

The Lancaster Environment Centre

Innovation, training and research for a sustainable future

A trickle charge for your home



Benefits achieved

- **New venture's business risk reduced by preparation of a business plan and estimation of the potential market size.**

The problem

Local inventor and electrician Ian Gilmartin, had re-designed the water wheel for the 21st century, to provide renewable inexpensive electricity direct to homes from even tiny streams. However, much of Ian's effort had been directed at perfecting and protecting the unique design, which allows energy to be recovered from water heads of 0.2 to 2 meters. As a result Ian lacked a business plan that clearly identified the potential for the technology and he had yet to put in place a simple low cost means of obtaining Environment Agency approval to install future machines.

The solution

Using run-off, gradient and water flow data the Enterprise and Business Partnerships Team of the Lancaster Environment Centre researched possible sites where Ian's water wheels could be

located within the UK. This provided an estimate of the potential market size for the device. Additionally, an environmental impact assessment was provided on a recycled plastic casing, which predicted minimal potential problems.

Building on the marketing research undertaken, a 10 week project by 4 MBA students was established to develop a written business plan. This has been integral in pulling Ian's and his co-developers ideas together and providing cash-flow and profit and loss forecasts, together with a break-even analysis, for other potential backers to help refine.

More recently an MSc project has been established within Lancaster University's Geography Department, to provide an automated means of analysing 1 in 10,000 scale electronic maps. This will initially identify the postcodes of properties adjacent to streams or rivers without impediments to laying a cable between the two and can be applied nationwide. The project will provide a basis for initial marketing and further estimating potential market sizes to further strengthen the business plan.

"The support that Lancaster Environment Centre provided was invaluable for developing a business plan for my business and providing a means to quickly identify and contact potential customers. Without it we would not have made such good progress towards launching this company."

Ian Gilmartin - Managing Director, Beck Mickle Hydro Ltd..

For further information on how Lancaster Environment Centre could help your business please telephone us on 01524 510204 or email lec@lancs.ac.uk