This Smart Tech Can Hear What Appliances You Left On

Last week, I did a crowdfunding call with Nick O'Connor. It went well; we covered a bunch of fascinating firms, which are currently raising money.

One of these was Verv, which is currently raising on Crowdcube. This firm was a clear outlier – with a far higher valuation than the others we looked at. I felt I wasn't getting the full picture – so I reached out to the firm for more detail. I'm glad I did, as what I discovered was fascinating.

Verv deserves a "deep dive", because *Exponential Investor* loves a bit of new **energy** tech.

Simply put, Verv's technology works rather like a trick from old cowboy films: putting an ear to the rail tracks, to listen for oncoming trains. Each train gives a specific sound, meaning you can understand what's happening on the railway.

Using a very similar approach, Verv "listens" for appliances in your home – by analysing electrical waves in your power supply. Each appliance makes a distinctive electrical noise – meaning that Verv can tell if you've left the iron on.

It's a smart technology – with obvious benefits. That's why it has attracted some serious interest from major players in the energy market. Right now, Verv's crowdfunding round gives you the opportunity to back the firm, and its smart technology.

Now, it's over to CEO Peter Davies, to explain why you should invest.

AL: What inspired you to start the company?

PD: After university, I founded Austin Consultants – a specialist software consultancy that uses a graphical programming language called LabVIEW to automate and test large systems, primarily in the engineering and automotive industries.

During this time, I took on an energy consultancy project. This is when I realised just how backwards the energy industry was. At the time, a sample speed of once every 30 minutes was being considered innovative. Now, Verv samples data at hundreds of thousands of times per second. At this point, I could see the opportunity to transform the industry.

I started out with a commercial offering in the hospitality area, helping restaurants and hotels to hit their sustainability targets. However, I soon realised that there was an opportunity to tackle energy at its very core – by targeting each individual home and democratising data for consumers, to generate positive social impact.

AL: I remember seeing your tech a few years ago, before you rebranded.

PD: Green Running used to be an energy consulting company before winning a large project with SSE and Scottish Power Networks. On completion of that project, the firm took seed investment to turn their IP into a consumer product, now called Verv.

AL: What exactly does Verv now do?

PD: The firm is a London-based team of machine learning experts specialising in high-frequency disaggregation and artificial intelligence for the energy sector.

We've created a home energy assistant that will notify you if an appliance is inefficient or deteriorating; if you've left something on; and how much each appliance is costing you to run.

Our product is installed without the need for smart plugs, or an electrician. Verv sits next to your electricity or smart meter, and uses artificial intelligence to make all your appliances smart.

AL: I know you've got some other very interesting technology. Can you tell me more about that?

PD: We have also developed a blockchain-based peer-to-peer energy trading solution for our home energy assistant. This will allow people with renewable energy and battery storage to share excess with their neighbours, who may not have it. The aim is to improve access to low carbon electricity, and optimise energy prices. We do this by using our AI technology, to anticipate the supply and demand of energy – much like the forex market.

AL: On the video, I spotted you had a big team. How big, exactly?

PD: Having started as a "2 man band" (myself and one machine learning guy) in an office under a railway bridge, we are now a

team of 27 full-time staff. We're based in Monument – and growing quickly!

AL: Where are you crowdfunding, and how much are you looking to raise?

PD: We are crowdfunding on Crowdcube – with a target of raising £500k.

AL: As I suspected, you're raising a much larger round, so why crowdfund part of it?

PD: Our company's motto is "democratisation of data", and our initial investment partner is a social impact fund. We're very consumer-driven, and we want a percentage of the company to genuinely be owned by the crowd and the consumer.

AL: Can you explain how far along you are, as a firm?

PD: It is our Series A. The crowdfund is a small part of that, combined with VC and corporate venture. Centrica are our biggest investor owning 32% on a full diluted basis.

AL: Finally, can you tell us a bit about your traction?

PD: We have sold over 1,200 units to date – to the like of British Gas, EDF, Allianz and UK Power Networks, to name a few.

Are you inspired to invest? Let us know – **andrew@southbankresearch.com**.

Best,

Andrew Lockley
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