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**SPEECH BY MR S ISWARAN, MINISTER FOR TRADE AND INDUSTRY
(INDUSTRY) AT THE GROUND-BREAKING CEREMONY FOR MICRON'S FAB 10
EXPANSION, ON 4 APRIL 2018, 10.00AM, AT 1 NORTH COAST DRIVE**

Mr Sanjay Mehrotra, President and CEO of Micron Technology Inc,

Distinguished Ladies and Gentlemen,

Good morning.

1. It is my pleasure to join you this morning for the ground-breaking of Micron's Fab 10 Expansion. At the outset, I would like to congratulate the management and staff of Micron on attaining yet another important milestone in Micron's development in Singapore.

2. Since 1998, Micron has been a key player in our Electronics sector. With more than 7,500 employees, Micron is now one of the largest electronics employers in Singapore today. The two wafer fabrication ("fab") sites in North Coast and Woodlands form Micron's largest manufacturing footprint outside of the United States, and already account for a significant majority of Micron's NAND fab capacity.

**The Singapore-Micron partnership continues to strengthen, with Micron's
commitment to expand the footprint of its Singapore operations**

3. Over the last two decades in Singapore, Micron has transformed itself by encompassing the entire value chain – from NAND technology development and product engineering, to Wafer Fabrication, and Assembly & Test of NAND flash memory. We are also proud to be home to Micron's NAND Centre of Excellence, where the company continues to push the boundaries of innovation.

4. Today, I am delighted that Micron has decided to take another step to further expand and anchor its activities in Singapore. The Fab 10 Expansion, which will see

a new fab built adjacent to Micron's facility in North Coast, underscores Micron's confidence and long-term commitment to Singapore. This new fab will significantly expand Micron's cleanroom space in Singapore to enable transitions to future 3D NAND nodes, and in turn achieve greater production and cost efficiencies. By leveraging on its experience and know-how built up over the years in Singapore, Micron is well-positioned to develop future generations of 3D NAND with greater speed-to-market.

Adopting Advanced Manufacturing technologies and skills upgrading to remain competitive

5. Manufacturing has been and will remain a key component of Singapore's economy. We are committed to sustain a globally competitive manufacturing sector, contributing to about 20% of our Gross Domestic Product (GDP) over the medium to long term. This goal was reiterated in the Electronics Industry Transformation Map (ITM) which was launched last September. To attain this goal, we need to transform our existing manufacturing base through the adoption of Advanced Manufacturing technologies to ensure the long term competitiveness of the sector.

6. Micron has been a part of this transformation journey in many ways, be it through the adoption of innovative technologies such as advanced analytics and artificial intelligence to improve productivity, or its investment in training opportunities for its employees. As changes in technology increasingly disrupt business models and the nature of jobs, our people must also adapt, have the right skills and knowledge, and most importantly, be digitally confident to leverage these technologies fully.

7. A case in point is Mr Mohamed Yusoff Jamarudin, who has embraced change, upgraded himself, and benefitted from the process. Mr Yusoff started his career in Micron 20 years ago as an operator performing manual loading and unloading of tools, and patrolling the facility on foot to identify potential faults in tools to highlight to equipment and process technicians. With Micron's move towards full automation, he took the initiative to upgrade his technical knowledge of remote control management systems and fab automation controls through Micron's in-house skills upgrading courses. Today, at age 58, he is able to perform complex tasks, such as

troubleshooting, tool qualification and process evaluation, all from the Remote Operation Centre.

8. This is just one example that demonstrates how Advanced Manufacturing can create good jobs for Singaporeans, and how workers of all ages and background, can upgrade their skillsets to take advantage of new technologies and retain their competitive edge. We expect many more quality jobs to be created across the ranks as we strive to sustain our manufacturing competitiveness and anchor our position in global value chains.

The Government will continue to support industry partnerships to capture growth opportunities

9. The Electronics sector is a key pillar of Singapore's economy, accounting for close to 6% of our GDP in 2017. Output of the electronics sector grew significantly by more than 30% from 2016, supported by strong growth in the semiconductors segment which accounts for close to three-quarters of the Electronics manufacturing GDP.

10. Within the semiconductor industry, Micron has played an important role in strengthening the supplier ecosystem in Singapore, by engaging more than 900 vendors for equipment, specialty chemicals and logistics. In addition, it actively partners local small-medium enterprises (SMEs) to co-develop innovative solutions. For example, Micron worked closely with local SME Technochem Environmental Complex ("Technochem") to develop chemical treatment solutions. With a good understanding of Micron's operational needs and requirements, Technochem was able to respond quickly and effectively when Micron expanded its operations and required increased waste treatment capacity in 2016. Technochem tripled its plant capacity within eight months and helped to support Micron's environmental sustainability through customised solutions.

11. Such partnerships are not only beneficial for the companies but crucial to the long-term competitiveness of our industries as a whole. The Government will continue to support partnerships between enterprises in areas such as capability upgrading, business development and internationalization through the PACT scheme, which is

administered by the EDB and Enterprise Singapore. If we continue to support and partner one another, across the public and private sectors, I am confident that we will succeed in our manufacturing transformation efforts and capture new growth opportunities for our businesses and our workers.

Conclusion

12. In closing, I would like to congratulate Micron once again on this significant milestone and wish you every success, as we look forward to many more decades of partnership between Micron and Singapore. Thank you.

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