

# theaxionnewsletter

**WELCOME** to the latest edition of the Axion Newsletter. In this issue, find out about the results of Axion Consulting's new trials to recycle post-consumer polypropylene carpets, Axion being named as a finalist in the forthcoming National Council for Work Experience awards and some role changes at Axion Polymers.

## AXION TRIALS SHOW FUTURE POTENTIAL FOR CARPET RECYCLING

Ground-breaking trials by Axion Consulting have shown waste polypropylene carpets can be recycled into good quality polymer pellet for re-use in new applications, such as injection-moulded products.

The findings could stimulate the UK's fledgling carpet recycling industry and develop new markets for PP recyclate with associated environmental and economic benefits.

The project was initiated by Carpet Recycling UK which secured funding from Envirolink NW to investigate recycling options for post-consumer carpets and possible new end-use markets for PP products made from recovered material. Processing stages involved size reduction, screening and extrusion.

Tests showed that while post-industrial extruded polymer had potential for use in a range of applications including injection moulding, further work was needed to verify its suitability. Post-consumer material could be recycled for medium to lower grade applications such as plant pots, compost bins or buckets.

Axion's demonstration trials and laboratory tests at its Salford plant concluded that while the economics of the recycling process 'look promising', the next steps would require large-scale trials to assess commercial viability.

Axion Director Roger Morton says:

"We believe this is the first in-depth study of its kind in the UK and are very pleased with the positive results. Carpet recycling in the UK is currently limited with only a few companies involved and recycling processing in development stages. So this successful study shows exciting potential and promise for material recovery from a difficult and largely-ignored waste stream."

Axion also found that correct identification and segregation of post-consumer carpets into an entirely PP fraction is critical to the viability of a commercial process to recycle carpets. Mixed polymer carpet material is not suitable for extrusion, so their end market is still likely to be other applications.

Currently very few recycling processes exist to handle the UK's 500,000 tonnes of carpet waste that is sent to



Bales of carpet waste

landfill each year. The UK's carpet industry recycling rate is under 2% - an estimated 6,000 to 10,000 tonnes – so developing reprocessing infrastructure could significantly reduce the environmental impact of carpet disposal.

Carpet Recycling UK was formed as a not-for-profit association of companies from the carpet industry to take a lead in waste reduction by co-ordinating research and development and has built up a significant knowledge base. The organisation is now seeking further research funding and wants to pursue commercial scale carpet recycling trials as Chief Executive Kate Chappell explains:

"This study shows there is great potential to reclaim valuable material from carpet waste and re-use it in new products in a variety of end markets. We are actively pursuing fresh sources of funding to take this exciting breakthrough to new levels."

Dave Taylor from Envirolink Northwest comments:

"By funding trials to help divert post-consumer waste carpets from landfill, Envirolink is actively supporting the Government's directives to reduce landfill, while building a low carbon economy in the region. This successful outcome will have both environmental and economic benefits, as future growth in the region's recycling sector will help to create and safeguard jobs."

For further information, contact Jane Gardner at Axion Consulting tel: +44 (0) 161 426 7731

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## AXION NOMINATED FOR WORK EXPERIENCE AWARD



Axion has been shortlisted for an award for the quality of the work experience placements that it provides for undergraduate students. The National Council for Work Experience (NCWE) has confirmed that Axion is a finalist in the category 'Best Work Experience Provider – As nominated by a Careers Advisor'.

The company has been nominated by Manchester Metropolitan University (MMU) lecturer, Jonathan Lageard, who has placed a number of students with the Axion. Jonathan Lageard is a Senior Lecturer in the Department of Geographical and Environmental Science and has responsibility for organising sandwich year placements for the students.

Axion Senior Consultant Jane Gardner comments:

“The course content of the Environmental Science degree at MMU is very relevant to Axion’s core business and has consistently provided us with high calibre students keen to get involved in the wide range of challenging projects that we work on.”

Each year Axion provides placements for students from the Manchester Metropolitan University’s Environmental Science degree and the University of Manchester’s Chemical Engineering degree course, together with short-term placements each Summer for Chemical Engineers. Axion has worked on a number of projects with Environmental Science students at Lancaster University and a Chemical Engineering student from Edinburgh University will be completing a six month placement with the company this year. Axion recruits two graduates per year to its permanent staff, three in 2009. Roger Morton, Axion Director, sees the arrangement as mutually beneficial:

“Placements provide students with the opportunity to gain valuable, practical work experience enabling them to transfer the skills and knowledge learned at University to the workplace. Axion benefits from the enthusiastic approach of the students who bring different perspectives to projects and from the opportunity to network with relevant academic departments.”

NCWE will announce the winner of the award in London on 23<sup>rd</sup> March.

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## ROLE CHANGES AT AXION POLYMERS.



Axion Polymers’ has appointed Mark Keenan as full-time Quality Compliance Supervisor. Mark, who was formerly Axion Polymers’ Quality Control Technician, has now taken over responsibility for Quality Systems Management at the site, including dealing with the quality manual, permits,

licences and all site-related environmental issues. Mark has gained his VRQ WAMITAB (Waste Management Industry Training Advisory Board) Level 3 Certificate in Waste and Resource Management qualification, becoming Axion’s designated fully qualified technically competent person for Waste and Resources Management on site.

Steve Bell has been appointed Product Development Supervisor, with responsibility for all new product R & D, modifications and customised products.

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