

Real-time data across the mobility ecosystem, meet VivaCity

As part of our quick founder questions series – or QFQs – we spoke to Mark Nicholson, CEO and cofounder of VivaCity about developing traffic monitoring sensors to improve road safety, traffic flow and create a more sustainable future for mobility.

Temps de lecture : minute

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I met my cofounders while working on a university project where we designed, built, and raced a solar-powered car. It was an amazing experience - even if we did crash the car! But it was the shared combined passion for technology and sustainable transport that initially brought us together which served as the catalyst for the founding of VivaCity.

Our mission is to harness the most advanced AI-powered technology to help cities overcome their biggest transport challenges: Road Safety, Sustainability and Network Optimisation.

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 technology company and have developed traffic monitoring sensors that help cities solve their biggest transport problems.

With so much recent change to transport (pandemic habits, e-scooters,

and automated vehicles, to name a few), traditional transport technology is not able to provide cities with the data they need to make the optimal data-driven decisions. We use computer vision technology and machine based learning. This means that VivaCity sensors can capture anonymous data on pedestrians, cyclists and e-scooters, as well as a range of different motorised vehicles, to provide a comprehensive picture of the full spectrum of road users on the network today. This holistic approach to data is essential for achieving Vision Zero and Net Zero goals.

VivaCity customers have access to a wide range of transport insights. These include movement paths, speeds, turning behaviours, near miss incidents, traffic flow and more. Equipped with these insights, transport professionals can make powerful data-driven decisions, monitor and optimise transport schemes and control junctions.

Alongside the sensor hardware is an intuitive cloud-based dashboard. The dashboard has in-built tools to aid analysis, and offers API data downloads for authorities to use integrated into their in-house systems.

Privacy-by-design is central to our vision and design philosophy. Our technology meets the highest data protection standards, and our sensors do not, and will never, collect personal data ensuring data privacy legislation compliance.

How has the business evolved since its launch?

VivaCity was born in December 2015. As with many startups, in the early days we were building sensors in our bedrooms. Today we have an HQ in East London, manufacturing facilities in Milton Keynes, and an international workforce that surpasses 120. The VivaCity network is over 3,500 sensors strong and has counted over 28 billion road users, with sensors deployed across the UK, and growing markets in Australia and

North America. It's been an amazing journey so far and we're looking forward to what the next chapter brings.

Tell us about the working culture at VivaCity

We love taking on the hardest challenges the industry has to offer, and proving that collaboration and communication wins, every time. Our key values include a 'challenge accepted' mentality. We know that taking risks means that sometimes things fail, and that's ok. But driven by curiosity, ingenuity, persistence, and expertise, we step into the unknown to find a solution. When someone says 'That's impossible', we say 'Challenge Accepted!'.

As a company, VivaCity is welcoming, approachable and friendly, and we work in a mutually supportive way, where our default question is 'how can I help?'. We show compassion and kindness to ourselves and others, building strong relationships and celebrating successes.

How are you funded?

Thanks to a mix of different types of investors, we've raised nearly £15M over the past few years. Our latest funding was led by sustainable infrastructure VC investor EnBW New Ventures (ENV), sustainability-led alternative assets and SME investment manager Foresight Group and Gresham House Ventures, the growth equity arm of specialist alternative asset manager.

What has been your biggest challenge so far and how have you overcome this?

We are aware that we're challenging the status quo with our tech. The transport sector is a very established market that is used to working with

certain types of technology - much of which is rapidly becoming outdated. The prospect of adopting innovative technology, like AI and computer vision, can be seen as taking a risk, and that's understandable because it is something new and much more powerful than what the industry is used to. To overcome this, we are rigorous with our internal and external validation methods in order to achieve impressive proof points that show the value-add of using computer vision and AI technology over traditional methods.

How does VivaCity answer an unmet need?

VivaCity is plugging the gap in transport insights, by providing highly accurate, real-time data on the whole spectrum of transport modes. Our solution has been optimised for long-term data collection and prides its data accuracy, independently validated at 97% by TfL.

What's in store for the future?

Earlier this year we launched into the North America market. We recently celebrated our first sensor deployment in New York City. It's early days, but we're already seeing great potential for our technology to support the key challenges facing the United States and Canada and are looking forward to further exploring these opportunities.

We are also continuing to develop our Smart Junctions product. Smart Junctions' sensors gather real-time data and optimise signal control at junctions using machine learning algorithms, aiming to reduce congestion and make junctions safer for active travel users.

It's always been important for us to understand the big picture, and we mustn't forget that transport networks are literally connected. Part of our vision is to unlock the most extensive and secure network of smart traffic monitoring sensors in the UK. Removing data boundaries between

customers will allow analysis of nationally representative datasets in order to share lessons learned on macro and micro behaviours much faster. Leveraging big data in a trustworthy and transparent manner will help us collectively fill knowledge gaps and result in the most cost effective use of public spending.

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

Dive in - but know when to ask for help. There is no better way to learn than to just bite the bullet and do it yourself, whether that's you starting the business, deciding that you need to scale the sales operation, or raising money. If you haven't done those things before, make sure you find people to give you insights once you're on the journey, and listen to them so that you can keep course-correcting, but the only way to make progress is to cross the starting line!

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

For me, the most important cadence is weekly, rather than daily. Taking an hour at the beginning of the week to step back and plan, and ask myself "what am I not going to do this week", really helps me to prioritise and focus. Then it's all about making sure that I have some days which are back-to-back with meetings, so that there are other days with large chunks of focus time, where I can invest in the company's future, rather than the day-to-day.

Outside of work, I always have to have some kind of craft project on the go, mixed up with some sport, both of which really help my brain to unwind - I often have my biggest realisations about work strategy while

I'm doing something else.

Mark Nicholson is the CEO and cofounder of VivaCity

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