

**CIRCULAR MANUFACTURING PRESS RELEASE
INDUSTRIAL TRANSFORMATION ASIA PACIFIC (ITAP) 2023**

EMBARGOED UNTIL 19th October 2023

**“STRATEGIC INDUSTRY ALLIANCE FORMED TO PIONEER CIRCULAR
MANUFACTURING IN SINGAPORE”**

Singapore, 19th October 2023

1. Five (5) local enterprises signed a Memorandum of Understanding (“MoU”) at the Industrial Transformation Asia Pacific (“ITAP”) 2023 event to form a strategic industry alliance to pioneer circular manufacturing in Singapore.
2. Circular Manufacturing represents a transformative approach that strives to create a closed-loop system where products and materials are continuously reused, remanufactured, and recycled. This approach aligns perfectly with our environmental sustainability goals, reducing the environmental footprint of manufacturing while yielding cost savings for businesses.
3. The importance of addressing Singapore's resource constraints, environmental challenges, economic diversification, and international standing cannot be overstated. Pioneering Circular Manufacturing signifies a crucial shift away from the traditional "take-make-dispose" model of manufacturing, promoting sustainability while securing our long-term economic and societal well-being.
4. The alliance co-founding members are CONTINUUM SG PTE. LTD (“Continuum”), TRITAN AMS PTE. LTD (“Tritan”), SHIN SEIKI PTE LTD (“Shin Seiki”), AME INTERNATIONAL PTE. LTD (“AME”), FOREFRONT ADDITIVE MANUFACTURING PTE. LTD (“Forefront AM”).
5. The MoU aims to initiate a collaborative project to pilot circular manufacturing in Singapore by leveraging each company’s respective area of expertise.
 - a. Continuum, who provides expertise in metal recycling and low carbon footprint metal powder manufacturing.
 - b. Forefront AM, who provides domain expertise in Additive Manufacturing technology.

**CIRCULAR MANUFACTURING PRESS RELEASE
INDUSTRIAL TRANSFORMATION ASIA PACIFIC (ITAP) 2023**

- c. Tritan, Shin Seiki, and AME, who provide expertise in metal works and solutioning, aggregating and processing metal waste.
6. This collaboration signifies an important step forward in enabling circular manufacturing in Singapore and developing our local green economy as the new engine of investment, jobs, and growth.
7. "Sustainability is increasingly crucial in global markets. Companies prioritising environmentally responsible practices gain a competitive edge, enhancing their reputation and attracting eco-conscious consumers and investors worldwide. Embracing sustainability in manufacturing unlocks exciting possibilities through the circular manufacturing model; minimizing waste, maximizing resource efficiency, and leading to cost savings, new revenue streams, and improved business resilience. It also fosters talent attraction and retention with purpose-driven workplaces. SPETA supports this industry-led sustainability initiative. We encourage more manufacturers to chart and embark on their sustainability journey. Together, we can create a resilient and responsible manufacturing community in Singapore." – **Ms. Elise Hong, Chairman, Singapore Precision Engineering and Technology Association (SPETA)**
8. "Sustainability and circularity are key to the future of manufacturing. As we strive towards a greener future, it is important for companies to adopt circular manufacturing practices that reduce waste and promote efficient resource use. By creating a collaborative ecosystem, companies can share their knowledge and resources to accelerate the development of new processes and know-how to promote circular manufacturing. EDB is pleased to witness the announcement of this partnership on circular manufacturing in Singapore. The alliance leverages the additive manufacturing expertise of our companies and not only contributes to sustainable manufacturing, but also creates new opportunities for local businesses to innovate and grow." – **Mr. Lionel Lim, Vice President & Head (Technology, Hardware and Equipment), Singapore Economic Development Board**

**CIRCULAR MANUFACTURING PRESS RELEASE
INDUSTRIAL TRANSFORMATION ASIA PACIFIC (ITAP) 2023**

9. “Beyond productivity and innovation, the future of manufacturing will require manufacturers to incorporate sustainability practices across its business processes. Within the local manufacturing ecosystem, we have seen an increase in the deployment of new manufacturing technologies and capabilities to reduce usage and wastage of resources. This MoU aims to support the upcycling of metal waste for additive manufacturing, and EnterpriseSG is committed to work with more manufacturers to share and contribute their domain expertise for other potential applications to drive sustainability efforts.”
– **Ms Anne Ho, Director, Advanced Manufacturing, Enterprise Singapore**

**CIRCULAR MANUFACTURING PRESS RELEASE
INDUSTRIAL TRANSFORMATION ASIA PACIFIC (ITAP) 2023**

**ANNEX. STRATEGIC INDUSTRY ALLIANCE FORMED TO PIONEER CIRCULAR
MANUFACTURING IN SINGAPORE**

About AME

AME International Pte Ltd is a Singapore company founded in 1996. AME is a global turnkey manufacturer for high-precision, critical metal components in the energy, semiconductor, and aerospace industries. Armed with a fleet of state-of-the-art CNC machines, AME envisions to be a progressive manufacturer in the global stage, implementing sustainable manufacturing practices in our processes and through our supply chain.

Byproducts of the manufacturing process produces excess metals, machined chips and AME views the opportunities to transform these scrap metals into new, usable components for the industry.

Link to AME website: <https://ame-st.com>

Contact Person:

Bryan Toy

Director

AME International Pte Ltd

Bryan.toy@ame-st.com



About Continuum (a Molyworks company)

Founded in 2015 as MOLYWORKS MATERIALS CORPORATION, Continuum is a sustainable metal recycling company, with locations across the United States and in Singapore. Creator of The Greyhound, a patented compact foundry revolutionizing metal manufacturing. The Greyhound eliminates reliance on external supply chains, and enables customized, controlled and internal circularity, unique to each manufacturer's needs. Continuum deploys Greyhound technology globally to produce a wide variety of metal powders locally.

Link to Continuum website <https://continuumpowders.com/>

Contact Person:

Mr. Albert Sutiono



CIRCULAR MANUFACTURING PRESS RELEASE INDUSTRIAL TRANSFORMATION ASIA PACIFIC (ITAP) 2023

Director, Singapore General Manager
Continuum / Molyworks Materials Singapore
albert.sutiono@molyworks.com

About Forefront AM

Forefront Additive Manufacturing (Forefront AM) works in close collaboration with customers and industry partners to offer AM (3D) services and provides one stop solution right from design to assembly. We enable our customers to gain market shares through lowering manufacturing costs and reducing the time to market. Founded in 2014, Forefront AM serves a wide range of industries in supplying both metal and polymer AM services: high precision parts, conformal cooling channel mould inserts, jigs and fixtures, prototypes, and medical devices (orthoses and prosthesis).

Link to Forefront AM website: www.forefront-am.com.sg

Contact Person:

Mr. Wu Yong Lin
Managing Director
Forefront Additive Manufacturing Pte Ltd
yl.wu@forefront-am.com.sg

FOREFRONT AM

About Shin Seiki

At Shin Seiki, our mission is to enable SME manufacturers in Singapore to take practical first steps on their sustainability journey. We provide solutions and services that help our clients measure, monitor, and improve their sustainability performance in the key impact areas of energy and carbon, indoor air quality, and waste management. Shin Seiki is a new business arm of Ichi Seiki, an established precision engineering equipment and solutions provider with over 35 years of experience. Ichi Seiki focuses productivity solutions while Shin Seiki focuses on shopfloor environmental management solutions.

Link to Shin Seiki website <https://ichiseiki.com/>

Contact Person:

Ms. Jiehui Kia

**CIRCULAR MANUFACTURING PRESS RELEASE
INDUSTRIAL TRANSFORMATION ASIA PACIFIC (ITAP) 2023**

Director

Shin Seiki Pte Ltd

jie.hui@ichiseiki.com



About Tritan

At Tritan AMS Pte Ltd, we believe that there is always a better way to make things. For the last 40 years, we have honed our engineering and manufacturing expertise to offer advanced manufacturing solutions in Machine Tools, Precision Tooling, Sheet Metal Fabrication, Additive Manufacturing, Factory Automation and Contract Manufacturing. Based in Singapore, TRITAN AMS also does sales and servicing in Malaysia and Japan, as well as production in China.

Link to Tritan website <https://tritan.sg/>

Contact Person:

Mr. Tan Ru Ding

Managing Director

Tritan AMS Pte Ltd

tanruding@tritan.sg



Supporting Industry Partner:

Singapore Precision Engineering and Technology Association (SPETA)

The Singapore Precision Engineering and Technology Association (SPETA) is the leading trade association for the Precision Engineering Industry. Our members comprise both SMEs and MNCs engaging in the manufacturing and distribution of precision engineering components, products, tools, equipment, machinery and other solutions. They participate in diverse sectors including aerospace, automotive, medical and semiconductor. SPETA works closely with our members, industry leaders, knowledge partners and government agencies to co-create a conducive and dynamic business environment for the Precision Engineering and Technology community, enabled by digitalisation, innovation, sustainability and a vibrant workforce.

Link to SPETA website [About Us | Singapore Precision Engineering & Technology Association \(glueup.com\)](http://glueup.com)

**CIRCULAR MANUFACTURING PRESS RELEASE
INDUSTRIAL TRANSFORMATION ASIA PACIFIC (ITAP) 2023**

Contact Person:

Mr. Simon Lim

Executive Director

Singapore Precision Engineering and Technology Association

simon_lim@speta.org

