Measuring, reducing and removing Ticket Tailor's carbon output.

The Ticket Tailor company vision is 'Growth on Purpose', which drives us to grow our business for the sake of the greater good of People and the Planet.

This vision grew from a quiet but important change we made last year to our company's governing documents to legally commit ourselves to a 'triple bottom line' approach to business. In short, meaning we exist not just for profit, but also for the good of society and the environment. A good example of this is how we have committed to donate 1p (1.3c) for every ticket sold to climate causes.

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t CO₂e	t CO₂e *lifetime net zero	• **Biochar** • **Enhanced weathering**	• **Reusing and repairing hardware** • **Supporting our team to switch to renewable energy providers at home** • **Switching our office energy provider** • **Defining policies for working with new suppliers**
TOTAL FOOTPRINT	TONNES REMOVED	REMOVAL TYPES	REDUCTION PLANS

In terms of how we operate as a company, this means we need to understand the impact we have and what we can do to keep improving things for our stakeholders. Measuring and understanding our carbon footprint is a huge part of this, and we have worked again this year with the awesome team at Supercritical to calculate our 2021 carbon emissions, helping us to:

- Understand where our biggest opportunities lie in reducing the amount of carbon we emit

- Know how much we need to invest into carbon removal offsets so we're carbon neutral, whilst working towards net zero

We believe that an important aspect of solving the climate crisis lies in education. We're still educating ourselves, and have learnt a lot from the knowledgeable folk at Supercritical along the way. So we're using this blog post as an opportunity not just to share our results and actions, but also to share some of our learnings.

The TLDR

In 2021, our total emissions came to 39 tonnes CO₂e, which is equivalent to powering 12 homes for a whole year. Here's how that broke down:
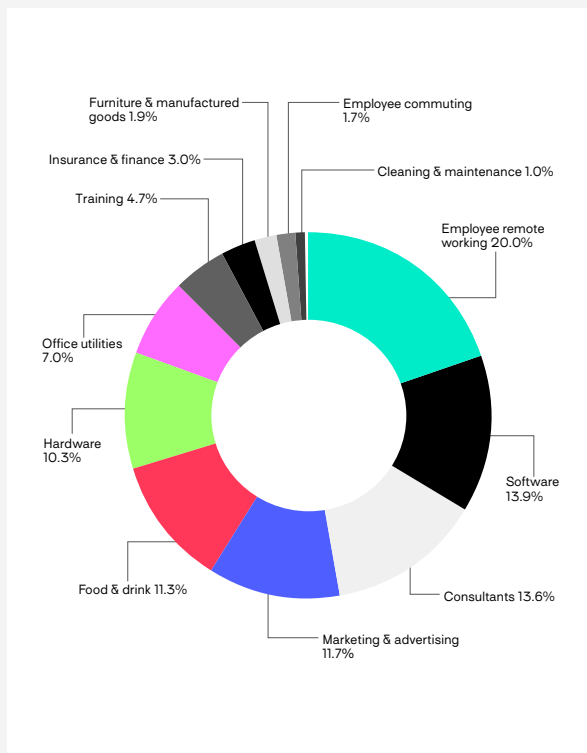
Category	Scope	Footprint (t CO₂e)
Employee remote working	3	7.78
Software	3	5.40
Consultants	3	5.31
Marketing & advertising	3	4.54
Food & drink	3	4.39
Hardware	3	4.01
Office utilities	3	2.72
Training	3	1.83
Insurance & finance	3	1.15
Furniture & manufactured goods	3	0.72
Employee commuting	3	0.65
Cleaning & maintenance	3	0.40
Marketing & advertising	3	0.16

YOU CAN VIEW THE FULL REPORT HERE

Our emissions increased by 18 tonnes compared to 2020. This was mostly as a result of our headcount increasing, but also in part through spending more on advertising and consultants.

We are purchasing 39 tonnes of carbon removal offsets in the form of Biochar, which is a removal process that stores carbon in soil organic matter (learn more about that below).

Understanding what it means to be net zero

We wrote a bit about this in last year's report, but it feels like it's worth repeating as even as second-timers, we still found ourselves needing a reminder of the different concepts and definitions.

The distinction between being carbon neutral and net zero is important to understand. Carbon neutral companies balance their emissions with their carbon reduction. Net zero companies (like Ticket Tailor) go a step further, and offset their emissions as well as setting goals to reduce their carbon footprint.

Being carbon neutral, meaning to balance emissions with removal, is a less ambitious goal as it has looser requirements for reduction and has no requirement to invest in permanent carbon removal. To be fully net zero encompasses:

- Having a requirement to set reduction targets and timelines (a 7.5% year on year reduction aligned with scientific guidelines)

- Removing the entirety of any residual emissions you can't reduce with permanent carbon removal offsets

In short, it's not enough to just pay for carbon removal offsets, we have to also set goals for reducing emissions too.

Understanding where our emissions come from

As a software company, our carbon output is not as obvious as it would be if we were producing a physical product. The majority of our emissions are therefore Scope 3 – indirect emissions from our value chain. By providing Supercritical with a bunch of different data about our business operations they were able to produce the pie chart above which helped us understand how our emissions breakdown. In particular a lot of our carbon output comes from the software we use, the consultants we work with and the

marketing that we invest in. These are areas that can be easily overlooked when making operating decisions in terms of carbon footprint.

Having our carbon footprint report allows us to see at a glance where the biggest areas are for reducing emissions, as well as helping us to redefine our operating policies to ensure we're making carbon considerate decisions.

Understanding which removal offset to go for

After all the data was crunched and we found out our carbon footprint, the next step is choosing which offset method we want to invest in. As mentioned above, to achieve net zero we have to opt for permanent offsets. The concept of permanence when choosing how to offset is key: it ensures removal of carbon dioxide from the atmosphere is not reversed at a future point in time.

Our choices were as follows:
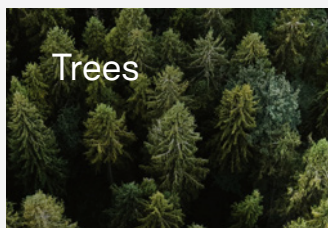
Trees

The most commonplace option, trees convert CO_2 into biomass, stored as long as the tree stays alive. This means permanence is short term: ~60 years.

Biochar
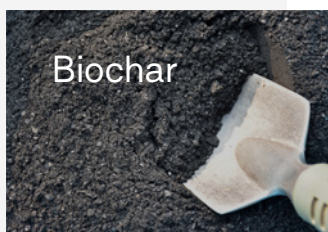
This is a way of storing carbon into soils, or to use the more technical term sequestering it – it's a kind of charcoal-like substance created when biomass from crop residues, grass, or other plants is combusted without oxygen. Permanence is medium term: ~1000 years.

Enhanced weathering
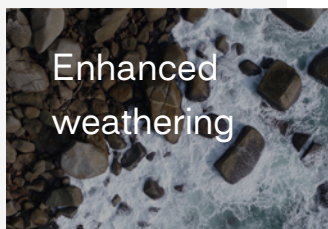
The principle of this is that the chemical breakdown of minerals in mountains and soils removes carbon dioxide from the atmosphere and transforms it into stable minerals on the planet's surface. Naturally this process takes many thousands of years, but enhanced weathering accelerates the process by crushing rock and spreading it on land to increase the surface area of land that can absorb carbon. Permanence is long term: ~10,000 years.
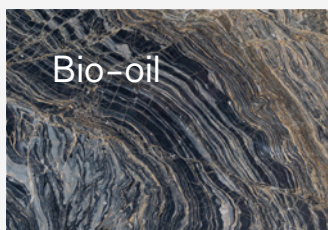
Bio-oil

A process that produces bio-oil from waste biomass. The carbon-rich bio-oil is then injected underground, removing it from the atmosphere. Permanence is long term: ~10,000 years.
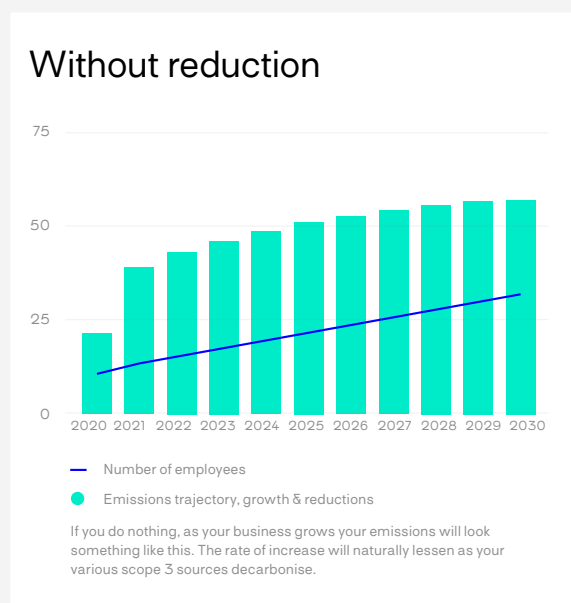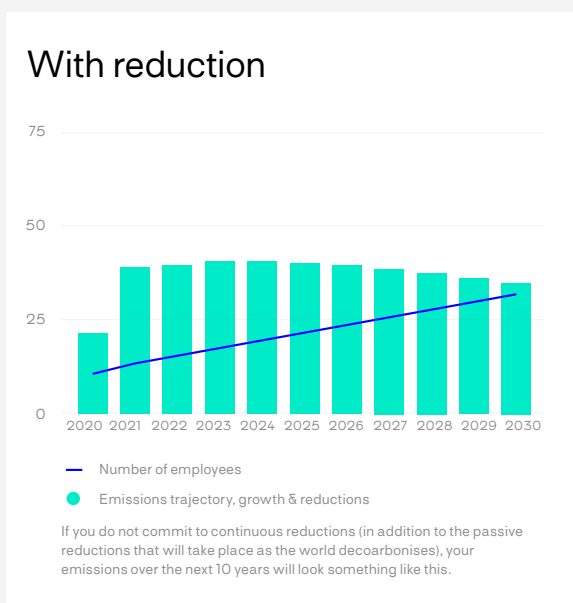
Direct air capture
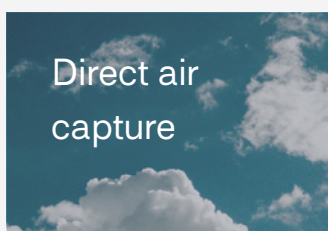
One of the newer technologies being developed, this uses fan-based technology to extract carbon dioxide from the air. Permanence is long term: ~10,000 years.

The cost of these choices varies greatly, from £22 to over £500 per tonne. We opted to go for 100% Biochar this year, as this fitted in best with our budgeting alongside our other plans for donating money to climate charities. It's important to consider investing in the newer technologies though, so they can scale as fast as possible. With that in mind, we'll continue to explore what we can invest in future reports.

Next steps

Our main focus now is how we can work to reduce our emissions as a company, with a goal of reducing it by at least 7.5% but ideally as much as 11%. The two graphs below show why this is so important:

With reduction

— Number of employees

● Emissions trajectory, growth & reductions

If you do not commit to continuous reductions (in addition to the passive reductions that will take place as the world decoarbonises), your emissions over the next 10 years will look something like this.

Without reduction

— Number of employees

● Emissions trajectory, growth & reductions

If you do nothing, as your business grows your emissions will look something like this. The rate of increase will naturally lessen as your various scope 3 sources decarbonise.

The biggest areas of opportunity we have for reducing our emissions are:

Reusing and repairing hardware

This is underway already, we now always try to fix what we have instead of just buying new.

Support our team to switch to renewable energy providers at home

Our hybrid working policy means we have to think about energy use at home as well as in the office. We'll be looking at ways we can educate and incentivise employees to move suppliers.

Switching our office energy provider

We moved offices at the end of last year and our new HQ is powered by renewable energy so we're happy to say this one has been achieved.

Policies for working with new suppliers

We have policies to ensure we're choosing options that are best for the environment and align with our ethics.

We'll be continuing to share the Ticket Tailor carbon footprint report each year along with our learnings along the way!

Are you ready to reach net zero?

BOOK A DEMO