

SEaB Energy – Interview with Sandra Sassow

In each issue of Park News we will showcase an interview that gets right to the heart of a Science Park based business. In this issue, SEaB Energy's CEO, Sandra Sassow, tells us more about her company.

Tell us about SEaB Energy SEaB Energy was founded three years ago by me, and my partner Nick. Nick is the product inventor and runs the engineering side of the company, and I am in charge of the business side. We identified a market need for a greater choice in distributed power generation options in the renewables sector, and looked at a variety of different technologies before settling on anaerobic digestion. From the outset, we have been highly market driven; a tactic which has been very successful, and which has opened many doors to us on our journey to make SEaB Energy a force to be reckoned with in the cleantech sector.

How does the technology work? MUCKBUSTER® is an anaerobic digester unit, which takes in food and various biowastes, chops it, mixes it, pasteurises it and then sends it to a digestion tank where it is consumed by bacteria. This process releases biogas, which is comparable to natural gas that can be used as a fuel to generate power or propel vehicles.

What makes the MUCKBUSTER® different? MUCKBUSTER® allows the user to sit outside of the process. It is a compact, self contained unit that can be up and running in one day; it is designed to be easy to use, simple to feed and easy to manage. Portability is beneficial to customers who are reconfiguring their site and infrastructure. The big anaerobic digestion plants require site-specific building, extensive operational management, biowaste feedstock aggregation and a whole raft of compliance detail. MUCKBUSTER® is designed for many smaller biowaste generating sites, avoiding transportation costs and providing the energy and nitrogen recovery benefit back to the site.

It's also a system that doesn't require a huge amount of water input, so when we deploy to regions where there is a water shortage, we can provide a low environmental impact solution with a significant energy benefit to the local community.

What sort of companies buy into this technology? Large corporations, universities, business parks, food producers and farmers are looking to "green" their business using our product. Most customers are innovators who want to take advantage of the financial and sustainability benefits that MUCKBUSTER® delivers. The reduction in waste management cost, the offset in power costs and the new green income from power generation and digestate sales are highly compelling.

Congratulations on being selected to join the Clean and Cool Mission! Tell us about it! We were put forward for the 2012 Mission by SETSquared and UK Trade and Investment. After reviewing around one hundred applicants, we were selected to join 16 other innovative, high growth cleantech companies, travelling to the US to meet potential investors and supply chain partners.

A highlight of the trip for us was the interest in a document we produced for the Mayor's office in San Francisco showing what energy they could derive from the city's food waste if they were to put it into our unit. It showed that in addition to the fact that they could eliminate the (huge) need for transport, they would produce 11 thousand houses worth of electricity. They're reviewing the concept, so that is one of the opportunities we have to go back and pursue.



Sandra Sassow, CEO, SEaB Energy.

It was a fabulous opportunity for us and has raised our profile immeasurably. We had interviews with Forbes, CNET, the Evening Standard and many more while we were out there, and have had several more press interviews since we returned.

What advice would you offer entrepreneurs starting out today? Be your brand, right from the start. We started off with just a concept, an idea, but when we went to our first trade show, we had our branding sorted. We had a brochure and a website, and we gave the impression from the outset that we already had something and could take orders right there. We feel that being market-led, rather than design-driven is essential for technology entrepreneurs. Think customer first, and then design the product to meet the needs of your target market.

What are the benefits of being based at Southampton Science Park? It's a hugely supportive atmosphere for innovative companies to grow. The support comes from several directions. Peter Birkett's CEO breakfast is very useful as the participants are all at different stages, and there are always valuable insights to be had. There are several business support companies that can give us a high level service without a high level cost, so we can outsource to other Science Park tenants. We have also found that being based on the Park increases our credibility, which has been a factor in the interest we are seeing from both government bodies and larger organisations, looking to enable and adopt an exciting new game changing technology.

Finally, what's next for SEaB? Anything exciting in the pipeline? Right now we have a product the market wants, and that's where our business is focused. We are currently establishing where our low hanging fruit is in terms of revenue generation. We will then grow volume sales. After that we will act upon customer feedback and modify the product in order to enter new market sectors, but that's looking to the future, because right now we have a substantial market opportunity to address.

We have a great team and a great product. Our business partners are hugely supportive. We are working with some really dynamic customers and we are highly optimistic about our future business growth.

www.seabenergy.com

Southampton Science Park Newsletter

PARK NEWS

SUMMER ISSUE

A Cleantech vision for the Science Park

Establishing ourselves as a model of environmental best practice for the Southern region is something that we at Southampton Science Park take very seriously. Our cleantech strategy requires support and connections if it is to grow, and it is important that we seize opportunities to work with, as well as nurturing and supporting, the cleantech businesses of the future.

We are delighted to be able to capitalise on existing expertise amongst Park tenants to help secure a clean, green future for the Science Park. As well as an ongoing review of environmental improvements at the Science Park, Park tenant, Olive has reinforced links with local and regional low carbon and cleantech initiatives that represent key opportunities for the Science Park and tenants. A recent collaboration with SEaB Energy has provided further evidence of the Park's commitment to making the benefits of innovative green technology available to tenants, with the recent onsite installation of their compact anaerobic digester, the MUCKBUSTER®.

The cleantech vision for the Science Park embraces the concept of providing every business on the Park with the benefits of harnessing renewable energy where possible. Additionally, the Park Management is committed to providing a forum for cleantech businesses themselves to meet

and collaborate. The newly formed Cleantech Cluster will allow these businesses to share their expertise and work together to support both their own growth, and that of the businesses they service.

Taking steps, however small, towards tackling climate change, and supporting the move towards an environmentally responsible future provides tangible benefits for organisations in any sector, not just those engaged in cleantech activities. At base level, taking measures to harness renewable energy leads to reduced power, heating and lighting costs, and on a wider scale, a visible commitment to supporting global environmental sustainability adds much to the reputation of the organisation itself. The Science Park is perfectly placed here to provide a supportive and sustainable environment for existing and future tenants who share the vision, independent of their business sector.

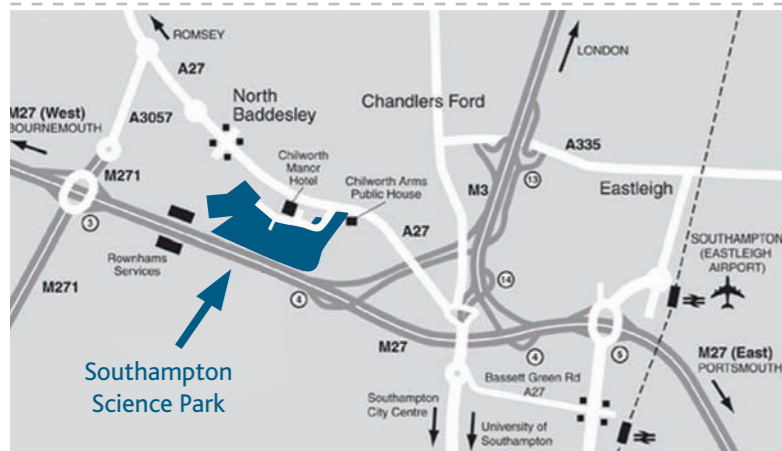


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Fibercore celebrates 30 years of Fibre innovation

Many happy returns to Southampton Science Park company Fibercore, as they enter their fourth decade at the forefront of optical fibre technology.

Fibercore was formed as a business venture spin-out from the University of Southampton, to enable commercial development of the speciality optical fibres developed at the University. Managing Director of Fibercore, Dr Chris Emslie comments: "The company was born from a foundation of professional research, excellence and expertise, so three decades on we are proud that Fibercore is still a byword for quality, innovation and unrivalled technical support."



Above: Fibercore team at Southampton Science Park.

Fibercore has been based on the Park since 2003, occupying Fibercore House, a purpose-designed R&D and manufacturing facility, which has enabled them to increase their manufacturing capabilities substantially, and to introduce 'world-class manufacturing' philosophies to what was traditionally viewed as a scaled-up laboratory process. The company has continued to increase sales consistently throughout the recession.

For the last 30 years, Fibercore has been actively driving forward the boundaries of technologies that truly benefit customers in key areas

such as Aerospace, Metrology, Telecoms Components, Sensors, Defence and Fundamental Research. In 2001 the Company was presented with the Queen's Award for Enterprise: International Trade and was subsequently awarded three additional Queen's Awards for Enterprise: Innovation in 2004, and both International Trade and Sustainable Development in 2007, making them the only company ever to have won these awards in all three categories.

www.fibercore.com

Cleantech materials discovery specialist Ilika raises £4.9m to finance the continued development of its rechargeable battery technology

The Southampton Science Park based business recently announced plans to place 8.7 million shares with new and existing institutional investors. A meeting took place in the offices of Eversheds in London on 20 April 2012, where the proposals were approved by shareholders, resulting in the issue of new shares to investors as planned.

Ilika plans to use £1.8m of the total sum to develop their thin film battery technology to the point of a commercially viable prototype battery. Another £1.9m will be used for capital expenditure, including the commissioning of a device prototyping facility.

Graeme Purdy, Chief Executive of Ilika, said: "We are very excited about this solid-state battery technology which has the potential to deliver benefits including thermal stability, a simple construction, non-flammable electrolyte and increased energy densities. The proceeds of the placing will allow Ilika to rapidly progress this technology with a view to addressing a substantial commercial opportunity."

www.ilika.com

Alan Scrase joins SETSquared Southampton



Alan Scrase

Southampton Science Park is pleased to welcome Alan Scrase, who joins SETSquared from Southampton Solent University, where he was head of the Enterprise Centres. Prior to that, he ran a 3D optics company, giving him a unique insight into the inner workings of high tech organisations.

Bringing many years of experience working with SMEs and entrepreneurial start-ups, Alan's brief is to raise the profile of SETSquared amongst the region's emerging science and technology talent, and to fill the Science Park's Innovation Hub with the success stories of tomorrow.

Alan's diverse experience enables him to provide would-be entrepreneurs with the tools they need to step into the unknown, safe in the knowledge that they have a strong support network behind them. Persuading people to take the leap of faith involved in throwing themselves off mountains on a paraglider was the perfect start to a career that has seen him nurture and support businesses poised on the edge of great things, giving them the confidence to leap into the unknown.

Alan is passionate about working with people with amazing ideas who need business support, access to markets, funding and all the other benefits of association with SETSquared.

He sees an invitation for a company to join SETSquared as a badge of achievement "Being accepted onto the programme is a good indicator that your brilliant idea has commercial value. We've chosen you, because we think it is going to work."

www.setsquared.co.uk

Jacobs Engineering UK Ltd: Assessing aquatic environments in the face of increasing demand for power generation

Jacobs Engineering UK Ltd is a market-leading international engineering consultancy with a large UK-based environment team. The team, based at offices in Kenneth Dibben House, are aquatic and terrestrial ecologists specialising in ecological survey and impact assessments.

One of the aquatics team's biggest areas of work is with UK power companies. For these clients they undertake specialist surveys and provide consultancy advice for power stations using riverine or coastal water for their cooling systems. There is a lot of pressure on power companies to comply with environmental legislation and the aquatics team ensures that targets are met.

To complete this work, Jacobs undertake a number of specialist surveys to study the ecology of an area. These include trawling for fish, sampling plankton (tiny plants and animals that are unseen with the naked eye), grabbing for benthic fauna (worms and crabs), scuba diving surveys and collecting water and sediment samples for chemical analysis. This work is carried out using small research and fishing vessels and specialist equipment.

All of this information is then used to provide an understanding of the local populations and examine the issues associated with power generation. From the information gathered, specific strategies and



Above: Jacobs Engineering UK Ltd processing a catch in the rain.

structures can be designed to help protect the environment and reduce any impacts from the power generation. Systems that are put in place include, for example, 'fish deterrent systems' to keep certain sensitive species away from power station intakes, screening structures to prevent sensitive species from being carried into the power station cooling waters and instructions to follow during construction processes to reduce disturbance to populations.

The Jacobs team at Kenneth Dibben House has expertise in both marine and freshwater environments carrying out fisheries assessments, invertebrate sampling, and electric fishing. In addition a group of terrestrial ecologists undertakes similar assessments for protected species such as bats, newts, birds, and dormice.

www.jacobs.com

i2O Water wins Water Industry Achievement Award



So far 2012 seems to be promising to break records by being the wettest drought ever. With news of rainfall levels never far from the headlines, Southampton Science Park based i2O Water and partners Veolia Water have worked together on an innovative initiative that has scooped them a coveted award at the 2012 Water Industry Achievement Awards. Organised by WET News and Water & Wastewater Treatment, the awards celebrate and reward outstanding innovation in the UK water industry.

i2O and Veolia Water won the Leakage Initiative of the Year category, which highlighted firms that had developed cutting edge solutions or strategies for monitoring and managing water supply losses, thereby ensuring that water networks reduce wastage.

i2O Water's advanced pressure management technology has been installed at 31 Veolia Water sites across the UK and has helped the company to achieve savings in excess of more than 1.5 million litres of water a day (the equivalent of nearly £100,000 a year).

Adam Kingdon, co-founder and CEO of i2O Water, said: "i2O is very proud of its work with Veolia Water and the fantastic results that have



Above: From left, Comedian Seann Walsh, Stephen Eeles, Veolia Water, Reg Deraed, i2O Water and Deborah Lilly, Sales Manager, WET News.

been achieved, both in terms of significantly reducing background water leakage and also in helping to improve customer service. We are absolutely delighted to win this prestigious award and to be recognised at the Water Industry Achievement Awards, which highlight the importance of innovation. It is a huge honour and recognition for everyone involved in the initiative."

www.i2owater.com