

Signal, changing behaviours to motivate captains to make fuel-saving decisions

As part of our quick founder questions series - or QFQs - we spoke to Michael Fanning, CEO of Signal, about sustainability, human-centric tech and embracing setbacks.

Human behaviour has played a central role in creating the current climate crisis, and at *Signal*, we believe that behaviour change is a fundamental part of the solution. We need to motivate effective action today, but the reality is that the majority of effort in hard-to-abate B2B industries goes into reporting and recording CO2 emissions, or long-term strategic solutions that will take years, if not decades to manifest, with less focus on actions which can reduce emissions almost immediately.

All these initiatives are certainly critical, but net zero goals require urgent action, too, so we developed a solution which supports professionals in these industries to make decisions everyday which can have an immediate, tangible and quantifiable impact

Tell me about the business – what it is,

what it aims to achieve, who you work with, how you reach customers and so on?

We're a sustainability startup focused on behaviour change, currently working with shipping companies and airlines to support their crew members to make a positive impact towards net zero through their everyday decisions.

Ultimately, our goal goes well beyond these two industries; we believe our approach can help professionals in a whole number of different sectors make the most of their specific opportunities to contribute towards positive environmental change.

We are headquartered in London with employees around the UK, Europe and beyond. This includes industry experts who came to Signal from careers in aviation and maritime, so we have organically built a strong network and presence in both sectors. In addition to the usual marketing activities, our visibility – at events and through participation in industry initiatives – help attract forward-thinking customers who are exploring new ways to improve efficiency and sustainability.

How has the business evolved since its launch?

Signal was founded in 2017 on the back of academic research completed with Virgin Atlantic Airlines. In that research, the behaviour change techniques designed to motivate pilots to make fuel-saving decisions were deployed in physical letters to Virgin pilots, and all data analysis was manual!

Today our behaviour change techniques are delivered seamlessly and digitally – through emails and our web app. We have also developed a really sophisticated data ingestion pipeline that allows us to personalise our behaviour change techniques at scale.

And it is not just the technology that has matured. Signal continues to conduct scientifically rigorous research into how various behaviour change techniques affect different user groups – all with the ultimate goal of hyper-personalising the Signal user experience.

We have also evolved commercially. Signal was originally conceived as an aviation-focused service, but the entire aviation industry shut down during COVID, so Signal took the opportunity to pivot into the maritime industry.

Today we work with clients in both aviation and maritime and are actively exploring other use cases

Tell us about the working culture at Signal

Our culture is underpinned by a commitment to a growth mindset and creating an environment of psychological safety. A growth mindset is about a deep desire to learn: learn from mistakes, and from others and push your own boundaries. Psychological safety is about creating an environment where people feel free and empowered to speak up, where it is recognised that mistakes happen and that how we respond when they do is what matters.

How are you funded?

Our cap table is a combination of accelerators (eg Elemental Excelsior and Boeing's Horizon X), angel investors, VCs (eg East Alpha, Forge Ventures) and CVCs (eg Innoport, Stolt CVC).

We are in the lucky position to have a very engaged board and investor group that believe in our purpose. As a consequence, we receive a lot of support, whether it be introductions to potential customers and investors or advice and steer to navigate the challenges that a startup like Signal faces. At the same time, we are afforded the space and autonomy to drive the company forward.

And we are going to add to the investor group when we close our ongoing £2.5M raise, which is really exciting.

Why did you decide to focus on 'human-centric' tech to achieve sustainability goals, rather than continuing to work on optimising logistics?

Optimisation essentially involves efficient planning, and as Mike Tyson famously said, "Everyone has a plan until they get punched in the mouth". This feels particularly relevant for the context that our users – ship and airline crew members – are operating in. Our users are getting punched in the mouth (metaphorically) all day, every day, by changing sea conditions, mechanical issues, delays, threats of terrorist attacks and so on; the list is endless!

Don't get me wrong: it is critical to have a plan, and every opportunity to optimise should be taken, but we felt it was important to support decision-makers operating in a challenging, at times unpredictable context.

By focusing on the human factor, Signol's product offers a deeper solution to challenges like fuel efficiency and decarbonisation by creating long-lasting habits and behaviours among key decision-makers. We're able to positively reinforce excellent decision-making, quantify the positive impact users are having and set relevant but achievable goals, all presented in an engaging way.

What enabled you to take the right steps towards running an impact-focused startup?

I'd already launched and ran an internal venture at Shell – where I worked for 15 years – called Shell Mobility Systems. Starting any new venture is a risk and so you have to really believe in the mission and potential to make an impact – that's the push to take the risk.

When it came to Signol, I'd already built up knowledge and experience at Shell Mobility Systems, running a fast growing, innovative, technology-led business. At that point in my career, I decided I wanted to dedicate my time to something which put my personal values into practice, and so this motivation, combined with my relevant experience enabled me to take the leap to run a sustainability startup.

What's in store for the future?

In the short term, we are focused on implementing a number of proof-of-concept projects (POCs) across aviation and maritime and subsequently converting these into long-term commercial relationships. We have also been exploring additional use cases for our behavioural intervention product and are already looking to execute a POC in the corporate travel space where we see real potential for both impact and commercial traction.

Finally, we are moving forward with work on AI-enabled feedback loops that allow us to deploy behaviour change techniques in unique ways for each user, based on their specific needs and behaviour patterns. We see a huge opportunity in AI-enabled personalisation – the heterogeneous deployment of these techniques – which is really the cutting edge of behavioural science.

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

Embrace setbacks as challenges to overcome.

And finally, a more personal question! What's your daily routine and the rules you're living by at the moment?

I have three small kids so my daily routine is defined by them! The only rule I have the energy for is to maximise the time I spend with my wife and kids!

Michael Fanning is the CEO of [Signal](#).

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