



NEWS RELEASE

Singapore, 17 October 2018 | For immediate release

NAMIC Announces collaboration with 3D Metalforge and Ivaldi Group as part of Maritime Joint Industry Innovation Program

The Maritime and Port Authority of Singapore (MPA), Singapore Shipping Association (SSA), the National Additive Manufacturing Innovation Cluster (NAMIC) launched the AM Joint Industry Innovation Programme (JIP) for marine parts. MPA, PSA Corporation Limited (PSA), and 3D Metalforge Pte Ltd (3D Metalforge) also signed a Memorandum of Understanding (MOU) today to establish the world's first on-site additive manufacturing (AM) production facility with industry-leading printing technology focused on port applications.

This maritime JIP comes on the heels of the aerospace joint industry innovation programme launched in partnership with the Association of Aerospace Industries (Singapore) on 21 September of this year, with the objective of developing certified 3d printed aerospace components for mass production.

At the same event, was the announcement of PSA's AM rapid production facility, in collaboration with 3D Metalforge. PSA will develop the world's first maritime focused commercial additive manufacturing (AM) production centre with industry leading printing technology to capture the market leading position in this fast developing market.



The MOU signing was witnessed by Guest of Honour, Dr Lam Pin Min, Senior Minister of State, Ministry of Transport & Ministry of Health; as well as Ms Choy Sauw Kook, Assistant Chief Executive of Enterprise Singapore, at the NAMIC Global AM Summit that was held alongside the Industrial Transformation Asia Pacific (ITAP) event at Singapore Expo on 17 October. Signatories of the MOU were (from L to R): Mr Lim Siang Yong, COO of 3D Metalforge; Mr Ong Kim Pong, Regional CEO (SEA) of PSA; Dr Ho Chaw Sing, MD of NAMIC; and Mr Andrew Tan, CEO of MPA.

3D Metalforge CEO Matthew Waterhouse said, "Additive manufacturing represents a huge opportunity for the maritime sector offering faster, more cost effective, on demand production of parts whilst helping companies improve part performance and reduce spare parts stocking costs. We are delighted to be partnering with PSA, NAMIC and MPA to create this global leading production facility and look forward to working together to lead the change in this critical sector for Singapore."

The facility will possess a range of specialized 3D printing solutions, supported by NAMIC, to meet on-demand manufacturing needs, ranging from small parts with complex geometries to large parts extending beyond 1 metre in dimensions. The PSA AM rapid production facility will be located to take advantage of PSA's parts supplier base, and integration of the facility operations to support just in time delivery to port customers.

Dr Ho Chaw Sing, NAMIC Managing Director, said, "Digitalisation with on-demand manufacturing will continue to accelerate. Leveraging on Singapore's innovation eco-system in 3D printing, robotics and blockchain technology, NAMIC is delighted to partner with 3DMetalforge and Ivaldi group, together with PSA and our maritime port authority and shipping association, to accelerate the digitalization and transformation of our maritime industry."

Also as part of the maritime JIP, Ivaldi Group, in partnership with Wilhelmsen Ships Services - one of the largest ship management companies in the world, is collaborating with NAMIC to develop technologies to improve efficiency of its 3D printing processes to enable 24 by 7 round-the-clock operation, a competitive advantage it hopes will enable productivity improvement and cost reduction.

"We are looking forward to working with NAMIC and SUTD in developing automated additive manufacturing solutions. In order for additive manufacturing to be at its full potential, more automation is required. This is a critical element not only for our decentralized network of Local Manufacturing Centers, but for the industry as a whole." says Ivaldi Group CEO, Espen Sivertsen.

To date, NAMIC has undertaken various industry development initiatives in 3D printing to target key strategic industrial sectors in Singapore. NAMIC has successfully raised significant private-public funding to support 100+ projects across various industry verticals in healthcare, marine offshore, aerospace, construction and several others, via industry, translational research and standards development initiatives.

About 3D Metalforge

As a leading global AM company that supports cutting-edge companies with their global metal printing requirements, 3D Metalforge's hi-tech facility and engineering teams are based in Singapore and US. With one of the most advanced range of printing equipment including selective laser melting, laser aided additive manufacturing and hybrid wire-arc additive manufacturing technologies, 3D Metalforge was awarded the ISO9001:2015 certification in July 2017 for achieving consistent and high quality standards in 3D printing for its world-class customers. Recently, its Additive Manufacturing Centre (AMC) has also been accredited by Lloyd's Register (LR) for process and quality management across its entire facility. 3D Metalforge is also the sister company of 3D Matters, one of the very first local 3D printing companies in Singapore. For more information, please visit www.3dmetalforge.com

About Ivaldi Group

Ivaldi Group offers Parts Replacement as a Service (PRaaS), delivering secure, scalable and cost-effective digitized inventory and on-site production solutions. Working with leading partners across maritime, offshore and the construction industries, the Ivaldi PRaaS Solution reduces inventory, warehousing needs, delivery times and cost of logistics by allowing organizations to send files, not parts.

About the National Additive Manufacturing Innovation Cluster (NAMIC)

The National Additive Manufacturing Innovation Cluster (NAMIC) is a national programme initiative led by NTUitive, the Innovation and Enterprise Company of Nanyang Technological University, to translate upstream 3D printing research in universities and Institute of Higher Learnings (IHLs) into downstream commercial applications, as well as lower barriers for companies to incorporate additive manufacturing technologies into their core businesses. It is supported by the National Research Foundation, Prime Minister's office, in partnership with SPRING Singapore and the Singapore Economic Development Board. Since its formation on 1 October 2015, we have reached out to over several hundred local and global private and public enterprises to enable additive manufacturing technology adoption as part of their business. **NTUitive** is the innovation and enterprise company of Nanyang Technological University, Singapore.

<http://namic.sg>

For media clarification, please contact:

- 3D Metalforge: Ms Tien Yushan, Marketing Manager, yushan.tien@3dmatters.com.sg, + 65 9772 7150
- Ivaldi Group: Ms Nora Toure, Vice President Strategy, nora@ivaldi.io, +1.415.425.5542
- NAMIC: Mr Mahendran Reddy, Deputy Director, mahendranreddy@ntuitive.sg, +65.9649.6464