SPEECH BY DR KOH POH KOON, MINISTER OF STATE FOR TRADE AND INDUSTRY & NATIONAL DEVELOPMENT AT NTUITIVE HOMECOMING 2016, 19 AUGUST 2016

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Dr Lim Jui, CEO, NTU Innovation and CEO, NTUitive

Distinguished guests, students, ladies and gentlemen

1. Good afternoon.

2. It gives me great pleasure to join you at the NTUitive Homecoming today. I am heartened to see so many enterprising and energetic young people gathered here, together with representatives from NTU and industry, sharing your experiences and learning from one another.

Importance of entrepreneurial culture

3. As part of the ongoing Committee on the Future Economy (CFE), we have been taking a closer look at our start-up ecosystem, and I have had the pleasure of hearing the views of Dr Lim Jui and many other representatives from the start-up community. One issue we have been discussing is the importance of mindsets and culture towards fostering a successful start-up ecosystem, and more broadly, fostering a successful innovation ecosystem in Singapore.

4. Over the years, MOE, SPRING and organisations like the Action Community for Entrepreneurship (ACE) have made a big push to build entrepreneurial mindsets in our students, as a means to shape a more innovative culture in Singapore. For instance, SPRING has been running the <u>Young Entrepreneurs Scheme for Schools</u> (YES! Schools) to support schools, centralised institutes and junior colleges to put in place comprehensive structured entrepreneurship programmes for their students.

5. Fostering an innovative culture cannot start and end in our education system. Nor should it be something that is directed by the Government from the top-down. For the culture and mindsets to be pervasive, we will need the commitment and efforts of all stakeholders – from the individual, to society, to even our companies. Everyone has a role to play. Today, I would like to highlight three important elements that we will need to further develop in order to strengthen the innovative culture in Singapore.

Culture of Experimentation

6. First, we need to foster a culture of experimentation. This spirit is most famously embodied in Thomas Edison, who took as much pride in his failures as in

his successes. Among his many endeavours, Edison attempted to build affordable battery-powered electric cars in partnership with Henry Ford in the early twentieth century. Even though electric cars failed to take off then, this did not stop Edison from repositioning his business to profitably sell batteries to the mines and railroads. We need to learn not just how to succeed, but also how to fail, and then learn how to try again.

7. This is not an easy thing to do, and often runs counter to our Singaporean instincts. We are trying out such an approach in the Government. For instance, you would have read that MAS recently proposed a "regulatory sandbox" to enable financial institutions or any interested firms to experiment with innovative FinTech solutions. MAS recognises that failure is often a feature of such experiments and the purpose of the regulatory sandbox is to allow for innovation while providing appropriate safeguards to contain the consequences of failure, rather than to prevent failure altogether. This is a good initiative that will allow Singapore to become a test-bed for innovative solutions, and capture opportunities in the rapidly evolving FinTech landscape.

8. We also have existing schemes which provide support to SMEs in the development and test bedding of new products or services, in response to problem statements put out by the public sector. For instance, earlier this year, SPRING worked with a number of Government agencies on a call for proposals to resolve some of the tough operational problems faced by agencies. One such proposal put up by NEA was to find an automated and less manpower-reliant way to clear flotsam and litter from our waterways. I am happy to note that seven local companies, large and small included, have come forward with their proposals for the project. Such an approach is a win-win. It gives our companies the opportunity to develop real-world solutions for our public agencies, while enabling our agencies to experiment with different ideas.

<u>Culture of collaboration</u> 9. Next, we need to foster a culture of collaboration. We can do this by encouraging larger companies to work with small companies, start-ups and universities. In my CFE study trip to Israel with Dr Lim Jui and other CFE members in June this year, we learnt about how such collaborations had strengthened the overall innovation ecosystem in Israel. For example, Coca Cola has set up a zeroequity accelerator programme in Tel Aviv, known as The Bridge, to groom innovative start-ups that could eventually become technology partners to Coca Cola. This has given Coca Cola access to innovative technologies, such as in Virtual Reality and mobile advertising, outside of Coca Cola's traditional core competencies.

10. I am happy to note that more companies in Singapore are seeing the benefits of collaboration. For instance, there are many ongoing collaborations between NTU and our companies. In the past year and a half, three new corporate labs were established in NTU. They are the ST Engineering–NTU Corporate Laboratory,

SMRT–NTU Smart Urban Rail Corporate Laboratory and the Delta-NTU Corporate Laboratory for Cyber-Physical Systems. These are in addition to the flagship Rolls Royce Corporate Laboratory established in 2013. Such collaborations between universities and companies play a big role in strengthening Singapore's innovation system by encouraging public-private R&D.

Culture of giving back

11. Thirdly, we need to foster a culture of "giving back", so that individuals and entrepreneurs who have succeeded will invest the time, effort and funding to mentor and support newcomers. The motivation for this must come from a deep conviction to groom the new generation. One of the best illustrations of this is the story of how Intel co-founder Robert Noyce, already a successful entrepreneur in his fifties, took the time and effort to mentor the next generation of high-tech entrepreneurs in Silicon Valley, including a young Steve Jobs who was then in his twenties. It is because of mentors like Noyce, nicknamed the "Mayor of Silicon Valley", that have helped make Silicon Valley what it is today.

12. I would like to commend the many NTU alumni, including many of our guests here today, for actively giving back to NTU and the innovation ecosystem in Singapore. One of them is Mr Inderjit Singh, who is with us here today. After graduating from NTU in 1985, Mr Singh went on to build a number of successful companies and has also invested in many start-ups. As the Chairman of NTU's Enterprise Committee, Mr Singh was instrumental in building up the NTU innovation and enterprise ecosystem, which led to the formation of NTUitive Pte Ltd. Mr Singh was also the former Deputy Chairman of ACE from 2005 to 2011. Under his guidance, ACE rolled out several flagship events and initiatives to boost the local start-up scene. As the Singapore start-up and innovation ecosystem matures, I hope that many more successful individuals, entrepreneurs, academics and corporate high-flyers will come back to mentor and inspire our next generation, as Mr Singh has done.

Conclusion

13. Fostering an innovative culture in Singapore will require the long term efforts of all stakeholders in our innovation ecosystem – from schools, universities, companies and start-ups, to the Government. Seeing the good work done by NTU here today gives me much confidence that we are on the right track, and that our next generation can build on Singapore's existing success to do greater and more exciting things.

14. Let me conclude by congratulating NTUitive for the successful organisation of this Homecoming event. I wish everyone a fruitful day ahead.