

theaxionnewsletter

WELCOME to the latest edition of the Axion Newsletter. In this issue find out about Axion's business plan for an oilseed rape crushing plant in the North East, Axion Polymers' new coffee-aroma polymer developed for Re-worked and Axion and PROJEN's new strategic alliance.

NORTH EAST OILSEED RAPE CRUSHING PLANT OPPORTUNITY.

Axion Consulting has recently completed a project for NEPIC (North East of England Process Industry Cluster) to develop a business plan for a 500,000 tonnes per annum oilseed rape crushing operation in the North East region and to identify the benefits it could bring to the biofuels industry, the agricultural industry and the animal feed sector. The proposed



plant would crush oilseed rape, to produce oil for use in biofuel manufacture and rapeseed meal for use as feedstock for the animal feed industry.

One North East, the Regional Development Agency for the North East of England, has commissioned NEPIC to deliver the Regional Strategy for Transport Biofuels.

Axion's study included:

- Supply chain analysis, focusing on the markets for oilseed rape, oil and rapeseed meal;
- Financial analysis, establishing the cost of feedstock materials and pricing of the outputs;
- Detailed transport analysis including costs;
- Assessment of the proposed facility including location, capital and operating costs; and
- Financial forecasts.

Axion identified three major factors that would be critical to the success of a crushing plant in the North East region:

1. Establishing firm agreements with biofuel companies. Biodiesel production is the only currently viable market for the oil, as existing oilseed rape crushing facilities produce enough rapeseed oil to serve the entire UK food industry;
2. Securing the availability of feedstock for the crushing operation. Currently, UK oilseed rape production largely matches demand and the proposed crushing facility would be in competition with other companies wishing to purchase the feedstock material. Axion examined possible solutions including increasing domestic production of the crop by either switching arable land use, contracting ethanol wheat growers to sow rape as a rotation crop, increasing yields using new farming techniques and seed strains or importing oilseed rape from countries that grow large volumes, such as Latvia, Poland and Romania; and
3. Maintaining adequate profit margins given the fluctuations in the price of seed, meal, oil and biodiesel and competing oilseeds such as soya and sunflower. Axion found that, although subject to some fluctuation in price and demand, there is likely to be an adequate domestic market for the rapeseed meal that would be produced by the crushing facility.

Axion has completed its report and it is available to read on line at:

<http://www.northeastbiofuels.com/reports/> Click on: 'Business Plan for OSR Crushing Operation in North East England.'

AXION GIVES RECYCLED PLASTICS A 'CAFFEINE' KICK

Tables and chairs made with waste coffee take the cappuccino experience to a whole new level thanks to a unique coffee-aroma polymer developed by Axion Polymers for Re-worked, a London-based industrial design and product development enterprise.

Axion blended mixed WEEE and post-consumer retail waste plastics with spent coffee grounds collected from the capital's offices, cafes and factories to make 'aromatic' pellets. Re-worked had these moulded into plastic sheeting to create Çurface (pronounced Surface) - a revolutionary and versatile hard surfacing product with a faint coffee smell.

Axion believes it is the first time waste from coffee has

been used in this way.

Re-worked commercially launched the 'tactile' material - described as a cross between dark leather and wood - in March at Ecobuild 2010 where its debut as furniture made from recycled materials attracted considerable interest.

Re-worked Director Adam Fairweather hopes his idea will catch on, particularly with catering establishments for which it has particular relevance. Inspiration came to him (literally) during a coffee break while researching ways to add a new high perceptual value to non-recycled waste such as coffee.

"Coffee is a globally-traded commodity and highly-regarded in contemporary culture; so it was an obvious choice to use the waste product as a way of communicating a big message... ..Continued

AXION GIVES RECYCLED PLASTICS A 'CAFFEINE' KICK ...Continued

... in sustainable and functional design," he explains. "It's a great talking point that really engages the consumer with the product's environmental story."

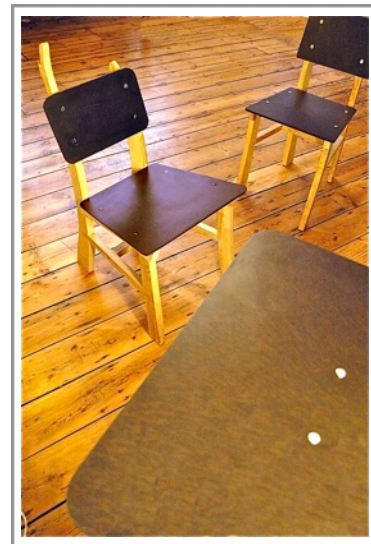
Adam reckons there is great potential for Çurface, especially given its considerable source waste stream that would otherwise be landfilled. Spent coffee grounds are cleaned and sterilised before being mixed and turned into sheeting.

He adds: "Every month the UK imports 14,000 tonnes of coffee from which there is plentiful waste, often in a pure form that can be separated easily for recycling. We're working with Axion on various composite coffee products to extend the Re-worked philosophy into exciting new areas."

Steve Bell, Senior Product Development Supervisor at Axion Polymers, says this success opens up

possibilities for other 'smelly' applications in recycled plastics.

"We have the capability to do clever things with recycled materials and we're not aware of anyone else using coffee in this way," he adds. "It certainly gives the polymer a different appeal...and we were smelling coffee in the factory for two days afterwards," he adds.



For further information about Axion Polymers' custom-made polymers, please contact the Axion Sales team on 0161 737 6124

AXION AND PROJEN FORM STRATEGIC ALLIANCE

Axion has joined forces with PROJEN plc in a strategic partnership to develop business opportunities in the biofuels, advanced thermal waste processing, speciality chemicals and mineral processing sectors.

Axion's joint venture with PROJEN, one of the UK's leading industrial project management companies, brings together the complementary skills of two highly-experienced and professional consulting companies, as well as providing both firms with exciting possibilities for growth.

Through this alliance, clients can access a broader portfolio of expertise that combines Axion's strong process design and development capabilities with PROJEN's proven project management strengths.

The two companies forged links several years ago when Axion helped Greenergy Biofuels to select PROJEN as its preferred supplier of project management services for its fuel storage facilities and large-scale biodiesel production plant.

Axion Director Roger Morton says the collaboration brings benefits to the clients of both businesses with the ability to offer a wider range of specialist skills, best practice business processes and increased resources – particularly for larger or more complex projects.

"We have complementary skills, therefore it made perfect sense to develop this strategic alliance in carefully defined areas with PROJEN; a company we already know well and trust through our existing work," says Roger.

PROJEN's Managing Director Martin Seabrook comments: "At PROJEN we have a set of values and culture that we all share. Our success has been built on working closely with our clients and by 'doing what we say we will do'. As such, it is vital that when we align ourselves with a partner they must share our business ethos. After many years of working with Axion on an informal basis, it became totally logical to progress to a more collaborative way of working."

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