



**For immediate release**

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### **Haydale, ARTIS and Trelleborg Antivibration Solutions Set to Collaborate on New R&D Project**

Haydale, ARTIS, part of Avon Rubber Plc, and Trelleborg Antivibration Solutions are pleased to announce that they are to embark on a two-year research and development project. This highly innovative project will investigate the use of Haydale's patented plasma functionalisation for the enhancement of recovered carbon materials that are produced from the recycling of waste tyres so that these materials have the desired properties to enable them to be reused in engineering applications of rubber.

The project will also use plasma functionalised graphene, either alone or in combination with the newly developed recovered black materials as a hybrid system, to develop novel multifunctional elastomeric materials and products that can find a wide variety of applications across several different industry sectors.

This two-year project is co-funded by the UK's innovation agency, Innovate UK and has a total project budget in excess of £750,000.

Commenting, Dr Matthew Thornton, Senior Manager at Haydale, said: "We recognise the strength of our partners in this project to be able to take the solutions that will be developed to market on a global level. We believe our expertise in functionalisation will ensure that we can design and deliver the desired type and degree of functionality to recovered carbon black materials and that these, in combination with functionalised graphene and other nanomaterials, will subsequently find applications across the elastomer industry, primarily through the market sectors served by the partners in this project consortium".

Martyn Bennett, Chief Scientist at ARTIS, said: "We are very excited at this opportunity and have worked with the other partners in the past so that we are very familiar with their capabilities. We fully believe that this technology can enhance the opportunities for graphene and other nanomaterials and offers scope to grow our technology offerings to the recovered carbon industry through functionalisation and deliver this to the key players at the heart of the rCB industry".

Bill Mortel, Head of Materials at Trelleborg Antivibration Solutions, commented "Trelleborg are keen to support this project to enable the use of recycled materials having good engineering properties. The use of plasma treatments and graphene additives within our formulations, with the goal of performance improvements, is of great interest to us for potential adoption as a production process".

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**Innovate UK**



**For further information:**

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**About Haydale**

Haydale is a global technologies and advanced materials group that facilitates the integration of nanomaterials into the next generation of commercial technologies and industrial materials. With expertise in graphene, silicon carbide and other nanomaterials, Haydale is able to deliver improvements in electrical, thermal and mechanical properties, as well as toughness. Haydale has granted patents for its technologies in Europe, USA and China and operates from six facilities in the UK, USA and the Far East.

Website: [www.haydale.com](http://www.haydale.com)

**About ARTIS**

Established in 2007, ARTIS provides research and development capabilities in a wide range of rubbers and polymers. They offer compound analysis, material testing and solution validation, as well as sour gas ageing facilities. Their aim is to help worldwide industries better understand how materials perform in real applications and manufacturing processes.

Their materials analysis service is supported by compounding and manufacturing facilities; physical testing to measure property performance, and thermal, environmental, and demanding environment ageing capabilities for elastomers and other polymer materials, such as plastics, composites and adhesives.

ARTIS' experts continue to deliver the depth and breadth of knowledge you would expect from an organisation with over 100 years of history with Avon Rubber plc. Their extensive knowledge and innovative research into rubber recycling has delivered ground breaking solutions that broaden the markets for recycled products, as well as increasing the yields, quality and value of rubber pyrolysis processes.

Website: <http://www.artis.uk.com/>

**About Trelleborg Antivibration Solutions**

Using advanced polymer technology, Trelleborg's Antivibration Solutions (AVS) operation specialises in the field of rubber-to-metal bonding for the removal of unwanted noise and vibration. Part of the Industrial Solutions division of Trelleborg Group, they harness over 100 years of experience to solve a wide range of application and environmental challenges in sectors including rail, marine, industrial and off highway.

Focused on isolation, attenuation and suspension solutions of unrivalled quality and reliability, they have a reputation for high quality, outstanding performance and long service life. Their commitment and expert polymer technologies optimise comfort, health and safety while creating maximum business value through improved longevity, productivity and cost effectiveness

Website: <http://www.trelleborg.com/en/anti-vibration-solutions>

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### **About Innovate UK**

Innovate UK is the UK's innovation agency. It works with people, companies and partner organisations to find and drive the science and technology innovations that will grow the UK economy.

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