

Meet Trilvee, the startup that can deliver the optimised vehicle for every trip

As part of our quick fire questions series – or QFQs – we spoke to Michael Mangion, CEO of Trilvee about right-sizing vehicles, moving from A to B cleaner, faster, and cheaper and building a shared participation model.

What was the catalyst for launching Trilvee?

There was no one catalyst but rather several combining that created the original spark of the idea over a decade ago. We were living in Dundee and the only way for my wife to get to work in Edinburgh was to drive 50 miles each way alone in a 4 seater car. At the time I read David MacKay's manuscript "Sustainable Energy without the hot air" that made me realise that electrifying transportation wasn't enough – we needed to reduce the energy consumed per passenger kilometre because most of the energy used to get my wife to work and back was wasted on moving the car, not her. The idea of right-sizing our vehicles was born, but it was clear that this needed to be run as an on demand service for it to ever displace one-size-fits-all cars. And unfortunately the technology wasn't there at the time. Although autonomous delivery was always the holy grail, I believe that it's still at least a decade away, but just over two

years ago I realised that we could bridge the gap by using teleoperation so I started building a founding team to do just that.

Tell me about the business – what it is, what it aims to achieve, who you work with, how you reach customers and so on?

Trilvee is developing a platform to enable customers to move from A to B cleaner, faster, and cheaper. This will be achieved by allowing customers to hail on demand, the right vehicle for each trip which is then delivered to them 'driverless' using teleoperation. For most urban trips, the right vehicle is a 1-2 seat lightweight EV that can get through traffic and uses much less energy than a regular car, but when a customer does need a full-size car or even van then that is what is delivered. In this way we can maximise the versatility of the service while optimising for speed, efficiency, and comfort.

Apart from the founding team, we collaborate with a wide network of partners that has allowed us to make rapid progress without spending huge sums of money. We also work closely with local and combined authorities to help them solve the considerable mobility challenges that they have in their areas.

Our first customers will be local authorities and businesses as that's a good way to get lots of vehicles on the road quickly. Because the vehicles are so visible and novel, our research indicates that we can achieve significant initial consumer growth from this presence. We also have evidence that our service and vehicles are so much fun that we can achieve strong further organic growth through referrals.

How has the business evolved since its launch? When was this?

The business as a company is really quite young, being little over a year old and is still broadly what we set out for it to be. However we iterated the concept quite significantly over the last couple of years and even more so (at an intellectual level) over the last decade. In fact, what *Trilvee* is doing now is actually the first step in a much broader, grander vision that starts by tackling urban mobility but eventually has designs on dealing with extra urban, intercity, and even rural mobility.

Tell us about the working culture at Trilvee

Trilvee is trying to build a company where each individual lives at the heart of the team and where everyone has a voice. We take extra time to listen to all points of view and delegate decision making to the person best suited to make each decision. Extending this collaborative culture beyond the company, we are building what we call a shared participation model whereby we provide a mechanism for external parties to work with us on value they can provide and participate in the success of the company.

How are you funded?

We raised a pre-seed angel round that was a mix of friends and family and some new angels that were introduced to us by [*Chris Lowe at NOTWICS*](#). We're now raising a Seed round to go from proof of concept to market entry early next year and we're again working with Chris to build and close this round. We expect to start making revenue as early as Q1 next year, though we'll remain investor supported for a round or two more after that as we scale the business.

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

Clearly the technical challenges are considerable but we now have what we believe to be a clear pathway to solving any major remaining issues or at least working around them. Because we're operating in a regulated space which is safety critical, regulatory alignment and proving out consumer demand is even more important from an investor perspective and something that we plan to focus on next.

How does Trilvee answer an unmet need?

While people love the comfort, utility, and safety afforded by cars, most people recognise that they have become completely ill-suited for the urban environments where they live, mostly parked up wasting even more roadspace (and money in most cities). The congestion means that driving around in a car is literally slower than walking on a horse would be - the very means of transport that cars evolved to replace. And the environmental impact is ever

present and certainly not solved by EVs, which still mostly use electricity sourced from carbon producing power plants. Unfortunately the alternatives to car ownership for personal transport are either ride hailing which is expensive and still suffers from traffic and energy waste, or micro mobility scooters/ebikes which are not safe or versatile enough to be a replacement for cars for many trips.

Trilvee takes the best elements of cars (safety, comfort) and ebikes (efficiency and speed through traffic) and combines them into a versatile service that always delivers the optimised vehicle for every trip – a 2-seater that can use bus lanes on the way to the shops, and a car or small van to fit your purchases on the way back.

What's in store for the future?

Our primary goal is to get to market as that's the only way to actually start making a positive impact. The next few years will therefore be focused on planting that seed in an initial launch city and then growing that into a profitable service. Once that happens we'll start to develop and nurture some of our more futuristic and radical ideas in the vision, which could really change the way we look at moving around.

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

Firstly, if you're not driven by a mission then you're going to struggle to stick with it through the hardest of times. No sane person puts up with the amount of punishment it takes to go from zero to one for some future promise of a payback that may or may not come. The only thing that motivates when it's tough going is the dream of making a difference. Building a company is an extreme sport – you oscillate between terror and euphoria, sometimes multiple times per day, and if you can't handle the swings and anxiety and ambiguity, then it's just not for you.

But, having a vision, surrounding yourself with and inspiring an incredible team, and doing whatever it takes to make it happen is a fantastic experience and a constant journey of growth and creativity and something that will probably end up being the most rewarding aspect of your life.

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

Any routine can be difficult to keep up in an early stage startup, so I'd recommend to keep it light and just make a few key things non negotiable. Firstly, looking after yourself and your family. For me, this revolves around riding my bike and reading. Your family are essentially your earliest 'co-founders' and 'investors' and it's easy to completely forget about them in the race to make your baby succeed, but it doesn't take much to give a lot and it's important to do so, no matter how understanding they are. The one other thing that I highly recommend is to always plan the next day before you switch off. Find a time that always works and then set out what you want to achieve and carve up your time appropriately to achieve it. Starting the day prepared means that you hit the ground running which sets the tone for the rest of the day, leading to more productivity and generally a better mental state.

Michael Mangion is CEO of *Trilvee*.

Article by MICHAEL MANGION