

TECTONIC INTERNATIONAL LIMITED

BREAKING NEWS

January 2019

£1.8 SMART EXPERTISE project on Applications of Functionalised Micro & Nano Materials

The Application of Functionalised micro and Nano materials, scale up to volume production is a 36 month £1.8M project funded by the Welsh Governments SMART Expertise Programme using European Regional Development Funds.

Swansea University with Haydale Graphene Industries, GTS Flexibles, Alliance Labels, Tectonic International, Screentec Flexible Print Solutions, Alliance Labels, Malvern Panalytical and the English Institute of Sport are working together on a Welsh Government SMART Expertise development project to create a viaduct across the “valley of death” for innovative new products enabled by functional inks.

The expertise of each industrial partner is being combined to enable demand driven concepts to be rapidly transitioned from proof of concept into volume, profitable new products. These will flow through the Applications of Functionalised Micro & Nano Materials (AFM²) Product Pipeline.

This project is unique in that it is driven by market pull.

Three product exemplars provided by the English Institute of Sport (EIS), Tectonic International and GTS Flexibles are being used to initiate the pipeline – wearable technology for elite athletes, SMART packaging and automotive, aerospace. The project has been structured allowing a steady feed of new concepts into the pipeline to ensure its sustainability whilst presenting new value-added product opportunities to the printing industry and exciting new products to the consumer.

Initial work is already in progress in collaboration with both the Welsh Centre for Printing and Coatings (WCPC) and Elite and Professional Sport (EPS) Research Group Swansea University to incorporate advanced materials into flexible, printable coatings which will be embedded into a range of apparel for elite athletes in training for the 2020 Olympic and Paralympic Games whilst Tectonics’ WARMALONGA smart pack will provide a heated vehicle for fast food.

This project builds on research in the WCPC, Swansea University, into printing as an advanced manufacturing process. The WCPC has developed experimental design strategies coupled with fundamental knowledge of the printing process which will be applied in this project. These are based on a holistic approach that includes the interaction of process parameters that have been applied successfully to graphics printing.

Please visit our website for progress updates or contact us directly for further information.