Foundry to Fast Track Nanoimprinted Products

A*STAR IMRE

A new Nanoimprint Foundry, led by Singapore A*STAR's Institute of Materials Research and Engineering (IMRE), will bridge the gap between laboratory-based nanotechnologies and real-world products. The pioneer initiative brings together nanotechnology suppliers and manufacturers to speed up productisation of nanoimprinting, which imbues ordinary surfaces with unique properties for sectors like consumer care, biomedical devices, optics, filtration, displays and maritime.

Adhesives without sticky residues, 'skins' that keep medical instruments germ-free, anti-reflective films for displays or surfaces that keep barnacles of ships. These are some of the product possibilitiesfor nanoimprint technology, which also has potential applications in contact lenses, biomedical cell scaffolds or anti-frost materials. The new A*STAR Nanoimprint Foundry in Singapore was launched to develop, test-bed and prototype specially engineered plastics and surfaces for the specific purpose of commercialising the technologies.

The Foundry is part of an A*STAR masterplan to push translational research, accelerate commercialisation of home-grown technologies, and enhance Singapore's high-value manufacturing sector, in concert withother A*STAR research institutes, and government agencies. IMRE will partner companies like Toshiba Machines Co Ltd, EV Group, NTT Advanced Technology Corporation, NIL Technology ApS, Kyodo International Inc., micro resist technology GmbH,Nanoveu Pte Ltd and Solves Innovative Technology Pte Ltd to produce prototypes for real-world products and applications.

"We can help companies develop up to 20,000 samples for proof-of-concept and pilot production allowing manufacturers to shorten the product cycle but minus the heavy capital R&D investment," said Dr Karen Chong, the IMRE scientist who heads the Foundry, adding that the Foundry is a one-stop shop for companies seeking to conceive, design and develop solutions for new, revolutionary products based on the versatile nanoimprint technology.

For more information visit www.imre.a-star.edu [1].

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