 60% of Particulate Matter (PM) 10 and PM2.5 from road transport. Without capturing tyre wear, transport will never reach zero-emissions and cities will not meet WHO targets.

What's in store for the future?

We are running several in-house tests and a larger pilot with a fleet operator and OEM of our new prototype this year.

What one piece of advice would you give to other future founders?

Talk about your idea with as many people as possible.

And finally, a more personal question - what's your daily rule and the rules you are living by at the moment?

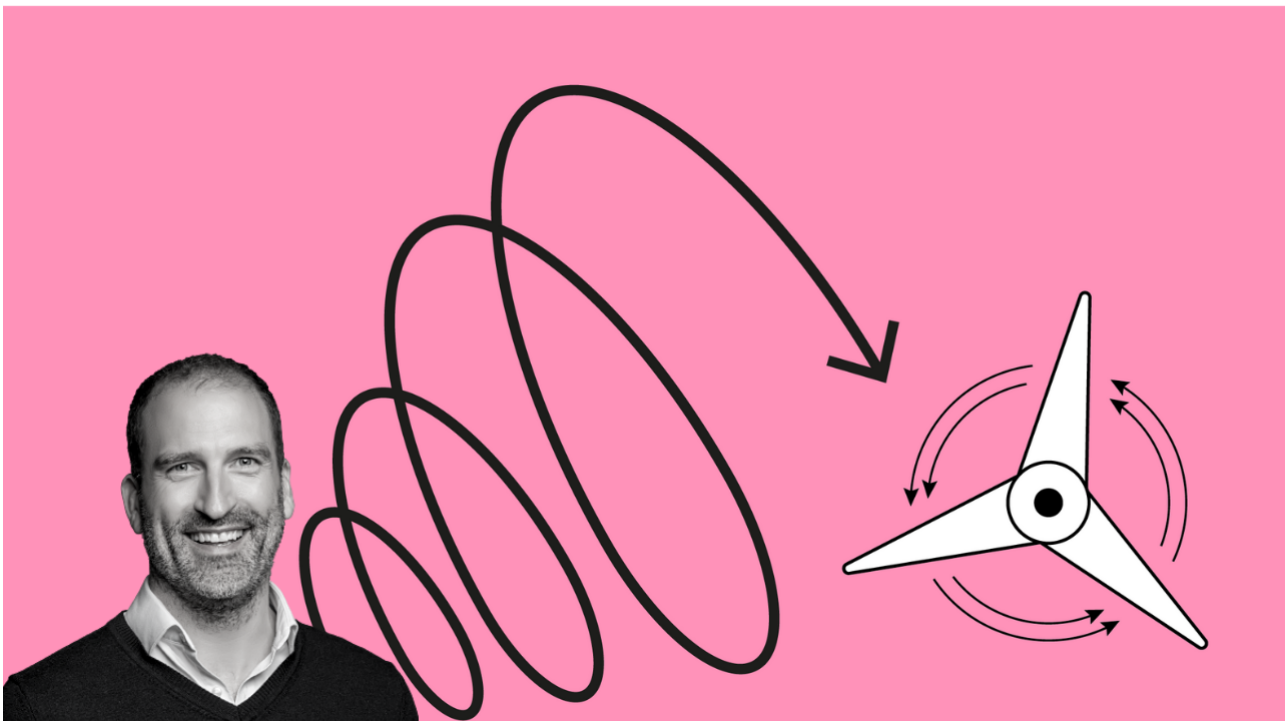
When you have a startup, it is always hectic and it can be hard to switch off. I've been prioritising blocking out times where I am not working each day, which has helped me reset to think through work clearly and avoid burnout.

Hanson Cheng is cofounder of [*The Tyre Collective*](#).

Meet the Breathable Cities Startups at their Demo Day on 11th October. [Register Here.](#)!

Breathable Cities is the world's largest clean air accelerator programme, made in London. It's been designed by Growth Studio, supported by Impact in Urban Health with a mutual mission to help accelerate startups tackle air pollution and secure fast growth.

Growth Studio designs and implements planet friendly startup and scaleup accelerator programmes worldwide. With over 700 startups in 45 countries, Breathable Cities is their latest programme focused entirely on accelerating the success of clean air startups.



Read also

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Article by Hanson Cheng