Has the Tech Industry Got Wearables All Wrong?

The key to unlocking the $150 billion wearables market is textiles not silicon

MANCHESTER, UK, July 18, 2016 /EINPresswire.com/ -- There has been a lot of talk about wearable technologies over the past couple of years, with much of the initial enthusiasm fizzling out as the industry struggles to move beyond fitness trackers and smart watches. By starting with the silicon the tech industry is getting things wrong according to a new study from Cientifica Research.

Smart Textiles and Wearables looks at the advent of textile based wearables and predicts a $70-billion-dollar market by 2022. That is good for the manufactures of smart apparel, an opportunity already spotted by Nike, Under Armour and other sportswear companies, but even better for the producers of 2D materials. Much of the added value of wearables will be enabled by nano and 2D materials, representing a multibillion dollar opportunity for producers of graphene and metal inks and fibres.

This will enable the transition of the wearable market away from one dominated by discrete hardware based on MEMS accelerometers and smartphones to applications where the garments themselves are the sensors. Unlike today's 'wearables' tomorrow's devices will be fully integrated into the the garment through the use of conductive fibres, multilayer 3D printed structures and two dimensional materials such as graphene.

Largely driven by the use of nanotechnologies, this sector will be one of the largest end users of nano- and two dimensional materials such as graphene, with wearable devices accounting for over half the demand for these materials by 2022. Products utilizing two dimensional materials such as graphene inks will be integral to the growth of wearables, representing a multi-billion dollar opportunity for producers.

This represents significant opportunities for both existing smart textiles companies and new entrants to create and grow niche markets in sectors currently dominated by hardware manufacturers such Apple and Samsung.

Report author Tim Harper explained "Rather than cramming ever more complex sensors onto a smartphone or wristband, simple low power sensors created as part of the apparel manufacturing process will be the next technology with the ability to create a new opportunity for software developers to collate and analyse the vast amounts of real-time data collected. Once the garment takes care of the sensing, smart phones can simply be used to do the processing. There's no need to wear something on your hip or wrist if the garment is already supplying the data."

For more information on Smart Textiles and Wearables visit Cientifica.com or timharper.net.

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