



The path to net zero:
how small and medium
enterprises can lead the way

**ACHIEVING
ZERO**

The University of Cambridge Institute for Sustainability Leadership

The University of Cambridge Institute for Sustainability Leadership (CISL) partners with business and governments to develop leadership and solutions for a sustainable economy. We aim to achieve net zero, protect and restore nature, and build inclusive and resilient societies. For over three decades, we have built the leadership capacity and capabilities of individuals and organisations and created industry-leading collaborations to catalyse change and accelerate the path to a sustainable economy. Our interdisciplinary research engagement builds the evidence base for practical action.

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ABOUT THIS PUBLICATION

Small and medium enterprises (SMEs) have a crucial role in achieving net zero targets, but knowing where to start and how to succeed isn't always clear.

We spoke to 15 SMEs already working towards decarbonising their businesses to find out about the challenges they have faced, mistakes they've made, how they've overcome adversity and what they have learned on the path toward net zero.

In this publication, we've outlined the common threads linking their journeys to create a series of actionable steps SMEs can take. This is followed by 15 case studies, sharing an in-depth insight into each business's decarbonisation journey.

"Sometimes the conversations around meeting net zero are filled with dread... [But] We have time left. So we ask, how do we use that time to make things better - not just for the next generation, but for ourselves and our communities, right now."

Thaslima Begum

Founder of ethical Fintech platform TEEK TAKA

EXECUTIVE SUMMARY

The transition to net zero is finally underway, but change is not happening fast enough - our actions need to be swifter and our efforts bolder. Countless governments have set challenging deadlines striving for decarbonisation, and businesses everywhere are under pressure to respond.

The private sector has a critical role to play here. There is growing evidence that it makes business sense to act, with more investment opportunities and greater consumer support for those who do. But achieving net zero will require profound and systemic change - 'business as usual' is no longer viable. We urgently need to move towards more sustainable models that deliver value to society and protect the environment.

Small and medium enterprises (SMEs) have a powerful opportunity to lead the way: with smaller teams and less complex internal structures. They tend to be more agile than bigger businesses - able to make decisions and implement changes more quickly. They're also likely to have simpler value chains with fewer players to consider.

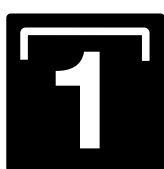
SMEs are already behind some of the most innovative and exciting solutions to decarbonisation - from the team developing a plant-based, fully biodegradable alternative to food packaging which extends shelf-life and reduces food waste, to the group utilising technology typically found in space and hospital sterilisation to offer a water-efficient, low-emissions laundry service.

Whether or not climate action is your core mission, if you're reading this, you likely want to make your business as ethical and carbon neutral as possible. Perhaps you have already begun. But you may feel you lack the skills, knowledge or capacity to make a significant impact.

Here are the six key trends common across the businesses we spoke to, to help you navigate your own path to net zero.



PATH TO NET ZERO



Embed sustainability into your business strategy

To make real change, we need to start with a radical reappraisal of how we work. Traditional business models centre on growth and profit, but this new way of thinking means shifting focus onto the people and natural systems upon which a business depends. By considering people and the planet in every strategic decision you make, you can begin to embed decarbonisation, sustainability and inclusivity into your operations.

Duncan Catchpole, founder and owner of Cambridge Organic Food Company and the Cambridge Food Hub, suggests looking at how you can benefit all your stakeholders. *“Can your business deliver value to its owners, staff, customers, suppliers, buyers, the environment and society in equal measure? If the other stakeholders benefit greatly, then so does the owner. The key difference is that it’s sustainable profit, rather than profit derived from exploitation. Profit derived from exploitation is, by definition, unsustainable.”*

Founder and CEO of cleantech startup AirEx, Agnes Czako, says it’s also vital for SMEs to work in line with their ethics, regardless of what stage they’re at: *“As a company, our core principles are built around sustainability. We hire people that align with our values, limit travel, and try to make our office building as energy efficient as possible. It’s still a work in progress – but I think it’s really important for any startup to ‘walk the walk’.”*





PATH TO NET ZERO

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Measure your impact

It's impossible to measure progress without knowing where you began, so, to have a clear picture of your impact, you need to track your data, starting as early as possible. Ensure that you're looking at all aspects of your business too, as it's not always immediately obvious which the most carbon-intensive activities are. Clear, statistical results are essential tools for investment and growth, and being able to see your progress will keep you motivated.

The team at AirEx started measuring their social and environmental data early on and conducted further research to verify the impact of their work. *“My proudest moment was when we saw the outcome of some detailed scientific validation we conducted on a large-scale field trial, using six million data points,”* says Czako. *“Seeing the data on the page was a revelation to me. It proved that we could provide a 12 per cent cost-saving on energy bills in average UK homes and, therefore, cut operational carbon emissions by 12 per cent as well. Our investment into research has been so valuable because it's given me the confidence that, actually, what we're doing is really worth pursuing.”*

Tom de Wilton, COO and CSO of sustainable laundry and wet cleaning provider Oxwash, recommends that SMEs *“measure early. If you can't measure your impact, you can't improve it. Aggregate then model your data - and don't be intimidated by it. Even if you don't know what you're going to do with it yet, having that data from the start will be a huge help in setting and meeting your targets.”*

Product Director of sustainable outdoor clothing brand Finisterre, Debbie Luffman, echoes this advice: *“You can't reduce what you can't measure. Expect the unexpected. We knew the greatest carbon impact within our company would be on our supply chain, but we were shocked to find out how carbon-intensive wool is. Had we not done the research, we would have made assumptions about what areas we needed to change and with all its benefits, wool perhaps would not have been a likely place for us to start. Now we have the metrics, we can investigate what work needs to be done to reduce its footprint.”*

“The linear, capitalist-driven economy is intrinsically, diametrically opposed to the principle of sustainability. The real innovation lies in applying circular economy principles.”

Duncan Catchpole

Cambridge Organic Food Company
and the Cambridge Food Hub



PATH TO NET ZERO

3 Build strong relationships with your suppliers

Depending on which sector you work in, scope three emissions - the emissions which occur along the supply chain - may be the biggest part of your carbon footprint. They can also be far more difficult to measure. By implementing a sustainable resourcing policy, supporting your providers, and earning their trust, you can keep track of scope three emissions and help your suppliers to improve their practices.

Many companies, often large buyers of SME products, are starting to update their procurement criteria to incorporate sustainability objectives. Unilever, for example, asks its suppliers to make a public commitment to drive up social and environmental standards and comply with their Responsible Sourcing Policy. Practices like these put SMEs already taking action at a clear advantage.

Luffman recommends proactively engaging with suppliers to build strong relationships and taking a collaborative approach to sustainability challenges.

“Work closely with suppliers and keep asking questions. You need to be continually inquisitive if you are to learn and effect change. It’s only when you really get to know your suppliers that you can build up the trust and support you need to get reliable information, understand your options and influence others to align with your net zero goals.”

Dr. Bronner’s is also a big advocate of SMEs going beyond their own operations to ignite change. The natural soap brand does this in an unusual way, by creating or partnering with companies across the globe and helping them to achieve organic and fair trade status. Vice President of Special Operations, Gero Leson, explains: *“We’re meeting our sourcing needs, but more importantly we’re helping to train people in building and operating a fair and profitable business - one that looks after workers, their families and their communities.”*





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Get people on board

Climate change presents complex and interconnected risks at all levels of society, so collaboration is vital. Creating a shared culture of responsibility, both internally and throughout the supply chain, will help motivate your colleagues and associates to play their part.

Dr. Bronner's, Director of Operational Sustainability & Innovation, Darcy Shiber-Knowles, emphasises that implementing this kind of systemic change needs to be a shared endeavour. *"Climate work cannot be one person's responsibility and environmental efforts cannot be one department's responsibility."* Her advice is to engage as many allies as possible: *"Democratise the environmental work, and then it will start to take off in ways that are beyond what you could do on your own."*

Dr. Bronner's is also very transparent about who its suppliers are, going as far as engaging with competitors. *"We want other people to buy from them [the brand's sustainable suppliers]. This is not about Dr. Bronner's being the greatest company on the planet. This is about doing what we do on a larger scale. We're building the fair trade movement: the future of our international economy needs to be built on fairness."*

By establishing partnerships and fostering collective action with both competitors and suppliers, you can build resilience in the face of future crises. Both Dr Bronner's and Cambridge Organic Food Company faced few supply chain issues during the pandemic, a testament to their people-centric approach to business.

Strong shared values may also attract both talent and interest from investors. As Czako says, *"a small silver lining of the pandemic has been the great resignation, driven by people who want to do something more meaningful and purposeful with their professional lives. It is now easier for us to find mission-aligned people to join our growing team."*

She found that the fundraising and investment process helped AirEx develop a more structured way of measuring environmental and social impact and that in fact, many of the investors were keen to offer their support with such calculations.



Photo credit Reverse Resources



PATH TO NET ZERO



Redefine value

While the traditional business model values profit above all else, SMEs working towards decarbonisation need to recognise additional markers of success. Working with climate action in mind can be more costly and time consuming upfront, but businesses that prioritise climate action have the opportunity to reap long-term benefits. Perseverance is key. In the long run, businesses that can show their social and environmental progress will benefit from greater access to capital, not only in terms of investment but also in other financing – from bank loans to equity arrangements. Consumers are becoming increasingly environmentally conscious and will ultimately support businesses that echo their ethics.

Those at the top must also be willing to make a little less. Dr. Bronner's has a five-to-one salary cap, which means executives cannot make more than five times that of the lowest-paid employee. Leson believes this is the secret to their success.

“You need to be willing to part with money. It's that trivial. You can still have a decent income; we're very profitable and successful. But the owners make less to fund other projects. It's actually very strategic - that money is still used as if it was business. We call it constructive capitalism.”

Ayça Dünder, CEO and co-founder of material technology company SoluBlue, says her biggest piece of advice is to be patient. “There may be problems along the way, and it might initially cost you more, but achieving net zero will benefit your business in the long term. The next generation is much more aware of the impact that their choices as consumers will have, so it is the companies that adapt and take on more ethical and sustainable practices that will survive.”





PATH TO NET ZERO

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Leading the change

The level of disruption we currently face comes with many challenges. However, it also offers an unparalleled opportunity to reimagine and rebuild our future - one that goes beyond achieving net zero to laying the foundations for a more resilient, equitable and sustainable world.

Through radical collaboration, bold and innovative thinking, knowledge sharing and positive disruption, SMEs can use their businesses as a force for good and be at the forefront of change. They can become enablers of much-needed inclusive and sustainable growth while driving value for their stakeholders. This is a time to take meaningful action and lead with compassion while embracing the uncertainty that we've come to expect in our changing world. Ultimately, we are interlinked and interdependent, so we must work together.

“Why do we do this work? Because we are humans who love. You protect things that you love. You care about them,” explains Shiber-Knowles. *“People don’t often talk about love in business, or justice in business, but we should, why not? Businesses are run by humans, and humans love, so let’s do business as if love ran the world and then we wouldn’t have a climate crisis.”*

“Rethinking traditional business models also means rethinking how we measure success. We need to reorganise our inner compass for humanity to move forward to more sustainable practices. Growth is knowledge and growth is sharing, and rewards may only reveal themselves over the longer term.”

Kavita Parmar

Founder and CVO of vertical social network Gunakazi

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ORANGE POWER



ORANGE POWER IS A LONDON-BASED COMPANY THAT USES TECHNOLOGY TO TACKLE ENERGY WASTE AND IMBALANCE IN THE UK.

Supported by the UN-backed Ethical Fashion Initiative, the groundbreaking Vertical Social Network aims to empower garment factory workers across the globe, bringing their voices to the boardroom. By using a completely revolutionary Progressive Web App, workers can create an online CV, get shareable credentials, receive job offers and upskilling opportunities, and even share their work experience to help others like them.

Orange Power aims to increase renewables within the grid by ensuring demand mirrors the ebb and flow of nature. By co-ordinating and aggregating energy savings across thousands of households when the grid is stressed, customers can use Orange Power technology to save themselves money, work towards reducing their own carbon footprint and help the UK move away from fossil fuels.

Director, Dr Justin Ma, shares the motivation and inspiration behind Orange Power, offering insight into how companies can work towards their own net zero future.



ORANGE POWER

How important is sustainability to Orange Power?

Sustainability is everything to us; it is the reason we created the company. When you look at the billions spent on wind farms, it is painful to see how much energy is wasted because it cannot be stored or utilised. With a background in coding and energy trading, I knew we could address that.

Having a goal is just the start. Our drive to create a more sustainable future does not just end with our product. We used CISL's Accelerator programme to embed our net zero goals into our company culture. If you want the future to change, you have to change the way you run your business.

How has your team been encouraged to engage in sustainability practices within their day-to-day business?

Remote working has helped improve our efficiency, removing the need for a physical office and increasing flexibility for our team, who can work from anywhere. Online collaboration apps, such as Microsoft Teams and Slack, ensure communication channels are kept open. We make a point to share knowledge, training and ideas about sustainability practice, as well as GDPR and privacy within the home working environment.

Our CISL training also encouraged us to think about procurement processes. We make sure we hire talent and suppliers whose goals align with our own.

What have been some of the key learnings on your sustainability journey?

It can be hard to begin the journey to incorporate net zero goals into your business, particularly for a busy startup without the resource. That is not a reason to delay though, and I would strongly recommend SMEs take advantage of the tools available to begin their journey to net zero. Had we started ours a year earlier, we would not only be closer to our goal, but we would also be economically stronger.

What makes you think that?

Working towards net zero aligns with UK Government and global targets. Sustainable companies not only affect positive change on the planet, they take an important step toward future-proofing their business. We attract the best talent, get to work with the most innovative suppliers and can engage customers motivated by a carbon-neutral future.

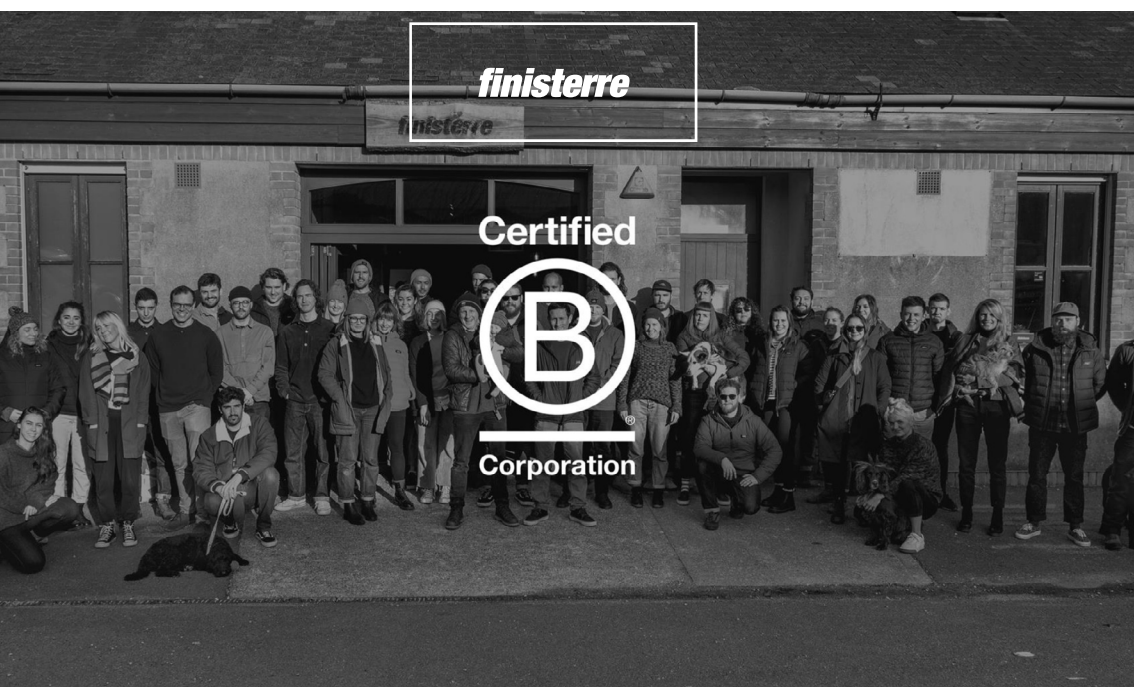
Is there a method you use to track how the business is performing in relation to net zero?

Fossil fuel prices are increasing. As a country, we need to get to a point where we are using 100 percent renewable and affordable energy. We are not an energy supplier, but we can help the grid manage its infrastructure so renewables align with demand. We hope to give customers more choice, save them money and help more people play their role in creating a carbon-neutral future.



finisterre

FINISTERRE



FINISTERRE IS A CORNWALL-BASED FASHION BRAND THAT OFFERS INNOVATIVE, ETHICAL OUTDOOR CLOTHING FOR THOSE THAT SHARE A LOVE OF THE SEA.

Founded in 2003, in a flat above a surf shop, their products were inspired by a desire for change in the fashion industry.

Now, with more than 100 employees and loyal customers all over the world, the award-winning brand continues to explore sustainable fashion, asking questions about textiles and production to make sure everything they offer is built to last, cherished by owners and created with as minimal impact as possible.

Product Director, Debbie Luffman, shares Finisterre's pioneering approach to clothing, and how challenging assumptions and using data have helped steer the brand forward.



FINISTERRE

How important is sustainability to Finisterre?

The whole point of the company was about challenging poor quality, poorly sourced clothing with a high environmental footprint. We asked ourselves: "could we source better and build a community around those making, buying and using those improved products?"

Though we focus on more than just the surf market now, that same ethos still applies. The idea of creating a better and more sustainable product is embedded into everything we do. The only difference now is that there are impact metrics that help guide our decision-making and legitimise what we do.

How have you translated your sustainable targets into specific actions?

You can't reduce what you can't measure. Many SMEs in the fashion industry are only encouraged to look at reducing emissions in scope one and two, their head office and warehouse. But for companies like ours, with 24 factories across nine territories, you need to do more than focus on UK emissions. Otherwise, what's the point?

As a B Corporation, we have committed to net zero for scope one and two emissions by 2025, but we have also spent a year measuring scope three, our supply chain. Making changes here is a tall order and will require investment and collaboration across our textile and manufacturing partners, but we have already started investing in efforts to increase the use of recycled and fully biodegradable materials.

All of our outerwear is made from recycled/recyclable polyester or polyamide, and we are working to have fibre to fibre recycled polyester in all of our insulation jackets by 2024. By 2025 all of our wool will be non-blended from regenerative agricultural sources that support soil health. We are also addressing our packaging, swapping poly bags for Aquapak Leave no Trace bags that dissolve in water to non toxic biomass and are compostable and recyclable.

How has your team been encouraged to engage in sustainability practices within their day-to-day business?

We are lucky that so many people have chosen to make a life change to join us in Cornwall, and that those people are motivated by protecting our oceans and working to support a better future. But as we grow as a company, it can be harder to make sure everyone understands the more complex parts of our positive impact goals. Selling impacts on community and the ocean is easy. It is harder to understand how to achieve net zero across the broader business, target circularity from textiles through to consumer and combat the impact of microfibre release from textiles into our natural world.

We run talks and workshops with like minded businesses and fellow Bcorps. We also make sure our staff share ideas, for example, getting our designers involved with our repairs team so they can learn more about where products are getting damaged and work to address problem areas in their new designs.

What have been some of your proudest moments in your sustainability journey?

We knew we liked wool as a material, it is the best fabric to wrap around you when you get out of the sea, but the supply chain is complex and difficult to control. Our Merino wool was sourced from Australia, but we were curious why Britain no longer had Merino sheep. Our tenacity led us to a Devon farmer who had rescued the last five from a slaughterhouse. It took five years to get enough wool to create our signature line of jumpers, and now, as the flock grows, so does the stock.

There are 300 British Merino sheep now, and each time our Bowmont jumpers arrive, I am reminded of the beauty of slow fashion. We have always championed the importance of working closely with suppliers, and in this case, when that first jumper arrived, I knew every part of the chain: from the spinner to the dyer to the knitter to the sheep that gave their wool in the first place!

What is the number one learning you've experienced and would want to pass on to other business leaders and SMEs hoping to achieve net zero?

Work closely with suppliers and keep asking questions. You need to be continually inquisitive if you are to learn and effect change. It's only when you really get to know your suppliers that you can build up the trust and support you need to get reliable information, understand your options and influence others to align with your business goals.

Keep things simple. We work with so many companies, materials and factories. In hindsight, it may have been easier for us to achieve our sustainability goals if we had chosen to work with fewer people.

And lastly, when you start your sustainability journey, expect the unexpected. We knew the greatest carbon impact within our company would be on our supply chain, but we were shocked to find out how carbon intensive wool is. Had we not done the research, we would have made assumptions about what areas we needed to change, and with all its benefits, wool perhaps would not have been a likely place for us to start. Now we have the metrics, we can investigate what work needs to be done to reduce its footprint and harness its benefits.

What are your climate ambitions for 2022 and beyond?

By 2030, we want all our products to be fully circular. So we will continue to focus efforts on finding the best fibres, materials, construction and processes, supporting and investing in circular business models and using the metrics from our net zero research to make educated decisions and strategies to keep moving the brand forward.



AIREX



POORLY INSULATED HOMES ACCOUNT FOR 26 PERCENT OF THE UK'S TOTAL GREENHOUSE GAS EMISSIONS, 15 PERCENT OF WHICH IS CAUSED BY AIR BRICKS.

AirEx Technologies is a London-based startup that's bridging the gap between energy and environment. Their smart ventilation control system replaces the traditional air brick. Sensors and smart algorithms help regulate airflow, which in turn reduces energy bills, improves thermal comfort, and reduces damp and condensation.

AirEx's founder and CEO, Agnes Czako, shares why research and development are at the foundation of her business, and how to navigate the challenging world of rules, regulations and certifications when bringing innovation to the market.



AIREX

How does your company define its sustainability targets?

Our main sustainability KPI is the amount of carbon saved due to deployed units in the field, measured in tonnes. That's the most straight forward metric, and we know that there's a lot of scientific validation behind it. So far, we have saved 1,073 tonnes of carbon dioxide equivalent (tCO₂e) lifetime carbon emissions – equivalent to taking 31 petrol vehicles off the road. We are hoping to increase this number tenfold in the next three to four years.

As a company, our core principles are built around sustainability. We hire people that align with our values, limit travel, and try to make our office building as energy efficient as possible. It's still a work in progress – but I think it's really important for any startup to 'walk the walk'.

Another avenue that's really helped us to develop a more structured way of measuring KPIs is the fundraising and investment process. A lot of the ESG-focussed investors are really knowledgeable in how to calculate the environmental and social impact of your business, particularly around embodied and embedded carbon. Learning from them has been a great benefit.

What's been your proudest moment in your sustainability journey?

My proudest moment was when we saw the outcome of some detailed scientific validation we conducted on a large scale field trial using six million data points.

Seeing the data on the page was a revelation to me. It proved that we could provide a 12 percent cost-saving on energy bills in average UK homes and, therefore, cut operational carbon emissions by 12 percent.

If we add that up, the scope is enormous. We've estimated that if we scaled to, say, 55 million homes in Europe, we could impact 300 million tonnes of lifetime carbon emissions. This number was based on thorough market research into the European housing market, taking into account elements such as construction type and climate region.

Our investment into research has been so valuable because it's given me the confidence that, actually, what we're doing is really worth pursuing.

What challenges has your business faced over the past few years?

Needless to say, COVID-19 had an impact on our business. The global chip shortage caused by the explosion in consumer demand for electronic devices put our production in jeopardy. Planning ahead (and planning for the worst) with your supply chain is really critical when you manufacture a hardware product. If you can find a loan or financing mechanism that allows you to pre-order as much as possible, you can mitigate that risk.

Another timely challenge is hiring. The talent war in tech has been really difficult to navigate, and as a startup with a small budget, we simply can't compete with the likes of Google – but I am incredibly pleased with the fantastic team we have built.

A small silver lining of the pandemic has been the great resignation, driven by people who want to do something more meaningful and more purposeful with their professional lives. It is now easier for us to find mission-aligned people to join our growing team who are driven by more intangible benefits.

Any other key learnings for your business?

Securing industry-related certifications for a new product has proven to be incredibly hard. Due to the bureaucracy and slow-moving nature of the construction sector, it's taken years, which for an agile startup is a real challenge. We've managed to secure the crucial certifications, but it was a lot more time-consuming and costly than I'd anticipated.

Innovators in the sector are working together to create momentum and lobby policy makers to make it clear that change is absolutely needed. We need innovation to achieve net zero – it simply will not happen otherwise. Participating in accelerator programmes and meeting other founders, has been a great way of fostering that peer-to-peer support we've needed to get to where we are today.

What advice would you give to other business leaders and SMEs hoping to achieve net zero?

For cleantech startups in particular, make sure you go out into the field to test your solution as quickly as possible. Prioritise that over perfecting the design which will take years and require a lot of resources. Getting early feedback from your customers is crucial.

What are your climate ambitions from 2022 and beyond?

In 2022 our goal is to achieve 10,000 tonnes of lifetime carbon emission reduction, which is five times more than what we have achieved in the last couple of years. So it's quite an ambitious goal for us, but I am optimistic!

In a hundred years? I'd like to think that we would be known as a company that's made a meaningful contribution to the decarbonisation of homes across the UK, Europe and beyond.



IDEABATIC



IN 2014, PHYSICIST AND ENGINEER KITTY LIAO CLICKED ON A LINKEDIN ADVERTISEMENT CALLING FOR PROBLEM-SOLVING PIONEERS TO TAKE PART IN A HUMANITARIAN HACKATHON.

Participating in the hackathon, Kitty was exposed to critical problems in developing countries for the first time. She was shocked to learn that The World Health Organization estimates between two to three million children die each year from vaccine-preventable diseases.

It was from here that the idea for IDEABATIC was born.

During the last few miles of delivery ('last-mile'), vaccines become damaged by fluctuations in temperature. Human error and incorrect handling can further accelerate spoilage. Kitty utilised her background in research and practical development at large laboratories like the European Organization for Nuclear Research (CERN) to create SMILE – SMart last-mILE Cooling System.

This freeze-free and fail-safe carrier helps transport life-saving vaccines to communities in low-to-middle income countries (LMICs). The only carrier that reduces human error and spoilage, SMILE preserves vaccines so they remain effective in the last few miles of delivery and arrive safely.

Kitty shares her experience of entering the humanitarian field with SMILE, and why it's important to approach sustainability with an element of critical optimism.



IDEABATIC

How has your background in engineering shaped IDEABATIC?

I have so many great ideas, coupled with the practical skills as an engineer to realise them. My expertise lies in building systems that operate in liquids as cold as -270 degrees celsius, so designing SMILE to deliver vaccines that are stored in 2 to 8 degrees very much worked with my skill set.

That said, I think that there are some characteristics that I've had to unlearn on my IDEABATIC journey. When I build a product, I want it to be brilliant, and it's the technical development of the product that appeals to me. Sometimes I have to remind myself that other elements of building a business, like marketing, require due diligence.

What does sustainability mean to you?

That's a difficult question! I can't help but look at sustainability through an engineering lens: creating a product, and whether or not it's recyclable during and towards the end of its life.

My priority is for SMILE to be sustainable at the very end of its life cycle. This is not easy: a 'green' material might be produced in a more sustainable way but may end up not easily recyclable at the end of its life. We've done a lot of studies into different materials to see what is truly sustainable, but none have given us that confidence. However, I'm always looking for ways to improve our circular production.

What learnings would you like to pass on to other business leaders and SMEs?

My advice to those specifically developing a hardware product in response to a humanitarian issue is to thoroughly research who the users are, and who the buyers are.

In IDEABATIC's case, the users are medical professionals, but the buyers could either be government bodies such as the Ministry for Health or international bodies like UNICEF and The World Health Organization. Suddenly the procurement structure becomes much more complicated.

Although our goal is to make a product that benefits the end users (which in turn will save lives), our buyers have very different priorities. Often they are ticking a box and keeping costs as low as possible regardless of quality.

Coming to terms with the pitfalls of the humanitarian ecosystem has been really tough. I'd tell anyone coming into this field to come with your eyes open.

What advice would you give those delivering a sustainable service or product targeted at LMICs (low-to-middle income countries)?

Field research and user trials, and lots of them! They'll give you insights you could not get from word of mouth or interviews. They will help you to gauge your procurement structure and understand how the local bureaucracy operates. My first field trip was to Nigeria. I was dismayed when I was approached by a government official demanding a bribe. I've even been advised to have a 'bribe budget' put aside on each trip.

Now, I carefully scope out charities to partner with on these trips that do not engage with local corruption. Most importantly, field trips and trials have given me a greater understanding of SMILE's end users.

Can you give an example?

Absolutely. When I designed SMILE, I wanted any person, even someone without healthcare training, to be able to operate it. Removing that human error element is a massive part of improving vaccine spoilage rates.

So, we did blind trials. We presented people with the product and asked them to use it intuitively for vaccine delivery. We watched and filmed them to see how they engaged with SMILE.

And when it comes to feedback, I always encourage trial participants to be as honest as possible as it really helps us to deliver a better product.

Language barriers and cultural sensitivities come into play here, too. In Madagascar, I had planned to conduct the trials in French. I asked participants which language they would feel most comfortable giving feedback in, and they said their local language, Malagasy. So we used an interpreter to maximise hearing their opinions.

Is there anything else you'd like to add?

It's a simple one, but I'd always suggest starting with the big picture, and working towards that.



PETIT
PLI

PETIT PLI



PETIT PLI IS A LONDON-BASED MATERIAL TECHNOLOGY COMPANY THAT PAIRS INNOVATION WITH SUSTAINABILITY, SOLVING PROBLEMS FOR INDIVIDUALS, BUSINESSES AND THE PLANET ACROSS THE TEXTILES VALUE CHAIN.

Founded in 2017 by aeronautical engineer Ryan Mario Yasin, the brand has grown from humble beginnings as a student project at Imperial College into an award-winning startup with multiple shareholders and a passionate international community of users spanning over 60 countries.

Best known for designing clothes that grow with the children who wear them, Petit Pli has since launched an adult clothing collection that adapts to the wearer's body shape and size over time, as well as a reusable, breathable face mask created in response to the surge in plastic waste during the pandemic.

Chief Operating Officer and co-founder Arabella Turek shares Petit Pli's practical and curious approach to business, and how shaping consumer attitudes can accelerate a brand's real-world impact.



PETIT PLI

How important is sustainability to Petit Pli?

Sustainability is the bedrock of Petit Pli: our concept is founded upon sustainable design principles, and as an idea, it's sustainable to the core.

Ryan's nephew served as our original inspiration; Ryan gifted him clothes shortly after he was born, but by the time they arrived they were already too small. This signalled the huge amount of waste within childrenswear, which is often overlooked. Petit Pli's childrenswear grows through seven sizes and can fit children from nine months to four years.

What is your definition of sustainability?

For us, sustainability means creating solutions which will be used and celebrated by the consumers for whom they are intended. If you create something that will be used, then it will be loved, cherished and valued, which is why we follow a top-down system of production.

It's a far better use of resources to start from the beginning, with the view of creating something which will be loved and have a place in someone's life, as opposed to taking a bottom-up approach, looking at what isn't being used and how this can be improved.

Is there a method you use to track how the business is performing in relation to net zero?

We do regular life cycle assessments; however the impetus and the driving force of the company isn't to think about net zero from the offset, not when we're designing. It's to think of how we can create the best solution. Sustainability and net zero principles are of course included in the definition of best; as is understanding human behaviour, which is arguably even more important.

How so?

When someone picks up an object, they're unlikely to think, "how is this going to affect my country's net zero emissions?". But by appreciating consumer behaviour, you can design around it to educate after the fact.

Are there any other insights you can share around building customer loyalty as a small business?

Our main learning, especially since launching commercially, is to maintain the line of communication with the user. There's a lot of noise within fashion and textiles, and there's a lot of greenwashing.

We haven't received any doubt, but as a sustainable business grows, it's an easy critique to make. The key is honesty and transparency with your customers from the beginning. It's both a learning experience and also a challenge, because as your company grows it becomes harder to communicate each milestone and nuance.

What has been your proudest moment?

The past year has shown me that a company really is people coming together to unite for a central aim. The strength is the alchemy in the team - the awards, the crowdfunding, and all these external accolades are consequences of the team itself.

Every week our whole company changes, depending on what we need to do and what's the best idea at the time. Having people that can ride the waves, especially when you can't see them coming, that's really important. I think Petit Pli's proudest achievement will always be the team.

What's your best advice for other SMEs hoping to make a positive impact?

As long as your approach mirrors the aims and values of your company, it should work. Of course, that takes time and reflection, and understanding how to make it as efficient as possible is a sustainability metric in itself.

If you're just starting out, you've got nothing to lose by absorbing yourself fully with it. Speak to other people and ask them questions. Apply the same mindset we have with our users: be as curious as possible. What works for someone else might not work for you, but you don't know that unless you talk to them first. Just be really open.

Lots of people are scared to just try something because they fear failure, but the biggest failure is not trying. By being open to many ideas, you're only increasing your chance of success, because it leads to you accepting failure. That's the best start you can have, I think. There's less to learn if everything goes according to plan. It's a process: you rinse and repeat. There's no pride either; if it's not working, it's not working, so don't be too attached to your ideas.

What are your ambitions for 2022?

We're really proud to represent change in all its senses. We're excited about the next chapter, especially with the success of our crowdfunding. It'll also be interesting to understand how we fit in the new post-Covid world, and how people value physical exchanges moving forward in an increasingly gamified digital landscape. Although my personal experience with humans is that every year is interesting.

Do you have anything else to add?

When it comes to seeking support, make sure the timing is right. External accelerators require an investment of your time and energy, and you still need to run your business. We were fortunate with CISL's programme; it came at the right time, and the opportunity to meet that network of people digitally was wonderful when so much physical contact had been reduced. So only apply and accept a place on that kind of programme if you are available and it's of value to you and your business.



GUNAKAZI



Gunakazi



GUNAKAZI UTILISES THE POWER OF TECHNOLOGY TO SERVE THE UNDERSERVED IN THE FASHION INDUSTRY.

Supported by the UN-backed Ethical Fashion Initiative, the groundbreaking Vertical Social Network aims to empower garment factory workers across the globe, bringing their voices to the boardroom. By using a completely revolutionary Progressive Web App, workers can create an online CV, get shareable credentials, receive job offers and upskilling opportunities, and even share their work experience to help others like them.

Founder and CVO Kavita Parmar discusses the need to reinvent the fashion industry and create sustainable supply chains that no longer define value through growth in our finite world.



GUNAKAZI

Tell us about your journey and why you feel the fashion industry needs fundamental change.

Since leaving home at sixteen, I have worked across the global fashion industry and at all levels of the supply chain. I have an insight into both the pressures and priorities of multinational brands and their effects on the hidden human beings that supply them. I have seen first-hand how the constant push for growth has led to the advent of fast fashion and the perpetual pursuit of the latest trend.

Globalisation isn't a new thing. When Marco Polo travelled up the Silk road he was taking the best of Italy to exchange with the best of China. Today, globalisation is no longer about an exchange of cultures; it's about finding the cheapest raw materials and the cheapest place to produce. We are engaged in a one-way race to the bottom.

I have been lucky. I came into the fashion industry very young, and by sheer chance, as I never wanted to be a fashion designer, I naively wanted to change the world, like most teenagers. Soon enough, I realised the best way to make that change happen was to change my own perspective and way of doing things. I believe that by connecting the supply chain, from the original artisan right through to the end consumer, we can redefine value and move away from infinite growth to more sustainable models.

What is your definition of sustainability?

Sustainability isn't a new packaged product that people can buy. Sustainability is a dialogue between the maker and consumer. We need to be open and honest, and transparent about the way we make and the challenges we have. If we can empower garment workers to value their artisanship and build their CVs, we can create a mobile and skilled workforce. Workers who value the quality of what they are producing will benefit consumers who want a quality product. It's a two-way street.

Will we be able to help consumers make better decisions? I don't know, but I am excited that so many young people seem to understand that we need to change our way of thinking and are willing to completely rethink their entire way of consuming.

What is the one thing you have learned that you would want to pass on to other SMEs hoping to make a positive impact?

The one thing I would tell everyone is to expect to fail. Rethinking traditional business models also means rethinking how we measure success. We need to reorganise our inner compass for humanity to move forward to more sustainable practices. Growth is knowledge, and growth is sharing, and rewards may only reveal themselves over the longer term.

I would say to any young innovator looking to build a truly sustainable business: do not marry yourself to the hockey stick models of financial growth that often come with VC funding. Be willing to fail in these terms and commit to finding new measures of success.

What has been your proudest moment?

That is a hard question. Sometimes it feels easier to remember the mistakes. But I remember a weaver from a village in India I had worked in whose daughter had decided not to weave and had moved to Chennai to work in a call centre. When I returned to the village a couple of years ago, she had come back home, giving up her job in the call centre to learn how to weave. She told me that a young girl from England had flown to her village to interview her father as part of a research project, all because she had bought a shirt in the UK whose label connected the shirt to the weaver who made it. She said that this had made her rethink the value of the work her father did and how it had a far-reaching international audience.

We are at a moment in time where many of the skills the fashion industry relies upon could soon be extinct if they are not passed on to the new generation. Seeing how connecting the end consumer to the artisan had completely changed her perspective on the value of her father's work and led her to retrain as a weaver made me feel really proud. I felt like we had achieved something.



SOLUBLUE



SOLUBLUE OFFERS A 100 PERCENT PLANT-BASED, FOOD GRADE, NONTOXIC NATURAL ALTERNATIVE TO SINGLE-USE PLASTIC.

Made from carbon capturing seaweed, SoluBlue's biopolymer materials are both biodigestible and biodegradable, generating significant environmental and socio-economic benefits throughout their lifecycle.

CEO and co-founder Ayça Dünder discusses the need to move beyond short-term targets and embrace circular thinking, which considers the full life cycles of packaging and products if we are going to achieve a truly sustainable economy.



SOLUBLE

Your products offer potentially game changing solutions for companies looking to develop sustainable, net zero supply chains. Tell us about your journey, and how you came to create SoluBlue.

I am a designer. When I was starting out, I won competitions for packaging design. As I worked more in this area, I became increasingly concerned that the priorities for a 'good' design were only driven by functionality and visual appeal in order to increase sales: There was no consideration about the after-life of the packaging, which was almost always single use.

Globally, over 90 percent of plastic waste has never been recycled*, so I knew that we could not rely on recycling alone to achieve sustainability. We need to invest in composting systems and technologies for items that cannot be recycled or escape the recycling system, such as small sachets and flexible films.

I wanted to create products that are not only sustainable at the end of their life but have a positive environmental impact throughout the entirety of their lifecycle. This is why we started to look at seaweed as a raw material. It can be produced organically, captures more carbon than trees, doesn't need fresh water and can be grown in the ocean, thereby increasing the planet's potential for carbon capture. It is also a natural soil fertiliser, so when composted it adds benefits for better soil health.

What is your own definition of sustainability?

We want to enable truly sustainable supply chains. This means that for us, we need to look beyond net zero to the environmental impact of our product across its full life cycle. For example, after extensive research, we chose SELT Marine as our seaweed supplier because we want to ensure that our raw material is produced organically, sustainably and ethically - and pays farmers fair wages.

Everyone we talk to wants to be sustainable, but in our experience, many people and businesses just don't have the know-how or the insight to take the next steps. So, for us, being sustainable means sharing our knowledge and ideas. Communicate, start conversations, educate and learn: these philosophies are central to our ethos and our ultimate goal is to disseminate our technology as widely as possible by licensing it out.

What's your number one advice for other SMEs hoping to achieve net zero?

My biggest piece of advice would be to be patient. There may be problems along the way, and it might initially cost you more, but achieving net zero will benefit your business in the long term. The next generation is much more aware of the impact that their choices as consumers will have, so it is the companies that adapt and take on more ethical and sustainable practices that will survive.

I would also say that although your business is your baby, it's essential to stand back from the project in order to question your product and strategies. One of our original ideas was to make a new generation of disposable cups that were hyper-biodegradable. But after several setbacks and further research we discovered that our technologies were better suited to other uses.

As an example, our material has hydrophilic properties which means it could significantly extend the life of fresh produce and lead to a reduction in food waste. This became the foundation of the USP we use to communicate the value and full potential of our products.

What does the future hold for SoluBlue, both next year and in the longer term?

Our immediate goal is to start commercial trials with our product so we can measure its carbon capture potential and its possibilities for extending the shelf life of fresh food with our compostable packaging. In the long term, we want to help big companies move towards net zero and offer biodegradable alternatives through using our technology. Ultimately, we'd like to be part of the solution that gets rid of all petrol-based plastics from our water, soil and ecosystems.

*<https://rss.org.uk/news-publication/news-publications/2018/general-news/statistics-of-the-year-2018-winners-announced/>



TEEK TAKA



TEEK TAKA IS AN ETHICAL FINTECH PLATFORM WHICH AIMS TO IMPROVE LABOUR CONDITIONS IN GLOBAL SUPPLY CHAINS.

Founder Thaslima Begum shares her journey from human rights journalist to Fintech CEO - and how to turn sustainable business values into behavioural change.



TEEK TAKA

Where did the idea for TEEK TAKA come from?

When the Rana Plaza incident happened in 2013, it had a huge impact on me - not least because I am from Bangladesh. I was both devastated and shocked that something like that could still happen in this day and age.

At the time, I was managing the global comms team of a large corporation in the UK. I decided the best way for me to make an impact would be to use my words, so I left my job to pursue journalism. Three years later, I found myself interviewing Rana Plaza survivors for a piece I was working on that looked at the progress that had been made since the incident - but I struggled to find much.

Despite various promises from policymakers and big brands, I found women still working in awful conditions; some suffered from long-term injuries from the incident, while others were still awaiting compensation. Many were still terrified to go into a building and work but had no choice.

Instead of writing the article, I ended up using that time to understand the issues that garment workers and factories were facing. The problem was clear: business needs trumped workers' rights. The factories had no incentive to do better because of bad purchasing practices. They were being financially squeezed, with demands by fashion brands for quick turnarounds and threats to go elsewhere if those demands weren't met.

Late payment terms also meant that factories were paid long after an order had been shipped, so factories often had to take out loans with high interest rates to keep afloat. All of this only exacerbated exploitative working conditions.

How did you use these insights to build your platform?

A lot of the factories challenged some of the misconceptions I had about them. Many really wanted to do better but lacked the financial means to do so. I mapped the common obstacles they all faced, and the biggest was a lack of access to working capital. Based on these insights, I knew I needed to address these financial challenges with a top-down, technology-based solution.

I decided to stay in Bangladesh and develop a business model. I knew I needed a digital platform to address the inefficiencies within the industry, while creating incentives for factories to meet better standards that garment workers would benefit from - and that's how TEEK TAKA came about.

What is TEEK TAKA's commitment to net zero?

Beyond our external impact, a lot of our sustainability focus so far has been on internal processes. We're a small team, which makes this easier to manage, and we work together to hold ourselves accountable.

We have a standard of sustainability that we actively measure, and we consistently review what resources we're using - from the buildings we work in to our energy use. We also use energy efficient cloud providers instead of traditional enterprise data centres.

Our remote working arrangements have allowed us to cut down on transport emissions, and as a rule, we won't use a plane if we don't have to. As a team, we don't buy clothes unless we have a good understanding of where and how they've been made. Transparency is so important, especially with the kind of work we're doing.

I think it's important to translate values into behaviour, and we do that by trying to make sustainability an easy thing to understand and implement in our everyday lives.

Tell us a little more about the wider impact of your business.

Our mission is to create a more ethical and sustainable fashion industry. As part of this, we're helping factories become more sustainable and collecting data to help consumers make more sustainable choices.

We measure the ESG performance of every factory on our platform and incentivise them to do better.

The higher they score, the more likely they are to be financed and connected with buyers who are looking to work with more ethical suppliers via TEEK TAKA. We also verify this information with the workers themselves.

Right now, we're building a feature to enable factory workers to anonymously rate the factories they work in directly using their mobile phones. This will allow us to build more transparent and authentic data. Our Textile Tracker feature also maps cancelled orders and connects factories to potential buyers, who can purchase, adapt, or recycle material to prevent them from going to landfill.

Have you faced any setbacks?

I thought the pandemic would be the end of TEEK TAKA. When I applied to join the CISL Accelerator's Sustainable Fashion programme, all the factories in Bangladesh had temporarily shut down, and so many big brands had cancelled existing orders, where fabric had already been ordered, received, cut and sewn. The brands failed to fulfil their side of the agreement, which created a lot of vulnerability and mistrust within the industry, and for many suppliers, our product just wasn't a priority.

Being a part of CISL's community and meeting others trying to disrupt and change the global fashion industry was both powerful and encouraging. It helped me to reassess how far I'd come with TEEK TAKA and the potential of what I was trying to build.

As a result, we decided to change our approach. We became more aligned with suppliers' recovery objectives and focused on how we could benefit them in that aspect. This included helping suppliers get their cancelled orders repaid, partnering with trade unions to ensure garment workers' rights were being monitored and protected during the pandemic, and collecting data sets we hadn't previously considered - so that as the industry recovered, suppliers were ready to do business.

TEEK TAKA's work during the pandemic was recognised by the UNDP as an innovative approach to responding to challenges brought on by COVID-19 that contributed towards a sustainable and inclusive recovery in South Asia.

What advice would you give to other SMEs seeking to make a positive impact with their work?

My advice is to start small. Make it manageable. Sustainability has become such a buzzword that people often think their efforts need to be big and elaborate for them to be recognised. But really, it's about simple, consistent action and how that translates to individuals and their wider communities. Change is only achievable if you start where people are and build from there.

When it comes to behavioural change, incentive models work well. I have learnt that if you want people to truly embrace change and be committed, there needs to be something in it for them. That's the whole idea behind TEEK TAKA - and it works.

Sometimes the conversations around meeting net zero are filled with dread. But we have time left. So we ask, how do we use that time to make things better? Not just for the next generation but for ourselves and our communities right now.

Is there anything else you'd like to add?

COP26 was a huge event, but I wonder how many people watching felt like they could act on the proposed initiatives and be a part of the solution. The fate of the climate crisis does not only lie in the hands of those in power - what steps can we take as individuals and communities to transition to a low carbon world? It is only by involving people and through collective action that we can truly make a difference.

At TEEK TAKA, we work with a committee of over 1,000 garment workers, who we meet with every quarter to share important updates on our activities. This allows workers to provide feedback and input on the work we are doing - and allows us to ensure we are creating a solution that benefits them.

Importantly, it allows workers to be a part of the solution, which helps to address some of the marginalisation and powerlessness caused by entrenched inequalities within the global fashion industry. From the beginning, we recognised the importance of taking a local community-led approach and have learnt that leveraging community knowledge, experiences, concerns, and power is critical for generating strong and sustainable outcomes.



COLORIFIX



THE DYEING INDUSTRY IS ONE OF THE LARGEST WATER CONSUMERS IN THE WORLD, USING OVER FIVE TRILLION LITRES OF WATER PER YEAR ALONG WITH PETROCHEMICAL DYES AND HIGHLY POLLUTING CHEMICALS.

Colorifix uses a biological, non-toxic method to produce, deposit and fix pigments onto textiles. Leveraging a natural process, it's a radically different solution for the textile industry that cuts out harsh chemistry – leading to huge environmental savings.

Its founders, Jim Ajioka and Orr Yarkoni, both synthetic biologists at the University of Cambridge, share their mission to transform industrial dyeing into an environmentally friendly, socially responsible, and economically viable process.



COLORIFIX

Tell us about Colorifix. What inspired you to launch the business?

We were in Kathmandu, Nepal, developing biological sensors that could monitor arsenic contamination in drinking water. Seeing the heavily polluted waterways and speaking to local people, we learned the shocking impact of the dyeing industry on water and human health in one of the poorest regions globally.

In what ways does your work relate to sustainability?

JA: Our focus on sustainability includes a few different things. It's not just environmental, it's social. A big focus for us is that, whatever we're introducing into the work environment, it's not dangerous, nor does it put people out of employment. We never want to endanger the livelihoods of local communities in the countries our customers are based in.

OY: In the end, the business model that we've affixed to is essentially the one we believe has the most social benefit.

Your background is in science. How difficult was it to set up Colorifix?

OY: It was a learning experience! As you say, we're scientists, so we're good at doing research, getting information, and understanding it.

Starting the business took some time, but while we weren't necessarily 'trained' for it, our background meant we were able to train quickly. It was always about talking to people - and listening, a lot.

JA: I totally agree. We feel very strongly that you can set up a business based on technology, but a company is founded on a team. We spent a lot of time ensuring that the people around us were right for our business.

What is your company's commitment to sustainability targets and net zero?

OY: We exist to create change in the textile industry. As we're not a manufacturer ourselves, our mission is to empower those manufacturers and drive the impact through them. With this model, we could potentially save trillions of litres of water. There are manufacturers out there today that are draining entire lakes purely for industrial production!

JA: Although we try to adopt circularity as much as we can, the safety of our people on the ground is our first and foremost priority. We will try to go towards net zero, but the fact of the matter is, we're limited. As a startup you have to accept that there are some elements you simply don't have control over. For example, the building our office is based in is not the most sustainable.

OY: There are three things to consider when you're looking to replace something in your business: the cost, the performance and the safety. Cost is the least important to us - everything is expensive regardless of what you choose. But if it has any negative impact on performance or safety, it's not an acceptable alternative for us, regardless of its sustainability.

JA: Then, it's not a solution, it's a new problem. Anything that's a lateral move that compromises the two important parts of the foundation is not something we're willing to do.

What's been your proudest moment in your sustainability journey?

OY: For me, it's the first time we ran the full process on a customer site in Portugal. The dye house manager sat in front of the dyeing machine for the whole two and a half hours process. He was shaking his head and saying 'this isn't real'. The mill owner saw the results and said, 'I've been doing this for 20 years... this is a miracle. It's impossible!'. It was incredible to see their reaction to what we do.

JA: When we got our life cycle analysis data back and saw the hard numbers on all of the parameters that matter to us - like CO₂, water and electricity usage. I saw that we could save 49 percent water, 35 percent electricity, and 31 percent CO₂ compared to the traditional method of textile dyeing. That was a great moment for me.

What is the number one learning you've experienced and would want to pass on to other business leaders and SMEs hoping to achieve net zero or build a green business?

OY: Set up a business that could actually make a positive impact, not just something random because it's accessible or easy. And make sure that you have a model that allows you to be financially independent. The bottom line is: if you're not profitable, you won't make much impact.

Secondly, get the mould right before you go into mass production. Once in mass production, you need to safeguard all of the inputs, and chaperone the supply chain, to make sure that everything upstream from that point is done right.

JA: I'd also recommend that you engage with your team on your mission. Ask them 'what could be done to improve our sustainability?' on a regular basis.

And I'd add that regardless of how I feel about a material or a company, if we can work with them to make their processes better, then we should. As an example, no matter what I personally feel about fast fashion, that isn't part of the mission for me. It's making sure that if they're doing it, they're doing it as well as possible.

Do you think that your sustainability strategy has an impact on improving sustainability across the whole value chain?

OY: Absolutely, that's the case. The strategy was built together with our customers to ensure we're solving as many pain points as possible. We can integrate into what they're doing with minimal disruption.

We are reducing the amount of water they use substantially, and completely removing hazardous chemistry from their processes. It's a legitimate way of creating a carbon offset for their business, and makes waste management steps for their business far less onerous.

Any other learnings?

OY: There's a lot of scrutiny on claims around sustainability, be it good or bad, as the industry is being shaped by the sheer amount of greenwashing that's going on. The reality is that almost half of the information out there is totally unsubstantiated.

It has had an impact on our marketing. Having reliable data is so important and we need to be attentive to what we do and don't say. It's our company's reputation that will help it achieve its mission - everything we say puts it on the line.

What are your future plans?

JA: To fully understand our supply chain. The big fashion brands out there today will not be able to tell you which dye house dyed their clothes. These are complex problems that we want to get on top of.

OY: I want to expand on what we've started. Integrating our process into the existing value chain - going all the way to where the base inputs are sourced from, like farms, and ensuring that quality, safety, and fair working are preserved. If we don't do it, no one will.



SAFECITY



ACCORDING TO THE WORLD HEALTH ORGANISATION, ONE IN THREE WOMEN WORLDWIDE HAVE BEEN SUBJECTED TO GENDER-BASED VIOLENCE IN THEIR LIFETIME.*

It was India's culture of silence around rape and harassment culture that prompted ElsaMarie D'Silva and her peers to set up Red Dot Foundation in 2012. Its flagship app, Safecity, is an online platform that empowers individuals, communities, police and government to create safer public and private spaces.

ElsaMarie D'Silva spoke to us about the challenge of entering the non-profit space.



SAFECITY

Tell us more about Safecity. How does the app work?

Safecity is a platform where anyone can anonymously document their story of sexual and gender-based violence. It collects and analyses crowdsourced, anonymous accounts of sexual violence, highlighting key patterns and insights.

This data is free to access and can be used by groups such as local authorities, citizens, police or policymakers to increase awareness, improve policy, or optimise budgets to more effectively allocate resources.

How important is sustainable development to you on a personal level?

It's incredibly important to me. As a woman, I have experienced various forms of abuse, and my work is informed by those experiences. I think that the work we do will lead to more sustainable and resilient communities and cities.

I believe that no project or company can be truly sustainable if women – roughly 50 percent of the population – are not involved in or engaged with the process.

How have you translated your targets into specific actions?

It was important that the platform was accessible regardless of a person's digital capabilities. We don't require anyone to sign up for the app. They can log in or report an incident directly through the website.

What advice would you give to others who are considering entering the non-profit space?

You need patience and humility. Prepare and pace yourself – this is a marathon, not a sprint!

My background is in the corporate world, where I had plenty of resources and funds at my disposal. So making the move to a non-profit felt overwhelming at first.

Furthermore, we rely heavily on thousands of fantastic volunteers, which introduces its own challenges. I have to respect their passion, and the time they are giving for free to the project, however, sometimes Safecity is not their number one priority, thus affecting the quality of the work.

Finally, I'd always suggest that you have a nest egg to support yourself, as for the first three years, getting funding support can be very difficult. Unlike, say, a hardware product – our service is intangible. It's hard to sell a solution that solves sexual violence. So when donors or investors give us money, it's based on complete trust and it's your personal credibility that is on the line.

How does your team engage with sustainability practices in their day-to-day work?

Certain elements are built into our policies and systems, so my employees have no choice but to follow them! We regularly evaluate our policies with our employees and amend them based on inputs from the team.

Since we started, we've always operated in a fairly sustainable way to keep our costs as low as possible. My team and I work from home with flexi-hours. We rarely use paper, and we've dramatically reduced the amount that we travel.

What's been your proudest moment so far?

I think it would be when we gained Economic and Social Council (ECOSOC) accreditation as a non-profit, which solidified our relationship with the United Nations. I've been told that it typically takes decades for a non-profit to achieve this, but we received this special status in a matter of years.

Is there anything you've learned along the way that you'd like to pass on to other business leaders and SMEs hoping to drive social change?

Know yourself and your value system. When you're driving social change, it's values driven. So I'd hold that as your moral compass for your organisation.

And don't feel pressure to emulate someone else's journey. The way I see it, no one is doing what we're doing, so there is no point in making comparisons.

I believe that when people think of an entrepreneur, they picture a male entrepreneur with a unicorn startup. But to me, that's not sustainable – because how many of those businesses survive?

What are your ambitions for the coming years?

I hope that the Safecity app does not exist because there is no longer a need for it!

*<https://www.who.int/news/item/09-03-2021-devastatingly-pervasive-1-in-3-women-globally-experience-violence>



OXWASH

OXWASH



OXWASH OFFERS ON-DEMAND COMMERCIAL LAUNDRY AND WET CLEANING SERVICES TO BOTH CONSUMER AND BUSINESS CUSTOMERS.

Founded in 2018 by ex-NASA scientist Dr Kyle Grant and Oxford University engineer Tom de Wilton, their model has evolved into what they believe is the world's most simple, seamless and sustainable washing service.

COO and CSO, Tom and Sustainability Manager, Michelle Urvall-Ashraf, explain why Oxwash is the future of laundry and how their game-changing innovations could drive net zero carbon emissions at scale.

We chose to build our next lagoon in Cambridge because it is identical to Oxford - and one of the big things about raising capital is being able to demonstrate that you can do what you've previously done faster and more effectively. Investors want proof that you could create even more money from their funding.



OXWASH

Tell us more about Oxwash. How are you reinventing the laundry industry?

TW: Oxwash is an ultra-convenient, ultra-reliable, sustainable services business. Think of it as similar to Deliveroo, but for laundry. We have a fleet of bright blue electric cargo bikes with dedicated riders who come to collect peoples laundry and take it to one of our 'lagoons' in either Oxford, Cambridge or Battersea. Those items are washed and dried using innovative, low-impact washing technology before being returned to customers at a time and location that suits them - it's effortless! We offer exactly the same service at scale for businesses, so on a more regular schedule with higher volumes.

Our founder, Kyle, came across ozone while working at NASA (SpaceX), where it was used to disinfect the inside of spaceships. This same technology is used to deodorise and, to a lesser extent, disinfect the laundry that goes through our Oxwash process. It's one of the many types of technology that enables us to wash items at lower temperatures.

MU: We own and control every step of the process, which means we've been able to build sustainability into each stage. Our mission is to become the world's first net zero commercial laundry service. Beyond that, we'd like to scale the solution so that every laundry in the world can have a tangible impact on its environmental footprint.

But before that, are we right in thinking that the business had a fairly humble, entrepreneurial beginning?

TW: Yes! Oxwash was essentially born out of frustration from perpetually broken university washing machines. Let me explain... Kyle had joined the rugby club while studying for his PhD at the University of Oxford. Often he was delegated the task of washing the entire team's kit. He soon found that most of the machines were either out of order or not in use - which isn't ideal when you have a giant bag of dirty, muddy laundry to wash!

Kyle saw this as an opportunity. Inspired by the convenience of apps providing on-demand services, he built a Google form and used that to take laundry orders - initially for the rugby team, but this soon expanded to friends and other students. He picked up orders on foot and washed them at home. Eventually he made a deal with a local laundrette to use their services after hours, and upgraded to using an e-cargo bike with a shipping container attached, which is where the logistics backbone of Oxwash was born.

Over time, this side hustle continued to grow - there were more orders and more bikes. Kyle saw a clear route to scale and looked to partner with local laundries. This was when it became clear that the entire industry was archaic, broken and unacceptably polluting. It was also Kyle's eureka moment: he realised this business was worth dedicating a lifetime to. I came on board as a retrospective co-founder and engineer, and we've continued to evolve as a business with each passing year.

What are Oxwash's commitments to sustainability and net zero?

TW: Our commitment to sustainability is to completely reinvent the way commercial laundry is done. As I've mentioned, it's currently a wildly polluting, energy intensive process that has very little regard for environmental or social consequences.

We're aiming for net zero carbon emissions throughout the whole laundry process. We've committed to the Tech Zero pledge to become net zero across our scope one and two emissions by 2023. We've also set a variety of punchy targets for our scope three emissions.

So what does that actually mean for us as a business? Well, given that we are primarily a technology company, our main focus is the impact of our operations. The software we are building aims to drive dramatic efficiency improvements in laundry operations and reduce consumption-associated pollution. We're building the capacity to understand the data around orders so the laundry process is optimised and those orders are returned in the quickest possible time with the least environmental impact.

Our lagoons help us to understand the problem. They act as a research and development facility, while simultaneously enabling us to generate revenue through our laundry service.

How else are you meeting your net zero targets as you build that technology?

TW: We're trying to mitigate our emissions. Our cargo bikes emit no hazardous gases and almost non-existent noise and light pollutants. They also have the added benefit of keeping our riders happy and healthy. By washing clothes at ambient temperatures, using ozone disinfection and biodegradable disinfectants, we can dramatically reduce emissions.

Our biggest challenge is specifically around the use of natural gas in drying textiles. Right now, this requires huge quantities of natural gas. To have a laundry completely powered by electricity, you'd need to charge three times the price to consumers, and it'd take longer too. We're trying to unlock that jump from gas to electricity through innovation.

MU: Beyond that, all our machines are installed with filters that capture more than 95% of any plastic microfibres shed during the washing process. We send the filters back to our supplier, another small startup. They're currently working out what can be done with those, for example using the filters in insulation. One third of all the plastic in the ocean comes from washing clothes, so it's important we reduce this. At present, there is no fibre-to-fibre recycling opportunity, be it mechanical or chemical. That will hopefully change, but for now, downcycling is the only solution for the textiles and fashion industry.

What measurements do you use to gauge your impact?

TW: The original stat that we've always been interested in is the CO2 cost for every kilo of laundry washed by Oxwash. Initially, and perhaps rather naively, we did not include CO2 equivalents within this. In 2020, for every ton of laundry washed by Oxwash, we saved 174 kilos of CO2 emissions compared to our next best competitor in the commercial space. We're now looking at building a much more robust model which looks at our energy and water consumption, and our chemical impact and plastic microfibres. We also extend that to our packaging, so the impact of plastic on our planet.

We are obsessed with the energy cost per kilo of items washed by Oxwash. We split that between our electrical and our gas use, and the aim is to decrease both over time. Saying that, it's either that we use gas or we don't - it doesn't really work to ramp gas down.

We want to automate those measurements, and get more specific, build out CO2 per item of clothing rather than CO2 per kilogram. We don't want to rely on top-down data; it's not good enough. Instead, we've installed retrofitted electrical, gas and water sensors into our lagoons to give us the granular use data of every piece of machinery and equipment within our laundries. We hope to build an incredibly detailed, bottom-up impact accounting model that will tell us the CO2 equivalent cost, the water cost and the plastic microfibre cost of any item. The vision is that we'll be able to report this to our customers, so they'll receive a financial receipt alongside an environmental one. It's a work in progress; we're still using gas. But we're not going to wait until we've cracked that, and we're very transparent about it too.

MU: In order to achieve net zero and look at it in this honest way, we have to deliver both really advanced solutions while also going back to the basics of what needs to be done. For example, the operations of the day-to-day business. We need to continue doing both of those things at the same time to have more of a robust plan that works in practice.

How do you position yourselves in the fashion industry?

TW: In a world dominated by fast fashion, we are trying to position ourselves as the accelerant to a transition to the circular fashion economy. We're not a fashion brand. We're not a digital fashion platform. We can provide the operational back-end for fashion brands and businesses through washing logistics and warehousing services.

MU: The only really sustainable thing is to buy less and to try to keep what we have for longer.

TW: Our mission is to extend the lifecycle of garments by washing them in a consistent, responsible and low impact way. We also work with partners to offer a textile waste solution, which means garments don't reach the end of a linear life, they'll simply reach a different part of a circular one. Again, a big part of that is the software. There is the potential to have a huge sustainability impact through providing this backend operational service.

MU: The fashion rental model has actually been criticised, because by sending garments to conventional dry cleaners it's not that sustainable. For those businesses to sell their solution as a circular one, they need a service like Oxwash.

What have been your proudest moments?

TW: One of our proudest moments was during the first lockdown. The pandemic put us into survival mode. We pivoted to offering laundry services for care homes, hospitals and GP practices relatively quickly, but we had to make compromises on our sustainability, for example, washing at higher temperatures so as not to put anyone at risk.

It was a different mission, and I'm proud of the way our team responded. They could have stayed at home, we gave them that choice, but instead they rolled up their sleeves, climbed into hazmat suits and went to collect the laundry. We didn't have a single case of COVID-19 in the team for 12 months, which I just think is truly remarkable and acts as a testament not only to the safety protocols we had in place, but also to how responsible people were in their home lives.

We also have to acknowledge some of the funding we've received from a variety of investors. Being invested in and championed by Twitter co-founder Biz Stone, someone who really knows this space was a huge tipping point for us.

And any disappointments?

TW: What's most disappointing is that we haven't seen any real movement from a legislative perspective, specifically in the UK. The laundry industry is behind closed doors, and we want to shine a light on how damaging it is. We need to bring laundry into the consumer mindset. If you enjoy a weekend away in a hotel and stay in lovely white bed sheets, then spill something on them - the likelihood is those sheets will go through a batch washing process. There's a huge carbon cost to that. Worse still, if the stain is particularly difficult to remove, those sheets will be discarded in landfills or incinerated. There's a total disconnect between the consumer mindset and the environmental impact of laundry. Change can only come from huge social media campaigns or legislative change.

Give us your best advice for other SMEs hoping to achieve net zero and reduce their impact?

TW: Measure early. If you can't measure your impact, you can't improve it. Aggregate, then model your data - and don't be intimidated by it. Even if you don't know what you're going to do with it yet, having that data from the start will be a huge help in setting and meeting your targets.

MU: Collaboration and partnerships from a very early point are important. These huge systemic challenges are not something that a small company can easily face alone. Our approach needs to be collaborative to succeed.

TW: Also, self-publicity is key. We have a moral responsibility to shout about the good ideas. It's no use having an incredible idea, but with no public awareness of it. Think about how your business can help customers have a tangible understanding of your brand. From a consumer perspective, our big, blue bikes most visibly reflect how we're sustainable. Someone will see one of our friendly, approachable riders and will want to know what we do. That recognition is also where other opportunities will come from.

On the business side, it's all around ESG reporting and making people's lives easier. At Oxwash, we can solve the pain point of a convenient commercial laundry supplier, and we're going to do it sustainably. What's more, we can tell you exactly how sustainable that is, so that businesses can show the specific measurements to their board of directors and they can use it in their marketing, which is incredibly valuable in a world where the demand for sustainable brands continues to rise.

Anything else you'd like to add?

TW: It's non-negotiable: if you don't do it in the next ten years, you're going to fail. We have a more successful business because we are sustainable. It also makes Oxwash an incredibly exciting and vibrant place to work, where you're working alongside people that really care about life - and that's infectious. I couldn't imagine working anywhere else.



REVERSE RESOURCES



150 BILLION GARMENTS OF CLOTHING ARE PRODUCED EVERY YEAR, AND MORE THAN 40 PERCENT OF THE MATERIALS USED IN THE PROCESS GO TO WASTE.

With the fashion industry contributing to up to 2-10 percent of global carbon emissions* much needs to change in order to reach net zero targets by 2050.

Reverse Resources, touted as the Uber for textile waste, is on a mission to bring innovative circular business models to the fashion industry. Its software solution provides complete oversight of waste flows, and through extensive research, breaks down entrenched silos between major fashion brands, garment suppliers and recycling partners.

We spoke to founder and CEO, Ann Runnel, about what she's learned from her sustainability journey so far.



REVERSE RESOURCES

What is your company and what do you do?

Reverse Resources is a software as a service (SaaS) platform targeted at large global fashion brands to help them map and trace their textile waste. We want to help the fashion industry use its own waste as a resource and decrease dependency on virgin materials. Our platform connects garment factories, recyclers and brands to collaborate in creating circular supply chains.

How important is sustainability to you on a personal level?

It has always been an important part of my life. Before I founded the business, I was as conscious a consumer as I could be, doing everything I could to make my lifestyle as sustainable as possible. I tortured myself over my plastic use and was endlessly frustrated that so many of the personal choices I wanted to make as a consumer simply weren't there yet.

However, I soon realised that as a single consumer, the impact I was having was negligible, and the issue of individual responsibility for carbon emissions is a complicated one. So, I set out to change the system itself. That's how Reverse Resources came to be.

What's something you've learned over the past few years?

I learned that it's possible to start a business ahead of its time! With the benefit of hindsight, I can see that when I set up the business in 2014, this was far too early to try and solve the fashion industry's textile problem. The industry wasn't there yet.

That said, it gave us the time necessary to research the issue and properly develop our solution - and build the relationships needed with our stakeholders. Now I really believe that we're ready, in the right place and at the right time.

Have you faced any other challenges?

We're a registered for-profit company and an SME, but as I mentioned we're also doing research. We have lots of sensitive data from garment factories in developing countries that has not been disclosed before. No other research institution has managed to do this.

Over the years, we've sourced a lot of data. However, because we have been an underfunded startup, we haven't had the capacity to turn that data into research papers. Therefore that knowledge, which is incredibly important for the world's learning on the impact of the textile industry, isn't spreading fast enough.

Furthermore, investors don't necessarily see the value in the research itself. We have been finding success now with fundraising only once we started to show good traction on the platform with our business case, but as an SME, it is difficult to raise funds simultaneously for research and vice versa. However, we've been stubborn about focusing on the business case, which would drive the necessary change faster than building and sharing knowledge. The challenge remains how to raise awareness and include the research institutions and the public sector in the disruptive shift we are creating with the platform, while activities around awareness raising remain underfunded.

What is your commitment to sustainability and achieving net zero?

That's an interesting question and something that's complicated for us to explain. We're often asked how we're measuring our impact, for example, through life cycle analysis, but we don't have a tool for that which would align well with other methodologies widely used.

Sustainability measurements often focus on the main product – raw material production or end of life. When you focus on that linear chain, then you can measure things. Because we operate on the periphery of that, we are taking waste from production and putting it back into production, we don't fit into the usual mould for measurement. Another impact we create is helping waste to reach a higher level of the value chain, making sure that it would not just be closing the loop once but also have a third and hopefully fourth lifecycle later on. But the endless circulation of fibre is not yet part of the usual impact metrics systems.

We measure every tonne of textiles that gather to replace virgin materials in the textile industry. We wouldn't be able to measure the CO2 from our activity exactly, as there are so many determining factors like the exact type of recycling process, for example.

Have you had any unexpected surprises?

There's been a lot of realisations along the way. Experiencing the conflict of interest between brands and factories, and their unwillingness to share waste information. We've come up against some real resistance from various players in the industry, which has taken patience and perseverance to overcome.

And over the course of the past eight years, what have been some of your proudest moments?

I'm really proud that we've managed to change people's mindsets on redefining waste as a resource. When we started, big fashion brands would say to us: "Oh, we know exactly how much waste we produce. There is no problem that you need to solve here". There were real tensions between a brand claiming rights over production waste and insisting that the factory should not make money from it.

I've seen up close how our research, and providing examples and case studies to prove our mission, has forced collaboration that wasn't there before between brands and factories. It's incredibly rewarding to be the driving force behind this change.

Do you feel there were key external stakeholders that played an essential role to help you reach your sustainability targets?

Absolutely. Over the years, we've built great collaborations with H&M Foundation, Fashion For Good, Accelerating Circularity and several others. Most importantly, in 2020, we formed a partnership with Global Fashion Agenda and together launched The Circular Fashion Partnership. Through the programme, we invited 21 of the largest brands, including the likes of H&M Group, Bestseller and OVS to help us divert post-production fashion waste in Bangladesh.

It was a match made in heaven, and it has helped us to demonstrate our business case on a bigger scale while bringing down a lot of market barriers that we need to deal with when shifting from a linear to a circular economy.

What are your ambitions for the business?

Right now, we're only focused on industrial waste because there is a missing link between sorting post consumer materials accurately enough for the needs of textile to textile recycling. There are technologies entering the market that will help us bridge that gap in the next years for blended textiles.

And what would you like your business to be known for in a 100 year's time?

I'm looking forward to the day when we have evidence that textile waste can circulate not just once, but continuously. I hope that Reverse Resources will be known as the source of insight, trustworthy data and statistics on the circular textile waste streams globally.

*<https://www.un.org/sustainabledevelopment/blog/2019/08/actnow-for-zero-waste-fashion/>



DR. BRONNER'S



DR. BRONNER'S IS MANY THINGS: A PIONEER IN SUSTAINABLE BUSINESS, FAMILY-OWNED AND RUN WITH A LEGACY OF TRAILBLAZING ACTIVISM.

A brand that dedicates part of its profits not needed to finance and grow its business to help make a better world, whether that's creating and partnering with fair trade and organic projects to build equitable supply chains, or promoting regenerative agriculture and healthy soil. It's also a great place to work, where employees are treated like family and take pride in what they do.

To top this off, Dr. Bronner's is also the best-selling brand of organic and fair trade bodycare in the US. Director of Operational Sustainability & Innovation, Darcy Shiber-Knowles, and Vice President of Special Operations, Gero Leson, share how it's possible to use business as a force for good and achieve commercial success.



DR. BRONNER'S

Tell us about the origins of Dr. Bronner's

GL: Dr. Bronner's is the largest natural soap brand in the United States. The company was officially founded in 1947 by third Generation German Jewish soapmaker Emanuel Bronner, whose family had been making soap since 1858. Their original company was taken over by the Nazis, and sadly Emanuel's parents were both killed in the Holocaust.

These events, and Emanuel's eccentric approach to life, led him to strongly believe he had an obligation to save planet earth. He combined his soapmaking business and vision to unite humanity in a unique way, using his soaps as a vehicle for this message.

Emanuel brought his formulas for high-quality liquid and bar soaps to America, and Dr. Bronner's was formed. The all-natural soaps gained huge popularity in the '60s and '70s, earning the brand an iconic status that remains to this day.

Over the next few decades, Emanuel's sons Ralph and Jim, and Jim's wife Trudy, took over the company and put it on solid ground. They gave substance to Emanuel's ideals and created a company that aimed to prioritise employee welfare, something which was not so common at the time.

Then in the late '90s, after Emanuel and Jim passed away, grandsons Mike and David joined the company to continue their grandfather's and father's legacy of using business as a force for good. This is where our sustainability story really starts.

How did things change from that point onwards?

GL: They started looking for ways to include activism in the manufacturing of their products. The company continued to grow and had a great reputation, but this was limited to the natural product industry. The question became: what does it mean to have an activist company that uses its business to save the planet? Developing a fair and sustainable supply chain for our raw materials soon became one of our priorities.

Our castile soaps use three key ingredients - coconut, palm and olive oil - along with some other essential oils in smaller quantities. The oils used were organic, but David wanted them to be fair trade too. He felt this was the only meaningful standard for the social quality of an ingredient - organic didn't tell him where the oils actually came from or what the conditions were like for workers on the ground.

At the time, only a small number of Fairtrade certified products, mainly cocoa, coffee and sugar, because these had more consumer demand and standards by Fair Trade International existed. Thus, David suggested we build our own organic and fair trade coconut oil mill in Sri Lanka. The Bronners were already buying organic coconut oil from Sri Lanka and I had been working there on a development project so we had a lot of relationships built up. I had never done anything like this before, but I was up for it.

In 2005, we began creating the first organic and fair trade certified supply chain for virgin coconut oil. In 2006 alternative fair trade standards evolved, which allowed for the certification of our project. This was the beginning of us creating and partnering with fair trade and organic projects all over the world.

How do these projects operate? Are you ensuring visibility across the whole supply chain?

GL: We now have our own companies in Sri Lanka and other emerging economies, for example, Ghana, where we produce organic palm oil and cocoa. We've also brought in local partners as minority shareholders. In Palestine, we've partnered with Nasser Abufarha and his company Canaan Palestine. Nasser is responsible for helping to revitalise Palestine's traditional olive industry. We supported Canaan's organic and fair trade certification, then soon became its largest client. Today Canaan works with over 1,700 farmers and exports close to \$6 million worth of olive oil each year - making it the largest exporter of olive oil on the West bank.

It works like this: we create or partner with companies, help them to achieve organic and fair trade status, and make them economically viable by becoming a reliable customer. We're meeting our sourcing needs, but more importantly, we're helping to train people in building and operating a fair and profitable business - one that looks after workers, their families and their communities.

DS: For those businesses to stand on their own, they need other customers beyond Dr. Bronner's. This is part of why we are very transparent about who our suppliers are: because we want other companies to buy from them too. We're building the fair trade movement; the future of our international economy needs to be built on fairness.

GL: To this end, we engage with our competition and share our suppliers. We're not looking too closely whether that's detrimental to our own business. This is not about Dr. Bronner's being the greatest company on the planet. This is about doing what we do on a larger scale.

Have there been other benefits to this work, perhaps from a net zero perspective?

GL: Only two years into the project in Sri Lanka, we realised that fair trade is not just about farmers and workers being paid a better price. It's also about improving agriculture. So we worked with our suppliers and farmers across the globe to improve their livelihoods while simultaneously helping them shift to regenerative organic agricultural practices that increase yields and improve soil fertility.

These practices can sequester huge amounts of atmospheric carbon, bringing it back into healthy soil in the form of stable organic matter. It's one of the most significant steps we can take to foster resilience in the face of climate change while countering the very cause of climate change, i.e. escalating concentrations of greenhouse gases. In 2015, regenerative agriculture came into the spotlight, but we had already been making these changes on the ground for almost ten years. This is where the idea of sequestering intentionally and trying to bring down our own carbon footprint gradually emerged.

What are your specific net zero goals?

DS: Our goal is not actually to become net zero. It never has been. We simply want to do business in a way that leaves the planet better off. From a climate standpoint, our published goal is climate positivity, or carbon negativity, so we're hoping to capture more carbon than we emit through our business operations.

Net zero by 2030 is not enough to ensure climate stability. All businesses, large and small, need to be climate positive because we have a carbon debt. We're past the point of planning to do no more harm with net zero in eight years; we actually need to reverse the harm that's already been done by utilising carbon sequestration. Of course, we support all efforts towards net zero. It's just we are committed to going beyond that - because we have to get there.

GL: As part of that approach, we've begun implementing dynamic agroforestry concepts at our projects in Ghana and Somoa. This not only diversifies farmers' income streams, helping them to be less dependent on a single crop for their livelihood; it also improves biodiversity and increases soil carbon sequestration.

Are there any areas you would like to make more progress in?

DS: Our top-selling product, our famous peppermint castile liquid soap, comes in a single-use, 100% post-consumer recycled (PCR) plastic bottle. Plastic is obviously connected to the climate crisis - it's a product of the fossil fuel industry - and we're facing a plastic pollution problem globally. So Dr. Bronner's is working to design our way out of single-use plastic, but in the interim, we're also exploring plastic insetting.

To do this, we are working to set up a waste collection and reuse recycling programme with some of our supply chain partners on the ground in Ghana and India. It's pretty simple: we calculate our plastic footprint and then impose a fee on ourselves based on the plastic type used, in particular whether it was PCR, and if it can be recycled. This fee goes into a fund that we use to directly support the fair trade operated waste collection and reuse/recycling programmes, ensuring those who collect the plastic are paid for their efforts.

The plan is to create a model similar to what we are doing with our agricultural supply chains themselves, where we collaborate with industry peers and encourage other companies to join us. Together we can take responsibility for our plastic footprint by cleaning up the communities where we are already working.

How does Dr. Bronner's fund all this work?

DS: We target 30 percent of our profits to charitable and activist causes, including regenerative organic agriculture, animal advocacy, drug policy reform and industrial hemp advocacy, among others. Some years it's as much as 40 percent. We publicly report this information each year in our All-One! Report, which shares our annual sales, internal company metrics, supply chain impact and environmental footprint. As a privately held business with no external shareholders, this is not something we have to do. But we do it anyway because we believe in transparency.

GL: Fundamentally, the funds come from two sources. We are rather profitable, yet we do not distribute dividends to the company's owners for personal purposes. We also have a five-to-one salary cap at Dr. Bronner's, which means executives cannot make more than five times that of the lowest-paid full-time employee. It sounds simple, but it requires people to be willing to give up the millions they could be making otherwise. This is the decision you have to make.

DS: The owners of Dr. Bronner's could take home extra, but instead they choose a fair structure, have the same generous healthcare plan as every other employee, and ensure everyone at the company gets the same benefits on a percentage basis, including retirement contributions and bonuses too.

GL: That's the secret to success. You need to be willing to part with money. It's that trivial. You can still have a decent income; we're very profitable and successful. But the owners make less to fund other projects. It's actually very strategic - that money is still used as if it was business. We call it constructive capitalism.

You mentioned your All-One! Report. What types of emissions does this track?

DS: Since I joined the company in 2013, we've been formally tracking our environmental footprint. Initially, our emissions tracking and reporting only included scopes one and two, but since 2017 we've also reported on scope three.

Scopes one and two are a very small part of our calculated emissions footprint. The majority is in scope three and that is not unique to us, it's true of almost every business. Yet many companies, unfortunately, do not measure or report on scope three, perhaps because it's so difficult to measure. We've invested a lot of time, money and effort into getting what we think is an increasingly accurate footprint. The numbers can never be 100 percent accurate; it's more art than science.

Saying that, the reporting isn't what drives us to do what we do. People talk about the climate crisis or climate stability, but we prefer the language of climate justice because ultimately this is about people and our connection to each other, all around the world. Who will be hurt first and worst? The smallholder farmers in the global south who are poor. So our commitment to our climate work is a commitment to justice.

Why do we do this work? Because we are humans who love. You protect things that you love. You care about them. People don't often talk about love in business, or justice in business, but we should. Why not? Businesses are run by humans, and humans love, so let's do business as if love ran the world, and we wouldn't have a climate crisis.

On that note, what advice would you give to other businesses looking to make a positive impact on the planet?

DS: First, pick something. One thing is not enough, but start there, keep going and don't stop. Second, work in partnership. You should not be doing this work alone, nor do you have to. There is an element of entrepreneurial and intrapreneurial effort related to sustainability, but you don't need to reinvent the wheel for a lot of this work. Find partners. You don't need to do it alone.

The last thing is that sustainability cannot be vertical. Climate work cannot be one person's responsibility, and environmental efforts cannot be one department's responsibility. So you've got to figure out, in your business's context, how to engage as many allies as possible across the organisation. Democratisise the environmental work, and then it will start to take off in ways that are beyond what you could do on your own.

GL: There needs to be a commitment from the very top too. If this is just the folly of marketing and it's not backed up by integration into operations, it's not going to work. So much of it is really about motivating business owners, whether they're individuals or whether they're private equity firms, to accept that the personal profitability will be a little less than they usually would have hoped for.

We sometimes talk to small startups that want to use regenerative ingredients, and it's a huge challenge. You have to be willing to spend more on ingredients. But there is value to this, it means you get to know the supplier, for instance, and with that story, you might even be able to attract donations or grants. Start being creative about your other sources of money. Saying that, try not to take on too much. Focus a little bit on what you can change and then support ongoing measures by others.



CAMBRIDGE
food hub

CAMBRIDGE ORGANIC FOOD COMPANY



DUNCAN CATCHPOLE HAS MORE THAN 20 YEARS' EXPERIENCE IN SUSTAINABLE FOOD.

As founder and owner of the Cambridge Organic Food Company and Cambridge Food Hub, his mission is to localise food systems and reduce waste, operating in a way that is environmentally, socially and economically sustainable, while encouraging others to do the same.



CAMBRIDGE ORGANIC FOOD COMPANY

Tell us a little more about what you do and the organisations you're connected with

My main company is the Cambridge Organic Food Company (COFCO), which primarily offers a local organic vegetable box scheme. We're entering our 24th year of business. The other, more recent project I've helped set up is the Cambridge Food Hub (CFH), which is based around Local Food Ecosystems. This is an approach to food supply chain coordination that I've developed over the past two decades working in sustainable food systems.

We're essentially creating infrastructure and services that facilitate direct trade between local food enterprises. This includes a multifunctional food centre for all aspects of food - from production and consumption, to education and research. What makes the CFH unique is that we're also coordinating the movement of food according to circular economy principles. Our aim is to reduce the environmental impact of food and ensure it's distributed more equitably throughout the community.

How important is sustainability to the work you do?

It's fundamental. The food we offer is sustainably sourced and produced, and we also ensure our internal operations follow those same green principles. We re-use veg boxes and have a fleet of electric vans for collections and deliveries. We live and breathe sustainability and constantly strive to improve our efforts.

How does the work you do fit in with net zero objectives? Do you have any specific targets?

In itself, net zero does not hold so much value for me. I'm more interested in practical, real-world measures. Our goals at COFCO and CFH are linked to things like increasing the number of local businesses that we're working with, the volume of food that's being handled and the number of customers we can deliver to. To work out our actual reduction in food miles would be something of a full-time PhD research project - and how useful is that information really? We've always kept food miles to an absolute minimum, it's something we'd be hard pressed to improve upon.

Many companies are now striving to achieve net zero, but some of the changes they make are on the periphery - like cutting down their energy use or enabling remote working. It's far more impactful to address the core activity of a business itself because if it is linear and driven by capitalism, it is also likely built on the exploitation of resources and labour. I'm more interested in creating businesses that are intrinsically sustainable.

Is there anywhere you'd like to make further progress?

The big thing on my mind right now is our cold store. It's very energy intensive and runs 24/7 on hydrofluorocarbons (HFCs), which are potent greenhouse gases (GHGs). They can be hundreds or thousands of times more powerful than carbon dioxide. We're addressing this in the design of the food hub building, by trying an innovative cold storage solution that doesn't rely on HFCs.

Would you say your motivations for doing business have changed over the years?

I was barely 20 years old when I founded COFCO. In those days, I was much more motivated by money and had a bit more of a capitalist mindset. But through working with organic food, going to conferences, reading books and journals, and meeting lots of interesting people along the way, my outlook changed.

The more I educated myself about food systems, the more obvious it became that we need to move away from dominant economic systems. This led me to reinvent the business. The activity of doing this work is its own reward; I'm much more motivated by intrinsic values now.

What have been some of your proudest moments to date?

In 2015, COFCO won the Living Wage champion award for the East of England. We were one of the first food enterprises in the area to receive this type of recognition. I'm especially proud of that because it's indicative of everything else we do. Working with organic and sustainable food means working with very small margins. To not only have set up a viable and well-established business in a difficult industry, but to do so and be able to pay a good living wage to our staff has been a real achievement.

I was also proud of how we responded during the pandemic. Naturally, we benefited from being a home food delivery service - in fact, it was transformative. On the first day of lockdown we were inundated with new orders. We could have used the lockdown as an opportunity to profiteer, but it was more important to us to reach individuals at risk of food insecurity.

We made the decision to switch off our ordering system, while developing a new one that would give priority to those most in need, rather than those who reacted fastest. Our Community Angels programme involved collaborating with long standing customers who acted as a point of contact for vulnerable people in their community. They ensured our service reached those individuals first.

What's more, we didn't let anyone down who was already a customer of ours. We worked well into the night on a regular basis to ensure all orders were fulfilled. This led to a huge growth of about 80 or 90 percent in the space of a month. The peak was obviously in April 2020, but we're still delivering veg boxes to a similar number of people now.

Do you think some of that repeat business is to do with growing consumer demand for sustainable products and services?

People choosing our service for some sort of perceived social value isn't sustainable in the long run; businesses can only get so far on goodwill. We deliver real value to customers to engender that loyalty. Our product offering and service are good enough in their own right; the social value and what we're doing to improve the food system is the icing on the cake.

The work we're doing with food surplus redistribution is worthy and well intentioned. It's benefited a lot of people. But it's not addressing the root cause, and only works if we continue to have enough funding and volunteers. In some ways, I'm not keen for that approach to become institutionalised because it's reliant on there being surplus and wastage in the food industry. I'd prefer to be ensuring that wastage isn't occurring in the first place and that people on a low income are catered for within the system rather than existing outside of it.

What advice would you give to other organisations looking to make a positive environmental and social impact?

First, to understand that the linear, capitalist-driven economy is intrinsically, diametrically opposed to the principle of sustainability. The real innovation is in applying circular economy principles. It's also about understanding the value of money and what you actually need it to achieve. I'd love to see more businesses set up with that particular mindset.

Second is to create value for all of your stakeholders. Can your business deliver value to its owners, staff, customers, suppliers, buyers, the environment and society in equal measure? Most conventional businesses will exploit at least one of those stakeholders for the benefit of the others, and more often than not, it is the environment that suffers.

There is still a little bit of a capitalist principle in that because the owner of the business ought to be able to benefit from it. But the idea is that if the other stakeholders benefit greatly, then so does the owner. The key difference is that it is sustainable profit, rather than profit derived from exploitation. Profit derived from exploitation is, by definition, unsustainable.

This means embracing a win-win mentality instead of the win-lose one we're used to. It's important for humanity to recognise what is actually valuable and what isn't. It shouldn't be that one stakeholder has to suffer for that particular enterprise to flourish. Of course, this principle of equitable benefit to all stakeholders is a difficult thing to actually achieve. But if SMEs and innovators can start thinking in that way, and build their businesses accordingly, that is transformative work.



BRIGHTON ENERGY COOPERATIVE



BRIGHTON ENERGY COOPERATIVE (BEC) IS A TRAILBLAZER IN THE COMMUNITY RENEWABLE ENERGY MOVEMENT IN THE UK.

Founded in 2010, BEC now has 700 members and 80 arrays (multiple solar panels wired together) at 40 sites in the Sussex area.

Money raised from selling BEC's electricity flows back into the co-op; it's then distributed in the form of their community fund, interest to members and paying back capital. Host sites, often SMEs, benefit from the cheap electricity that the solar PV panels provide.

We spoke to co-founder Damian Tow about why he made the leap from corporate to the sustainability sector, and the challenges he's faced along the way.



BRIGHTON ENERGY COOPERATIVE

How important is sustainability to you on a personal level? Did you carve your role based on your own beliefs and motivations?

Yes, I did. I'd worked in IT project management for big corporations like BT for 15 years. While this was rewarding both on a financial level, and career-wise too, it was not particularly aligned with my personal values.

In 2008, I decided to do a master's degree in Leadership for Sustainable Development through Forum for the Future. Jump forward to 2010, my co-founder Will and I set up BEC to put our personal values into action. We're essentially a fund that invests in solar photovoltaic (PV) technology.

When we first set up, our aim was to create an entity that would allow people with lower incomes to put solar PV on their rooftops. For those who lived in housing where this wasn't possible, we wanted to offer the opportunity to invest in and benefit from renewable energy.

What is BEC's commitment to sustainability and achieving net zero?

We definitely take a triple bottom line approach. We have to be a viable financial business, but equally, our whole purpose is to support decarbonisation.

As a small business, there are questions about our supply chain, but pretty much everything we do relates to sustainability. It's our raison d'être.

We don't actually think that much in terms of net zero; for us, it's a new label for the same targets. We're focused on building as much community-owned, renewable energy in the Sussex area as possible. BEC's growth enables other businesses to get closer to their net zero ambitions.

We also have a social side where we invest at least two percent of our turnover into local community projects. Our focus at the moment is environmental education in schools in Brighton and Hove. We've supplied PV solar panels to 13 local schools and have also introduced them to the national energy education charity Energy Sparks. Operationally, this helps them to drive down their carbon emissions and fuel bills, but it also helps engage young students to reduce their carbon footprints at school and at home.

How does your company define its sustainability targets?

They are pretty simple: we have decarbonisation and growth targets, and we review our KPIs each financial year. Many of our targets are around maintaining the output of our existing arrays. We've got 3.6 megawatts - that's about £3.5 million of assets we need to maintain in order to pay back our investors and hit our decarbonisation targets.

We've also got the target of installing at least 1 megawatt (around £800,000 of solar PV) per year, up to at least 2030.

Have you faced any challenges along the way?

On our public sector and school projects, we've had to get the permission of the landlord, which in these cases is Brighton & Hove City Council.

It took a number of years to convince the council to work with us. Following a big procurement exercise, BEC and a number of other local energy organisations were chosen to install solar PVs on schools. Between us, we've partnered with 20 schools in total so far.

We've come a long way. Two years ago, we could save a school roughly 3p per kWh. Now it could be as much as 15p. The energy they get from our panels can save them so much more compared to what they get from the national grid.

A further challenge is that, as a small business, keeping track and maintaining all of our assets is incredibly difficult. It's basic economies of scale.

Moving forward, we plan to prioritise fewer, larger projects to mitigate this.

You also mentioned some supply chain issues. Could you elaborate on this?

The bulk of the solar power industry comes from China, and most of the manufacturers there operate with some level of unethical labour.

We don't like that we are contributing to that industry, however, at the same time, we don't have other options. You have to do a cost benefit exercise, and our financial model only works with Chinese-manufactured solar panels. This is a reality for many industries.

What have been the main learnings for your company?

Where do I start! The first thing that comes to mind is resilience. To begin with, Will and I weren't getting paid for the work we were doing on BEC - we were trying to get the project off the ground alongside our bread and butter jobs. Those first couple of years are the test for any fledgling startup.

Secondly, we are a social enterprise, but we are, first and foremost, a business. Your financials have to add up in terms of more income than costs. If you can't get that right, effectively you're not going to be sustainable in the long run. We have to operate as commercially as anyone else in terms of professionalism, negotiating with suppliers and so on.

Finally, make sure authenticity and transparency run alongside everything you do. We've now got 700 members, and while most are passive investors, we still communicate any issues or challenges we're facing with them.

And any proud moments?

Most recently, we've launched a grant scheme for SMEs in the Coast to Capital area, as part of funding from the European Regional Development Fund (ERDF). That took two years, many hours and dozens of pages. I'd recommend to any startup, to begin with smaller scale funds - learn the language, terminology, and documentation you need in place - and scale up.

A bit like a career, the accumulation of previous achievements enables you to have the confidence and the track record to build your next round of success.

Beyond the obvious, have you faced any unexpected surprises this year?


Fortunately, our business was not heavily impacted by COVID-19. We've had some unexpected issues with our solar arrays, which are much more fragile than we previously expected - things like pigeons nesting beneath the panels! We'd not budgeted the cost of fixing these issues from the outset, and we've since employed someone part-time just to keep track of all our maintenance issues. That's something we've learnt the hard way - the more your business grows, or the more assets you have, the more issues that accumulate.

What is the number one learning you've experienced and would want to pass on to other SMEs hoping to achieve net zero?

Have patience. Sustainability is a long game that will outlast our lifetimes. And perhaps it's a bit philosophical - but remember to enjoy your life. Purpose-driven people have a tendency to burn out.

There's this persistent, old-fashioned view that if you work in sustainability, you're in some way less professional or commercial. But there's no reason why it has to be this way, because in the future, all businesses will have to be sustainable.

At the end of my career, I want to be known for living by my values and being authentic.



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