Solar powered computers for Africa

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A business which is based at the University of Nottingham Innovation Park (UNIP) has developed a unique solar-powered computing solution which is being used by students in Africa.

Sustainable Computers was founded by Tony Winfield, a former Head of ICT and Business at a local secondary school, who recognised that one of the issues holding back the use of ICT in developing countries was the availability and cost of electricity.

Uses direct and stored renewable energy

Working with manufacturers, Solar Ready Ltd., Tony came up with the idea of combining his background in education and healthcare with an ICT solution which could be run off solar power. The technology developed by Solar Ready operates completely "off-grid", using direct and stored power from renewable energy sources.

Some of these systems are already benefitting students in South Africa and Ghana where they are being used as self-contained classrooms. Speaking about the benefits of the solar-powered system, Tony said: "The solution we've developed is ideal for schools and other organisations that have unreliable or no access to mains electricity. However, it can also be used with mains supplies, providing savings of up to 70% on electricity costs.

"Each component in the system is designed to maximise efficiency. The power is distributed directly to each computer and screen, doing away

with the need for wasteful power inverters, enabling the solar-powered systems to operate in both daylight and dark hours."

Innovation Park base enables links with academics

The move to UNIP is enabling Sustainable Computers to make new links with university academics and other businesses which are based at the Innovation Park. The company is currently working on a number of collaborative international research projects with academics at the University of Nottingham and industry.

One project which is being developed with The University of Nottingham and the Institute of Physics is for a system which will be used in Ethiopia for five teacher training centres which will help to teach Physics to pupils in the country. They are planning to extend the project to include Chemistry, Biology and Mathematics.

"Being based at the University of Nottingham Innovation Park has been really beneficial to the business," added Tony. "I have made links with lots of academics and other staff who are helping me to find new opportunities for the technology."

Thriving in a dynamic and innovative environment

Bob Scott, Director of the University of Nottingham Innovation Park (UNIP), added: "It's great to see that Sustainable Computers is developing and growing at UNIP. There are lots of entrepreneurs based here who find the dynamic environment and the access to academic expertise and talented students invaluable as a means of sparking new ideas, thinking and working more innovatively."

More information: www.sustainablecomputers.co.uk/