







## NAMIC: Singapore Initiative Aiding Companies to Develop 3D Printing Solutions

by Hannah Rose Mendoza | 4 hours ago | 3D Printing, Business, Medical 3D Printing, Science & Technology |





Singapore has decided against taking a "wait and see" approach to 3D printing. Instead the government has opted to help create an environment in which there are more than just supportive words, but an entire network of engagement that has been

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created to help budding ideas to blossom. To this end, in 2015 they launched the dedicated National Additive Manufacturing Innovation Cluster (NAMIC) in conjunction with the National Research Foundation (NRF) Singapore and SPRING Singapore.

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In the past year, they have offered hands on help to approximately 400 companies, both local and international, to assist them with the integration of advanced manufacturing technologies into their workflow. In addition to coaching and expertise, NAMIC has also worked to establish joint funding for nearly 40 projects that cross the bridge between business and academia and has a further 80 projects on its docket.



Dr. Ho Chaw Sing, NAMIC's Managing Director, expressed the way in which this initiative helps industries take advantage of the possibilities provided through 3D printing:

"While 3D printing has taken off for customized products in the aerospace and biomedial industries, many local companies still find the barrier of entry quite high, due to the costly printers and a lack of expertise in additive manufacturing. Our objects are to reach, educate, and help link these companies to scientists and engineers at research institutes who already have existing 3D printing machines and the technical know-how. This way, we ensure that the innovative solutions developed through research will meet real business needs."

Having seen the success of government support for additive manufacturing in places like South Korea and the UAE, Singapore has already begun to see beneficial outcomes from its support of its own native exploration. For example, a new type of 3D printer that is currently under development at the



Nanyang Technological University (NTU Singapore) – an institution that has been hard at work in developing 3D printing technologies – promises the possibility to print the personalized tissue implants needed by patients. This development has occurred in conjunction with a healthcare-focused Singapore-based 3D printing startup. This understanding was echoed by NRF Singapore's Chief Executive Officer, Professor Low Teck Seng:

"Singapore continues to support knowledge creation and value capture through science and technology. Facilitating industry growth through technology is key to developing our economy. We can accelerate this through mission oriented innovation clusters that strengthen partnerships across companies, universities, research institutes, and government agencies. Within this context, additive manufacturing has been identified as a key capability we would like to build through innovation clusters to forge a new technological edge for Singapore's manufacturing sector."



Serving as a potent example of the benefits of this kind of partnership comes in the work being undertaken by NTU's Singapore Center for 3D Printing and Intellectual Ventures (IV), a global inventions company. Their efforts are directed toward the development of a technology that would allow for an international system to authenticate 3D printed products. From these efforts, they have developed an identifier that can be embedded in the product while it is being printed, somewhat akin to the barcode most of us are used to seeing on every packaged good. This Embedded Identifier Module (EIM) is not possible to deface, alter, or remove, yet is easily read by currently available scanning technologies.

Given the high success rate at this early phase in NAMIC's efforts, there is hope that over the next four years, they can reach out to over 1,000 companies in order to offer assistance in their internal processes and innovative developments in terms of 3D printing. Discuss in the NAMIC forum at 3DPB.com.

[Source/Image: NTU]



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