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**SPEECH BY MR TEO CHEE HEAN, DEPUTY PRIME MINISTER,
COORDINATING MINISTER FOR NATIONAL SECURITY AND MINISTER FOR
HOME AFFAIRS, AT OPENING CEREMONY OF WORLDSKILLS SINGAPORE
ON THURSDAY, 10 JULY 2014, AT 1000 HOURS, AT AUDITORIUM, TAY ENG
SOON CONVENTION CENTRE, ITE**

“Creating a Better Future through a Ladder of Knowledge and Skills”

Mr Bob Tan
Chairman, ITE Board of Governors

Mr Bruce Poh
Chairman/WorldSkills Singapore Council

Members of the ITE and Polytechnic Boards of Governors

Polytechnic Principals

Distinguished Guests

Ladies and Gentlemen

Introduction

1. I am very happy to be here this morning at the Opening of the WorldSkills Singapore 2014. This biennial national competition showcases the skills of youths in Singapore, and celebrates our students' and institutions' excellence in Technical Education.

Ready for Work

2. The Institute of Technical Education and our five Polytechnics form the backbone of our post-secondary technical education system in Singapore. Over time, they have established themselves as globally-recognised institutions, with up-to-date facilities and passionate educators. They have also played an important role in developing our people, contributing to Singapore's economic development and social progress.

3. A particular strength of our technical education system is the close collaboration between our educational institutions and industry partners, who co-invest in training the next generation of our workforce to prepare them for jobs of the future.

4. One good example of this collaboration is in the Marine sector. Thanks to our home-grown companies including Keppel Offshore & Marine and SembCorp Marine, Singapore is the largest manufacturer of high-specification jack-up rigs, commanding some 70 per cent of the world market. We also have 70 per cent of the global market for the conversion of Floating Production Storage Offloading units. To support the sector's growth, the Association of Singapore Marine Industries (ASMI) and its members have worked hard to reinvent and enhance its jobs. ASMI also provides attractive scholarships at the Higher Nitec, Diploma and Degree levels to build a pipeline of workers to take up the new jobs in the Marine sector.

5. Or take Aerospace as another example. Rolls-Royce's Seletar Campus has the most modern Rolls-Royce manufacturing, assembly and test facility for Trent aero engines. The facility makes the Trent 900 and 1000 jet engines which are used in Airbus A380s and Boeing 787s. When the facility reaches full capacity by 2016, it will assemble and test 250 engines per year, or half of Rolls-Royce's global production capacity. Singapore is also the first location outside Britain where Rolls-Royce is making the wide chord fan blade. Close to 100% of the jobs created at Rolls-Royce's Seletar Campus are skilled jobs – managerial positions, engineers, technicians, production craftsmen. And over 90% of the workers are locals, who now have the opportunity to contribute to the latest airliners. More and more aerospace multinationals are also establishing a larger footprint in Singapore. Last year, Pratt & Whitney broke ground for its first manufacturing facility in Singapore. This will be the company's first facility outside the United States to manufacture hybrid fan blades for its Geared TurboFan engine, which will be used in 5 new generation single-aisle aircraft platforms, including the Airbus 320neo. We look forward to this facility providing more exciting and rewarding careers for Singaporeans.

6. As a result of the combined efforts of the technical education institutions, social and industry partners, and the government, Singapore has one of the lowest youth unemployment rates in the world, at 6.7%.¹ This is far lower than the OECD average youth unemployment rate of 15.5%.² In Europe, among the youth who are employed, an increasing proportion is involved in non-standard jobs, including temporary employment and part-time work, though this is often not by choice.

7. In contrast, in Singapore, nine in ten of our technical education graduates find a permanent full-time job within six months of graduating. Starting salaries for these graduates have also been increasing over the years. In 2013, the mean starting salaries for fresh and post-NS ITE graduates were \$1,500 and \$1,790 respectively,³ and \$2,050 and \$2,500 for fresh and post-NS polytechnic graduates respectively.⁴ These strong employment indicators not only show that the approach we have been taking is working, but also that the returns for investing in skills are high, if done right.

8. We are heartened that young Singaporeans have high aspirations, and seek to continually upgrade themselves. Today, about one in four ITE graduates go on to our local polytechnics, and about 20 per cent, or one in five, diploma holders go on to our local universities. We want to provide more opportunities for ITE and polytechnic graduates to progress up the knowledge and skills ladder, throughout their working careers, in job relevant areas – to create a better future for themselves.

9. For example, we have introduced new degree programmes in the Singapore Institute of Technology and UniSIM which are more focused on practical applications, and more aligned to the strengths of our polytechnic graduates. These programmes are in areas where we need Singaporeans with such skills. The ASPIRE Committee, chaired by Senior Minister of State for Law and Education, Ms Indraneel Rajah, is looking at enhancing the career and academic progression

¹ 2013 data. Source: Labour Force Survey, Ministry of Manpower.

² The unemployment rate for youth fell by 0.1 percentage point, to 15.5%, in December 2013, 1.0 percentage point lower than one year ago. The youth unemployment rate remains very high in several Euro area countries, in particular in Greece (at 59.2% in October, the latest month available), Spain (at 54.3%), Italy (at 41.6%), Portugal (at 36.3%) and the Slovak Republic (at 32.6%). Updated in February 2014. (<http://www.oecd.org/std/labour-stats/harmonised-unemployment-rates-hurs-oecd-updated-february-2014.htm>)

³ ITE Graduate Employment Survey; Figures rounded to nearest \$10.

⁴ Graduate Employment Survey, jointly conducted by the five polytechnics in 2013; Figures rounded to nearest \$10.

prospects for ITE and Polytechnic graduates, and will put forth its recommendations later this year.

The Future of Technical Education in Singapore

10. The world of work is changing quickly, and technological changes are happening at an even faster pace.

11. We are already seeing the future of manufacturing taking shape in Singapore. For example, Singapore firms such as Express Tech, which make precision moulds for the electronics and automotive industries, have begun to incorporate 3D printing technologies into their manufacturing. Others such as Keppel Offshore & Marine and Molex are working with NTU's S\$30-million Additive Manufacturing Centre to push the boundaries of 3D printing towards more advanced applications. 3D printing enables the manufacture of key components of increasing complexity and functionality, such as complex moulds, valves and machine parts. It also opens up new fields of high-value business such as mass customisation, and creates new jobs, for example in the area of 3D design.

12. Dyson, which designs and manufactures vacuum cleaners, hand dryers, bladeless fans and heaters, has its headquarters for manufacturing and operations in Singapore. The company chose to locate its advanced manufacturing facility in Singapore to produce digital motors for their hand dryers and vacuum cleaners. The S\$100 million high-tech facility is powered by advanced robotics and can produce up to 6 million motors a year. With this automation, Dyson's 150 engineers in Singapore are able to engage in more research, design and development, and develop a variety of skill sets.

13. This is the future of manufacturing – an exciting one. Singapore must continue to move up the value chain to become an advanced manufacturing hub with more higher-value jobs. Future manufacturing jobs will be high-skilled, multi-disciplinary, and have high potential for career growth. They will move far beyond just production and the factory floor, to span a variety of fields across the entire business chain, including data analysis, industrial design, process engineering, supply chain management. These jobs of the future will require people who can integrate multiple

skill sets, including technical knowledge, problem solving, systems thinking, and industry application.

14. How do we ensure that our young Singaporeans are prepared for these exciting challenges in the future? First, our investments in technical education must give our students access to jobs after graduation. Second, our technical education system must keep pace with change – changes in international and domestic developments, as well as changing industry needs. It must provide a life-long learning pathway. It must provide students with foundational and transferrable skills so that they can adapt and move across different jobs in tandem with industry changes. Lastly, it must better match the aspirations and career choices of Singaporeans with national manpower needs, so that Singaporeans continue to have good job options and have the knowledge and skills to take them up.

WorldSkills Singapore 2014 : 'I Create'

15. It is thus appropriate that the theme for this year's competition is '**I Create**'.

16. It speaks of how technical education has evolved over time, both in form and substance. Our institutions now have state-of-the-art 3D immersive training simulation centres. And our students are designing and producing robots, creating digital animation or cooking up delicious food.

17. It speaks of how our well-skilled workers can create new products and services that benefit others, and improve society.

18. It speaks of how through good education and training, Singaporeans can take up better jobs, and create a better future for themselves and their families, and for Singapore.

Concluding Remarks

19. To our participants competing in WorldSkills Singapore 2014, you have made it through the Qualifying Rounds to reach the Finals in this competition series. Your

education and training have provided you with professional knowledge, skills and values. More importantly, the competition has provided you with an opportunity to discover more about yourself; to learn to work in diverse and cross-cultural teams; and to develop the grit and determination to persevere in spite of challenging circumstances. These are useful skills and strengths – not just for this competition, but for life.

20. I hope that you will continue to hone your skills on the job after graduation. Take pride in your skills and work, continue to learn, and always strive to be the best that you can be.

21. I wish all our competitors and organisers a fruitful experience at this competition.

22. Thank you.