

Singapore launches A*Star Nanoimprint Foundry

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Singapore: The pioneer initiative brings together nanotechnology suppliers and manufacturers to speed up productization 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 possibilities for 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 commercializing the technologies.

The foundry is part of an A*Star master plan to push translational research, accelerate commercialization of home-grown technologies, and enhance Singapore's high-value manufacturing sector, in concert with other A*Star research institutes, and government agencies. Institute of Materials Research and Engineering (IMRE) will partner with companies like Toshiba Machines, EV Group, NTT Advanced Technology Corporation, NIL Technology, Kyodo International, Nanoveu and Solves Innovative Technology 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 research and development 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.