GLOBALFOUNDRIES and Toppan Photomasks Extend Advanced Photomask Joint Venture in Germany

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Round Rock, Texas, Santa Clara, Calif., and Dresden, Germany, April 9, 2018 —GLOBALFOUNDRIES Inc. (GF) and Toppan Photomasks, Inc. (TPI) today announced a multi-year extension to their Advanced Mask Technology Center (AMTC) joint venture in Dresden, Germany. Opened in 2002, the AMTC provides GF's fabs in Dresden, Malta and Singapore with high-end production and development masks at world-class cycle times in support of the foundry's ambitious technology roadmap. The AMTC also supports TPI customers worldwide from Dresden.

Owned equally by TPI and GF, the AMTC joint venture was previously extended in 2012 to further increase tool capability and capacity. This new extension to the agreement aims to continue the current charter for manufacturing production masks as well as developing mask technology for ever smaller geometries. GF is both TPI's partner in the joint venture and a strategic and critical customer, while TPI is GF's preferred mask supplier, leveraging AMTC and TPI's global manufacturing network to support GF's worldwide operations.

The AMTC provides one of the most essential and complex elements in the semiconductor manufacturing process, which puts the latest technology innovations at consumers' fingertips.

Since its inception, the output of AMTC has grown continuously with growth rates exceeding 10 percent in recent years. Sizeable investments have enabled the AMTC to keep up with the rapid technological developments and challenges of this dynamic market sector; in 2017 alone more than 100 million euros (US$124 million) were invested.

"From computing to communication, and from automotive to medtech – our dual roadmap allows us to provide innovative technologies for the benefit of our customers around the world," said Geoff Akiki, World Wide Mask Operations Executive at GF. "Regardless if they choose FD-SOI with its focus on energy efficiency or FinFET with its focus on high performance, both require leading-edge lithographic masks. AMTC is a great partner and provider of those masks. We are especially pleased that the experience of AMTC will be fully utilized to support us at the leading edge of chip technology."

"Having been in place for more than 15 years, this joint venture is one of the lengthiest in the mask industry," said Mike Hadsell, TPI CEO. "This is a testament to the synergy and commitment of the partners, as well as the strength of the AMTC and Toppan Dresden team members. AMTC is truly a best-of-breed effort that has provided high-quality masks to TPI's customer base, both in Europe and globally."

"AMTC was founded with a mission to be its customers' first choice for photomasks. To achieve this goal, our experienced and dedicated team pursues cost-effective and timely manufacturing of high-quality masks for multiple nodes. In the process, the partners have continued to strengthen their relationship while allowing AMTC to serve as a valuable resource for our demanding global customer base," noted Thomas Schmidt, AMTC's general manager. "AMTC was established to support AMD's microprocessor production in Dresden at the 65nm/90nm node. We have moved way beyond that and are looking beyond the current 14nm node."

AMTC was founded in 2002 by AMD, Infineon Technologies and DuPont Photomasks, which became TPI in 2005. Subsequently, GF and TPI became the ownership partners in 2009. AMTC has seen a cumulative investment of more than US$600 million since 2002. The mask facility employs more than 250 engineers and other specialists. The company is currently expanding its team – please check the AMTC Career Page for open opportunities.

About Toppan Photomasks

Toppan Photomasks, Inc. is a wholly owned subsidiary of Toppan Printing Co., Ltd., a diversified global company with revenue in excess of US$14 billion in 2016. Toppan Photomasks is part of the Toppan Group of photomask companies. As the world's premier photomask provider, the Toppan Group operates the industry's most advanced and largest network of manufacturing facilities and offers a comprehensive range of photomask technologies and research and development capabilities to meet the increasingly sophisticated and divergent product-and service requirements of the global semiconductor industry. Toppan Photomasks is headquartered in Round Rock, Texas. For more information, visit www.photomask.com.

About Toppan Printing's Photomask Business

Toppan Printing is the world's premier photomask manufacturer. The company supports the global semiconductor industry, from the initial launch of the semiconductor manufacturing process through commercial production, by providing state-of-the-art photomask technology. Toppan is the only global photomask manufacturer providing the highest quality products in a timely manner to customers across Japan, the United States, Europe and Asia. For more information, visit www.toppan.co.jp.

About GLOBALFOUNDRIES

GLOBALFOUNDRIES is a leading full-service semiconductor foundry providing a unique combination of design, development, and fabrication services to some of the world's most inspired technology companies. With a global manufacturing footprint spanning three continents, GF makes possible the technologies and systems that transform industries and give customers the power to shape their markets. GF is owned by Mubadala Investment Company. For more information, visit http://www.globalfoundries.com.

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