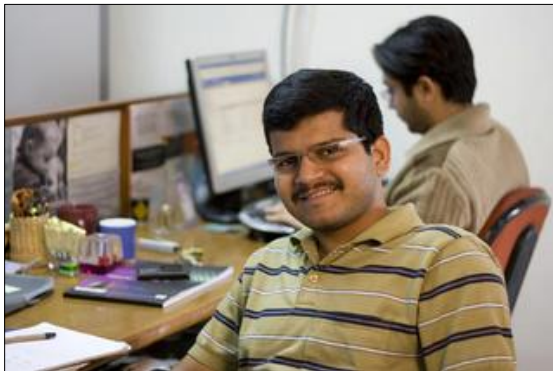


## Active in Reducing Carbon



**The thermal imaging of 2,500 businesses in Norfolk has led to the launch of a new initiative designed to help them access expertise to cut their operating costs by reducing their carbon footprint.**

After the identification of high and inefficient energy users, Rural Enterprise Valley (REV-ACTive) was created to help businesses access valuable information, products and services to reduce their carbon emission and

help them secure grants necessary to implement the advice.

With small businesses not having the time, resources or expertise to investigate the opportunities available to help them reduce their carbon footprint, many are missing out on the financial benefits that come from being more energy efficient.

The new £3.2 million initiative was awarded £1.25 million funding from the European Regional Development Fund (ERDF) and uses a range of innovative tactics such as thermal imaging and data analysis to identify, target and support those businesses with high-energy bills. It then provides advice and guidance to help them improve their efficiency.

Alongside greater access to information, products and services, REV-ACTive also provides advice to enable the business to access to any suitable grants.

Project leader, Mark Stanton, head of economic development at Breckland Council, explained: "There is a lot of support currently available which small businesses are not taking advantage of and consequently they are missing out on the opportunities available to reduce their carbon footprint and save money.

"Through the initiative, specialists in all aspects of energy efficiency, and water and waste management, will provide business owners with much needed advice and guidance via site visits and group workshops.

"A virtual resource efficiency network will provide ongoing support and, for a number of eligible businesses, free environmental assessments will be available with the possibility of a grant of up to £1,500 to implement the recommendations."




REV-ACTive adopts a proactive approach, targeting businesses with the greatest potential for improvement using the data gathered through the thermal imaging and analysis of business rates.

It is also targeting the geographical area of greatest need, focusing on a one-mile radius along the A11 from the west of Thetford to the western outskirts of Norwich, an area which accounts for approximately 30 per cent of CO<sub>2</sub> emissions in Norfolk.

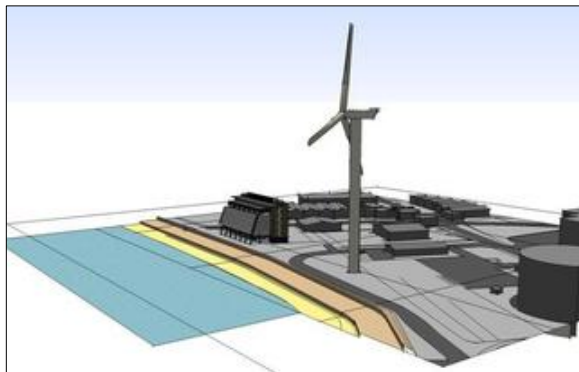
Over the course of the three and a half year project, an estimated 2,000 small businesses, particularly those in the manufacturing sector, will be helped to access essential products and services, 300 of which will also benefit from the environmental survey and action plan.

REV-ACTive is currently a pilot scheme but, with an estimated 150 tonne reduction in CO<sub>2</sub> emissions and £1.35 million in efficiency savings, it is hoped that the initiative will be replicated across the region and eventually rolled-out across the country.

Joining Breckland Council in delivery of REV-ACTive is Norfolk County Council and Shaping Norfolk's Future. The initiative is also being supported by South Norfolk District Council, Broadland District Council, Norwich City Council, the Carbon Trust, Renewables East and Business Link.

Priority Axis 3			
<b>Funding:</b>	Total Project Cost: £3,218,000 ERDF: £1,255,500		
<b>Solution for Business Product:</b>	Improving Your Resource Efficiency		 
<b>Scope:</b>	Norfolk	<b>Project Duration:</b>	Dec 2009 – Jun 2013
<b>More Information:</b>	Mark Stanton, Breckland Council: 01362 656235 or mark.stanton@breckland.gov.uk		
<b>ERDF Details:</b>	<p>The European Regional Development Fund (ERDF) is a seven-year investment programme part financed by the European Union. Its objective is 'towards low carbon economic growth' in the East of England and €110.9 million has been allocated to our region.</p> <p>The fund aims to help small and medium size enterprises respond to the challenges of climate change and the huge commercial potential behind a low carbon economy.</p> <p>For more information visit w:  <a href="http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/">http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/</a>            or tel+44 0303 444640</p>		
			

## Boosting R&D for carbon reduction technology



**It goes without saying that successful products are born out of good research and development (R&D), but in these current times of financial hardship many businesses are finding it hard to secure the necessary funding to invest in the processes.**

Investing less than their international counterparts in R&D to establish the marketability of products prior to launch,

UK businesses are lagging behind in the commercialisation of viable innovative energy and environmental products.

Expenditure for R&D has remained at around 1.2 per cent of UK GDP for the last decade and recognising the implications of this low investment, the government has actively sought to reduce the productivity gap by setting an R&D investment target of 25 per cent by 2014.



Specifically to support companies looking to develop innovative low carbon products and processes, the European Regional Development Fund (ERDF) had granted the East of England Development Agency (EEDA) £5.5m of additional funding for its Grant for Research and Development programme.

With limited funding options currently available for businesses, the additional funding has been warmly welcomed by small and medium-sized enterprises (SMEs) within the East of England in the clean technology sector.

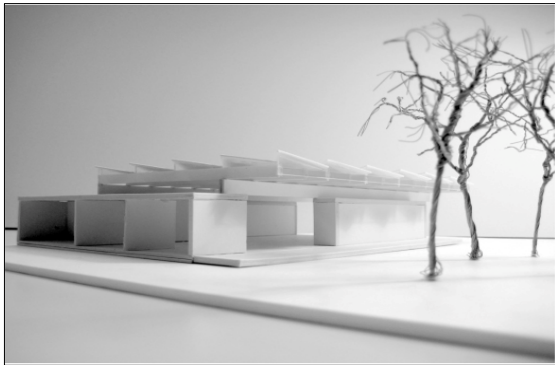
The programme aims to financially assist over 100 businesses and create over 100 new jobs over four and a half years by offering grants for the development of products with positive environmental and low carbon impact.

The project aims to assist SMEs with revenue and capital grants of up to £250,000 which cover the areas of Proof of Market, supporting businesses to assess the commercial viability of their innovative technology, and Research and Development, to encourage businesses to carry out R&D work before commercialisation begins.

The funding through ERDF helps to support this previously under-resourced area and will provide an opportunity for businesses in the East of England to lead the way in developing new and innovative products to address the challenges of climate change and low carbon economic growth.

Priority Axis 2			
<b>Funding:</b>	Total Project Cost: £13,836,900 ERDF: £5,534,760		
<b>Solution for Business Product:</b>	Grant for Research and Development		
<b>Scope:</b>	East of England	<b>Project Duration:</b>	April 2009-December 2013
<b>More Information:</b>			
<b>ERDF Details:</b>	<p>The European Regional Development Fund (ERDF) is a seven-year investment programme part financed by the European Union. Its objective is 'towards low carbon economic growth' in the East of England and €110.9 million has been allocated to our region.</p> <p>The fund aims to help small and medium size enterprises respond to the challenges of climate change and the huge commercial potential behind a low carbon economy.</p> <p>For more information visit w:  <a href="http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/">http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/</a>            or tel+44 0303 4446400</p> <div style="text-align: right;">  </div>		

## Design leads way in SME innovation



**Businesses are coming under growing pressure to reduce the carbon footprints of their products and services and although many recognise that creativity and innovation will assist in this process, it still remains a problem.**

However, a new initiative from Cranfield University is set to help small businesses view this problem as a potential opportunity by offering advice and assistance in the

development of new low carbon products and services.

The Sustainable Design-Led Innovation (SDI) programme has been specifically designed to help SMEs look at their business practices and identify ways of innovating across all areas of their operations – from idea development to final delivery – with the overall aim of reducing the carbon footprint across their innovation-cycle.

Martin Grant of Cranfield University explained: “The SDI will work with businesses to help them improve their knowledge and understanding of sustainable design-led practices. This advice and practical support will include identifying new market opportunities, reducing the carbon footprint of the products and services and measuring the results of their sustainability.”

The programme focuses on providing practical tools through a series of guided workshops, benchmarking and auditing techniques, as well as CEO leadership programmes. The importance of transferring knowledge is also recognised and the sharing of any innovative ideas is encouraged through key networking activities.



As part of the knowledge transfer element of the programme, businesses will also have access to experience that would otherwise be unavailable to them, including the University of the Arts, London and from large corporate partners in Cranfield University’s open innovation network, such as Proctor & Gamble, BT, Lego.

The incorporation of on-line delivery methods is a crucial element of the programme. As well as ensuring that the SDI is available throughout the entire region it also introduces businesses to new effective lower carbon ways of working.

“To achieve targets for cutting CO2 emission we must educate the design thinkers and innovators of the future. The key to this is developing an approach to teaching the techniques involved in sustainable design processes,” continued Martin. “It is also important to remember that this isn’t simply theoretical, it will give businesses a significant competitive edge going forward, through greater ability to develop innovation opportunities and stronger product and service differentiation.”

As part of the programme business owners are able to harness state-of-the-art design innovation methods in the UK’s first national Centre for Competitive Creative Design (C4D). Based at Cranfield University, C4D helps businesses to explore new ideas and concepts and gain first hand understanding of the different low carbon development processes to improve not only their carbon footprint, but performance and productivity.

The SDI programme has been made possible as a result of £815,510 funding from the European Regional Development Fund (ERDF). At a total cost of £2 million, the programme aims to help 1,000 small businesses over the course of three years.

Priority Axis 1			
<b>Funding:</b>	Total Project Cost: £2,038,776 ERDF: £815,510		
<b>Solution for Business Product:</b>	Networking for Innovation		 <small>funded by government</small>
<b>Scope:</b>	East of England	<b>Project Duration:</b>	August 2009–July 2012
<b>More Information:</b>	Martin Grant, Cranfield University: m.grant@cranfield.ac.uk or +44 (0) 1234 750111 <a href="http://www.centrefordesign.com">www.centrefordesign.com</a>		
<b>ERDF Details:</b>	<p>The European Regional Development Fund (ERDF) is a seven-year investment programme part financed by the European Union. Its objective is ‘towards low carbon economic growth’ in the East of England and €110.9 million has been allocated to our region.</p> <p>The fund aims to help small and medium size enterprises respond to the challenges of climate change and the huge commercial potential behind a low carbon economy.</p> <p>For more information visit w: <a href="http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/">http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/</a> or tel+44 0303 4446400</p> 		

## Eco-building using less energy than kettle



**Forward thinking charity Disability Essex is leading the way in the reduction of carbon with the construction of a pioneering new eco-building using funding from the European Regional Development Fund (ERDF).**

Utilising sustainable methods of design and construction, the building will form the charity's professionally accredited training centre and operational headquarters and is

scheduled to take three years to complete.

The idea for the new eco-building came as a result of the charity identifying the urgent need for new facilities to meet the increasing demands for specialist disability services. Choosing to design and construct the building completely with sustainability in mind the charity is looking to minimise its impact on the environment as well as creating a bespoke and flexible building with minimal running costs.

The new Centre for Disability Studies will incorporate an innovative ecological design and will be constructed to Passivhaus standards - the leading standards for energy efficient construction in Europe – as well as exceeding BRE Environmental Assessment Method (BREEAM) excellent rating. It will help to minimise the carbon footprint of Disability Essex with an expected reduction in carbon emissions of 80-85 per cent compared to a building of similar size.



Discussing the centre Richard Boyd, chief executive of Disability Essex said: “The centre will be the first non-domestic building to meet the stringent Passivhaus standards of excellence. With under-floor heating and utilising natural light it has been designed with the disabled in mind and is expected to reduce energy consumption to less than £150 per year, or put another way, to that of a 3 kilowatt kettle!”

With ambitious government targets for the UK to achieve an 80 per cent reduction in carbon emissions from 1990 levels by 2050, it is imperative that organisations adopt a low carbon approach in their business activities. Disability Essex is hoping that if the global impact on climate change doesn't persuade businesses to review their approach, then the associated cost-savings might.

This new building will cost £2 million with a contribution of £815,918 from ERDF and the majority of the balance coming from the East of England Development Agency (EEDA) Building Communities Fund. In addition to the charity, the centre will also directly house two businesses providing them with the supply of low carbon energy as well as stimulating the economy by creating 33 jobs.

Richard continued: “As well as being a well equipped training centre specifically designed for use by those with physical sensory and cognitive impairments, it will also become a showcase building demonstrating environmental best practice. We want to encourage other charities and businesses to adopt low a carbon approach by demonstrating that fully sustainable building can be achieved without compromise to design.”

Once the construction of the Centre for Disability Studies is complete, the building will be independently assessed and certified by the Building Research Establishment (BRE) to confirm that the highest possible standards of sustainable innovation have been met. An opening celebration is planned for March 2010, when it is hoped that the Princess Royal will be formally opening the centre.

Priority Axis 3			
<b>Funding:</b>	Total Project Cost: £2,039,795 ERDF: £815,918 Public Funds: £800,000 Disability Essex: £423,877		
<b>Solution for Business Product:</b>	Low Carbon Energy Demonstration		 
<b>Scope:</b>	Essex	<b>Project Duration:</b>	March–November 2009
<b>More Information:</b>	Richard Boyd, chief executive, Disability Essex: richard.boyd@disabilityessex.org or +44 (0)1603 591765 www.centrefordisabilitystudies.org		
<b>ERDF Details:</b>	<p>The European Regional Development Fund (ERDF) is a seven-year investment programme part financed by the European Union. Its objective is ‘towards low carbon economic growth’ in the East of England and €110.9 million has been allocated to our region.</p> <p>The fund aims to help small and medium size enterprises respond to the challenges of climate change and the huge commercial potential behind a low carbon economy.</p> <p>For more information visit w:  <a href="http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/">http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/</a>            or tel+44 0303 4446400</p>		







## Environmental management made EASIER

**Analysis of the mind may be more akin to the science laboratory than the boardroom but a new project led by the University of Hertfordshire is aiming to use psychology to help make environmental change easier for small businesses.**



The Environmental Assistance for SMEs in the Eastern Region (EASIER) project is a hassle free way for small businesses in the Eastern Region of the UK to save money on their energy and fuel bills, reduce their carbon footprint and improve their environmental credentials.

Project Director, Dr Mike Page, of the University of Hertfordshire, explained: "There is massive latent potential within business which is just not being

released and the EASIER project is looking at introducing ways a business can develop the capabilities of key members of staff."

"By changing mindsets, the project will help SMEs develop the behaviours and thinking necessary to produce economic benefits. We are anticipating that participating businesses will see a 10-20% reduction in their carbon emissions."

Over 50 businesses from a range of industries have been engaged on the EASIER project so far ranging from care homes to car show rooms, and sign writers to safari parks. Each business receives a free energy audit and report detailing simple measures that can be taken to reduce energy consumption, all of which will pay back within approximately 3 years.

Building on the renowned environmental and behavioural academic strengths of the University, the project aims to deliver focused and tailored 14-day business support which encompasses a holistic assessment of the SME's current environmental management systems, an action plan proposing practical measures to help reduce carbon emissions and advice to help establish sustainable growth.

This is followed by an assessment to measure success against the recommendations set out in the plan and will use the Carbon Trust's Carbon Footprint calculator to establish the level of emissions savings and financial savings. These will be checked by an independent auditor.

Case Study - The EASIER Project cuts lighting costs by 60% for Speakerbus

Speakerbus Ltd has recently been working with the team from the University of Hertfordshire to reduce their carbon emissions through improving energy efficiency at their headquarters in Hertfordshire. By signing up to the EASIER project, Speakerbus have had free access to advice from specialist energy consultants who have helped them identify ways that they can reduce their impact on the environment and save money too.

Speakerbus Ltd is a privately owned communications technology developer and manufacturer Established in 1984. They have built a solid reputation for supplying the world's leading financial organisations and government and defense sectors with global voice and video communication solutions.




With recent rises in electricity and fuel prices, and growing concerns over the impact of carbon dioxide emissions on the environment, Speakerbus decided to take advantage of the free service offered through the EASIER project to try to find ways of saving money as well as carbon.

A consultant from the University of Hertfordshire met with a representative from Speakerbus to discuss their operations and carry out an energy survey of their headquarters. The site survey identified that one of the biggest energy users in the building was the lighting system, accounting for almost 50% of the day time electricity demand of the site. Most of the lighting was provided by old style T8 fluorescent tubes (25 mm in diameter) which can now be replaced by highly efficient T5 fluorescent tubes (16 mm in diameter). Not only would these cut lighting bills by almost 60%, but T5s also have a longer working life meaning maintenance costs are lower, and they provide a higher quality light making the working environment more pleasant. Once the project is implemented, Speakerbus will also have reduced their overall carbon footprint by 25% making it an excellent environmental investment too.

The University of Hertfordshire were even able to put Speakerbus in touch with a reputable supplier, who provided a competitive quote for the supply and installation of the new lighting system. The payback period for the installation is just 16 months and the project also qualifies for a Carbon Trust Loan, eliminating the problem of having to find the money to pay for the project upfront.

At a total cost of £779,382, the project has benefited substantially from the £311,753 contribution from the European Regional Development Fund (ERDF) and aims to assist a total of 80 businesses during its lifetime. Commenting on the impact of the project Mike said: "The ERDF funding has given us the opportunity to make a real difference within the region by putting theory into practice. More than ever, businesses should be looking at innovative ways of protecting their bottom line. By influencing the mindsets of those who manage and run businesses in the region, we believe that we can make a lasting difference."

## Priority Axis 2

<b>Funding:</b>	Total Project Cost: £779,382 ERDF: £311,753		
<b>Solution for Business Product:</b>	Improving your Resource Efficiency		 
<b>Scope:</b>	Regional	<b>Project Duration:</b>	April 2009–October 2012
<b>More Information:</b>	Dr Mike Page, University of Hertfordshire: m.2.page@herts.ac.uk or +44 (0)1707 286465		
<b>ERDF Details:</b>	<p>The European Regional Development Fund (ERDF) is a seven-year investment programme part financed by the European Union. Its objective is 'towards low carbon economic growth' in the East of England and €110.9 million has been allocated to our region.</p> <p>The fund aims to help small and medium size enterprises respond to the challenges of climate change and the huge commercial potential behind a low carbon economy.</p> <p>For more information visit w:  <a href="http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/">http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/</a>            or tel+44 0303 4446400</p> <div style="text-align: right;">  </div>		



## Harvesting innovation



The recent partnering of entrepreneurs and researchers in the East of England has provided unique opportunities for business development without costing the earth.

InCrops, a new virtual enterprise hub based at the University of East Anglia in Norwich, is stimulating commercial activity in the alternative and non-food crop sector by establishing business networks for sharing research knowledge.

Project leader Dr John French,

With the East of England home to the world's leaders in of plant bioscience research, the InCrops e-hub is perfectly situated to connect entrepreneurs with researchers in new, bio-renewable and low carbon products. With support from the InCrops team of Business Innovation Managers, these innovative ideas can be turned into commercial realities.

Dr John French, director, InCrops explained: "There are significant challenges in introducing new alternative and non-food crops given the suppressed state of the UK's agriculture and the huge issues of climate change affecting the region. Global markets need to be tapped effectively and significant benefits can be brought to regional businesses through the partnerships created."

Through the e-hub, the InCrops enterprise team provides specialist advice and guidance that would not otherwise be available to businesses bridging the gap between research and development, securing patents and attracting investors or public sector support.


Commenting on the power of the project John said: "It's not simply a question of cultivating crops for food or other uses - we need to maximise our use of crops and also reduce waste. As climate change starts to affect the region, the investigation of how future crops can be used for fibre, high-value chemicals and extracts, protein and starch is going to become increasingly important."

The £4.06 million project includes an investment of £1.15 million investment from the European Regional Development Fund (ERDF) and £1.05 million from the East of England Development Agency (ERDF) has helped to make the e-hub concept a reality.

InCrops has a unique structure involving 13 regional project partners including major research institutes, universities and environmental partners. Additional collaborations with national organisations such as the National Non Food Crops Centre and DECC and growing international links are bringing added benefit to the region.

“All of the partners recognise that this is a unique opportunity and are working together to see their expertise translated into exciting new and increasingly sustainable products” John said. “The talent available in this region is enormous and the creation of a single point of focus means businesses can access the right expertise quickly and easily.”

This five-year project aims to deliver benefits to the region’s economy through assisting 200 businesses leading to 50 new businesses starting-up and 70 jobs being created or safeguarded as result.

Priority Axis 1			
<b>Funding:</b>	Total Project Cost: £4.06m ERDF: £1.15 million ERDF: £1.05 million Partners: £1.85 million		
<b>Solution for Business Product:</b>	Networking for Innovation		 <small>Solutions for Business</small> <small>funded by government</small>
<b>Scope:</b>	East of England	<b>Project Duration:</b>	June 2008–May 2013
<b>More Information:</b>	Dr. John French, director, InCrops: info@incropsproject.co.uk or +44 (0)1603 591765 www.incropsproject.co.uk 		
<b>ERDF Details:</b>	The European Regional Development Fund (ERDF) is a seven-year investment programme part financed by the European Union. Its objective is ‘towards low carbon economic growth’ in the East of England and €110.9 million has been allocated to our region. The fund aims to help small and medium size enterprises respond to the challenges of climate change and the huge commercial potential behind a low carbon economy. For more information visit <a href="http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/">http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/</a> 		



## Improving business resource efficiency



**Rising resource costs and a better understanding of climate change mean that more companies than ever are examining ways to introduce resource efficiency measures as a way of saving money as well as protecting the environment. Not an easy task for any business, but help is now on hand from the Resource Efficiency East (REE) programme.**

A new initiative managed by Renewables East, the regions renewable energy agency, REE aims to increase the productivity and competitiveness of small businesses in the East of England by delivering a measurable improvement in their resource efficiency.

The programme aims to foster long-term changes in how businesses address resource use and to actively help them reduce their use of materials, energy and water therefore, impacting positively on the financial health and sustainability of the individual business as well as the region's economy.

REE Director, Antony Gough, put this into context: "Research evidence has shown that larger companies have started to progress resource efficiency as they have the knowledge, time and resources to take advantage of the benefits available from adopting resource efficiency as a business priority. Smaller organisations, however, although aware of the potential benefits, often perceive the barriers as insurmountable. This is where REE comes in, providing that additional support and knowledge to the business."

Through the programme, regional businesses can access advice, guidance and support on how they can become more resource efficient by considering their use of energy, materials and water and introducing measures to reduce consumption and waste.



A two-day support package provides assistance to businesses from a resource efficiency specialist, starting with an onsite visit to the business to identify opportunities for resource reduction and make practical recommendations through a tailored action plan which also quantifies the potential financial and environmental benefits.

Subsequent telephone and email support helps to overcome any of the barriers the business may experience in implementing the recommendations and further access to a specially designed diagnostic tool provides direct business support.

Antony continued: “REE offers professional advice on a one-to-one basis and assists regional businesses to identify practical solutions which can help them reduce their use of water, energy and materials and in turn realise the financial benefits of doing so.

We are currently developing new services and programmes of work that will help businesses with additional issues such as the adoption of an environmental management system and supply chain management.”

The whole project will be delivered over a three-year period with and a £599,970 contribution from the European Regional Development Fund (ERDF) will further assist 315 businesses to identify opportunities to reduce resource use and implement a successful solution.

Priority Axis 3			
<b>Funding:</b>	Total Project Cost: £2.1m ERDF: £599,970		
<b>Solution for Business Product:</b>	Improving Your Resource Efficiency		 
<b>Scope:</b>	East of England	<b>Project Duration:</b>	July 2008–March 2011
<b>More Information:</b>	The Resource Efficiency East Team: info@resourceefficiencyeast.org.uk or +44 (0) 1733 294524		
<b>ERDF Details:</b>	<p>The European Regional Development Fund (ERDF) is a seven-year investment programme part financed by the European Union. Its objective is ‘towards low carbon economic growth’ in the East of England and €110.9 million has been allocated to our region.</p> <p>The fund aims to help small and medium size enterprises respond to the challenges of climate change and the huge commercial potential behind a low carbon economy.</p> <p>For more information visit w:  <a href="http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/">http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/</a> </p>		



## **SMEs are the green champions**



**Calculations by Carbon Trust estimate that businesses waste 26 per cent of all energy they consume. This can be reduced with some small adjustments, but lack of information, time and finances can prevent businesses from undertaking energy efficiency measures.**

A unique new initiative, called Low Carbon Champions (LCC), is taking a particularly innovative approach to help SMEs in Suffolk

overcome these problems by creating 'ambassadors' within the businesses to champion carbon reduction programmes.

Delivered by environmental training charity Green Light Trust, LCC has been designed specifically to reduce the need for businesses to rely on external resources so that they can be self-sufficient and take a long-term, sustainable view to carbon reduction.

Will Sambrook, head of business and development at Green Light Trust explained: "LCC is a flexible, time and cost effective way of 'greening' a business, making it more efficient, cost effective and marketable. Individuals from within the business are developed into Champions with up to 30 hours of free tailored advice and access to specialist events and courses.

"Equipped with this knowledge, they conduct a carbon audit of the business to identify ways of reducing the carbon footprint of the SME. They then create a tailored action plan specifically designed for their particular business.

"The great advantage of fostering this knowledge through the Champions is that they are perfectly positioned to spur the business into action by acting as ambassadors for carbon reduction amongst their peers, clients and other business partners."

To help SMEs deliver the recommendations made by the Champions, grants of up to £3,000 are available to fund 50 per cent of any carbon efficiency project within the plan. In the first grant round, seven projects were supported with state funding of £11,000 towards efficiency measures. In addition to this, an online resource centre





and network events give the Champions ongoing support and enable them to share knowledge and showcase examples of good practice amongst individual businesses.

Progress is monitored throughout the implementation of the plan so that the impact on the business can be fully assessed. For those organisations looking to achieve a quality mark for their actions, assistance is given to achieve the Suffolk Carbon Charter Bronze, Silver and Gold level of Carbon Management. So far, seven project organisations achieved the certification and more are considered at the moment.

Suffolk County Council and Green Light Trust are leading the initiative in partnership with Suffolk Chamber of Commerce and Suffolk Climate Change Partnership. Comprehensive project evaluation is being lead by the Essex University. The project is starting to have a significant impact on SMEs within Suffolk and it is planned to be extended across the East of England in the next years.

Made possible with £ 265,224 of funding from the European Regional Development Fund (ERDF), the initiative is helping 85 small businesses and social enterprises to reduce their carbon emissions by up to 15 per cent over the next three years. So far, the Carbon Audits of first 32 companies identified that 1,630 tonnes of CO2 and £282,343 could be saved per year which is 16.5% of the total carbon footprint.

Priority Axis 2			
<b>Funding:</b>	Total Project Cost: £ 666,292 ERDF: £ 265,224		
<b>Solution for Business Product:</b>	Improving Your Resource Efficiency		
<b>Scope:</b>	East of England	<b>Project Duration:</b>	April 2010 – June 2013
<b>More Information:</b>	Liz Moss, Green Light Trust: <a href="mailto:liz.moss@greenlighttrust.org">liz.moss@greenlighttrust.org</a> or + 44 (0) 1284 830829 <a href="http://www.greenlighttrust.org/low-carbon-champions">www.greenlighttrust.org/low-carbon-champions</a>		
<b>ERDF Details:</b>	<p>The European Regional Development Fund (ERDF) is a seven-year investment programme part financed by the European Union. Its objective is 'towards low carbon economic growth' in the East of England and €110.9 million has been allocated to our region.</p> <p>The fund aims to help small and medium size enterprises respond to the challenges of climate change and the huge commercial potential behind a low carbon economy.</p> <p>For more information visit w:  <a href="http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/">http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/</a>            or tel+44 0303 4446400</p> <div style="text-align: right;">  </div>		

## Ripblast

Location: Snetterton Sector: Metal Finishing Number of FTEs: 12 Turnover: £1.2 million



### THE BENEFITS

Fuel efficient driver training:

- Investment: £200
- Cost savings: £4,200 per year
- Carbon savings: 11 tonnes per year
- Payback in: 6 weeks

Replacement of and management of lighting:

- Investment: £1,600
- Cost savings: £2,070 per year
- Carbon savings: 6.5 tonnes per year
- Payback in: 10 months

### THE CHALLENGE

Ripblast is a company specialising in shotblasting and painting steel structures. This invariably consumes a lot of energy, due to the use of compressed air and space heating. With constantly rising energy and fuel costs, Ripblast saw energy efficiency as an imperative to keep their business competitive and to enable future expansion. Ripblast has already started putting energy efficiency measures in place, such as timers on flood lighting and office heating. They also monitor their energy consumption and have identified the need for a new energy efficient spray booth.

## REV ACTIVE'S ROLE

REV ACTIVE was able to identify further savings during their visit to the Ripblast site. They were also able to offer advice on both payback times and funding options for investment in new equipment.

## THE SOLUTION

REV ACTIVE identified opportunities in lighting, fuel efficient driving and more energy efficient plant amounting to over £60,000 in annual savings and 90 tonnes of carbon. REV ACTIVE were also able to bring in expert advice to devise a solution for capturing heat from the paint drying process. They will be working closely with Ripblast to take these opportunities forward.



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#### Savage Haulage Ltd

Location: March Sector: Cold Food Transport Number of FTEs: 36 Turnover: Around £4 million



#### THE CHALLENGE

Savage Haulage Ltd were actively seeking to reduce their running costs. Their 5 acre site comprises offices, 3 large cold stores and loading bays and a goods yard. With a fleet of 20 lorries for distribution, energy costs were very high. Electricity consumption for 2010 was 2,595MWh, costing in excess of £200,000 a year.

#### REV ACTIVE'S ROLE

REV ACTIVE was able to identify substantial savings during their visit to the site. They were also able to offer advice on both payback times and funding options for investment in new equipment, including the provision of a REV ACTIVE grant towards energy saving equipment and practices.

#### THE SOLUTION

Install voltage optimisation equipment to reduce energy costs and carbon emissions. Voltage optimisation works by addressing the discrepancy between the actual supply voltage (typically in the range 207V – 253V) and the optimum voltage that electrical equipment needs (220V). Voltage optimisation can reduce energy consumption – and associated carbon emissions – by up to 20% and prolong the life and reliability of plant. Power Perfector equipment was selected in this case.

The Company has also successfully trialled lowenergy LED highbay spotlighting in one aisle of a low temperature store. Two 400W lighting units have been replaced with two 100W LED units. These have the dual effect of both reducing electrical consumption for

lighting and improving the efficiency of chilling by minimising heat generation. This trial has proved so successful that the whole store has now been fitted with LED lights and cost savings are expected to be in excess of £700 per annum.

The Company aims to enrol all twenty full time staff on a fuel efficient driving programme course at £69 per driver. The first tranche of these are organised at the time of writing. Companies who have put their drivers through fuel efficient driving courses have realised average savings of 10% on fuel consumption, but savings of up to 20% have been known.



## THE BENEFITS

### Fuel Efficient Driver Training:

- Investment: £1,380
- Cost savings: £100,000 per year
- Carbon savings: 2,500 tonnes per year
- Payback in: 6 weeks

### Voltage Power Optimisation

- Investment: £52,000
- Cost savings: £17,000 per year
- Carbon savings: 142 tonnes per year
- Payback in: 3 years

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## Case Study

<b>Name of project:</b>	<b>Small business research initiative (SBRI) – East</b>
<b>Project proposer/sponsor:</b>	<b>Health Enterprise East Limited</b>
<b>Project/case study beneficiary:</b>	regional
<b>ERDF grant amount:</b>	£992,942
<b>Total investment:</b>	£2.482 million
<b>Date of grant:</b>	October 2009
<b>Partners involved:</b>	
<b>Duration of project:</b>	3 years
<b>Key contact(s):</b>	Dilys Wilkinson PA to Dr Anne Blackwood, NHS Innovations East Tel: 01480 364925 <a href="mailto:Dilys.wilkinson@nhsinnovationseast.org.uk">Dilys.wilkinson@nhsinnovationseast.org.uk</a>
<b>Description of project success</b>	
<p>SMEs rarely bid – or rarely bid successfully – for public service contracts, because the process is considered too difficult, time consuming and risky. SBRI East aims to challenge this situation, both to redress a clear economic imbalance (as the majority of public service contracts go to multinationals) and to help the public sector access the wealth of innovative thinking and cutting edge research ongoing in the East of England. Dr Anne Blackwood, CEO of NHS Innovations East, explains: 'SBRI East provides an interface between SMEs and the NHS. The NHS has a raft of unmet needs but SMEs often create healthcare products without really understanding these needs. By bringing the two sides together, we can help SMEs understand what drives NHS procurement, enabling them to develop needs driven products and technologies with a greater chance of commercial success.'</p> <p>SBRI East focuses on three areas of healthcare, relevant both to the region and to national NHS policy; managing long term conditions closer to home; patient safety; and staying healthy. The programme is enabling SME's to learn about healthcare economics and carbon accounting to help make their efforts to win R &amp; D work from the NHS and others more effective.' By citing these areas, we can give SMEs a focus for their development work,' explains Dr Blackwood. 'Under the programme, SMEs need to deliver products that not only improve patient care but also deliver cost savings and reductions in carbon emissions.'</p> <p>As well as bringing innovation to the NHS, and giving innovators a better understanding of a key customer, SBRI East has a wider remit - to encourage more sustained growth within the med tech sector. This sector is of vital importance to the Eastern region, but is</p>	



characterised by small start ups and a few major multinationals, with little in between. 'The business plan for many start ups is to sell out to a bigger company as soon as possible,' explains Dr Blackwood. 'Although this is a perfectly valid exit strategy, it drains the region of key talent as many of these big companies are based in the US or Europe. We want to encourage technology start ups to stay in the region and to grow here, anchoring our talent within the UK, essential if we are to compete in the global economy.'

SBRI East, already supported by NHS East of England, ERDF and the Technology Strategy Board, identified ERDF as a potential funding source because it was designed to support strategic regional business development, and was focused on low carbon solutions. 'The NHS has a huge carbon footprint and has a target for a 10 per cent reduction by 2015,' explains Dr Blackwood. 'As a result, SBRI East only encourages low carbon solutions, such as technologies enabling improved care at home or shorter hospital stays, as these use less energy whilst reducing bed use and patient travel.'

Following an initial research phase, SBRI East is currently helping 11 companies respond to specific NHS tenders. After presenting feasibility studies in May 2010, four of these 11 companies will be selected for a higher level of support, enabling them to undertake the clinical trials necessary to bring products to market. 'ERDF funding is helping SMEs accelerate their development process,' explains Dr Blackwood. 'Our remit is to enable SMEs to get their products to market faster, while still guaranteeing patient safety.'

Although still in the early stages, Dr Blackwood sees SBRI East as an enabler for radical change within the SME / NHS relationship: 'We are helping SMEs enter into a real dialogue with the NHS which will deliver sustained development of better solutions in the shorter and longer term, thereby supporting local SMEs and the high tech cluster. But the NHS is also known as a relatively poor, and slow, adopter of new technology. By speeding up innovation, and making it more relevant, we can encourage the NHS to adopt new technology earlier, for the benefit of both patients and regional business.'

#### **Description of key benefits/outcomes:**

- ERDF funding enables project to help more SMEs bid successfully for NHS/healthcare contracts
- Focus on low carbon solutions to help NHS meet carbon reduction targets
- Up to 100 SMEs to benefit from insight on healthcare economics and carbon accounting – to inform stronger bids
- Improving the dialogue between NHS and regional technology cluster

SBRI East is working specifically to help SMEs (Small and Medium-sized enterprises) in the East of England win more business from the NHS. SBRI is a national programme that is being piloted in the East of England using a combination of funds from the regional Strategic Health Authority (SHA) and ERDF (£800,000). It is run by NHS Innovations East.



## Seizing international opportunities



The total value of the low carbon and environmental goods and services sector in the UK is estimated to be £106.5 billion, however, with the value of the global sector around £3 trillion, there is a massive opportunity for exporting overseas.

With the involvement of Envirotrade-Environmental Technologies Reaching Overseas Markets, a new initiative from

East of England International (EEI), businesses in the region are getting a helping hand to enhance their international trade strategies.

Small and medium-sized enterprises (SMEs) in particular experience difficulties overcoming barriers to international expansion, and for many businesses preparing to export can often be a daunting prospect. However, Envirotrade looks to support SMEs and larger organisations engaged in environmental technology to obtain a significant market share in a new or expanding overseas market.

Commenting about the project, Sanjay Purohit of EEI said: “The East of England is a major contributor to the UK’s exports with 2% of the region’s businesses generating over 10% of the annual export trade. Although the region has a significant cluster of environmental goods and services, it is lagging behind the performance of London and other leading global regions in securing international market share.

“The project will cost £750,000 and will be delivered in partnership with existing business support structures over the next three years. Without the £300,000 contribution it has received from the ERDF the opportunity for businesses to focus on these international markets would be lost.”

Envirotrade is specifically designed to help companies engaged in the provision of low carbon products and services, such as sustainable construction, bio-fuels, energy efficiency and clean-energy generation, develop their international strategy.




A team of international trade specialists will draw on other sector and mentoring expertise to help businesses identify and assess the strength of the business and overcomes any weaknesses.



As well as the provision of individual support, businesses are invited to workshops which offer the opportunity to network with other organisations in similar situations, and the chance to learn from international speakers. The initiative also encourages overseas trade visits, to learn best practice, and attendance at international exhibitions to promote services and forge new partnerships.

Sanjay remarked: “With the opportunities available to companies in the East of England, it has been important to take advantage of ERDF funding to expand and target our services in this area. Although in the early stages of the project, it is already attracting good levels of interest and we expect to be able to make a important contribution to the regional economy.”

That investment is expected to engage and assist a total of 188 businesses during its lifetime, of which it is anticipated that 15 will go on to integrate a new product, process or service as a result of the intervention. As a result, 36 new exporters and around 50 new jobs will be created within the East of England.

Priority Axis 2			
<b>Funding:</b>	Total Project Cost: £750,000 ERDF: £300,000		
<b>Solution for Business Product:</b>	Accessing International Markets		 
<b>Scope:</b>	East of England	<b>Project Duration:</b>	January 2009–April 2012
<b>More Information:</b>	Sanjay Purohit, East of England International: sanjaypurohit@eeia.com or +44 (0)1223 450450 www.eei-online.com		
<b>ERDF Details:</b>	<p>The European Regional Development Fund (ERDF) is a seven-year investment programme part financed by the European Union. Its objective is ‘towards low carbon economic growth’ in the East of England and €110.9 million has been allocated to our region.</p> <p>The fund aims to help small and medium size enterprises respond to the challenges of climate change and the huge commercial potential behind a low carbon economy.</p> <p>For more information visit w:  <a href="http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/">http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/</a>            or tel+44 0303 4446400</p> <div style="text-align: right;">  <b>ERDF</b>  <small>low carbon economic growth in the East of England</small> </div>		

## Lean, Mean & Green SMEs in the Thames Gateway South Essex region



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One of the major challenges facing local businesses is to maintain viability and profitability during the economic downturn. Electricity, gas, water and raw material costs are all becoming more significant for businesses.

The Low Carbon Business programme provides help to SMEs in the Thames Gateway South Essex (TGSE) region in reducing financial and environmental impact whilst also seeking to develop new business in the low carbon economy and new employment opportunities in existing companies.

The programme is a partnership between ERDF/EEDA, Thurrock Borough Council,

Essex County Council, Groundwork South Essex, Southend Borough Council, Basildon Borough Council, Rochford District Council, Castle Point District Council, Thurrock Thames Gateway Development Corporation, Thurrock Local Enterprise Agency and National Industrial Symbiosis Programme. It has been established to deliver ERDF Priority Axis 2: *Stimulating Enterprise and Supporting Successful Business by Overcoming Barriers to Business Creation and Expansion*.

Over the course of its three-year lifetime, the programme aims to reach at 1,800 SMEs in the TGSE region, delivering a minimum of 12 hours of engagement benefit to a minimum of 1,155 of them. This will be achieved by a mix of consultancy, one-to-one advice and through regional seminars and workshops. At least 415 businesses will receive a green business audit designed to drive successful environmental related initiatives.

Additional direct support will be available through a £1.38 million match funded grants programme, designed to support any actions that can support the delivery of the programme's aim to lower the commercial carbon footprint in the TGSE by 5%, year-on-year, over the lifetime of the programme. Both capital and revenue grants will be considered if they reduce carbon, waste or water usage.

The partners have also set themselves the robust targets around the creation of 40 new business start ups and 10 social enterprises, safeguarding 49 jobs and creating 36 jobs in the region.

Commenting on the importance and relevance of this programme, Peter Wognum, Programme Manager, stated, *“The Thames Gateway South Essex is a very successful economic region and, as a result, has a higher than average carbon footprint. The challenge is to engage with smaller businesses which are traditionally hard to reach and bring the message to them that taking action on reducing CO<sub>2</sub>, waste and water usage means reducing business operating costs. At a time when fuel and raw material costs are increasing at regular intervals, there has never been a more appropriate time to create a vehicle to deliver not only the message, but also the means, to effect measurable change, which would not have been possible without the match funding available from the European Regional development Fund”*.

So far, the programme has helped businesses with the implementation of initiatives such as improved heating/cooling systems, printing processes, PV installation, IT infrastructure enabling increased remote working for traditionally office-based staff and even a bio-mass burner; and with grants being available for as little as £1,000, the programme is able to support even the smallest business.

Priority Axis 2			
<b>Funding:</b>	Total Project Cost: £6,359,237 ERDF: £2,543,694		
<b>Solution for Business Product:</b>	Improving Your Resource Efficiency		
<b>Scope:</b>	Thames Gateway South Essex	<b>Project Duration:</b>	October 2009 – June 2013
<b>More Information :</b>	Peter Wognum, Programme Manager, Low Carbon Business <a href="mailto:peter.wognum@lowcarbonbusiness.org.uk">mailto:peter.wognum@lowcarbonbusiness.org.uk</a> or 01268 758423		
<b>ERDF Details:</b>	<p>The European Regional Development Fund (ERDF) is a seven-year investment programme part financed by the European Union. Its objective is ‘towards low carbon economic growth’ in the East of England and €110.9 million has been allocated to our region.</p> <p>The fund aims to help small and medium size enterprises respond to the challenges of climate change and the huge commercial potential behind a low carbon economy.</p> <p>For more information visit w: <a href="http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/">http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/</a> or tel+44 0303 4446400</p>		



## Eco-hub for disadvantaged entrepreneurs



**Setting up your own environmentally-friendly business can be challenging enough but with a tough economic climate and youth against you, success is even harder to achieve.**

But, with the help of the Southend YMCA, young disadvantaged entrepreneurs will benefit from the conversion of a dilapidated historic building into a brand new eco-hub facility providing affordable workspace,

meeting rooms and conference facilities.

The old St John's Stables are set to be transformed into the new eco-hub which will provide the necessary vital support to help fledgling businesses at a crucial time in their development and, over the course of three years. It is expected to enable 90 small and medium-sized businesses to adopt an active environmental policy. It will also create 16 jobs including a new eco-hub manager.

Explaining how the idea was conceived, Syrie Cox, chief executive officer, Southend YMCA, said: "Although Southend-on-Sea has a high entrepreneurial culture, it has a higher than average failure rate among business start-ups. As we support around 500 marginalised young people in the area, we wanted to provide them with the option of starting a business as a way of helping them progress towards independence and greater inclusion."



Creating a total of 200m<sup>2</sup> of new employment space, the project will deliver five affordable and managed workspace units, multi-purpose rooms for group work and meeting rooms as well as conference facilities. With on-site support and access to mainstream business networks, it will also provide young entrepreneurs with business advice and support to help them develop eco-efficient, ethically aware, enterprises.

As well as helping new businesses to be environmentally-friendly, the building itself will lead by example to become an eco-efficient flagship building. The renovation work undertaken will use sustainable development principles to Building Research Establishment Environmental Assessment Method (BREEAM) standards of 'very good' and the finished building will also comply with Building for Life criteria – the national standard for well-designed homes and neighbourhoods.

With high government targets for the reduction of carbon emissions, innovative schemes to help businesses become more carbon efficient and projects encouraging young people to take responsibility for these issues at the very beginning of their business life are vital.

To provide an impact longer-term by encouraging other new businesses in the area to put low carbon at the heart of their daily business practices, the intention is for established, successful small and medium-sized enterprises to move out of the eco-hub to make room for other new start-ups.

The project is estimated to cost in the region of £768,000 with £307,244 coming from the European Regional Development Fund (ERDF). Talking about the importance of the funding Syrie said: “The project would not have been possible without the financial contributions from the European fund and other partners. We are extremely grateful to ERDF for their support throughout the whole process.”

Priority Axis 3			
<b>Funding:</b>	Total Project Cost: £768,061 ERDF: £307,224		
<b>Solution for Business Product:</b>	Low Carbon Energy Demonstration and Business Premises		 
<b>Scope:</b>	Essex	<b>Project Duration:</b>	June 2009 – June 2012
<b>More Information:</b>	Syrie Cox, chief executive officer, Southend-on-Sea YMCA syriecox@southendymca.com or +44 (0) 1702 301301		
<b>ERDF Details:</b>	<p>The European Regional Development Fund (ERDF) is a seven-year investment programme part financed by the European Union. Its objective is ‘towards low carbon economic growth’ in the East of England and €110.9 million has been allocated to our region.</p> <p>The fund aims to help small and medium size enterprises respond to the challenges of climate change and the huge commercial potential behind a low carbon economy.</p> <p>For more information visit:  <a href="http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/">http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/</a> </p>		



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## ERDF case study

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### Thames Gateway South Essex (TGSE) / Leading a low carbon economy

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- TGSE project helps local businesses towards lower carbon future
- £2.5m ERDF grant enables awareness raising events, grants and environmental action plans
- Up to 1200 businesses could benefit

ERDF funding is now supporting an ambitious programme designed to help the business community in Thames Gateway South Essex (TGSE) weather the current economic downturn – and lower its carbon footprint - by improving its use of energy and other resources such as water and transport. 'Much of the industry in our area is very polluting,' explains Tina Murphy, Regeneration Manager for Thurrock Council, initiator of the TGSE / Leading a Low Carbon Economy programme, 'and so the potential benefits of minimising energy and resource usage are quite significant.'

The programme, started by Thurrock Council, initially focused on supporting existing SMEs and the establishment of business start-ups and social enterprises in Thurrock, but the idea was so relevant to the wider TGSE sub-region that the programme has been extended and is now run by a partnership of 10 organisations, including six local Councils, a charitable trust, a Development Corporation, a Local Enterprise Agency and specialist consultancies\*.

The £2.5 million grant was awarded in October 2009, and although the programme is still at an early stage, the roadmap is clear. 'We have three overarching phases of targeted activity,' explains Tina. 'In phase one, we want to raise awareness of the benefits of 'greening' a business. To do this, we're planning a series of events and other awareness raising initiatives, and the development of a 'Green Business Pledge'. In phase two, we will start to embed green management principles within businesses, aiming to make sure any innovations adopted remain effective in the longer term. We will undertake energy audits, deliver personal support for businesses, and develop environmental action plans on an individual business basis. Finally, in phase three, we plan to deliver carbon reduction solutions which will really enhance business activity, such as advising on existing support (grants, loans etc), mentoring support, and provision of a 40 per cent revenue or capital grant to

achieve the carbon reduction solutions outlined in the environmental action plans.'

Following the launch (July 2010), the partnership organisations are now recruiting key team members, holding events across the region to raise the profile of the programme, and starting to undertake green audits with some of the 1,200 businesses identified as potential beneficiaries of the programme. The partnership will also undertake baseline research into current information provision to gain a true picture of the advice on offer. Feedback shows that businesses feel 'swamped' by the amount of information available – this torrent now needs to be assessed and managed so that businesses can easily access information of real relevance.

When researching possible funding for the programme, Tina and her team soon realised that an ERDF grant was an excellent fit. 'Having already identified low carbon as a strategic initiative in Thurrock, we realised that an ERDF grant was even more appropriate, especially as the core idea was now extending beyond Thurrock.' Tina welcomed the assistance of the team during the grant application process, and found the regular meetings held with facilitators were a great source of pragmatic help and advice when drafting the application and business case.

**In summary, the grant £2.5m is being used to:**


- support initial awareness raising events and activities
- fund 40 per cent of the grants which form part of the programme.
- support the delivery of the green audits and environmental business plans
- enable delivery of some of the operational aspects of the project, such as the website and branding for the whole programme.

Clearly defining indicators of success was an important part of the grant application process: 'We have very precise targets, such as a five per cent reduction in water use by 2010. We will also be monitoring the number of SMEs that receive a minimum of 12 hours support from the programme; the number of green audits undertaken, the number of grants awarded and how they are used, any increase in jobs resulting from the programme, the number of Social Enterprises and Business Start Ups established in Thurrock; and also the way the partnership is operating,' explains Tina. With ten partners involved, establishing the best way to work together has been 'challenging but also inspiring' she says, adding: 'Getting it right is vital, as our experience could become the model for similar initiatives across the UK.'

**\*TGSE partnership:** Castle Point Borough Council, Thurrock Council, Essex County Council, Groundwork South Essex, Southend Borough Council, Basildon District Council, Rochford District Council, Thurrock Thames Gateway Development Corporation, Thurrock Local Enterprise Agency, National Industrial Symbiosis Programme on behalf of International Synergies Ltd.

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## Priority Axis 2

<b>Funding:</b>	Total Project Cost: £6.359m ERDF: £2.543m		
<b>Solution for Business Product:</b>	Improving Your Resource Efficiency (IYRE)		 
<b>Scope:</b>	South Essex	<b>Project Duration:</b>	October 2009 – December 2012
<b>More Information:</b>	Tina Murphy, Regeneration Manager, Thurrock County Council, 01375 652186, tmurphy@thurrock.gov.uk		
<b>ERDF Details:</b>	<p>The European Regional Development Fund (ERDF) is a seven-year investment programme part financed by the European Union. Its objective is 'towards low carbon economic growth' in the East of England and €110.9 million has been allocated to our region.</p> <p>The fund aims to help small and medium size enterprises respond to the challenges of climate change and the huge commercial potential behind a low carbon economy.</p> <p>For more information visit</p> <div style="text-align: right;">  <p><b>ERDF</b> low carbon economic growth in the East of England</p> </div> <p>+44 03034446400 W: <a href="http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/">http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/</a></p>		



## Transport Advice Helps Businesses Smile



**With domestic transport alone responsible for 24 per cent of the CO<sub>2</sub> emissions in the UK, and with a government target to reduce the UK's greenhouse gas emissions by 80 per cent by 2050, it is essential a solution can be found to address this growing problem.**

To help tackle this issue regionally, a green travel consultancy service called Business Smiles has been set up to help SMEs in

Suffolk and Hertfordshire, by providing advice on how to reduce businesses' use of cars, vans and lorries.

The free travel advice service has been specifically designed to assist SMEs review their transport needs, including commuting by staff. The plans are then used to make their transport policies as efficient as possible, saving around £10,000 annually and cutting CO<sub>2</sub> emissions by 10 per cent.

The scheme also enables staff within these businesses to access discounted bicycles, public transport, journey planning, car sharing and real-time travel information through mobile ticketing and digital technologies.

The initiative will take an innovative approach to assessing the effects of these changes. Specialist software specifically designed to track commuting and business mileage through the movements of cars, vans and lorries, will enable the collation of a sophisticated level of data. The degree of reduction in carbon emissions will then be calculated for each mode of transport and the effects of the change in behaviour fully analysed and evaluated.

Peter Lee, sustainable transport strategy manager, at Suffolk County Council explained why the project is so important to businesses in the area: "Very few small businesses have taken advantage of the tax incentives and other benefits that large organisations can achieve through green travel plans. This is simply because they don't have the resources, expertise or time to investigate the details.

“Business Smiles helps SMEs access practical measures and solutions to their transport problems as well as offering advice on other available grant schemes. This will go a long way towards helping them cut their CO<sub>2</sub> emissions and reduce their business costs and is welcome news to businesses, especially during the current economic climate.”

A regional project, Suffolk County Council is supported in the delivery of Business Smiles by business, skills and economic development company, Exemplas, along with a multi-agency partnership including the Highways Agency, Ipswich Borough Council, St Albans District Council and Hertfordshire County Council.

With congestion costing businesses millions of pounds annually through lost productivity, the three-year project will play an important role in enabling SMEs to grow their businesses and reduce their carbon footprint.

The £2 million project has received funding from a number of sources, including £830,000 from the European Regional Development Fund (ERDF). The project aims to assist 160 SMEs within Ipswich and St Albans.

Priority Axis 3			
<b>Funding:</b>	Total Project Cost: £2,051,000 ERDF: £830,000		
<b>Scope:</b>	Suffolk and Hertfordshire	<b>Project Duration:</b>	Jan 2010–Dec 2012
<b>More Information:</b>	Peter Lee, Suffolk County Council: 01473 265043 or peter.lee@suffolk.gov.uk		
<b>ERDF Details:</b>	<p>The European Regional Development Fund (ERDF) is a seven-year investment programme part financed by the European Union. Its objective is ‘towards low carbon economic growth’ in the East of England and €110.9 million has been allocated to our region.</p> <p>The fund aims to help small and medium size enterprises respond to the challenges of climate change and the huge commercial potential behind a low carbon economy.</p> <p>For more information visit w:  <a href="http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/">http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/</a>            or tel+44 0303 4446400</p>		





## Turnpike Business Centre

Location: Wymondham Number of FTEs: 2 directly (home to approx 20 tenants) Turnover: £100k



### THE BENEFITS

Replacement of and management of lighting:

- Investment: £1,653
- Cost savings: £1,000 per year
- Carbon savings: 4.5 tonnes of CO<sub>2</sub>
- Payback in: 18 months

Wind Turbines

- Investment: £0
- Cost savings: £700 per year
- Carbon savings: 3.6 tonnes per year
- Payback in: Instantly

### THE CHALLENGE

The Turnpike Business Centre occupies a farmhouse and outbuildings that date from 1640. The house was derelict and on the County's 'At Risk' register when local entrepreneur Robert Ashton bought and restored the building in 1998. The adjoining barns were also converted to create further office accommodation and a family home. Four businesses work from the Centre which operates for at least ten hours a day. The REV ACTIVE team was invited in to look at the opportunities to bring down running costs and reduce the carbon consumption of the centre.

### REV ACTIVE'S ROLE

A site survey and analysis of the energy costs by REV ACTIVE showed that considerable savings could be made.

### THE SOLUTION

REV ACTIVE provided a modest grant to change the light bulbs and fittings. The biggest savings will result from the installation of two 5kw wind turbines. These were installed and operated by Honingham-based Windcrop. Their business model is perhaps unique in that it provides the turbines and sells the power generated to the site owner at around half market rates. They sell surplus production onto the National Grid. REV Buyer ([www.revbuyer.co.uk](http://www.revbuyer.co.uk)) also provided the perfect solution for cost-effective firewood provisions, saving hundreds on this expensive resource.



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## Universities help SMEs go green



**Knowledge Transfer Programmes (KTP) have grown in popularity over the last few years and remain a highly regarded and effective way for businesses to access and benefit from the knowledge base of higher educational institutions.**

Now a new low carbon knowledge transfer programme has been developed by the Association of Universities in the East of England specifically to help businesses

improve their competitiveness, productivity and performance by reducing their carbon emissions.

Managed by the Anglia Ruskin University, the Low Carbon KEEP Programme gives businesses easy access to the low-carbon expertise held in the region's universities.

Project director, Dr Tony West, from Anglia Ruskin University, explained: "Whilst classic KTPs typically run for about 24 months, this specialist low carbon programme aims to deliver the relevant knowledge over a period of four to twelve. This tactical intervention enables businesses to reap the rewards almost instantly.

"The Low Carbon KEEP Programme has been designed specifically for those businesses looking to achieve a reduction in carbon emissions, either within their own business by changing the way they operate, via their supply chain or via their customer base by developing a new product or service, or by exploring a new market. "



Projects eligible for help from the Low Carbon KEEP Programme could be in one of the following areas: technology development or adoption; process improvement, for example the reduction of energy consumption; change in behaviour, such as waste reduction and recycling; and the reuse or extension of a component or products life. However the possibilities for projects are broad and all good ideas are encouraged.

Innovation is essential if businesses are to move efficiently and effectively towards a low carbon and sustainable existence, so the new initiative focuses on helping businesses create new products, processes and services. It is also hoped that they

will subsequently influence others to reduce their own carbon emissions by demonstrating tangible examples.

As well as Anglia Ruskin University, other members of the Association of Universities in the East of England will be delivering the Low Carbon KEEP projects including Cranfield University, University of Essex and University of Hertfordshire with an 'Associate' from the university or academic institution being responsible for transferring the knowledge. It is also possible for universities outside the East of England to take part in the programme.

The Low Carbon KEEP Programme has been made possible as a result of £2,842,759 funding from the (ERDF). At a total cost of £7,106,898, the programme aims to help 331 individual businesses over the course of two and a half years.

Priority Axis 1			
<b>Funding:</b>	Total Project Cost: £7,106,898 ERDF: £2,842,759		
<b>Solution for Business Product:</b>	Knowledge Transfer Partnerships		
<b>Scope:</b>	East of England	<b>Project Duration:</b>	Jan 2010– Dec 2012
<b>More Information:</b>	Carole Randall, Low Carbon KEEP Programme Manager carole.randall@anglia.ac.uk or +44 0845 196 4310		
<b>ERDF Details:</b>	<p>The European Regional Development Fund (ERDF) is a seven-year investment programme financed by the European Union. Its objective is 'towards low carbon economic growth in the East of England and €110.9 million has been allocated to our region.</p> <p>The fund aims to help small and medium size enterprises respond to the challenges of climate change and the huge commercial potential behind a low carbon economy.</p> <p><a href="http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/">http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/</a> or tel+44 0303 4446400</p> 		

## Waste not, want not



**Leftover food is a significant part of the UK's landfill, therefore finding a solution to reduce and reuse this waste is essential in reducing CO<sub>2</sub> levels.**

Leading the way in this field is Adnams Bio Energy Ltd who has developed a groundbreaking facility in Suffolk, designed specifically to produce renewable energy and to reduce carbon emissions and landfill waste in the East of England.

Completed in 2010, the anaerobic digestion facility will convert food waste from local businesses, hotels and restaurants, along with brewery waste from the nearby Adnams plant, into green gas and other by-products.

Lyn McGoff, technical development manager for Bio Group Ltd who is responsible for designing and constructing the facility, explained: "The new facility has been designed to take advantage of the most recent developments in the field of anaerobic digestion and will be the first of its kind to generate renewable energy which will be made available to the national grid.

"The anaerobic digester will break down 12,000 tonnes of organic waste per year to produce biogas for fuelling converted vehicles as well as the green gas which will be injected into the gas network."

The anaerobic digester itself will consist of two digester units, both 3.5 meters in length, in which naturally occurring bacteria will act without oxygen to break down the matter into biogas (methane and CO<sub>2</sub>) and liquid waste. As with any process there will be by-products, but even these are recycled with the liquid waste being used as fertiliser for local farm land and the CO<sub>2</sub> potentially being used to grow algae, which is then recycled through the digester.



The new facility will be built on the site of the Adnams brewery at Reydon, Southwold, next to one of the principle waste producers. For other local businesses, a collection service will be established to help with the logistics of transporting waste to the plant.

The digester will have a considerable impact on the reduction of carbon emissions in the region. It is estimated that the facility will save the equivalent of at least 50,000 tonnes of CO<sub>2</sub> compared to landfill and up to 2,400 tonnes per annum from fuel use – the equivalent to just over 30,000 flights from London to New York.

The digester will also have a positive impact on the local economy, saving an estimated 5 per cent in landfill costs for every customer who uses the facility and creating new jobs in the area.

With the Adnams Bio Energy facility being at the forefront of developments in anaerobic digestion, the facility will be used to demonstrate the use of innovative low carbon technology, particular in its generation of renewable energy, and it is hoped that it will inspire other organisations and businesses to consider similar projects.

The whole project is set to cost in the region of £2.9 million and has received funding from a number of sources. £806,241 has been received from the European Regional Development Fund (ERDF), £480,000 from EEDA and a further £480,000 from the Department of Energy and Climate Change (DECC).

Priority Axis 3			
<b>Funding:</b>	Total Project Cost: £2,968,493 ERDF: £806,241 EEDA: £480,000 DECC: £480,000		
<b>Solution for Business Product:</b>	Improving Your Resource Efficiency		 
<b>Scope:</b>	Suffolk	<b>Project Duration:</b>	Sept 2009–April 2010
<b>More Information:</b>	Lyn McGoff, technical development manager, CRS Bio Design: lynn.mcgoff@crservices.co.uk or +44 01353649800		
<b>ERDF Details:</b>	<p>The European Regional Development Fund (ERDF) is a seven-year investment programme part financed by the European Union. Its objective is 'towards low carbon economic growth' in the East of England and €110.9 million has been allocated to our region.</p> <p>The fund aims to help small and medium size enterprises respond to the challenges of climate change and the huge commercial potential behind a low carbon economy.</p> <p>For more information visit w:  <a href="http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/">http://www.communities.gov.uk/regeneration/regenerationfunding/europeanregionaldevelopment/eastengland/</a>            or tel+44 0303 4446400</p>		

