

**SPEECH BY DR KOH POH KOON, MINISTER OF STATE FOR MINISTRY OF NATIONAL DEVELOPMENT AND MINISTRY OF TRADE & INDUSTRY AT THE SINGAPORE SEMICONDUCTOR INDUSTRY ASSOCIATION (SSIA) SUMMIT, 13 OCTOBER 2016, 9.00AM.**

Mr Ulf Schneider, President, Singapore Semiconductor Industry Association (SSIA),  
Distinguished guests,  
Ladies and gentlemen

**Introduction**

1. I am pleased to be here at the Singapore Semiconductor Industry Association (SSIA) Summit 2016.
2. The theme of this year's Summit – “Powering the Innovation Economy”— is a timely one, given the increasing importance of innovation as a competitive advantage in the global landscape, as well as Singapore's shift towards an innovation-driven economy.

**Technology and innovation will drive our future economy.**

3. We are entering a new phase of growth that will be increasingly driven by technology and innovation. Rapid technological advances are disrupting industries and businesses, and the capacity to innovate and keep up with these changes will be key to maintaining our competitiveness. Moreover, in the context of slower global growth and Singapore's resource constraints, technology and innovation will be critical for our continued economic growth.

4. The Committee on Future Economy (CFE), which is exploring strategies to better position Singapore's economy for the future, has identified innovation as a key driver for our future economy, and will be making recommendations to further strengthen Singapore's innovation capacity.

**Technological developments and the Digital Economy represent significant growth opportunities for Singapore.**

5. New digital technologies, such as data analytics, cloud computing and the Internet of Things (IoT), are transforming the global economy. Singapore's ability to adapt to, and embrace the Digital Economy will open up new opportunities for businesses and individuals. Not only will digital technologies spur growth in new areas such as e-commerce, fintech and cybersecurity, but they also enable the transformation of our existing sectors, including manufacturing.

6. Electronics is a key pillar of Singapore's manufacturing sector. It is our largest manufacturing cluster, contributing around 5% of our economy's Value Add (VA) in 2015. In the same year, the Semiconductor sub-sector accounted for around 72% of our Electronics cluster's VA<sup>1</sup>.

7. Our semiconductor industry is an important node in the global market, where 1 in 10 IC (Integrated Circuit) chips in the world are wafer fabricated, assembled or tested. This industry also creates good job opportunities for Singaporeans, including Process, Materials and Equipment engineering roles in semiconductor manufacturing, as well as IC design, product design and software engineering roles in semiconductor design. Local IC design engineers can earn an average monthly income of around S\$7,500 after a few years of working in the industry.

8. We must continue to leverage technology and innovation to maintain our market leadership as well as position ourselves for growth opportunities in areas such as automotive electronics, IoT-related system solutions, specialty IC manufacturing and advanced packaging activities.

**The government will continue to work with companies to capture these growth opportunities.**

9. Under the Industry Transformation Maps (ITMs) announced in Budget 2016, the government will continue to work with industry and other stakeholders to transform our industries for continued competitiveness and growth. Electronics is one of the key industries for which we will develop a customised roadmap under the ITMs. Successful transformation will require collective efforts on the part of all stakeholders – companies must be willing to adapt and embrace change, while the government will continue to support companies in the areas of innovation, partnerships and skills development, among others. Individuals must also continue to learn new skills as technology evolves to ensure they are relevant to industry needs.

### Innovation

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<sup>1</sup> EDB's Census of Manufacturing Activities

10. The government is committed to strengthening the innovation capacity of our economy. We have set aside S\$19 billion for R&D under our Research, Innovation & Enterprise 2020 (RIE2020) plan, out of which S\$3.2 billion is allocated for investments in Advanced Manufacturing & Engineering.

11. There is also strong government support to grow the Digital Economy. Under the Smart Nation initiative, we will leverage technologies such as IoT and robotics, as well as harness the power of data, to build a nation that supports better living, stronger communities, and more opportunities for our businesses.

### Partnerships

12. Partnerships with our Trade Associations and Chambers (TACs) are an important aspect of our industry transformation efforts. TACs represent the voice of the industry and are the subject matter experts for the specific industry sector. Therefore, TACs serve as important multipliers to drive innovation, productivity and growth among companies. For instance, SSIA has been a valuable partner with its active efforts to forge collaborations in investments and talent outreach for the Semiconductor industry.

### ***Launch of SSIA's Internet of Things (IoT) Consortium***

13. I am pleased to launch SSIA's Internet of Things (IoT) consortium which complements the government's efforts to promote innovation and partnerships, and is also aligned with our efforts in Smart Nation. This consortium aims to foster innovation in the IoT space, in particular among SMEs and start-ups, through technology transfer programmes as well as test-beds for companies to prototype and demonstrate their technologies. There is strong participation in the consortium from MNCs, such as Intel, NXP and National Instruments, as well as innovative local companies, such as Evercomm, Thirdwave Power, RFCOM, Gridcomm, and ConnectedLife.

### Skills Development

14. In adopting new technology, our workforce will also need to be equipped with the new skills to fully utilize these technologies. SSIA, as the Programme Manager for both the Professional Conversion Programme (PCP) for Wafer Fabrication Industry, and PCP for Assembly & Test (A&T) Industry, is one of our key partners in the area of skills development. The PCP, under MOM's Adapt and Grow initiative, supports mid-career Professionals, Managers, Executives and Technicians (PMETs) who wish to acquire the relevant skills to enter another industry, or new areas within an industry. Major semiconductor companies such as GLOBALFOUNDRIES, Micron, Systems on Silicon Manufacturing Company (SSMC), United Microelectronics

Corporation (UMC), STMicroelectronics, STATS ChipPAC and United Test and Assembly Center (UTAC) are on-board these PCP programmes. Since commencement earlier this year, more than 90 PMETs have been placed into the Wafer Fab and A&T PCPs.

15. One example of a Singaporean PMET worker who has benefited from the Wafer Fab PCP to reskill, and take up a different role, is Mr. Abdul Jalil bin Samsuldeen. Mr. Samsuldeen is a 50 year-old Singaporean who was previously unemployed for over half a year. Through participation in the PCP, he has secured employment as a Manufacturing Manager at SSMC, and is currently undergoing training to develop new skillsets required for front end semiconductor manufacturing processes.

16. Under SkillsFuture, the government will continue to support our workforce to develop industry-relevant skillsets, so that they are prepared to take on the good jobs of the future.

## **Conclusion**

17. As Singapore transitions towards an innovation-driven economy, there will be challenges, but there are also new opportunities for businesses and individuals. New disruptive technologies are a global challenge. Singapore has a good starting base to face these challenges: our companies have good engineering capabilities, we have a highly educated and skilled workforce and good research institutions that can partner our industries to co-create technology solutions and innovations. I am confident that if government, industry, and other stakeholders including the TACs, continue to work closely together, we can capture these opportunities to ensure the continued growth of Singapore's economy and the creation of good jobs for Singaporeans.

18. I would like to thank SSIA for their continued contributions to the development of our semiconductor industry, and wish everyone an enjoyable event.

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