## NC's Closing Remarks:

Bismillahirrahmanirrahim.

Salutations:

- The honourable Deputy Prime Minister of Malaysia, Datuk Seri Dr Ahmad Zahid bin Hamidi
- Yang Berhormat Dato' Seri Diraja Haji Zambry Bin Abdul Kadir, the Minister of Higher Education
- 3. Honoured Scholars and Industry Leaders
- 4. Distinguished guests,
- 5. Ladies and gentlemen.

Assalamualaikum w.b.t, Salam Sejahtera, Salam Malaysia Madani.

A very good afternoon, ladies and gentlemen, and welcome to the closing session of the MTUN Industry-Academia Discourse on Advanced TVET, "Shaping the Future Workforce: Advancing TVET through Collaborative Industry-Academia initiatives". Thank you for joining us today for what has been an enlightening exploration of the future of Technical and Vocational Education and Training (TVET).

This special event has brought together thought leaders, industry experts, and policymakers to delve into the pivotal role of TVET in shaping the future global workforce. The highlights of the event included Keynote Speaker Sessions, an Academic Forum, the MTUN CEO Roundtable Session, a Research Exhibition, and the Launching of MTUN Advanced TVET 2030.

We were privileged to hear from distinguished keynote speakers who shared invaluable insights. YB Dato' Seri Diraja Dr. Zambry Abd Kadir, the Minister of Higher Education, discussed the internationalization of advanced TVET education, emphasizing the importance of global perspectives in our educational strategies. Mr. Zhang Lei, Senior Director at Alibaba (China) Education & Technology Co., Ltd., enlightened us on the key skills for the future workforce at the intersection of robotics, AI, and TVET, highlighting the critical role of technology in shaping tomorrow's job market.

Why is it so important to look at the global perspective of TVET education? Last year, the UK-Malaysia Education Partnership MoU was signed to foster expertise-sharing to strengthen Malaysia's TVET system. Over 12,000 Malaysians, including women, youth, and the bottom 40% income group (or B40), have benefited from the UK-funded Skills for Prosperity Programme. This programme focuses on inclusive skills development. It integrates STEM skills and develops a digital talent roadmap and quality apprenticeships which is very much aligned with the Advanced TVET 2030 goals.

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

Hence, today we will witness the launch of the MTUN Advanced TVET 2030 initiative by the Malaysian Technical University Network, or MTUN which is an extensive educational effort aimed at equipping the future workforce with high technical and vocational competencies to address local and global job market demands. This initiative underscores our commitment to nurturing competent professionals and future-ready talents. It will further accelerate the improvement of TVET education in Malaysia by equipping the future workforce with key skills and better wages. We are flying towards premium salary to be granted to our future generations so they will have the best quality of life.

Ladies and gentlemen, the question that might play on the minds of the public is how can the MTUN groom and nurture future talent in TVET? What key strategies can be employed?

Both traditional academic and TVET pathways must be equally valued and cultivated to ensure sustainable talent development in the country. TVET, in particular, plays an important role in bridging the talent gap within the industrial sector. A study by the World Bank found that every 1% increase in the number of TVET graduates in a country leads to a 0.3% increase in GDP growth. Therefore, for Malaysia to remain competitive, it needs to increase the number of highly-skilled workers to more than 45% by 2030.

In an eye towards reaching that goal, initiatives that enhance local students to major in TVET and science, technology, engineering, and mathematics (STEM) courses shall continue to be highly enhanced. This then will support the efforts towards that goal as the country seeks to produce skilled workers that are able to capitalise the opportunities created by Industrial Revolution 4.0.

Ladies and gentlemen, the Malaysian government has allocated RM5 billion in Budget 2024 to improve technical and vocational education and training (TVET) education in the country. The Prime Minister, Datuk Seri Anwar Ibrahim, has stated that the allocation would be used to upgrade TVET infrastructure, develop new TVET programmes, and provide more scholarships and financial assistance to TVET students. He further reiterated the government's commitment to increase the number of TVET graduates in the country, as the response to the high demand by the industry.

Among the specific initiatives that will be funded by the RM5 billion allocation include:

- Upgrading TVET infrastructure at public and private training providers;
- Developing new TVET programmes in high-demand areas such as digital technology, engineering, and healthcare;
- Providing more scholarships and financial assistance to TVET students; and
- Collaborating with industry to ensure that TVET graduates are equipped with the skills and knowledge needed by the workforce.

Ladies and gentlemen, in order to improve coordination within the Malaysian TVET ecosystem, the National TVET Council (MTVET) was established in December 2020. The council serves as a bridge to increase the synergy between the Government and key industry players, as well as to elevate the image of TVET as a strategic career choice.

## اونيۈم سيتي تيكنيكل مليسيا ملاك

This move will steer the national TVET agenda, particularly in the areas of expertise, equipment and technology. Stakeholders involved are the centres of excellence and TVET institutes, regional economic authorities, and industries.

Ladies and gentlemen,

Driving sustainable economic growth in the digital age entails a nation's capacities and capabilities to harness the opportunities presented by the Fourth Industrial Revolution (4IR). The emergence of digital business models has revolutionized traditional economic structures.

Now, the push of the virtual economy becomes the new narrative – paving the way for more innovative ways of conducting business in the digital realm.

In concordance with the surge of the digitized economy, Malaysia has positioned itself as a hub for technology-driven manufacturing, which shall attract significant foreign investment. According to the official data by the Statistics Department (DOSM), Malaysia's foreign direct investment (FDI) has increased to RM926.3 billion at the end of the fourth quarter of 2023 compared to RM914. 9 billion in the third quarter of 2022. Sustaining this exponential growth requires the nation to invest in new capacities and embracing the potencies of AI and the Metaverse. This urgency is second to none now. Malaysia's economy needs to be structurally different to continue to gain competitiveness in new areas. To put it succinctly, among the main enablers of this preferred economic landscape are its human capital and infrastructures.

Ladies and gentlemen,

## UNIVERSITI TEKNIKAL MALAYSIA MELAKA

Today, we are also privileged to hear from the experts via MTUN CEO Roundtable Session. The CEO Roundtable Session was a significant highlight, connecting top-level executives from leading companies. This session facilitated discussions on driving economic growth, competitiveness, and the pivotal role of TVET in fostering a high-income nation. Why is this essential?

Developing a skilled workforce capable of thriving in the virtual economy is a substantial effort. The National Fourth Industrial Revolution (4IR) Policy document identifies AI as one

of the key technologies that "are foundational to the nation's 4IR agenda" and stresses the need to develop ethical use of AI for transforming the economy. To guide AI deployment and governance, the government has also published a National AI Roadmap in 2021, aimed at making Malaysia a nation where AI enhances jobs, drives competitiveness, encourages innovation and entrepreneurship, and improves people's well-being.

Capturing the economic opportunities that generative AI presents will require equipping the workforce with the relevant future-ready skills to thrive in an AI-powered future. TVET higher learning institutions, specifically MTUN hold a mandate to ensure sufficient superior TVET-skilled graduates and knowledge workers are produced for the nation.

In developing a digitally skilled workforce, programmes offered at MTUN institutions have been meticulously aligned to leverage generative AI. This directive has been meticulously spelled out in the 2021 Digital Economy Blueprint which lays out plans to design the curriculums at higher learning institutes in such a way that they equip tertiary students with the right set of digital skills that are highly sought after in the industry. This also has been identified as well in the 12th Malaysia Plan Mid-Term Review and the Madani Economy Framework, whereby talent development for a digital world is identified as one of the key elements in the implementation of the national policy.

Ladies and gentlemen,

To attain the nation's aspirations of being a leading Asian economy and to secure a top-12 position in the Global Competitiveness Index, the gains from generative AI have an enormous

potential to contribute toward the realization of these aspirations. The promotion of accelerated digital literacy and the integration of digital skills into the TVET curriculum is essential for equipping the future workforce with critical knowledge and expertise for sustainable economic growth in the fourth IR.

The robust inclusion of AI and metaverse in TVET will result in numerous job opportunities and a profusion of job creation. Parallel to the expansion of the metaverse, there will be an increased demand for professionals skilled in virtual reality, augmented reality, game development, digital content creation, virtual commerce, and other related fields. Through TVET institutions, Malaysia can invest in training programs and educational initiatives to develop a workforce that can meet the evolving needs of the virtual economy. Through these strategic initiatives, the nation will eventually witness significant economic benefits including job creation, revenue generation, and export potential.

## اونيومرسيتي تيكنيكل مليسيا ملاك

Ladies and gentlemen, ERSITI TEKNIKAL MALAYSIA MELAKA

The world has been introduced to the concept of metaverse, which is regarded as the next phase of the virtual world beyond the artificial intelligence, since 1950s. It is worthy to note that the metaverse is still in its early stages of development, but it is estimated that by the middle of this decade, it could generate a staggering USD13 trillion globally. As such, there is a need for TVET to embrace metaverse technology due to its capacity to revolutionize technology.

In the era of digital intelligence, the technological and vocational education and training fields need to develop AI and metaverse skills in a big segment of the population. For example, by using mixed reality, (virtual reality and augmented reality (VR + AR)), TVET institutions can enhance and add value to the teaching and learning process. In order to enhance reality, digital avatars can be employed in the process of teaching and learning. Furthermore, vocational training can be conducted without the need for much costlier physical tools like welding gear, CNC machines, and car training centres.

When acquiring new knowledge and abilities, the the AI and metaverse gives TVET students the chance to practice working in hazardous environments without worrying about the consequences of making mistakes, such as when welding underwater, or drilling onshore or offshore. Simulations can provide a safe environment of learning skills that might be dangerous in order to increase skill levels and confidence of the students and trainees

To be viable and relevant in IR4.0, TVET students must adopt AI and metaverse technology, and this requires astute cooperation between educational institutions, the AI and metaverse industries, and academia. TVET students should be equipped with skills from leadership training in cyberbusiness and metaverse technopreneurship in order to later boost the metaverse economy and they can secure employment opportunities. With the goal of expanding career opportunities and improving employability, TVET offers training in these high-demand areas, and aims to equip students with the necessary knowledge and abilities to thrive in the modern job market. Furthermore, through partnerships with companies and industry experts, TVET can ensure exciting and fulfilling career opportunities.

Ladies and gentlemen,

As a conclusion, TVET is now seen as a catalyst for economic growth. Thus, considering the significance of TVET for sustainable development, Malaysia has taken another proactive step by partnering its TVET sector with other nations like China and many other countries. Today, we also have a notable event, the Malaysia-China Kaiwu Workshop, in collaboration with Heilongjiang Agricultural Engineering Vocational College. This workshop focuses on academic pathways in technology management, fostering international cooperation and knowledge exchange.

All in all, the Advanced TVET 2030 initiative by MTUN aims to improve TVET quality in Malaysia by equipping the future workforce with key skills and premium salaries. Furthermore, in realizing the aspirations of TVET, the UK has encouraged all its university campuses and schools in Malaysia to contribute actively towards the Malaysian government's efforts in achieving its TVET objectives. Perhaps the ongoing engagement will produce technical expertise at the global and regional levels and facilitate the sharing of experiences between Malaysia and other countries. Events such as this one drive our aspirations forward. Let us make full use of this discourse to its utmost application, where stakeholders can meet and exchange meaningful thoughts that can further inform our future actions for the better.

Thank you, and Assalamualaikum w.b.t.

MALAYSI