

Net zero at zero cost: An interview with Michelle You

Paul Ferretti spoke to Michelle You, co-founder of Supercritical, about net zero, the Supercritical Climate 100 index, and human ingenuity.

Temps de lecture : minute

9 November 2023

Could you tell our readers more about Supercritical's mission?

Our core mission is to help tech companies get to net zero. In order to do so, we have built a software to help them measure their emissions and put together a carbon reduction plan to understand what's in their control to reduce. We also help these startups access carbon removal offsets, which are these early stage technologies that absorb carbon dioxide out of the atmosphere. The best example is probably direct air capture, which is a stack of fans that absorb CO2 and injects it underground.

I'm a second time founder. I previously exited at a completely different business called *Songkick*, which was a mobile app to help you find concerts. I then joined Local Globe, which is a seed stage fund in London, as a venture partner, to start learning about climate and make climate investments. When the founder of the fund saw Klein, he tasked me with getting them to net zero.

I found it really confusing and hard to understand what to do. It was very impenetrable. We spoke with consultants. It seemed like a very daunting task and I wanted to demystify that, and make it really simple and easy

for startups to act. That was one of the inspirations behind creating the Climate 100; to show all these examples of amazing companies doing it, doing the case studies around how simple and fast it is to do, how cheap it actually is, so that we can inspire more action in the community.

How was born the idea for Supercritical?

I learnt in my research that we need to remove 10 billion tonnes of CO₂ annually by 2050 to stay within a habitable 1.5 degrees of warming. Thanks to our carbon renewal technologies, we have successfully removed a few thousand tonnes.

We really are inspired by the carbon removal projects that are innovating and trying to create these technologies and scale them. We want to work with companies who can see that challenge and want to get on board, help, and also encourage companies buying their offsets

What is the Supercritical Climate 100 index?

Supercritical Climate 100 is an index celebrating the UK's private technology companies that are setting the standard for climate action. The index looks at a possible range of actions covering emissions measurement, carbon reduction, purchasing offsets and hiring for a climate role.

The #1 and #2 positions went respectively to Monzo and OakNorth, both of which had taken action across all categories analysed. Banking firm Tide, AI developer Faculty and insurance company Yulife were all hot on their heels, each having taken the vast majority of possible actions. And edtech companies score the highest on average - then climate tech, food, transport and real estate.

With The Supercritical Climate 100 index uncovering that companies can spend as little as £4.98 per employee per week on measurement and high-quality offsets, do you think more companies will be more motivated to reach their net zero targets?

I hope so. I think that one of the challenges that the tech community has is that most startups don't have a full time sustainability lead, nor does it make sense to hire one. There's therefore a lack of understanding of what it means to act on climate as a software company, like "what should I do, how expensive is it going to be?" Hopefully that goalpost of £5 per employee per week is very achievable.

How was Supercritical Climate 100's data gathered in order to create the index?

We initially focused on the top 500 venture backed companies in the UK. There was a minimum threshold of raising £16.5M in funding and 30 employees.

We then did a massive research exercise. We built an automated tool to search the internet for anything that the companies have done and we reached out to every single company that we ranked to validate the data and worked with them to correct it where we were wrong.

How can Supercritical help companies reach their net zero commitment by 2050?

The first step for any business is to measure your carbon emissions and

know where they're coming from. As tech founders, we're very familiar with working with data. You'd never make a decision without any data. And that measurement piece really tells you of all the activities we do in our business.

- Where are we emitting the most carbon?
- Is it our flights between offices and business travel?
- Is it the employee commute?
- Is it our cloud usage?
- Is it the end usage of the app on mobile phones by our users?

Our carbon emissions measurement measures the full scope, one, two and three, so that you have a very good picture. We then give you advice and reduction recommendations, such as "Here is what you can do to reduce your carbon emissions related to business travel" or "here are some policies that you can roll out and put in place, whether that's don't eat hamburgers on a Friday at the team lunch, only eat vegetarian or limit your business travel, don't fly business class, fly economy."

We have a lot of actionable reduction recommendations and we find that in the first year, by implementing those recommendations, you can reduce by up to 10% just with a few simple low hanging fruit. But we also help you map that year on year until your target date. So reducing 10% year on year will help you get to net zero by x date.

And then the final piece, which is really a critical component of any net zero strategy, is whatever you emit needs to be removed from the atmosphere to get to net zero. And this is a massive education piece. So buying those carbon removal offsets is also required. What we really help customers understand is that the vast majority (95%) of offsets that you buy today are what's called emissions avoidant. You basically pay someone to not cut down a forest and protect it.

You pay someone to switch from coal to renewable energy and that is preventing a tonne of carbon from being emitted. It's avoiding the emissions. Whereas to get to net zero, you have to remove the emissions with these technologies like direct air capture or biochar in order to get to net zero. That's why we help these companies access the carbon removal market.

"Those are the three components of net zero: Measure, Reduce and Remove. It's quite simple at the end of the day."

Do you think some companies will achieve their net zero commitment before 2050?

I absolutely think so. I think that software companies and asset like businesses that don't have a heavy industrial processes, factories, or a physical supply chain can get to net zero by 2030. What we've found in working with tech companies, software businesses, and VC firms is at the end of the day, the best use of their climate budget is in buying these carbon removal offsets, helping these suppliers. Get the early demand signals, get to scale, help them come down the cost curve so that the global carbon removal industry can get to removing 10 billion tonnes annually by 2050. Which is what is required, according to all the scientific research in the IPCC report.

So I think that each sector can decarbonise and get to net zero at its own rate. But the tech sector can get there much faster than 2050 because they don't have a physical supply chain, lots of logistics and shipping, they aren't producing concrete, cement, all these heavy emitting sectors that will take a lot longer.

However, this does not mean that tech companies don't have to be fully committed to doing their part. For example, a lot of founders say to me "Oh, well, we're all in the cloud and we're software, so we don't emit very much. There's not that much we can do about it."

But actually, the entire tech sector as a whole, including hardware down to streaming, emits more than aviation. We are a significant source of carbon emissions. It's about 2% of global emissions. We do have a responsibility to act and we can't let ourselves off the hook.

"To get to net zero, everyone has to do their part."

Because Supercritical is very different from SongKick, your first company, what made drove you to the climatetech sector?

The year after I left Songkick, I backpacked around the world with my husband and I really fell in love with the outdoors. We did a lot of outdoor sports, like climbing, surfing, camping, lots of hiking. When you're outdoors a lot, you just really start to appreciate the planet and nature. And then I read *Yvon Chouinard*, the *Patagonia* CEO's memoir, "*Let My People Go Surfing*". It's a stunning inspiring book about how to run a business with values and impact. The whole book is about climate change, so that really was my wake up call. I think once you make that realisation, it's really hard to do anything different because you get really scared.

The other experience was that my son was born in 2018, and a month after he was born, the last IPCC report came out about getting to net zero as a planet by 2050 in order to stay below 1.5 degrees of warming. Once

you have a child, you start thinking " They will be 32 years old in 2050"! That's still incredibly young, that's really scary, I don't think we're going to get there. That really motivated me to try and do something about it.

Other entrepreneurs related to climate change, pollution, and global warming issues, admit to struggle with mental health and eco anxiety. Is it an issue affecting you, and would you have any advice on how to deal with eco anxiety ?

I don't think I suffer from it because I know I'm doing everything I can, everything within my capabilities to do something about it.

Before I decided to start *SuperCritical*, I absolutely suffered from eco depression. I was on parental leave, not getting very much sleep, and I just felt like I shouldn't have had a child because I was bringing him into a terrible world and I felt very depressed. Any nice day that it's sunny, I would feel scared and terrified. But at the end of the day, I believe in the power of human ingenuity and technology, and I want to be part of the answer rather than just dwell on the negative.

"My way of confronting my climate anxiety is just doing something about it, I suppose."

Who knows whether we're going to be successful, but at least I know I did everything I could do to try to fix it. That's all I can really expect of myself.

Is there someone who inspires you?

I find Yvon Chouinard incredibly inspiring. His life story, how he started Patagonia. The title of the book is *Let My People Go Surfing* because they had a company policy saying "Any time the surf is good in California, go surfing, don't work", to really remember why they started the company. I think the way he really built that business and interrogated the supply chain to make sure they were doing things the right way is very inspiring. He's just a real original thinker and inspiring person.

Michelle You is the co-founder of *Supercritical*.

Find [*The Supercritical Climate 100 index right here!*](#)

Article écrit par Paul Ferretti