SPEECH BY MR S. ISWARAN, MINISTER FOR TRADE & INDUSTRY (INDUSTRY) AT THE LAUNCH OF MEIBAN ISMART FACTORY PROJECT ON 12 OCTOBER 2016, 9:00AM, AT 26 ANG MO KIO INDUSTRIAL PARK 2

Mr. George Goh, Chairman of Meiban Group
Ms. Carol Goh, CEO of Meiban Group Pte Ltd
Distinguished guests,
Ladies and Gentlemen,

Good morning.

INTRODUCTION

1. It is a pleasure to join you here today as we witness a significant milestone for Meiban. Meiban is a leading homegrown manufacturing company that has grown into an established global player. Mr. George Goh started this company in 1987, and the second generation of leadership has brought Meiban into its next phase of growth. Today's MoU signing between Meiban and its technology partners marks the start of a transformative journey towards the creation of a smart factory of the future.

2. The digital transformation that Meiban is undertaking is an example of what firms in the Precision Engineering industry must do, so as to continue to compete and thrive. This is also why we are launching the Precision Engineering Industry Transformation Map (ITM) today.

SHIFTING THE PRECISION ENGINEERING INDUSTRY INTO NEW GROWTH SEGMENTS

3. Precision Engineering is a critical enabler for our manufacturing sector. It supports the production of complex components needed in industries ranging from electronics and aerospace, to oil & gas and medtech. The Precision Engineering industry today employs 94,000 workers and accounts for a total output that exceeds S$32 billion.

4. Led by the Singapore Economic Development Board (EDB), the Precision Engineering ITM is the first to be rolled out for the manufacturing sectors. A key strategy of the Precision Engineering ITM aims to shift the industry into new growth areas. This will be done by growing complementary segments such as Additive Manufacturing, Robotics, Advanced Materials, Sensors, and Lasers & Optics. These segments are expected to grow rapidly at an average annual growth rate of around 10 percent or more due to new demand for their applications. For example, Additive Manufacturing opens up possibilities for new product designs that are difficult or impossible to achieve with conventional methods. Robotics is also a critical enabler to achieve productivity gains.

5. To seize opportunities in these new growth areas, the Government has set aside S$3.2 billion under the Research, Innovation and Enterprise (RIE) 2020 Plan for R&D, in Advanced Manufacturing and Engineering to support technology development and adoption in new growth sectors. The $450 million National Robotics Programme (NRP) and the National Additive Manufacturing Innovation Cluster (NAMIC) will also spearhead the development and deployment of robotic capabilities and additive manufacturing R&D.

TRANSFORMING COMPANIES THROUGH DIGITAL MANUFACTURING

6. Digital manufacturing will allow our companies to better manage manufacturing capacity and supply chains, and enable new products, processes, services and business models. This will help our companies to be more competitive, as well as enter new markets and carve out new niches.

7. We want to help our companies tap on these opportunities. The Precision Engineering ITM outlines plans for the Government to support the setting up of digital factories. For example, A*STAR's Singapore Institute of Manufacturing Technology (SIMTech) and the Advanced Remanufacturing & Technology Centre (ARTC) are working to establish digital manufacturing platforms to support the specific digitalization needs of MNCs and SMEs.

8. Today, I am glad to witness the Precision Engineering industry taking its first step towards digital manufacturing. Under its iSmart Factory project, Meiban will co-develop solutions with local and international partners, identified with the assistance of International Enterprise Singapore. These partners include established SMEs like PBA and RansNet, start-ups like Arcstone as well as MNCs like Kuka. The success of Meiban's digitalization initiative will be replicated in its factories in Malaysia and China, to culminate in a manufacturing network coordinated here in Singapore.

9. These digital factories serve multiple functions. First, as learning factories, suppliers accumulate digital manufacturing know-how before embarking on their own digitalization journey. Second, these factories offer a secure environment for technology providers and end-users to test bed and co-develop solutions. Third, companies can leverage digital factories to train and upgrade their workforce to achieve increased proficiency in digital manufacturing processes. By participating in the digital factory ecosystem,

companies generate and acquire new knowledge that will build capabilities. In turn, this will help expand their product lines, strengthen their position in global markets and transform their business models to help generate new revenue streams.

10. Separately, we will also help as many SMEs as possible to retool and build new capabilities. We aim to shift local SMEs towards higher value add activities. Singapore Precision Engineering and Technology Association (SPETA) will provide broad-based support. SPRING will offer targeted support to help SMEs build the capabilities they need to qualify as suppliers to large local firms and MNCs.

11. For example, PBA, started off as a bearings and mechanical components trading company which evolved and grew from its core business in linear motion motors, controls and systems to become a successful robotics and automation systems integrator. We will continue to support SMEs like PBA in expanding capacity and creating new solutions to enter regional markets as well.

MORE JOBS AND BETTER JOBS

12. As the Precision Engineering industry moves towards innovation-intensive activities, it will see the creation of jobs that require more skills and greater depth of knowledge, accompanied by better remuneration and career growth prospects. By 2020, we expect an additional 3,000 PMET jobs in the Precision Engineering industry.

13. I will give two examples of such jobs. First, we will need industrial data scientists. These scientists will have to understand both manufacturing processes and IT systems, as well as extract and prepare data, conduct advanced analytics, and apply their findings in improving products and

production methods. Second, adoption of digital manufacturing will create demand for automation and robot coordinators. These coordinators will be responsible for optimizing operations and machines. For example, Meiban's digital factory will integrate advanced technologies across shopfloor operations, supported by a team of software and systems engineers.

14. The Government is committed to helping our workers acquire new capabilities to take advantage of these new job opportunities. I am glad to introduce a new Skills Framework for the industry. The Skills Framework lays out career pathways for 13 occupations within the Precision Engineering Industry. It will serve as a common reference guide for employers and employees in identifying key skills and competencies for different job roles.

15. WDA has also started a series of advanced manufacturing master-classes on emerging technology fields such as additive manufacturing and advance robotics. The newly-formed statutory board, Workforce Singapore, is also developing a System Integrator Professional Conversion Programme (PCP) under the Adapt & Grow initiative to support reskilling of those keen to embark on new careers in advanced manufacturing. Workforce Singapore will continue to partner closely with the industry to establish more PCPs.

TRIPARTITE COLLABORATION AND CONSULTATION

16. The Precision Engineering ITM is a major undertaking. Companies have to adapt and reinvent themselves to build new competitive advantages and workers have to adapt and reskill in taking on new job responsibilities and challenges. As we establish initiatives such as digital factories and the Precision Engineering Skills Framework, our industry associations and unions play an important role in accelerating the industry into the era of digital manufacturing.

17. With that in mind, we are strengthening the membership and expanding the scope of the Precision Engineering Sectorial Tripartite Committee to guide the progress of this ITM. Consisting of representatives from Government agencies, union and industry, the Committee will provide input and feedback on the progress of ITM objectives. As an inclusive platform, this Committee will be a key engagement channel so that our companies, industry associations, schools, unions and workers all actively participate in the execution of the ITM.

18. We will also further strengthen our capacity to carry out the initiatives in this ITM through a close relationship with the SPETA, which is aiming to increase its membership from 170 today to over 400 by 2020. SPETA will be managing a pool of industry veterans who will advise and consult with SMEs in business and technology strategies, transfer knowledge and build up leadership capabilities in SMEs, enabling them to actively chart their own paths and seize growth opportunities.

CONCLUSION

19. The Precision Engineering industry will be well-positioned to ride the wave of digital manufacturing. With support from stakeholders, we aim to grow output in this sector from S$32 billion today to S$42 billion in 2020.

20. I congratulate Meiban and its partners once again in taking this first step as the vanguard in our collective push into a digitalized future of manufacturing. I wish you great success in this bold endeavor.

21. Thank you.