

Case Study:

A Greener Nottingham

4energy

Over recent decades, almost all-industrial electrical and electronic equipment has become more complex with increasing functionality - from computers through to telecommunications equipment. This has often led to vastly increased energy usage.

The extra energy used to power these improvements has meant that most equipment, experiences higher and higher temperatures than they have in the past. This affects reliability and service life, and creates a need for cooling, which is in itself 'energy hungry'.

4energy aims to provide this necessary cooling for equipment through the application of passive, environmentally friendly innovative engineering techniques.

Starting my science based business

4energy was founded by Dr Stuart Redshaw, a post doctorate in thermo dynamics from the School of the Built Environment at The University of Nottingham and Pat Tindale, a Chartered Accountant, with a finance degree from Nottingham Trent University.

Funding was provided initially by the founders of 4energy and a Department for Business, Enterprise and Regulatory Reform (formerly Department for Trade and Industry) Grant for Research and Development managed by East Midlands Development Agency, then through raising equity via Catapult Venture Managers and the East Midlands Venture Capital Fund, and finally through strong customer sales.

Benefits of being based in Nottingham

4energy has recruited extensively from local regional universities. This has to date and will almost certainly in the future, continue to provide some of 4energy's core science skills.



Pat Tindale said: "Nottingham has been a great place to start our business...we've recruited almost exclusively from regional universities, had help in the form of grant aid from emda, secured equity funding from the East Midlands Venture Capital fund and had the added benefit of being located in the middle of our UK customer base."

Achievements so far

Within two years of starting trading, 4energy has supplied over half the UK power industry with innovative cooling solutions. Hundreds of 4energy devices are situated on network critical applications in the power, telecommunication and transport industries helping improve equipment reliability and reducing harmful CO2 emissions.

Plans for the future

4energy plans to keep developing cooling solutions for new industrial applications and increasing the penetration of already developed technologies. With Nottingham Science City helping to improve the supply of technical skills from local universities, colleges and schools, 4energy's developments will continue to be driven to success from a local base.