A*STAR Institute of Microelectronics, GLOBALFOUNDRIES Singapore & Masdar Institute Of Science and Technology to Establish R&D Twin Lab to Advance Mems Technologies for Key Industries

November 26, 2013

The MoU was signed at the 7th Abu Dhabi-Singapore Joint Forum 2013 in Singapore

1. Singapore, 26 Nov 2013 – A*STAR Institute of Microelectronics (IME), GLOBALFOUNDRIES Singapore Pte. Ltd., and Masdar Institute of Science and Technology (MI) have entered into a collaboration to develop and advance micro-electro-mechanical systems (MEMS) technologies for automotive, aerospace, consumer, healthcare, industrial, and mobility applications. The joint research initiative, which builds on the Abu Dhabi-Singapore Joint Forum (ADSJF), is supported by the Advanced Technology Investment Company (ATIC), a Mubadala company focused on building leading technologies companies, and the Economic Development Board (EDB) of Singapore.

2. The Abu Dhabi-Singapore Twin Lab will focus on the development of MEMS technologies including inertial sensors, energy harvesters, nano-opto-mechanical sensors, and ultrasonic transducers. These platform technologies form the foundation of a wide spectrum of sensors that address high volume markets, including mobile platforms, distributed wireless sensor network, healthcare and environment monitoring.

3. GF Singapore is a leading semiconductor foundry providing full-scale wafer manufacturing services to fabless and fablite semiconductor companies. The foundry will serve as the programme manager and manufacturing partner in this collaboration. The opportunity will also enable the foundry to expand its IP portfolio to address MEMS high-volume manufacturing at effective cost levels and capacity to serve the fast growing MEMS market.

4. “We are pleased to be in a strategic and mutually beneficial collaboration with the renowned research institutes from Singapore and Abu Dhabi,” said Mr K. C. Ang, Senior Vice President and General Manager of GF Singapore. “This joint partnership will enable us to harness their R&D capabilities to create innovative technologies and products that will further solidify and strengthen our foundation in MEMS manufacturing.”

5. IME is a research leader in semiconductor research and development, under Singapore’s Agency of Science, Technology and Research (A*STAR), with an established track record in MEMS design and technologies. IME’s extensive experience in sensors and transducers technologies, MEMS process design and integration, as well as state-of-the-art research facilities will help to advance the joint research initiative and further develop innovative technologies for industry.

6. Professor Dim-Lee Kwong, Executive Director of IME, said: “This is a momentous milestone in the field of MEMS research and development for IME and for the parties involved in bringing this initiative to fruition. Each of us plays a key role in the semiconductor eco-system, namely government, industry, academia and research institute, with each bringing valuable opportunities and diverse knowledge. As such, we are confident that this partnership will enable us to successfully push our MEMS research capabilities to greater heights, and contribute to the advancement of the semiconductor industry in both Abu Dhabi and Singapore.”

7. MI is the world’s first graduate-level university, focusing on providing real-world solutions in advanced energy and sustainable technologies. The collaboration will open up opportunities for MI to leverage the industry intelligence of GF Singapore and IME’s MEMS technology development capabilities to develop and grow MEMS scientific research programmes and initiatives.

8. Dr Fred Moavenzadeh, President of Masdar Institute, said: “The agreement with GF Singapore and the Institute of Microelectronics illustrates our commitment to develop strong relationships with internationally renowned research-oriented institutions in advanced technology areas. With the support of the UAE’s leadership, we strive to develop expertise in leading edge areas recognized and pursued by other renowned institutions. We offer our expertise in fabless and fab-lite semiconductor technology and seek to achieve innovative solutions through our collaboration with the Singapore-based entities in MEMS-related research and development projects.”

9. The Memorandum of Understanding was signed today in conjunction with the Abu Dhabi-Singapore Joint Forum at Marina Bay Sands, and was attended by Mr Lee Yi Shyan, Senior Minister of State for Trade & Industry and National Development in Singapore, and His Excellency Khaldoon Al Mubarak, Chairman of the Executive Affairs Authority of the Emirate of Abu Dhabi (EAA).

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