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DURING THE COMMITTEE OF V SUPPLY DEBATE UNDER HEAD
(MINISTRY OF TRADE AND INDUSTRY)
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“Supporting our companies to innovate, scale, and be competitive”

A. INTRODUCTION

1. Technological advancements have had a profound impact on our industries and businesses. Although change can be disruptive, it presents many opportunities. Already, several companies have moved to transform their businesses, and are today enjoying the fruits of transformation.
2. We would like even more companies to seize these opportunities. The Government is ready to support them with initiatives customised to each sector. Some sectors I would like to highlight are manufacturing and wholesale trade sectors. Mr Chairman, may I have your permission to display some slides on the LED screens later on in my speech.

B. THE GOVERNMENT WILL SUPPORT OUR COMPANIES TO TRANSIT INTO THE NEW ERA OF ADVANCED MANUFACTURING

3. Let me first address the questions from **Mr Sitoh Yih Pin** and **Ms Cheryl Chan** on what the Government is doing to build a globally-competitive manufacturing sector.
 - a. Manufacturing remains an important pillar of Singapore’s economy. The sector accounts for around 20% of GDP and around 14% of total employment. Today, we have a diversified portfolio of high value-added manufacturing industries. Our products are exported to many markets globally. In 2017, Singapore’s manufacturing sector saw strong growth, and the sector continued to expand at a robust pace in January 2018.
4. However, the global manufacturing landscape is evolving. We are witnessing rapid technological developments in areas such as robotics and the Industrial Internet-of-Things. This presents two opportunities:
 - a. One, to establish Singapore as a globally-competitive advanced manufacturing hub. This will help attract strategic investments and anchor our position in global value chains.
 - b. Two, is for our companies to gain a competitive advantage by prioritising three areas: (i) undertaking innovation; (ii) adopting technologies, and (iii) preparing their workers to thrive in tomorrow’s workforce.

5. I would like to explain the rest of these points in greater detail in Mandarin. Sir, may I now speak in Mandarin.
6. 我在英语发言中提到我们必须通过三方面让本地企业更具竞争优势：（i）积极创新；（ii）采纳科技，以及（iii）培训员工为未来的工作环境做好准备。

i. Improve innovation capacity

i. 提高创新能力

7. 创新是区分自己和竞争对手的关键。有些制造业领域，如精密工程（PE），已经意识到了创新的必要。精密工程企业于 2016 年所投入研发的资金，与 2015 年同比，增加了 50%。
8. 中小型企业若要提高创新能力，其中一个方式是参与新加坡科技研究局“成长企业科技提升计划”（GET-UP）旗下的商业与科技运作蓝图（Operation and Technology Roadmapping，简称 OTR）。
9. 通过商业与科技运作蓝图，中小型企业可以在新科研的指导下，定制长期增长战略以实现新产品或新服务。这个项目也为中小型企业提供商业战略，以评估消费者需求、挑战和潜在市场。截至 2017 年 11 月，已经有超过 300 间企业在新科研的商业与科技运作蓝图下受惠。
 - a. **Plasmotech** 就是其中一间受惠企业。**Plasmotech** 原本只专注于为电子业制造连接器和电容器。但是通过商业与科技运作蓝图，企业在汽车市场发现了商机。**Plasmotech** 在设备和基础设施方面投入了约 170 万元，聘请了一组工程师研发汽车的部件，并于 2016 年进军市场。
 - b. 在这之后，**Plasmotech** 的销售额同比增长了 20%。我们希望有更多的企业能看到创新的价值，开始行动并获得同样的效益。
10. 为了让更多企业从商业与科技运作蓝图中受惠，新科研将携手其他政府机构及商会与商团推出联营式商业与科技运作蓝图。这样的方式会把同一个领域的企业聚集在一起，并为面对的共同难题一起制定技术路线图。参与的企业便可以利用这个共享路线图作为基础，根据各别企业的需求，更进一步定制适合自身的解决方案。这样的安排能让更多公司从业界专家和科技研发人员等共享资源中受惠。
 - a. 首个联营式商业与科技运作蓝图将集合 16 间食品制造企业，包括其祥食品集团（**Kee Song Group**）和奋发有限公司（**Phoon Huat Pte Ltd**），一起讨论提高生产力的科技技术。这其中包括生产区控制系统和减少食物浪费的货架期监测方案。

(Translation for paras 7 – 10)

7. Innovation is key to differentiating oneself from the competition. This can take the form of creating new products, finding business opportunities, and developing efficient means to optimise resources. Some manufacturing subsectors, such as precision engineering (PE), are already seeing the need for innovation. In 2016, PE companies invested 50% more in R&D compared to the previous year.

8. One of the ways that SMEs can improve their innovation capacity is by tapping on A*STAR's Growing Enterprises through Technology Upgrade (GET-Up) initiative, which offers Operation and Technology Roadmapping (OTR).

9. Through OTR, SMEs can get A*STAR's guidance to customise a long-term growth strategy for realising new product or service offerings. The OTR also provides SMEs with business strategies to assess consumer demand, challenges, and potential markets. As of November 2017, A*STAR has engaged over 300 companies through OTR.

- a. One local company which benefitted is Plasmotech. Previously, Plasmotech focused on manufacturing connectors and capacitors for the electronics industry. The OTR helped them recognise an opportunity in the automotive market. Plasmotech invested around \$1.7 million in equipment and infrastructure, hired a team of engineers to develop components for automotives, and entered the market in 2016.
- b. Since then, Plasmotech's sales have increased 20% year on year. We hope that more companies will see the value of innovation, get started, and enjoy similar benefits.

10. To extend the reach of OTR, A*STAR will work through lead Government agencies and TACs to launch consortium-style OTRs. This will bring together companies within the same sub-sector to chart out technology roadmaps for shared problem statements. Participating companies can then build on these shared roadmaps as base templates to further customise solutions for their needs. This arrangement allows more companies to leverage shared resources such as industry experts and technology developers.

- a. The first consortium-style OTR will bring together 16 food manufacturing companies, including Kee Song Group and Phoon Huat Pte Ltd, to identify common technology areas to improve productivity. These include shop floor control systems and shelf-life monitoring solutions to reduce food waste.

ii. Adoption of technologies

ii. 采纳科技

11. 除了提高创新能力，中小型企业还可以采纳制造业技术来优化他们的运作流程和资源。这将确保企业保持竞争力，从外在需求增长中受惠，就像电子业和精

密工程业在 2017 年取得强劲生产力增长。在这两个领域里，每名员工的实际附加值分别增加了 35% 和 15%。

12. 为协助企业采纳科技，我们推出了许多援助计划。对有意部署大规模自动化方案以提高生产力的企业，标新局提供的自动化辅助配套（Automation Support Package，简称 ASP）所包含的的津贴和税务及贷款优惠等，都可用于抵消成本。

a. 消防设备制造商林杰公司是其中一家申请自动化辅助配套的本地企业。林杰公司（Lingjack）以前将近 90% 的制造过程须依赖人工劳动。申请自动化辅助配套后，公司引进了新设备，将抛光、焊接和测试泄漏等工作自动化。

b. 林杰公司的生产效率因此提高了近 40%，并计划扩大生产能力。企业也在考虑制造更高附加值的商品，并定下目标争取让今年的收入增幅达 20%。

13. 在寻找现成技术解决方案的企业可以利用由新科研和资讯通信媒体发展局共同创建的企业科技库（Tech Depot）。这个设在标新局“企业通”网站（SME Portal）的网络平台列明了一系列企业可即刻采纳的生产力方案，涵盖范围包括库存和资产追踪，以及供应链管理。自去年 4 月推出以来，企业科技库已推出 45 个科技解决方案，并有超过 1000 间企业受惠。

(Translation for paras 11 – 13)

11. Besides improving innovation capacity, SMEs can adopt manufacturing technologies to optimise their processes and resources. This ensures that companies remain competitive and can benefit from upturns in external demand, as demonstrated by the strong productivity growth in electronics and precision engineering clusters in 2017. In those clusters, real value-added per worker grew by 35% and 15% respectively.

12. To facilitate the adoption of technologies, we have put in place various support schemes. For companies considering the deployment of large-scale automation to improve productivity, SPRING offers the Automation Support Package (ASP) comprising grant, tax, and loan incentives to offset costs.

a. One local company which has tapped the ASP is Lingjack, a manufacturer of firefighting equipment. Lingjack previously depended on manual labour for almost 90% of its manufacturing processes. Through the ASP, the company introduced new equipment to automate functions such as polishing, welding and leak testing.

b. As a result, Lingjack improved its manufacturing efficiency by almost 40% and is looking to expand its production capacity. It is also looking to manufacture higher value-added goods, and is targeting an increase in revenue by up to 20% this year.

13. Companies which are looking for ready technology solutions can access the Tech Depot, jointly created by A*STAR, IMDA, and SPRING. This is an online repository of plug-and-play productivity solutions which can be found on SPRING's SME Portal. The solutions cover areas such as inventory and asset tracking, and supply chain management. Since its launch in April last year, 45 solutions have been made available and more than 1,000 companies have adopted solutions from Tech Depot.

iii. Preparing workers

iii. 确保员工做好准备

14. 在检讨策略和计划同时，企业也应该考虑到员工的提升，并和员工一起转型。我们强烈鼓励企业主动地为员工提供培训，以确保他们为未来的变化做好准备。

- a. 优力精密工程有限公司（Univac）是一家生产医疗器械和生命科学产品的精密工程的本地大型企业。这间企业不仅开始了业务转型，也确保员工为转型做好准备。59岁的严光明是公司的高级质量工程师。他的工作原本非常依赖人手劳动，需要耗费大量的时间和精力收集数据。
- b. 今天，优力精密工程有限公司在工作流程中采用应用软件后，数据收集日益自动化。这些变化使公司可以重新部署员工，让他们负责数据分析等更高附加值的职务。
- c. 为了让员工适应转变，优力精密工程有限公司组建了一个团队提供新软件和新技术培训。这个团队还在施行期间提供在职支援，确保工程师和技术人员能够胜任工作并有信心地操作软件。
- d. 严光明很感激数码化转型让他的工作变得更省力——他不再需要人工收集数据，而是从数码设备就能轻松得到所需数据。他现在能够更专注于数据分析及设计解决方案。

(Translation for para 14)

14. Even as companies review their strategies and plans, they should transform with their workers in mind. We strongly encourage companies to proactively prepare their workers for the changes ahead.

- a. Univac, a precision engineering LLE that manufactures medical devices and life science consumables, is one such company. Univac has not just embarked on transforming its business, but is also equipping its employees for the changes. Mr Yim Kong Ming, 59, is a Senior Quality Engineer with the company. His job used to be very manual, requiring significant time and effort for data collection.
- b. Today, as Univac incorporates software applications in its processes, data collection is increasingly automated and seamless. These

ongoing changes allow its workers to be redeployed to higher value-added tasks, such as data analysis.

- c. To prepare its employees for the changes, Univac assembled a team to provide training in the new software and technologies. The team also provides on-the-job support during the implementation phase to ensure that the engineers and technicians are competent and confident in operating the software.
- d. Kong Ming appreciates how the digital transformation has made his job less laborious – instead of having to manually collect the data, he now has easy access to it on his digital devices and can focus more on data analysis and problem resolution.

- 15. Over time, as our companies continue to improve their innovation capacity, adopt technologies, and prepare their workforce, we will build up a strong local manufacturing base to support our vision of being an advanced manufacturing hub.
- 16. While I have spoken about the many schemes available to support companies, I understand that some companies are unsure how and where to begin their transformation journey. And this is a point that Mr Sitoh Yih Pin raised earlier. As a first step, companies can use EDB's Singapore Smart Industry Readiness Index (SSIRI). This tool will help companies to self-diagnose the future-readiness of their organisational processes, technology usage, and workforce skills. It is designed to be used by companies of all sizes in all sectors, to determine how they may implement "smart" manufacturing operations. I encourage companies to sign up for the SSIRI workshops conducted by EDB to find out more. I will also speak more about the SSIRI later this month at the Internet of Things (IoT) Asia Conference 2018.

C. MAINTAINING SINGAPORE'S COMPETITIVENESS AS A GLOBAL TRADE HUB

- 17. I would now like to speak about the Government's efforts to maintain Singapore's competitiveness as a global trade hub.
 - a. Today, Wholesale Trade is a key contributor to Singapore's economy, accounting for about 16% of our GDP.
 - b. However, the Wholesale Trade sector is lesser known to many Singaporeans. Most have the misperception that it involves working in warehouses.
 - c. Actually it is far from that – it is one of our economy's largest and most diverse sectors, comprising more than 35,000 firms engaging in

Business-to-Business (B2B) transactions for a wide range of goods, ranging from household goods to consumer electronics, to food items and commodities. The sector is also external-facing, with over 80% of sales derived from international trade.

18. This international aspect puts the Wholesale Trade sector in a prime position for growth over the next decade. Across Asia, rapid population growth and rising consumerism are expected to fuel regional demand for goods like food, fuel, and smart devices. To help local enterprises unlock these opportunities, the Government has worked to deepen our trade connections with ASEAN.
 - a. In September 2017, the Singapore Logistics Association (SLA) and Global eTrade Services (GeTS) launched 'hive', a regional B2B trade facilitation platform. 'hive' supports companies in meeting cross-border trade compliance requirements for over 50 customs authorities in ASEAN and around the world. This allows companies to enjoy greater process efficiencies and seamless clearance, since 'hive' will be linked to Singapore Customs.
 - b. Preliminary response has been encouraging. In a mere 5 months, over 2,300 companies have joined the platform, with close to 4,000 transactions completed.
19. Yet, we must be prepared for how technological advancements, such as blockchain technology and data analytics, could revolutionise the way global trade is conducted in the coming years.
 - a. To help strengthen our trade ecosystem, we will establish the Trade Infrastructure Development Fund (TIDF) this year. The TIDF will be offered as a grant to support companies which are looking to develop B2B e-marketplaces and innovative trade solutions. The TIDF will also support initiatives to create a wider spectrum of financial value-added service offerings. These efforts will help support our Wholesale Trade companies to scale up, and become more productive and innovative.
20. Sir, even as our industries and companies transform and seize the opportunities, we want our people to benefit from the good jobs that will be created. SPS Low Yen Ling will speak in greater detail about how our people can thrive in this new environment.

D. WE REMAIN COMMITTED TO DEVELOPING A VIBRANT AND SELF-SUSTAINING ECOSYSTEM TO HELP OUR STARTUPS THRIVE

21. Much of my speech earlier has focused on transforming and rejuvenating existing industries to future-proof Singapore's economy. I would now like to address another part of the equation: how the Government is working to nurture startups as catalysts for growth.

22. **Mr Charles Chong** asked about the Government's efforts to build up our startup landscape. Startups play an important role in our economy. They help to boost Singapore's economic competitiveness through innovative ideas and disruption of existing industries, thus contributing to sector development and transformation.
23. In recent years, we have seen good growth in the number, contribution, and quality of our startups.
 - a. The total number of startups in Singapore grew from 22,000 in 2003 to 43,000 in 2016. They contributed \$7.7 billion, or 1.9% of GDP in 2016. In particular, the number of tech startups increased from 2,800 to 4,300 in the same time period, employing about 24,000 workers in 2016.
 - b. Startups in Singapore are also attracting a good level of investor interest and funding. In January 2018, local logistics startup Ninja Van raised over US\$87 million in its Series C funding round, while late last year, home-grown gaming company Razer raised US\$528 million in its initial public offering in Hong Kong.
 - c. These success stories are certainly not one-off. In Singapore, the venture funding activity and deal flows have multiplied significantly from 80 deals worth US\$136.4 million in 2012, to 174 deals worth US\$1.37 billion in 2017.
24. These developments reflect the growing quality and potential of startups here. This shows that our moves to distinguish Singapore's startup scene through establishing a strong brand identity, strengthening our talent attraction efforts, and enhancing funding support are bearing fruit.
25. "Startup SG" was launched in March 2017 as a single brand identity to showcase Singapore's startup ecosystem to the world. It also unified the Government's startup support schemes, making it easier for entrepreneurs to apply for support.
 - a. SPRING leveraged the Startup SG brand to organise the inaugural Startup SG competition, SLINGSHOT@SWITCH, in September 2017. The competition attracted more than 900 teams from over 30 countries. Media coverage of the competition and the Startup SG brand was extensive, and helped to increase global mindshare of Singapore as a startup hub.
26. Second, to improve Singapore's attractiveness to global entrepreneurial talent, we enhanced the EntrePass scheme's entry and renewal criteria in August 2017. Since then, the number of applications has more than doubled.
 - a. This is an encouraging development. Given Singapore's small size, we need to remain open to promising global entrepreneurial talent who can contribute to the vibrancy of our startup scene. This will help to seed

future growth and good local jobs. In 2016, foreign startups generated a total of 9,800 local jobs. As a percentage share of the total employment generated by foreign startups, local jobs took up 54%, which constitutes an increase from 50% in 2012.

- b. In one example, after Dr Bert Grobben's application for the EntrePass was supported in 2015, he incorporated a startup here, called Budding Innovations. His company specialises in commercialisation of technology by working with companies to develop go-to-market strategies. Budding Innovations has since created five local jobs, of which three are PMETs.
27. Third, to strengthen funding support, we raised the cap and proportion of the Government's co-investment funding share under the Startup SG Equity last year. This aims to catalyse private sector investment into promising Singapore-based technology startups with intellectual property and global market potential.
- a. Building on this, SPRING appointed nine co-investment partners last month with the goal of further catalysing over \$200 million into more deep tech startups in the growth sectors of Advanced Manufacturing and Engineering, Health and Biomedical Sciences, and Urban Solutions and Sustainability.
 - b. Beyond funding, the deep tech startups will stand to benefit from the various resources and know-how provided by those co-investment partners, which had been chosen for their expertise in the respective sectors. This includes help with technology translation, prototyping and manufacturing facilities, and strategic networks for development and commercialisation – thus working to shorten the startups' learning curves, and improving their chances of success.
28. To scale up, startups should seek out growth opportunities, both locally and abroad. Startups can tap on partner networks which we have put into place.
- a. Last year, the Government worked closely with partners like the Action Community for Entrepreneurship (ACE) to strengthen startups' access to smart financing and global networks. This included supporting the launch of ACE International Centre, which provides a landing pad for global startups, and helps local startups to scale up and internationalise.
 - b. JTC has also developed LaunchPads at one-north and Jurong Innovation District (JID), which offer a range of spaces for startups to operate in and test-bed their ideas. More importantly, LaunchPads serve as hubs to connect entrepreneurs with accelerators, incubators, venture capitalists, and fellow entrepreneurs in related fields. This creates opportunities for knowledge sharing, collaboration, and growth. At JTC LaunchPad @ JID, JTC will work with partners to provide a one-stop prototyping centre where deep tech startups can leverage shared equipment for small batch production.

- c. SPRING will also be launching the Startup SG (SSG) Network later this year. The SSG Network will be a one-stop database of information, as well as an e-community of startups and ecosystem players. This will support networking and facilitate business matching for startups.
- d. With the establishment of Enterprise Singapore (ESG) in April this year, startups will be able to leverage ESG's international network of offices and in-market partners to scale up and expand into new overseas markets. ESG will advise startups on capability development and internationalisation, while providing them with integrated support through the schemes that were previously under SPRING and IE Singapore.

E. CONSUMER PROTECTION

- 29. As the Minister for Industry, Mr S Iswaran, had earlier highlighted, the Government is adapting to better serve the needs of industry in Singapore's new economic environment.
- 30. As part of this, the Government will restructure the Competition Commission of Singapore (CCS) in April 2018 to take over SPRING's current role as the administering agency for the Consumer Protection (Fair Trading) Act (CPFTA). Besides the CPFTA, CCS will continue its current mandate of administering the Competition Act. To reflect its new role, CCS will be renamed to the "Competition and Consumer Commission of Singapore", or CCCS.
- 31. I would now like to address **Mr Lim Biow Chuan's** question about consumer protection for online transactions, specifically his suggestions to restrict the use of mandatory arbitration clauses in standard terms and conditions and pre-ticked boxes for additional goods and services.
- 32. The CPFTA protects consumers against errant retailers which engage in unfair trading practices, regardless of whether these transactions take place online or offline. The Act provides for civil actions to be taken by consumers and by specified bodies against retailers that persist in unfair trading practices.
- 33. The Government adopts a balanced approach of supporting a pro-enterprise environment, while at the same time protecting consumers. In line with the principle of the freedom of contract, businesses are free to enter into consumer contracts, as long as it is mutually agreed to by the contracting parties.
- 34. Businesses and consumers should be alert to the clauses and conditions of any contract they enter into, including the fine print. Consumers should also take steps to protect themselves before making their purchases. This could include checking reviews on the reputation of retailers and their refund policies and mechanisms. Practices such as using small print to conceal or mislead consumers on a material fact in relation to the transaction, can be considered as unfair practices under the CPFTA.

35. We note Mr Lim's suggestions on arbitration clauses and pre-ticked boxes. The Government will study them and take them into account when we next review the relevant consumer protection legislations. We will continue to monitor the situation and take appropriate actions, if necessary.

F. CONCLUSION

36. As I have elaborated in my speech, the Government has in place extensive support structures and initiatives to support our SMEs and startups on their transformation journey. What remains is for companies to step up and make the right investments today to seize new growth opportunities – not just for themselves, but also for a better future for all of us.
37. Thank you.