

ATIC to Acquire Chartered Semiconductor, Combine it with GLOBALFOUNDRIES

The Advanced Technology Investment Co. LLC (ATIC, Abu Dhabi) said it will pay ~\$3.9B to acquire Chartered Semiconductor Manufacturing Ltd. (Singapore). The addition of Chartered comes just six months after the formation of GlobalFoundries, whose CEO Doug Grose will head up the combined operation.

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Just three months after news of a possible takeover emerged, Abu Dhabi's Advanced Technology Investment Co. LLC (ATIC) said it will pay ~\$3.9B to acquire Chartered Semiconductor Manufacturing Ltd. (Singapore).

The deal, which is expected to close by the fourth quarter, will make ATIC the sole owner of Chartered, as well as the major investor in GlobalFoundries LLC (Sunnyvale, Calif.). GlobalFoundries CEO Doug Grose will be the CEO of the combined operation, with Chartered CEO Chia Song Hwee serving as chief operating officer and spearheading the integration effort, the announcement said.

The addition of Chartered comes just six months after ATIC and Advanced Micro Devices (AMD, Sunnyvale, Calif.) announced the formation of GlobalFoundries, putting AMD's manufacturing assets and personnel into a foundry funded with \$6.2B in promised capital from ATIC. Chartered, which had ~\$1.7B in revenues in 2008, adds a major Asian base to GlobalFoundries, which now operates two former AMD fabs in Dresden, Germany.

Chartered operates five 200 mm fabs and a 300 mm fab in Singapore. Starting in 2002, the company began working with IBM as a member of the Fishkill Alliance, and quickly licensed the silicon-on-insulator (SOI) process used by both IBM and AMD for their leading-edge microprocessors.

However, Chartered has struggled to turn a profit. The foundry had a cumulative loss of \$952M against net profits of \$177M during the seven-year period from 2002 to 2008. Chartered has worked to reduce its break-even level to a mid-70s capacity utilization level, Chia said. Utilization was ~60% in the first quarter, but it improved to 74% in Q2, he said, adding that leading-edge capacity was "tight."

One question facing the expanded GlobalFoundries will be management. With GlobalFoundries itself less than a year old, and with little experience in making chips for companies beyond AMD, the new foundry now faces the task of integrating Chartered and its complex of fabs.

On a conference call following the announcement, made early Monday in Singapore and Sunday evening in the United States, Chartered executives said the deal will provide Chartered with faster access to leading-edge manufacturing capacity and to the long-term capital investments promised by ATIC. The foundry industry "is very scale-sensitive," said Jim Norling, Chartered chairman and a former Motorola semiconductor executive. "To be a player, companies must continually make capital investments." With ATIC as the owner, access to capital will improve, he said.

By combining with GlobalFoundries, Chartered also will be able to more quickly gain access to leading-edge capacity at the GlobalFoundries fabs in Dresden, Norling said, adding, "That would have taken a longer time to do on our own." Chartered plans to invest a relatively modest \$500M this year.

In the second quarter, Chartered's product mix was somewhat weighted to trailing-edge linewidths, with 29% of production at 65 nm and 2% at 45 nm and below. Many of Chartered's customers utilize the Singapore foundry's ability to make mixed-signal devices for communications systems. GlobalFoundries, on the other hand, is weighted to leading-edge technologies, which are oriented to microprocessors and other logic products.

Chartered and GlobalFoundries have product mixes that are complementary, "with not a lot of overlap," Norling said.

Asked if products now made at Chartered will be ported to GlobalFoundries fabs in Germany, Chartered's Chia said product qualification at a new fab takes time. "The real intent is to maximize and utilize the fabs in Singapore as well as in Dresden. That will be the driver going forward."

With GlobalFoundries and Chartered both members of the IBM-led semiconductor technology alliance based at Fishkill, the challenge of integrating their technology roadmaps will be relatively simple, Chia said. Besides IBM and Chartered, the alliance includes Infineon, Samsung, STMicroelectronics, Toshiba, NEC and AMD. GlobalFoundries will be the largest foundry supplier within the alliance, and will be in a position to make chips for the other companies within the alliance, Chia said. "We will build our business based on that," he said, avoiding making reference to foundry industry leader Taiwan Semiconductor Manufacturing Co. Ltd. (TSMC, Hsinchu, Taiwan), or to the second-largest foundry currently, United Microelectronics Corp. (UMC, Hsinchu, Taiwan).

"We believe that by having access to ATIC's long-term capital and related assets, Chartered has an opportunity to bring its skills, capabilities and leadership to the next level," said Waleed Al Mokarrab, ATIC chairman. He noted that in about two years GlobalFoundries will gain a "state-of-the-art facility under construction in upstate New York."

Chartered and GlobalFoundries "will be able to draw on each other's strengths to enable the next generation of semiconductor innovation, utilizing the value of both companies and the intellectual capital of thousands of skilled employees," said ATIC CEO Ibrahim Ajami. He added that demand for semiconductors will be driven by "billions of new mobile phones, cars, televisions, computers and other devices."