



RUSHLIGHT

Eventure Media presents

AWARDS
2009

YEAR BOOK

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technical authoring
by technical people

AIR QUALITY HEALTH **carbon capture** journal **clarity⁺** technical authoring **Cleantech** magazine **ClimateChangeCorp** .com **CONTAMINATED LAND** REMEDY **FUEL**

FUEL CELL MARKETS www.fuelcellmarkets.com **green^otv** **IET** IET Renewable Power Generation **THE INTERNATIONAL JOURNAL OF HYDROPOWER & DAMS** **LowCarbonEconomy.com** Let's make it happen!

ModernPowerSystems **new energy finance** **NOISE** POLLUTION **Pollution Solutions Magazine** **Resource Recovery Forum**



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Introduction by Clive Hall at Eventure Media



Welcome to the Rushlight Awards 2009 Book. This book provides a source of reference covering the leading cleantech organizations throughout UK and Ireland. It has been collated from information provided by the entrants to the Rushlight Awards 2009 which were celebrated at a Gala Dinner in London on 28 January 2010 (visit www.rushlightawards.co.uk for further details). This followed the inaugural Rushlight Clean Technologies Show which was well supported by the Carbon Trust, the Energy Technologies Institute, EPSRC, the Technology Strategy Board, UK Trade & Investment, Isle of Man DTI, Withers & Rogers, Orion Innovations, PWC, and Abchurch Communications.

We were delighted that the Rushlight Awards were accredited by the RSA in 2009, just 2 years after their launch. This places the awards as one of the leading environmental events in the UK and it also means that the Rushlight Awards are a feeder scheme for the European Business Awards for the Environment. Winners of the group categories are automatically eligible to be considered to represent the UK at the EBAE.

The successful entrants from the 2008 awards have done well in the last 12 months. Examples include Novacem, the overall winner last year, who have attracted funding from Imperial innovations, NESTA and the Royal Society Enterprise Fund and Intelligent Power who have raised significant funds and expanded their investor base.

As was to be expected, the state of the economy and the challenges facing cleantech companies meant that the number of entries fell slightly from last year's record total, but the drop was simply back to the same level as the first year. There were nevertheless some outstanding entries again this year.



I would like to thank the judges, all recognized experts in their respective fields, for carrying out their task most diligently.

One of the unique attributes of these awards is that the judges are independent of both Eventure Media and also all the sponsors and headline partners. This adds much to the credibility of these awards. This year, on the judging panels we had representatives from the Technology Strategy Board, the Renewables Advisory Board, Environment Agency, DECC, Chatham House, WRAP, the Advisory Committee on Carbon Abatement Technologies, NESTA, the Carbon Trust, the Renewable Fuels Agency, the Energy Saving Trust and WWF International.

The partners play a very important role in what has developed as a strong and supportive Rushlight community. In view of the breadth of the categories and the level of interest in the sector, there are no fewer than 15 specialist media partners and over 60 supporting partners, made up of government departments, agencies, trade associations and other networks.

The Gala Dinner proceedings were once again filmed by Green TV and their short film can be viewed on their website, www.green.tv

It is only through the support of all our partners and sponsors that we have managed to create the Rushlight community which is designed to provide support and profile to the leading clean technologies in the UK and Ireland. We recognize the challenges that cleantech developers face and we are extending our events to provide more support. Details of specific new events will be published in our new Rushlight Read and on our website, www.rushlightevents.com.

Finally, thanks again to Clarity Authoring for compiling this book.

Supporting Partners



With special thanks to...

CARBON TRUST
 CHARTERED INSTITUTION OF WASTES MANAGEMENT
 NATIONAL ENDOWMENT FOR SCIENCE, TECHNOLOGY & THE ARTS
 PARLIAMENTARY RENEWABLE & SUSTAINABLE ENERGY GROUP
 TECHNOLOGY STRATEGY BOARD



Judges

DEREK ALLEN
Emerging Energy Technologies, Technology Strategy Board

GREG ARCHER
MD, Low Carbon Vehicle Partnership, Director of Cenex and on the board of the Renewable Fuels Agency

ALISON BARTLE
Editor, International Journal on Hydropower & Dams

MARGARET BATES
Manager, SITA Centre for Sustainable Wastes Management, University of Northampton

TIM BOLDERO
Chair of the Society for the Environment, Vice President Environment for IWO

JON BUSBY
Team Leader, Clean Coal & Renewables, British Geological Survey

PROF CHRIS COGGINS
Visiting Prof, University of Southampton School of Civil Engineering & Environment, Research Managing Agent for the DEFRA Waste Research Programme, EPSRC Sustainable Urban Environment (Waste) Programme

PROF PAUL EKINS
Prof of Energy & Environment Policy, UCL Energy Institute, University College London, former Member of the Royal Commission on Environmental Pollution, co-founder of Forum for the Future

PROF DAVID ELLIOTT
Prof of Technology Policy and co-Director of the Energy & Environment Research Unit, The Open University

TIM EVANS
Independent Consultant, Technical Secretary Foundation for Water Research, Chairman of the Wastewater Management Panel CIWEM

PROF BERNARD FISHER
Environmental Policy Centre for Risk and Forecasting, Environment Agency, Chair of the Institute of Air Quality Management, Council Member of the Institution of Environmental Sciences

RAY GEORGESON
Associate Director, Corporate Culture, former Policy Director, WRAP

JON GIBBINS
Senior Lecturer, Energy, Technology for Sustainable Development Group, Imperial College London

SIR BEN GILL
Executive Director, HawkHills Consultancy Ltd, ex-President NFU and former Chairman of the Biomass Task Force

PROF MAGGIE GILL
Chief Scientific Adviser to SEERAD, Prof of Integrated Land Use, University of Aberdeen

MALCOLM GRIMSTON
Associate Fellow, Chatham House and Senior Research Fellow Energy Policy and Management Group, Imperial College

JULIA HAILES
Author New Green Consumer Guide, co-founder of Sustainability Ltd (www.juliahales.com)

JIM HALLIDAY
Head of Energy Research Unit, (STFC) Rutherford Appleton Laboratory

PROF STUART HASZELDINE
Prof of Sedimentary Geology, University of Edinburgh

DAVID HOWARD
Director of the Sustainable Energy Centre, Centre for Ecology and Hydrology

ALEX HOOK
Investment Director, NESTA

KEITH JAMES
Environmental Policy Manager, WRAP

DAVID LLOYD OWEN
MD, Envisager Ltd, author of 5 books on water markets and management and adviser to a number of investment funds, eg 3i and Pictet

JOHN LOUGHHEAD
Director, UKERC, Deputy President of the JET, Assessor for the BERR Technology Programme

PROF GORDON MACKERRON
Director, University of Sussex Energy Group, Chair of the Committee on Radioactive Waste Management and former Chair of the Energy Panel DTI/OST Technology Foresight Programme

CHRIS MALINS
Renewable Fuels Agency Communications Officer

STEVE MALKIN
CEO Planet Positive

LASZLO MATHE
Bioenergy Officer, WWF International

GRAHAM MEEKS
CEO, Combined Heating & Power Association

ALAN MOORE
Co-Chair, Renewables Advisory Board, ex-Chair British Wind Energy Association, ex-MD National Wind Power

PHILIP MULLIGAN
Chief Executive, Environment Protection UK

CHRIS MURPHY
Deputy Chief Executive, CIWM

PROF JOHN PATRICK
Senior Research Fellow, University of Nottingham, Principal Editor Fuel

DAVE RAVAL
Head of the Carbon Trust Incubation Scheme

PROF DERMOT RODDY
Director of the SWAN Institute, Newcastle University

PHIL SHEPPARD
Head of Clean Energy, PERA

STEPHEN DE SOUZA
Head of Renewable Energy Incentives Unit, DECC

JOHN STEWART
Chairman, UK Noise Association

CAROL TURLEY
Team Leader UKERC Energy & Environmental theme, member of the EPSRC Science Advisory Committee for Joint Research Council Energy Programme, based at Plymouth Marine Laboratory

JOHN WHITTAL
Sustainability Technologies, Technology Strategy Board

PROF DAVID WILLIAMS
Chief Executive, BHA, Visiting Prof Royal Academy of Engineering

FRASER WINTERBOTTOM
COO, Energy Saving Trust



Entrants

Organisation	Air Products
Contact	Diana Raine, Hydrogen Energy Systems Sales Manager www.airproducts.co.uk
Description of activities	Air Products serves customers in industrial, energy, technology and healthcare markets worldwide with a unique portfolio of atmospheric gases, process and specialty gases, performance materials, and equipment and services. Founded in 1940, Air Products has built leading positions in key growth markets such as semiconductor materials, refinery hydrogen, home healthcare services, natural gas liquefaction, and advanced coatings and adhesives. The company is recognized for its innovative culture, operational excellence and commitment to safety and the environment.
Turnover, number of employees or balance sheet net assets if applicable	In fiscal 2009, Air Products had revenues of \$8.3 billion, operations in over 40 countries, and 18,900 employees around the globe.
Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable	Interested in participation in projects for hydrogen energy.
Summary of entry from Entry Form	Air Products' Series 100 fuelling stations are already shaping tomorrow's hydrogen economy. Our fuelling stations, developed to support the global automotive industry in its research and transition into hydrogen fuelling, fuel cars, motorbikes, vans and fork lift trucks, safely, everyday across the world. We have developed stations so that they are fully integrated vehicle fuelling systems, designed specifically with test and demonstration programmes in mind. They are safe, low cost, flexible, easy to install and to use, which is what makes them so successful: we are the supplier to the largest number of hydrogen fuelling stations in the UK and in the world. For more information visit:

All information included in this section has been provided by the individual Entrants.



Organisation	Aquabio
Contact	Steve Goodwin, MD www.aquabio.co.uk
Description of activities	Aquabio Limited specialise in the design, installation and process support of wastewater and water treatment and reuse plants.
Turnover, number of employees or balance sheet net assets if applicable	Turnover 2008/9: £4.18 Million. Employees: 12.
Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable	Growth of overseas/export markets through licensees/agents for Aquabio technologies. Tertiary (bio)filtration for nitrogen and phosphorous removal. Further development of low energy wastewater recycling processes. Biogas recovery from high strength organic wastewater streams (partner: Voith, Germany).
Summary of entry from Entry Form	Aquabio has designed and installed an innovative low energy bioreactor (AMBR LE) and reverse osmosis (RO) wastewater reuse system for Kanes Foods Limited, Evesham, Worcestershire, UK. The new plant is designed to treat 1400 m ³ /day of raw trade wastewater from the food production (salads, sauces, bean sprouts, coleslaw etc.) to river discharge standards through the low energy AMBE LE Process. 60% of this treated water is then treated further to an exceptionally high standard through an RO and UV disinfection system to give potable standard water which is blended with the mains supply and reused back in the food production processes.



Organisation	Aquamarine Power
Contact	Martin McAdam, CEO www.aquamarinepower.com
Description of activities	Aquamarine Power is the owner and developer of Oyster®, the world's first grid connected near shore wave energy converter. Aquamarine's mission is to make marine renewable energy mainstream. To achieve this, the company is delivering world class innovation in the engineering of Oyster®; whilst also creating a new market for its flagship product with the development of an innovative route-to-market strategy. Aquamarine Power is building a programme of joint venture wave farm site development activities, which will create 'pull-through sales: for Oyster®, creating a new global industry and opening the door for marine energy to become a major contributor to the global renewable energy mix.
Turnover, number of employees or balance sheet net assets if applicable	Aquamarine Power has a core team of 38 staff.
Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable	Aquamarine Power is seeking JV partners and equity of up to £40 Million to deliver the next generation Oyster® and develop commercial wave farm sites. Aquamarine Power completed a first close of £10 Million and is now looking to raise an additional tranche of £10 Million.
Summary of entry from Entry Form	Oyster®, the world's first grid connected near shore wave energy converter harnesses the abundant natural energy found in near shore waves and converts it into sustainable zero-emission electricity. Oyster® is a simple mechanical hinged flap connected to the seabed at around 10 m depth. Each passing wave moves the flap, driving hydraulic pistons to deliver high pressure water via a pipeline to an onshore electrical turbine. Multiple Oyster® devices are designed to be deployed in utility-scale wave farms typically of 100 MW or more. Oyster® will combine high efficiency and survivability with low cost operations, maintenance and manufacture to produce reliable cost-competitive electricity from the waves for the first time.



<p>Organisation</p>	<p>Archtechnik</p>
<p>Contact</p>	<p>Simon Peacock www.archtechnik.co.uk</p>
<p>Description of activities Architectural engineering company, specialising in the design, manufacture and installation of ThermConX thermal break connections & ThermConX thermal break bolt on balcony systems.</p>	
<p>Turnover, number of employees or balance sheet net assets if applicable Approx 12 employees.</p>	
<p>Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable The continued marketing of ThermConX within the UK and then to begin exporting ThermConX to other countries, firstly within Europe, and then further afield such as North America & Australasia.</p>	
<p>Summary of entry from Entry Form Our entry form highlights the innovation that is ThermConX. ThermConX are thermal break connections that are able to completely stop the loss of heat from buildings caused by cold bridging. Stopping cold bridging is a very important factor in reducing the massive amounts of energy wasted within buildings. What makes ThermConX unique and different from other makes of thermal break connection currently on the market is that they are the only thermal break connections to contain no continuous metal to metal contact through the connection, making them completely inert, whilst still retaining the full structural integrity and load bearing capacity of the connection.</p>	



Organisation	BiogenGreenfinch
Contact	Anita Smith, Marketing Manager www.biogengreenfinch.co.uk
Description of activities	BiogenGreenfinch is a specialist anaerobic digestion company that designs, builds, owns and operates AD plants in the UK.
Turnover, number of employees or balance sheet net assets if applicable	BiogenGreenfinch employs 44 people based in Shropshire and Bedfordshire. Financial information is not disclosed.
Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable	For future business development we are actively seeking providers of project funding. We are also interested in speaking to landowners about potential sites for AD facilities and to local authorities and commercial organizations regarding food waste.
Summary of entry from Entry Form	BiogenGreenfinch designs, builds, owns and operates anaerobic digestion plants and is responsible for 12 AD plants in the UK. The company's current focus is AD plants for food waste and it operates 3 such plants: the BioCycle facility in Ludlow, the Twinwoods plant in Bedfordshire and our most recently commissioned Westwood plant in Northamptonshire. Our expertise is based upon more than 30 years proven experience in the AD industry and a strong farming heritage. The company has now developed and deployed at scale, anaerobic digestion technology making this superb environmental solution available today to all producers of food waste.



<p>Organisation</p>	<p>Breathing Buildings</p>
<p>Contact</p>	<p>Shaun D Fitzgerald www.breathingbuildings.com</p>
<p>Description of activities Low energy ventilation in buildings: design and equipment.</p>	
<p>Turnover, number of employees or balance sheet net assets if applicable Number of employees 10.</p>	
<p>Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable Shareholders and investors are: BP, MMC Ventures. Other strategic shareholders: University of Cambridge, MIT.</p>	
<p>Summary of entry from Entry Form Breathing Building's innovation is a new natural ventilation system developed from a patent filed by Cambridge University to exploit heat gains in a building in winter to temper the incoming fresh. It involves bringing fresh air into a room at high level and mixing it with sufficient interior air prior to it reaching occupants, rather than passing the incoming fresh air over a pre-heater. The mixing process can be purely natural with air flowing in and out through a stack or can be assisted with two very low energy mixing fans, and can halve the heating bills in a building.</p>	



<p>Organisation</p>	<p>Brigade Electronics</p>
<p>Contact</p>	<p>Emily Randall www.reverseinsafety.co.uk</p>
<p>Description of activities Market leader of reversing safety and all round visibility products for commercial vehicles.</p>	
<p>Turnover, number of employees or balance sheet net assets if applicable £ 8.3 Million turnover. 50 employees.</p>	
<p>Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable With the introduction of electric vehicles, many people have found it difficult to hear their approach. Brigade is looking to provide forward motion white sound alarms. These do not create a noise nuisance, are endorsed by the Noise Abatement Society and only sound in the danger area. They are the safest and most environmentally friendly on the market.</p>	
<p>Summary of entry from Entry Form Brigade's revolutionary 'white sound' reversing alarms (bbs-tek) eliminate noise complaints from residents. The unique "ssh ssh" sound is softer on the ear and less irritating than the shrill "beep beep" of conventional, tonal alarms. The broad band frequency dissipates quickly, so that the sound is contained only in the danger area, making it less of a noise nuisance to neighbours and workers, preventing the need to remove or disable alarms. This technology has assisted in vehicles making quiet night time deliveries and is PIEK/NAS certified. White sound reversing alarms are also directional and therefore locatable making them the safest on the market.</p>	



Organisation	Bright Ideas Global
Contact	Jeff Gunn jeff@eco-button.com www.brightideasglobal.com
Description of activities Established in 2006, Bright Ideas Global Limited (BIG) has gained a solid reputation for designing, marketing and selling innovative products, which includes the multi award-winning power saving device for computers, - the ecobutton™.	
Turnover, number of employees or balance sheet net assets if applicable N/A	
Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable We are continuously developing new variants and services to build upon the ecobutton™ brand that we are creating. Further, we are also concentrating on the final development of a whole suite of business solutions software which will benefit use on network situations where savings from many computers may be monitored and collated.	
Summary of entry from Entry Form The ecobutton™ is a unique power-saving device for computers developed to make it easy for users to activate the most efficient, economical standby mode available at any time their computer is to be left running idle. Benefits include instantaneous reactivation and an 'on-screen' monitor showing savings in both power cost and CO ₂ . These accumulating savings proactively encourage eco awareness and self-satisfaction that every small click actually adds up to make a BIG difference. The ecobutton™ is a retro-fit device that is not reliant on people having to upgrade or buy new IT equipment to benefit. Typically, a PC switched on 8 hours a day engaging 'ecomode' for 4 hours could save around £50 in electricity cost per year and 135kg of CO ₂ . It can change people's behaviour as users will often also start to consider turning off lights and any other unnecessary electrical equipment that is aimlessly left running. In summary the ecobutton™ will: <ul style="list-style-type: none"> • Save Money, • Save Energy, • Reduce CO₂ and • Change Behaviour. 	



<p>Organisation</p>	<p>BuilderScrap</p>
<p>Contact</p>	<p>Edmund McGee www.builderscrap.com</p>
<p>Description of activities Builderscrap.com is a web-based trading exchange where builders and anyone involved in construction, demolition and renovation can exchange surplus or unwanted materials, thus diverting waste from landfill, saving the environment, and saving costs.</p>	
<p>Turnover, number of employees or balance sheet net assets if applicable Turnover £35,000, employees 4</p>	
<p>Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable Our team is working with WRAP, BRE, Environlink, Envirowise and CIC Construction Skills, and is recruiting strategic partners in industry, government and the third sector, to implement a network for construction materials reuse in every part of the UK, connecting builders to the local communities they serve.</p>	
<p>Summary of entry from Entry Form BuilderScrap® addresses three connected problems:</p> <ol style="list-style-type: none"> 1. the 100-plus million tons of construction waste sent to landfill each year, 2. the compliance cost of Site Waste Management Plans (SWMP), and 3. the cost pressures firms face trying to adopt green practices in a recession. <p>Our service works using the web and mobile phones in a way that makes sense to the average builder. Users benefit from reduced landfill costs, transport costs and materials costs. BuilderScrap® also builds links between builders and charities and community projects, which stimulates more innovative activity around waste reduction and positive reuse.</p>	



Organisation	Chalmor
Contact	Barrie Morris 01582 748700 www.chalmor.co.uk
Description of activities	Chalmor Limited specialise in long life energy efficient lighting products and intelligent controls for lighting, heating, ventilation and office equipment.
Turnover, number of employees or balance sheet net assets if applicable	-
Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable	
Summary of entry from Entry Form	<p>Patented dual sensor Thermostatic Radiator Valve (TRV) with full programmable time and temperature control. The eTRV is designed to specifically improve on and update current TRV technology while also finding solutions to the inherent problems commonly found with modern TRV's such as over/under heat.</p> <p>The resulting time and development produced a product that incorporates a motorized valve with high accuracy temperature control which enhanced comfort and saving energy. This is done by matching heating provision to the needs of each room/zone within a building. Each valve is supplied with its own handset which enables complete local control with intuitive use.</p>



<p>Organisation</p>	<p>CIRIA</p>
<p>Contact</p>	<p>Rajnika Patel www.ciria.org</p>
<p>Description of activities The SDSPUR Learning Network develops and disseminates good practice on the sustainable management of assets and decommissioning wastes arising from nuclear sites. It is an established Learning Network with a growing profile, embedded management systems and a core of committed steering group members. The SAFEGROUNDS Learning Network is a forum that develops, disseminated and promotes good practice guidance for the management of contaminated land on nuclear and defence sites. It is an established Learning Network with a growing profile, embedded management systems and a core of committed steering group members.</p>	
<p>Turnover, number of employees or balance sheet net assets if applicable N/A.</p>	
<p>Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable Construction</p>	
<p>Summary of entry from Entry Form SD: SPUR is about three aspects of decommissioning on nuclear sites, with a focus on nuclear-licensed sites. These aspects are:</p> <ul style="list-style-type: none"> • the management of low activity solid radioactive wastes • the management of solid non-radioactive wastes • the potential re-use of buildings, plant and equipment. <p>The SAFEGROUNDS Learning Network is a forum that develops, disseminated and promotes good practice guidance for the management of contaminated land on nuclear and defence sites. It is an established Learning Network with a growing profile, embedded management systems and a core of committed steering group members.</p>	



Organisation	Daikin Air Conditioning
Contact	Shivali Mathur www.daikin.co.uk
Description of activities Daikin Air Conditioning UK Ltd (on behalf of Daikin Europe NV) is a leading supplier of air conditioning, heating, refrigeration and ventilation products.	
Turnover, number of employees or balance sheet net assets if applicable Annual Turnover FY08 - £108 Million. 225 Employees.	
Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable N/A	
Summary of entry from Entry Form Daikin has more than 50 years' experience in the production of air source heat pump systems, manufacturing over a million units a year for residential & commercial applications. Our product innovations provide high energy efficiency solutions that minimize the impact on the environment and running costs. Daikin Altherma represents the culmination of Daikin's decades-long experience with heat pump technology. Daikin Altherma is a total domestic heating and hot water system based on air source heat pump technology. It represents a flexible and cost-effective alternative to a fossil fuel boiler. The inherent energy efficiency characteristics of Daikin Altherma make it an ideal solution to reduce energy consumption and CO ₂ emissions.	



Organisation	Energy Investment Group
Contact	Tim Peara tel 020 3170 8940 tim.peara@energyinvestgroup.com www.energyinvestgroup.com
Description of activities Energy Investment Group (EIG) is a technology-led developer of energy and environmental projects. Within EIG's portfolio of renewable, cleantech and petroleum technologies, Indigo Pearl Marine is a joint venture with the inventor of the Mer turbine and power-barge, providing a modular, scalable and completely renewable power source.	
Turnover, number of employees or balance sheet net assets if applicable The joint venture partners of Indigo Pearl (EIG and Mowat Technical & Design Services) have combined turnover of roughly £700k, 30 employees and £4m balance sheet.	
Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable We are most interested in attracting £1m in financing to complete the electronics and build a demonstration plant for the Mer turbine/power-barge. Once established, further, funds will be sought to install roughly 250MW in projects in the UK, Brazil and India.	
Summary of entry from Entry Form Indigo Pearl's Mer Turbine addresses the primary challenges to generating power from river currents and tidal flows (i.e., stream power), namely to build it robustly enough to withstand water's destructive forces while building it cheaply enough to be able to compete with the installed capital cost of wind power. Having tackled these issues while being kind to aqua flora and fauna, the Mer Turbine's much higher dispatch (~90% vs ~30% of hours for wind) and the much lower profile of a power barge compared to a massive windmill make it a clear winner.	



Organisation	EVO Electric
Contact	Alex Beaudet www.evo-electric.com
Description of activities	EVO Electric Limited ("EVO") develops advanced electric machines, drive systems and other integrated products based on patented Axial Flux technology, targeting a wide range of transportation and power applications. The Company was established in June 2007 as a spin-out from Imperial College London.
Turnover, number of employees or balance sheet net assets if applicable	13 employees, turnover less than £500k in 2009.
Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable	All of the above
Summary of entry from Entry Form	EVO has developed an innovative plug-in hybrid-electric powertrain concept for use in London black cabs, which is also applicable to a range of medium and heavy duty vehicles. The 'DuoDrive' powertrain is expected to double fuel economy and provide payback in less than two years. LTI, maker of the iconic London cab, has already agreed to start trials in the near future. Due to the high visibility of black cabs, we expect this to have a very significant impact on consumer awareness of plug-in hybrids.



<p>Organisation</p>	<p>Fostech</p>
<p>Contact</p>	<p>Dr William W Foster www.fostech.co.uk</p>
<p>Description of activities Provision of Voluflow settlement tanks for industry.</p>	
<p>Turnover, number of employees or balance sheet net assets if applicable Two employees.</p>	
<p>Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable We wish to license or sell our Voluflow technology in due course.</p>	
<p>Summary of entry from Entry Form VOLUFLOW SETTLEMENT TANK TECHNOLOGY This innovation from Fostech Limited , dubbed Voluflow, improves the gravity separation of solids from liquids by generating horizontal, cross-flow patterns throughout all cross-sections, replacing the upward flows that prevail in most conventional settlement tanks. In practice, upward flow tanks are prone to short-circuiting, turbulence, large-scale recirculation and surface intermixing, and are very sensitive to changing process conditions such as flowrate. Voluflow systems eliminate these adverse flow patterns and are very tolerant to changes in flowrate, particularly surges. Significant environmental and commercial benefits are already being achieved with Voluflow settlement tanks, both new-build and retrofit.</p>	



Organisation	Green Biologics
Contact	Samantha Jeskins www.greenbiologics.com
Description of activities	Green Biologics Limited is a technology Company specialising in renewable fuels and chemicals.
Turnover, number of employees or balance sheet net assets if applicable	25 employees.
Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable	Investors.
Summary of entry from Entry Form	<p>Green Biologics Limited (GBL) is an industrial biotechnology Company, based near Oxford. The Company delivers technical improvements in the butanol fermentation process and has transformed the process economics. Butanol is a major chemical product today and a "next generation" biofuel with many advantages over ethanol and biodiesel. Bio-butanol has the potential to replace a significant proportion of the existing biofuels market, which is estimated to be worth \$50bn in 2009, growing at 7.5% per annum, driven by regulation and the need for more sustainable and higher performance biofuels.</p> <p>GBL's advanced fermentation process accommodates a wide range of low cost and sustainable agricultural by-products and waste streams. In addition, GBL has improved the microbe and optimised the fermentation resulting in a faster, cleaner and more efficient process.</p>



<p>Organisation</p>	<p>Green Energy Options</p>
<p>Contact</p>	<p>James Rankin www.greenenergyoptions.co.uk</p>
<p>Description of activities Green Energy Options Limited design and manufacture energy monitoring systems.</p>	
<p>Turnover, number of employees or balance sheet net assets if applicable 28 employees.</p>	
<p>Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable Interested in: Value-add resellers, technology partners and alliances.</p>	
<p>Summary of entry from Entry Form GEO combines energy monitoring technology with compelling display designs to encourage the users of buildings to change their energy usage behaviour. Homes, schools, businesses can all be monitored - products from our wide range picked to suit the environment specified. GEO's key proposition behind its products is the idea of 'making energy visible'. By taking technical energy data and presenting it so it becomes relevant means we can influence behavioural change. We encourage collective behaviour. Families working together, children in schools learning together, members of staff competing against each other. All the small savings add up to make a real difference.</p>	



Organisation	Green Ocean Energy
Contact	Graeme Bell www.greenoceanenergy.com
Description of activities	Green Ocean Energy Limited is a marine renewable energy company.
Turnover, number of employees or balance sheet net assets if applicable	The company is pre-revenue and currently has 4 employees.
Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable	Areas of interest are: <ul style="list-style-type: none"> - Raising investment. - Developing our supply chain. - Meeting potential customers. - General networking with other technology companies.
Summary of entry from Entry Form	Green Ocean Energy has developed Wave Treader, a unique wave energy converter which attaches to the transition piece of an offshore wind turbine to harness the combined forces of wind and wave energy. It is a highly effective device which significantly boosts the yield and profitability of offshore wind farms and has the potential to dramatically assist with reaching renewable energy targets. Wave Treader utilizes the existing offshore wind farm infrastructure thereby reducing costs. It has a modular design and uses standard marine components, which ensures parts can be inter-changed easily.



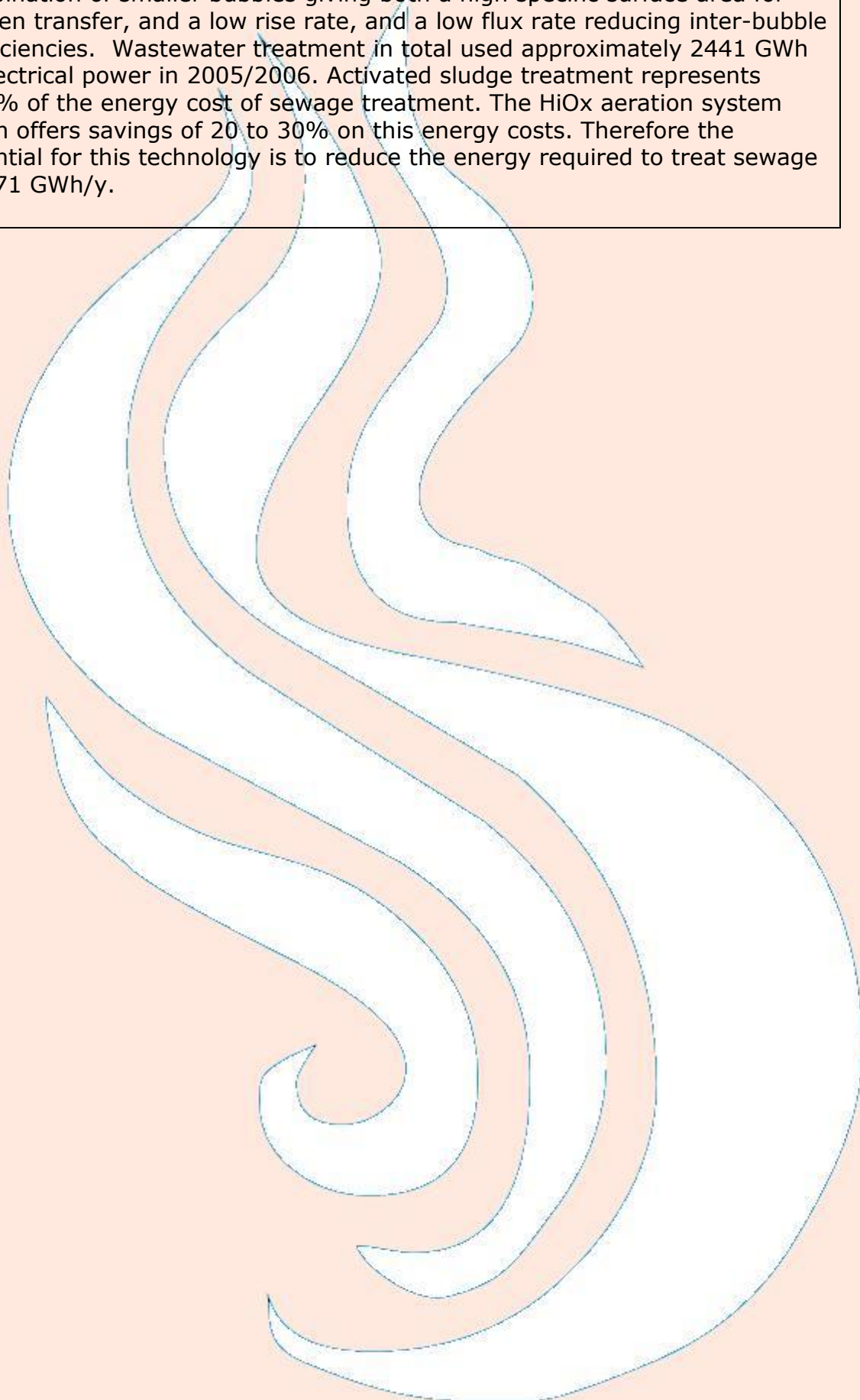
Organisation	Hoval
Contact	Ian Dagley www.hoval.co.uk
Description of activities	Hoval Limited is a manufacturer of heating products, including biomass boilers and biomass filters, ultra-efficient gas and oil condensing and non-condensing boilers, heat pumps, solar heating, space heating products for large spaces and adiabatic cooling. Specialists in integration of low and zero carbon heat sources to optimize performance.
Turnover, number of employees or balance sheet net assets if applicable	£16m, 110 employees
Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable	Not at this stage
Summary of entry from Entry Form	The Hoval CF Biomass Filter is an innovative new product designed to dramatically reduce particulate emissions from biomass boilers. While this does not directly reduce CO2 emissions, it enables low carbon biomass technologies to be used in projects where biomass might not be acceptable because of air quality concerns. Crucially, the Hoval CF Biomass Filter can be used with any make of biomass boiler, and can be retrofitted to reduce particulate emissions from existing installations as well as being suitable for use in new installations.



Organisation	Hydro International
Contact	Keith Hutchings www.hydro-international.biz
Description of activities Hydro International offers innovative products for the cost effective control and treatment of stormwater and wastewater. The Group has developed a range of technologies to control urban run off, treat stormwater, combined sewage overflows and municipal wastewater with the aim of providing cost-effective solutions for controlling quantity and improving quality of water. Through the application of advanced vortex and complementary technologies Hydro International's line of products provide an economical solution to control the quantity and improve the quality of water.	
Turnover, number of employees or balance sheet net assets if applicable Hydro International plc 2008 T/O = £30,000,000 Hydro International plc No. employees 2008 = 133	
Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable International Business Development is one of Hydro's key business objectives and we are always looking to take the know-how and products that we have developed in response to core market demands, and apply that expertise and those products into new international territories. Our International Business Development activity currently focuses on building business by expanding our network of distributors and licensees. Strategic partnerships with third parties help us supplement our in-house R&D and Innovation team skills, and provide crucial independent verification and validation for our products. This involves us working with world-renowned universities and institutions on a wide range of different projects. Our aim is to supplement organic revenue and earnings growth from our core businesses by making appropriate business (or technology) acquisitions. We maintain a list of potential target companies operating within our sector that could fit with our business model. Building important relationships and maintaining a dialogue with good quality companies is an important part of our acquisition strategy.	

**Summary of entry from Entry Form**

The HiOx aeration diffuser offers a step change in aeration efficiency by a combination of smaller bubbles giving both a high specific surface area for oxygen transfer, and a low rise rate, and a low flux rate reducing inter-bubble inefficiencies. Wastewater treatment in total used approximately 2441 GWh of electrical power in 2005/2006. Activated sludge treatment represents 55.6% of the energy cost of sewage treatment. The HiOx aeration system which offers savings of 20 to 30% on this energy costs. Therefore the potential for this technology is to reduce the energy required to treat sewage by 271 GWh/y.





<p>Organisation</p>	<p>Intelligent Energy</p>
<p>Contact</p>	<p>James Kennedy www.intelligent-energy.com</p>
<p>Description of activities Intelligent Energy is a clean power systems company, with a range of leading fuel cell and hydrogen generation technologies. The company provides cleaner power systems for integration in to our business partners' products, in the transportation, aerospace and defence, distributed generation and portable consumer power markets. Intelligent Energy has facilities in Loughborough (HQ) and in Long Beach, California, with an office in London and representation in Japan and the emerging markets.</p>	
<p>Turnover, number of employees or balance sheet net assets if applicable 130 employees worldwide</p>	
<p>Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable Intelligent Energy's partners and customers include Boeing, for whom we developed the fuel cell system that powered the world's first manned fuel cell powered aircraft and PSA Peugeot Citroën, with whom the company has developed a fuel cell electric delivery vehicle. We have a joint development agreement with The Suzuki Motor Corporation, for whom we provided the motive fuel cell systems for the prototype hydrogen fuel cell motorcycle, the Suzuki Crosscage, and scooter, the Suzuki Burgman Fuel Cell Scooter. Intelligent Energy has also formed a joint venture with Scottish and Southern Energy, to develop fuel cell CHP systems for the light commercial and residential sectors.</p>	
<p>Summary of entry from Entry Form Intelligent Energy's world leading fuel cell power systems are being applied to the iconic London Black Cab. The fuel cell hybrid London TX4 taxis will run quietly and efficiently, with zero polluting exhaust and much reduced emissions. Helping to combat climate change and improving London's air quality. The taxis will have a range of 250 miles, unaltered passenger capacity, a top speed of 75 mph and take minutes to refuel. The first of the vehicles will be on the test track in January 2010, with a road legal version due in June and a small fleet in London the target for 2012.</p>	



<p>Organisation</p>	<p>Jayhawk International</p>
<p>Contact</p>	<p>Eric R Hawkins www.jayhawk-int.com</p>
<p>Description of activities. The design, development and manufacture of high quality solar thermal collectors, selling into the global market to those companies in a position to handle country wide distribution. Jayhawk International Limited's business model is to provide to those companies in all parts of the world including China with our 16 years of experience in system design and range packaged systems that services both the domestic and commercial market.</p>	
<p>Turnover, number of employees or balance sheet net assets if applicable. Jayhawk itself employs 2 people in UK and one in China, as the majority of our business is the facilitating of the supply between our factory in China to buyer in what ever country we have sign an agreement with. We then educate those people in that company in the workings or the system and installation method.</p>	
<p>Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable. Our number one need in this growing industry is finance to service our component purchasing needs in China being prepared for assembly prior to delivery. Investors who have openings into new markets like commercial hot water and cooling needs, not just as an investor waiting for the business to be sold to see a return. Partners and an Alliance with a major UK brand with national sales in the UK, would secure our business as we engineered with AGA/Rayburn which failed to take off because of the banking crises and recession.</p>	
<p>Summary of entry from Entry Form Solar hot water heating that covers space heating, cooling and commercial needs is now a well proven and cost effective technology that directly reduces this countries gas and oil imports. Solar power as in electricity we are developing only as a stand alone 12 volt lighting package for new build for when this country faces power cuts, so at least lights are working and the pump to run the gas/oil boiler and solar hot water system The People of the UK need to be educated about doing this for themselves and not waiting for the government and Utilities to make that decision for them as its not in there interest to do so.</p>	



Organisation	Knauf Insulation
Contact	James Edwards www.knaufinsulation.co.uk
Description of activities	Leading manufacturer of glass and rock mineral wool, extruded polystyrene (XPS) and extruded polyethylene (XPE) insulation in the UK.
Turnover, number of employees or balance sheet net assets if applicable	N/A
Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable	Expanding awareness of mineral wool with ECOSE [®] Technology as a new, bio-based, formaldehyde-free binder technology to highlight the extensive work that has been done to reduce the environmental impact of the mineral wool to even lower levels. Mineral wool already has amongst the lowest life cycle environmental impacts of any insulation material and with the introduction of ECOSE Technology it has now been reduced further. Aiding the Government in making possible the low carbon refurbishment of existing buildings which are classed as 'Hard to Treat' i.e. solid wall properties and others not suitable for cavity wall insulation. Increasing supply to sectors such as the self-build and public sectors where more natural and sustainable materials may become increasingly important.
Summary of entry from Entry Form	Mineral wool with ECOSE Technology was a five year, international research project to develop mineral wool insulation, which would be more sustainable. Pushing insulation to a new level of sustainability, ECOSE Technology delivers a revolutionary new binder technology for mineral wool that is made from rapidly renewable, bio-based materials; eliminating petro based chemicals, formaldehyde and phenols. With the research phase completed, the project is now in an advanced commercialisation phase. With ECOSE Technology suitable to a range of other products such as wood particle boards, the research continues to further support the development of sustainable building materials.



<p>Organisation</p>	<p>Mitsubishi Electric Living Environmental Systems</p>
<p>Contact</p>	<p>Sharon Oliver www.mitsubishi-aircon.co.uk</p>
<p>Description of activities Manufacture, sales and marketing of the PWFY water heater.</p>	
<p>Turnover, number of employees or balance sheet net assets if applicable 250 employees.</p>	
<p>Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable Mitsubishi Electric manufacturers advanced equipment to provide heating, cooling and ventilation for our built environment. The company has also now moved into the power generation sector with a range of photovoltaic solar panels. In 2010, Mitsubishi Electric launched a range of heating-only equipment using advanced heat pump technology to make renewable heating available in all buildings.</p>	
<p>Summary of entry from Entry Form Mitsubishi Electric's PWFY Heat Pump Boiler uses heat recovered from a VRF air conditioning system to completely replace a building's traditional commercial boiler and supply all the hot water needed. Live trials show that the PWFY system costs less than a quarter of the running costs and produces less than a quarter of the CO₂ emissions than the previous water heating system and about half as much in both running costs and emissions as a modern gas condensing boiler coupled with a split system air conditioner. The PWFY unit offers building owners the chance to heat water virtually for free.</p>	



Organisation	Nexeon
Contact	Scott Brown www.nexeon.co.uk
Description of activities	<p>Nexeon Limited is a battery materials and licensing company developing silicon anodes for the next generation of lithium-ion battery. Nexeon's unique silicon anode material unlocks the potential of silicon to deliver increased battery capacity without compromising lithium-ion cycle life, providing lighter batteries with more power and longer lifetime between charges. Nexeon has filed patents on silicon materials and their use in lithium-ion batteries. Nexeon has developed a number of proprietary processes and equipment for producing silicon anode materials and for making electrodes. The benefits of Nexeon's technology include increased cell capacity, lower cost to manufacture, minimal disruption to the existing battery manufacturing process, and improved battery safety margins.</p>
Turnover, number of employees or balance sheet net assets if applicable	SME – 25 employees – privately owned.
Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable	<p>Nexeon is already sampling materials to battery OEMs with a view to licensing its technology but would be interested in working with other companies to demonstrate the capabilities and benefits of high capacity lithium batteries in various consumer electronics and automotive applications.</p>
Summary of entry from Entry Form	<p>Nexeon has developed new anode technology for lithium-ion batteries that will improve the performance of consumer electronics and have a very significant impact on 'Green' applications such as energy storage and electric vehicles.</p> <p>Energy density improvements being sought in batteries for energy storage and low carbon vehicles require a fundamental change in battery design. Silicon has approximately ten times more energy capacity per gram than the incumbent graphite anode technology and the novel structured silicon materials recently developed by Nexeon have demonstrated that the poor lifetime typically associated with silicon in batteries can be overcome whilst achieving very high power densities.</p>



Organisation	PassivSystems
Contact	Karen Dodd www.passivsystems.com
Description of activities	PassivSystems Limited specialise in the research, design, development, production and supply of an innovative energy management system for the residential market that utilizes the concept of Adaptive Occupancy Control and smart switching of electrical loads in conjunction with carbon or peak tariffs.
Turnover, number of employees or balance sheet net assets if applicable	In the calendar year 2009, during its VC backed development phase, Passiv will turn over £393k with 30 employees. The turnover is forecast to rise to £10.3m by the end of 2010.
Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable	Passiv would like to hear from Housing Associations with whom we wish to work to define and satisfy the special energy management needs of the social housing sector.
Summary of entry from Entry Form	PassivSystems believe that only by providing a display controller and an "intelligent" hub at the heart of the home, can users best control their energy consumption to reduce cost, carbon footprint and increase comfort. In an increasingly complex mix of tariffs, energy sources and appliances, manual control will be inadequate. Passiv is building the first standards-based hub that connects multiple sensors, appliances and actuators to optimise energy usage on the user's behalf. The hub employs adaptive capabilities to learn building and occupant behaviour to optimise home energy usage locally and also for suppliers in conjunction with tariff signals.



<p>Organisation</p>	<p>Performance Improvements</p>
<p>Contact</p>	<p>Mike Guinee Energy Specialist</p> <p>www.pi-e2.com</p>
<p>Description of activities PI Energy & Emissions Ltd is a part of Performance Improvements (PI) was founded in 1997 and has become a leading multi-disciplined engineering consultancy and engineering solutions provider within the international oil and gas industry. Our primary focus is to provide operating realism into the front end design of new oil and gas projects and help existing production and processing facilities achieve and sustain operational excellence. The company provides multi-discipline engineering expertise to help maximise the uptime, efficiency and performance of existing installations.</p>	
<p>Turnover, number of employees or balance sheet net assets if applicable Performance Improvements Ltd has over 100 employees based in UK and the Netherlands. Annual turnover is in excess of £15million.</p>	
<p>Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable Performance Improvements Ltd is owned by AMEC, which provides consultancy, engineering and project management services to the world's energy, power and process industries.</p>	
<p>Summary of entry from Entry Form Energy Tracker is a unique energy performance monitoring tool for production facilities in the upstream oil and gas industry. Configurable modules predict the potential energy performance of major plant items in prevailing facility conditions and enable accurate modelling of the achievable energy requirement. Taking real time data from existing data information systems, it compares the actual energy consumption with the performance the plant is capable of achieving and it reports the savings potential in dollars, GHG and energy units. Replicating Energy Tracker's performance in initial installations throughout the industry could yield \$2bn fuel savings and 25 million tonnes of CO₂ emissions.</p>	



Organisation	Point of Sport
Contact	Peter Mallon www.pointofsport.com
Description of activities	Point of Sport Limited are involved in the development of sports products for grass-roots sports that are made from recycled plastic.
Turnover, number of employees or balance sheet net assets if applicable	New business
Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable	<p>Point of Sport has formed a partnership with Mental Health Care North East. This is part of an ongoing relationship to develop our social aims towards the community. Point of Sport products are specifically designed to help grass-root sport in the community and this alliance with Mental Health Care North East has been created to build a company, that is able to employ mentally handicapped people in a valuable role to manufacture our sports products.</p> <p>Our company aim is to find and develop new products using PIM Technology. We currently have two new products under development.</p>
Summary of entry from Entry Form	The PIM process technology (Powder Impression Molding) uses a variety of mixed plastic waste materials and converts this into an Added Value Product, which in itself can be recycled, thus diverting plastic waste from landfill and incineration.



Organisation	RHK Innovations
Contact	Roger Kennedy
Description of activities	RHK Innovations Limited (RHKi) is focused on emission control technology in the automotive sector and is currently bringing its patent protected front-end emission device to the market and is looking to license the technology to major OEMs and global component companies.
Turnover, number of employees or balance sheet net assets if applicable	N/A
Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable	RHKi are interested in exploring commercial opportunities with a range of potential partners to ensure that the technology gets to market as quickly and as broadly as this innovation deserves. In essence we are looking for automotive partners, OEM's, Aftermarket and System Integrators with an interest in new technology that can improve fuel economy, lower emissions, increase power and torque.
Summary of entry from Entry Form	RHKi has developed a state-of-the-art front end emission control and fuel saving technology for single point and multipoint gasoline internal combustion engines. Statistically proven to reduce oxides of nitrogen, carbon dioxide and fuel consumption across the European DriveCycle, this technology can be easily incorporated into existing systems as original equipment or be retrofitted. The device works by improving the homogeneity of the fuel and air mixture utilizing swirling technology, which has been shown to provide a more efficient burn and therefore lower toxic emissions from the exhaust.



Organisation	RockTron
Contact	Peter Crofts www.rktron.com
Description of activities RockTron Limited's unique technology is designed to recycle 100% of both fresh AND stockpiled coal-fired power station waste - fly ash, transforming it into valuable, eco-minerals on an industrial scale. www.rktron.com .	
Turnover, number of employees or balance sheet net assets if applicable Employees: 59.	
Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable RockTron is currently supplying the cement / concrete, plastics & rubber industries. In addition, they are seeking new partners and investors to build plants in Europe, Russia, Asia and the USA.	
Summary of entry from Entry Form RockTron is a world leader in innovative fly ash recycling technology – the waste produced by coal-fired power stations. Over 2 Billion tonnes of this fly ash waste is dumped in landfills and other sites around the world, with over 100 million tonnes in the UK alone. It is made up of valuable industrial minerals, which we literally throw away. If only there was a way they could be recycled...RockTron's technology does just that! Its new UK plant at Fiddler's Ferry, near Widnes is now online, transforming 800,000 tonnes p.a. of fly ash into valuable eco-minerals on an industrial scale. This new technology means that for the first time the world's 2 billion tonnes of stockpiled fly ash waste, including the 100 million tonnes of fly ash that exists in landfill in the UK alone; can now be recycled. Thereby enabling significant CO ₂ emissions reduction, site remediation, and conservation of natural resources.	

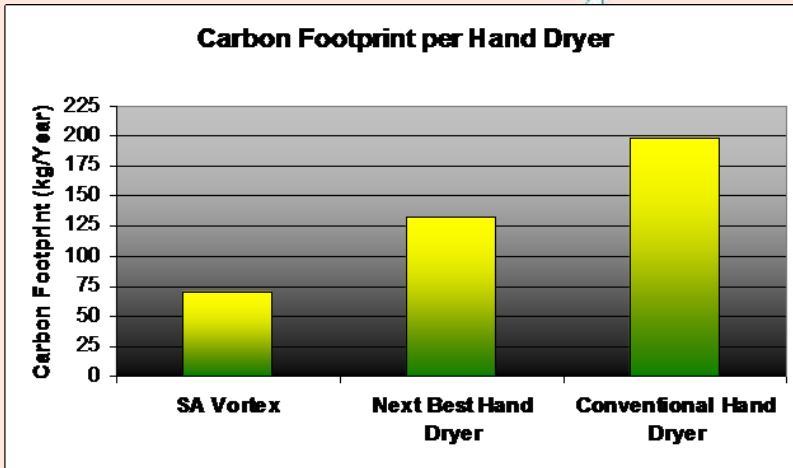


Organisation	SAVortex
Contact	Sharon Baverstock 01256 761937 / 07710 206723 sharon@spreadthewordpr.co.uk www.savortex.com
<p>Description of activities</p> <p>SAVortex Limited has launched the World's greenest, quietest and fastest hand dryer. The Vortex Hand Dryer. Its patent protected spinning air hand dryer uses no heating elements and dries hands in 10 seconds.</p> <p>The ultra energy efficient Vortex Hand Dryer is a British invention which is set to revolutionise the hand drying industry. It enables the technique of heating air efficiently, using the principles of thermodynamics to reduce energy consumption. SAVortex dryers use a proprietary digital brushless technology, compressing and spinning air to produce heat. This removes the need for unreliable, uneconomical and environmentally unfriendly heating elements; delivering long life, industry beating power drying at 10 seconds drying time and excellent hygiene - and all at a massively reduced energy consumption of sub 1kW (only 950 watts) with dramatically lowered maintenance costs.</p> <p>The regenerative heating technique uses minimum energy by recovering and reusing heat that's used whilst drying i.e. saving money as well as reducing the impact on the environment and producing the industry's lowest heat emissions. Not only will this reduce electricity costs, increasing overall carbon efficiency, the Vortex is the lowest carbon footprint dryer in its class. The Vortex Hand Dryer is unique in that it is the only electrical hand dryer to have been granted IP54 design classification, which means that it can be mounted directly above a sink avoiding water droplets from our hands being splashed onto a washroom floor - removing the risk of users slipping.</p> <p>Key benefits: Reduced carbon footprint - uses up to 80% less energy, spinning air for an invigorating drying experience, Compelling cost savings - 97% cost savings against paper towels, Quietest in its class and rapid drying time (only 10 seconds), Longer life (5 x life cycle), Digital brushless technology, Protected IP - granted patents.</p> <p>The Vortex Hand Dryer is one of only two hand dryers on the commercial market that are brushless, compared to the older, more antiquated methods of the brush motor. The brushless motor has the increased benefits of up to 5 times longer life, greater efficiency, as well as being quieter and more hygienic. The brush motor's disadvantages allow for the air blown from the hand dryer to pass through the motor and the brushes and commutator (rotary electrical switch) creates significant pollution of carbon and copper dust plus ozone from the electric arcing which increases with brush wear. The power taken by a hand dryer is not the whole picture when it comes to energy consumption. It is more accurate to use the total energy used for the drying cycle, this is calculated by multiplying the watts used by the time in seconds, the units are then in Joules. The total annual energy consumption</p>	



can only be calculated when the usage is known, so remember this is for one drying cycle.

On this basis the table below gives comparative numbers:



Turnover, number of employees or balance sheet net assets if applicable

We are a pre-revenue, start-up manufacturing company entering the HD market place. We have 6 employees, 41 trial installation sites, all with leading brands very interested in trialling our hand dryer within their industries.

Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable

The Vortex Hand Dryer is the first product launched in a portfolio of design and engineering excellence from SAVortex Limited.

Our company's key objective is to offer environmentally-friendly and sustainable products, created, designed and manufactured in Britain.

SAVortex is now starting production. The company has a clear path to revenues, which are expected from January 2010.

The company directors, management team and external investors have provided £937,250 in seed equity, with £555,500 in this A Round and we are seeking a further £154,500 to complete this round.

Future business development will incorporate our spinning air technology patent to introduce the Vortex hand dryer to the domestic user as well as commercial companies and create other commercial products, such as a body dryer.

SAVortex has significant regulatory, environmental and competitive advantages in both the £15bn global commercial use market and a substantial untapped domestic use market. SAVortex represents a disruptive evolution in Hand Dryer technology, allowing for the first time the potential to create innovative new lightweight, battery-operated models, sink-mounted hand dryers. This opens up a whole new range of diverse applications across home, mobile and off-site locations and in new markets previously not accessible to hand dryers, such as medical (sterile), catering (hygiene-driven) and hotels facilities. The SAVortex range of dryers sustainability credentials generate three highly compelling economical advantages for



customers against every other competing hand dryer and paper towel system in the market.

As Founder and CEO, Syed Ahmed, is 100% involved in the day-to-day running and management of his company and is keen to retain a majority shareholding, but embrace investment from any person interested in being part of his growing company and portfolio of products.

Chairman, Thomas Power brings over 20 years experience as Chairman, Senior Executive and Non-Executive positions, working closely with Sir Alan Sugar at Amstrad through to growing the share price of QXL Ricardo plc.

Sales Director Richard Harris, has extensive experience in growing technology companies and past and current successes include Tumbleweed Communications, Clearswift and Mobix. He has solid operational experience and expertise in Sales, Marketing, Operations and Executive Management.

Chief Technology Officer, Peter Williams, one of the UK's leading mechanical and electrical engineers, who also specialises in energy efficient technology and airflow dynamics.

The Partners that we work with reflect our core values. They are:

Spread the Word PR (PR services)

Ingenuity (sales)

Brand Aspect (corporate id branding and design)

Design Consultants (engineering design)

Bishopsworth (Production)

Summary of entry from Entry Form

SAVortex has launched the World's greenest, quietest and fastest hand dryer.

The Vortex Hand Dryer is a British Invention and patent protected (GB2447335). Founded by entrepreneur, Syed Ahmed, and Peter Williams (distinguished electrical and mechanical engineer who specialises in energy efficiency and air flow dynamics).

The Vortex Hand Dryer enables the technique of heating air without the need of commonly used, environmentally unfriendly and uneconomical electrical heating elements that consume huge amounts of energy. It is a unique patented spinning air technology, where its motion breaks water on the surface of hands more quickly, delivering low cost, fast quieter drying. The regenerative heating technique uses minimum energy by recovering and reusing heat that's used whilst drying; saving money as well as reducing the impact on the environment and producing the industry's lowest heat emissions. Not only will this reduce electricity costs, increasing over-all carbon efficiency; the Vortex is the lowest carbon foot-print dryer in its class.



Organisation	Tazla Energy
Contact	Jude Powell www.tazlaenergy.co.uk
Description of activities	Tazla Energy Limited specialises in the design and development of low energy pulsed power devices
Turnover, number of employees or balance sheet net assets if applicable	Start up company
Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable	Low Energy Cooling
Summary of entry from Entry Form	Tazla Energy has developed a pulsed power process that uses less than 1% of the energy consumed by traditional air conditioning to achieve the same cooling effect. High voltage discharge impulses and an electrostatic emitter are used to activate and spread a cooling effect which is similar to that which can occur when lightning strikes.



<p>Organisation</p>	<p>Terra Vac</p>
<p>Contact</p>	<p>Andy Fraser www.terravac.co.uk</p>
<p>Description of activities Terra Vac (UK) Limited specialises in the in-situ remediation of contaminated land and groundwaters.</p>	
<p>Turnover, number of employees or balance sheet net assets if applicable Turnover: £2m. Number of employees: 13.</p>	
<p>Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable West Yorkshire-based Terra Vac (UK) Ltd, Castleford, specialises in the in-situ remediation of contaminated land and groundwaters. The company's services range from full-site decontamination for complex, large-scale urban redevelopment projects, civil building work and the eradication of invasive plant species to cleaning up localised oil spills. Terra Vac's clients range from private individuals to local authorities, major retailers, national developers and construction companies in addition to all the major oil companies.</p>	
<p>Summary of entry from Entry Form Electric Resistive Heating (Six Phase Heating) is perhaps the most innovative, effective and exciting contaminated land remediation technology available today. Terra Vac (UK) Ltd was the first company in the UK to apply this technology when they were appointed to remediate chlorinated solvent contamination at the site of a former tool manufacturing company in Ecclesfield, Sheffield. In achieving a successful outcome, Terra Vac (UK) Ltd has demonstrated that difficult soil and severe contaminant conditions should not be a barrier to effective, thorough and rapid in-situ remediation. The use of Six Phase Heating in such a challenging environment means that former industrial sites, previously discounted for remediation because of geology, local environment, stringent remediation targets etc, can now be revisited and reassessed for redevelopment.</p>	



Organisation	TwentyNinety
Contact	Richard Pitkin www.twentyninety.com
Description of activities	Development of Active Array™ - a wireless electronic technology for performance monitoring and safety management of Photovoltaic (solar) modules.
Turnover, number of employees or balance sheet net assets if applicable	Pre-Revenue
Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable	TwentyNinety is looking to integrate Active Array™ directly into Photovoltaic modules at manufacture. This will be done via: <ol style="list-style-type: none"> 1. Direct Sales to Manufacturers 2. Collaboration/Alliance with large electronics manufacturers
Summary of entry from Entry Form	<p>TwentyNinety has developed Active Array, a low cost wireless technology which embeds into each photovoltaic module in an array, to create the first intelligent PV system. The technology communicates with a central control unit and user PC, to enable a significant improvement in safety and PV energy performance.</p> <p>Photovoltaic modules are dumb devices with no embedded intelligence, and with high European Feed-In tariffs, users have never questioned the detailed performance of their systems. With tariffs reducing and PV adoption widespread performance and safety are now firmly on the agenda.</p>



Organisation	University of Birmingham PEM Fuel Cell Research Group
Contact	Dr Bruno G Pollet www.fuelcells.bham.ac.uk
Description of activities Fuel Cell R&D and hydrogen fuel cell vehicles.	
Turnover, number of employees or balance sheet net assets if applicable 10 employees.	
Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable Investors. Technology partners. Specialist suppliers.	
Summary of entry from Entry Form Research and Development of Fuel Cell systems for both the automotive and domestic sectors.	



Organisation	University of Bath
Contact	Furong Li www.bath.ac.uk
Description of activities	Education.
Turnover, number of employees or balance sheet net assets if applicable	£200m.
Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable	Sustainable power generation, transmission, distribution and supply.
Summary of entry from Entry Form	<p>A team led by Dr Furong Li developed a revolutionary new charging system which will encourage energy companies to produce electricity locally using renewable sources, and help the UK to meet its targets for reducing CO2 emissions whilst minimising the costs of laying new cables and installing pylons.</p> <p>The industry regulator, Ofgem, is using the team's research as the basis for one of its preferred charging systems for electricity distribution, replacing the one used by the industry for the past 25 years. WPD, EDF and CE Electric are the first to adopt the charging system.</p>



Organisation	University of Kent
Contact	Professor Yong Yan www.kent.ac.uk
Description of activities	<p>The Instrumentation, Control and Embedded Systems Research Group at University of Kent undertake R&D in the following areas:</p> <ul style="list-style-type: none"> • On-line continuous tracking of pulverised fuel (coal and biomass) • Advanced flame monitoring using optical sensing and digital imaging techniques • On-line particle size measurement of pulverised fuel • Velocity, concentration and mass flow measurement of pulverised fuel.
Turnover, number of employees or balance sheet net assets if applicable	£85m turnover and 1500 staff.
Specific area of interest for future business development, including technology partners, alliances, specialist suppliers, finance, investors, where applicable	We are interested in working with instrument manufactures and end users of new combustion sensors and instrumentation systems.
Summary of entry from Entry Form	<p>As a result of a recently completed project funded under the TSB Technology Programme, the University of Kent in collaboration with RWE N Power has developed a technology that is capable of tracking the type of coal being fired on a power plant and monitoring the flame stability in an on-line continuous manner. The technology is based on the novel design of a flame monitoring device and intelligent computer software. On-plant trials have demonstrated the efficacy and operability of the technology, which allows power stations to generate electricity from a wider range of fossil fuels and biomass under optimum conditions.</p>



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