

TEKS UCAPAN YB MENTERI

20th Malaysia Strategic Outlook Conference - Special Luncheon Keynote Address

"Innovation, Technology and Disruptive Change - The New Paradigm for Malaysia's Socio-Economic Development"

1. To be here today, as a guest of ASLI, is an honour to me. I would like to thank the ASLI for inviting me to deliver the Special Luncheon Keynote Address at this 20th Malaysia Strategic Outlook Conference.
2. This conference is a flagship event created by ASLI with a view to evaluate key issues and strategic challenges and prospects facing the nation at the beginning of the year.
3. Not only that, it serves as an excellent platform for us to share views and unfold opportunities as well as prospects that will have a major impact on the national economy.
4. I believe that all of you here today will have an extensive role to play in this year's conference, themed at "Embracing Disruption: Future Proof Malaysia". We as a nation are moving towards an exciting and interesting phase of world history - where disruption and critical changes occur in various areas.
5. Therefore, I laud ASLI's efforts in arranging such an event in bringing together government, business, policy makers and thought leaders to pave the way towards an intriguing year for Malaysia.

Innovation, Technology and Disruptive Change

Ladies and gentlemen,

6. I would like to start off by saying.....**Disrupt or Be Disrupted**. In a world of disruption, the disruptor makes billions by leveraging on the advancement of technology, meanwhile for the disrupted, things will go from bad to worse, not only losing market dominance but also maybe nearly obliterated for good.
7. Nokia, a market dominant brand two decades ago, a brand most of us seated here today was familiar with, but today, Nokia handset dominance have long since been obliterated by the reality of rapid technology advancement.
8. Nokia felt they could do **NO WRONG**. But they were **DEAD WRONG**. BBC carried an article in September 2013, wrote and I quote, "then all of a sudden, in January 2007, Steve Jobs walked on to a stage and pulled an iPhone out of his pocket and changed the world forever."
9. And to underline it all, the disruptive phase will have a tremendous impact on the future of education, our working environment, security - we will need to build shared accountability structures and better appraisal to mitigate risks and recognise contributions.
10. It is imperative that we do so, simply because our lives and the world we live in now is proof of how technological innovation and technological progress is occurring in almost all aspects of human life and will continue to be a major factor in significant change for the future.

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11. Today everyone and everything will become even more connected with revolutionary advances in the digital technology.
12. This period of digital revolution or more famously coined as The Fourth Industrial Revolution is characterized by a fusion of technologies that is blurring the lines between physical, digital and biological spheres.
13. Furthermore, it is evolving at an exponential rather than a linear pace – whilst disrupting every aspect of governance, industry, jobs and the way we live. It is predicted to be unlike anything humankind has experienced before in terms of its scale, scope and complexity.
14. With rapid technology advances and globalization, competition has intensified and unless we are able to respond timely with competitive technologies or ideas, we would be left behind.
15. As these megatrends transform the global economic landscape, driving Malaysia strategically into the next stage of economic development, would require us to be innovatively enterprising and increasingly rely on home grown technology.
16. A basic point that needs to be observed today is that it is not viable to depend entirely on imported technologies to power our economy. There is a need for more local creators of new knowledge and capabilities.
17. Malaysia needs to rise to meet this new age. The ability to generate new knowledge and intellectual property through research, and to exploit them through commercialization will increasingly be crucial for Malaysia as we progress towards developed nation status.

Impact on Socio-economy

Ladies and gentlemen,

18. Every day we are already hearing about driverless cars, cashless society, drones surveillance and delivery, 3D printing to build houses and organs, precision medicine and even gene editing. The advance of technologies and innovation has given rise to a new generation of empowered consumers.
19. This disruption will create new data, new information, new value – new products but the most vital and crucial part is that the disruption will need users, consumers, regulators to not only change what they think but how they think to ensure that they understand the benefits from the change of this disruption.
20. It changes the way we see the world. It will require change of thinking, alignment towards new way of leadership – the way we lead and how we lead – It requires decisions which are complex and converging.

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21. We must focus on shifting their existing paradigm and world view. This mind set change is always the most difficult but crucial step if we are to emerge triumphant in this age of uncertainty.
22. We need to have the adaptability to change, awareness of existing changes that possible and what are the needs of society. We need to connect to consumer and analyse the potential of these changes – how technology and society evolve and how positive use of technology will benefit our nation.
23. With these pace of technology advancement, with its own scale and complexity, the disruption we are facing requires a comprehensive response involving all stakeholders – which includes all of us here in this hall today, from the public to private sectors to academicians and civil society.
24. We need to review our business process to see where changes needed; we need to design greater use of data and insight to build the future Malaysia. Collaboration, co-creation and co-production have become permanent fixtures of how we address the disruption.
25. However, as exciting as these technology advancement seem, organisations and governments can't disrupt if their biggest asset, their people don't.

HUMAN AND INTELLECTUAL CAPITAL

Ladies and gentlemen,

26. If scientific knowledge has become an invaluable resource for the generation of wealth, it is imperative for us to understand that human and intellectual capital will be the key drivers for the development of a knowledge-based economy.
27. Most jobs of the future will require a basic understanding of math and science. World Economic Forum has projected that 65% of children currently in primary schools will secure new jobs that were not in existence today, but are founded on Science, Technology, Engineering and Mathematics (STEM). Growing occupations require an increasing understanding of math or science.
28. STEM talent skills is the foundation of education and fundamental to be developed from an early age if our future generations are to be equipped to thrive in the modern workplace - and in modern society.
29. And one way we will do that especially in preparing the nation's future by design and not by chance, our future talents will require deeper understanding how to apply technology and innovation in order to achieve desired results. The use of technology should be embedded across the educational experience, to mirror the ways in which technology is now relevant to all sectors and careers.

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30. With STEM being set as a priority in Malaysia's education blueprint, a STEM Action Plan is being finalised by the Government towards ensuring science and technology will continue to sustain Malaysia in line with global development – and continuously ensure that Malaysia will not be left behind.
31. If we are to realise our vision for developed nation status powered by innovation, we will need a strong pipeline of people with the skills and capability to support it. We need to ensure we develop the much needed STEM talent today for the future of tomorrow.
32. At this juncture, I would like to express my gratitude to our Honourable Prime Minister, Dato Seri Najib Razak for emphasizing the importance of Science, Technology, Engineering and Mathematics (STEM) in propelling the country forward.
33. In his Budget 2018, a newly funded allocation of RM25 million has been set aside for the establishment of a National STEM Learning Centre to train Science teachers.
34. Many may ask why MOSTI is driving STEM education and initiatives. We need to understand that MOSTI is the technology driver and provider and we are piloting emerging and futuristic technologies like Internet of Things, nanotechnology, new genetic technologies, automation and robotics.
35. So, we need to ensure two things – that we produce the right talent pool and that we provide them with the employment opportunities. We have to prepare our future talent to be ready for jobs that are not mundane and routine that can be easily replaced by automation.

STI & MALAYSIA'S ECONOMIC GROWTH

Ladies and gentlemen,

36. Throughout history we have learned that an actively innovative society has the competitive edge. Therefore, science, technology and innovation will play a crucial role in designing our nation's future.
37. The STI approach is vital to transform the various national economic sectors leading up to 2050 and will ensure that the country will continue to progress steadfastly. It is safe to say that STI is the centrepiece in ensuring success of TN50's objectives and missions.
38. And when we know rapidly advancing technology will continue ever more rapidly, therefore it is absolutely imperative for the need to foresight the industries of the future and more importantly to prepare for it today.

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39. The consequence of this ignorance will be that we are left behind while all other countries have overtaken us in the race to the top. STI development in the coming 30 years is a must to fulfil not only our objectives of becoming an advanced nation, but a sustainable one at that.
40. In stewarding Malaysia's economic growth and to prepare the country to embrace the change, the role of STI is even more prevalent as a crucial need to implement innovation in our traditional industries such as the E & E (electrical and electronic), palm oil and rubber industry. These traditional industries risk being "left behind" due to its incapability to adapt to converging technologies.
41. Innovation in these industries will enable it to grow and compete and subsequently contribute towards the nation's economy. This further proves my point when I say that Malaysia should in all its capacities, not abandon its traditional industries but look to uplift their capacities through innovative modern technologies.
42. Secondly, the Internet of Things (IoT) and Big Data are two emerging fields which has been monitored by MOSTI due to its huge landscape of opportunities – with a reported potential economic impact of USD 2.7 – 6.2 trillion up till 2025.
43. MOSTI will continue to look on how we govern new technologies through new standards with industry, as well as ensuring the growth and security of the nation at the same time.

Digital Free Trade Zone (DFTZ)

Ladies and gentlemen,

44. The Malaysian digital economy sector had a size of 10.8% of our economy in 2016 and is expected to reach an all-time high of 20.8% by 2020.
45. I urge SMEs to embrace the digital economy and gear up to face competition abroad and not just focus entirely on the local market. With the establishment of the Digital Free Trade Zone (DFTZ), SMEs are able to tap into the unknown but profitable foreign markets and subsequently boost their national competencies and competitiveness.
46. Not only that, the establishment of DFTZ will strengthen Malaysia's position as a regional hub for e-commerce logistics. Hence, I reiterate that Malaysian SMEs – which makes up of 97% of total enterprises in Malaysia, must upgrade themselves or risk being overtaken.
47. The same goes to businesses – where a change in mindset to "think digital". Not only does Malaysia needs a digital economy, it also needs "digital organizations" – where the workers or staffs are digitally competent.

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48. Furthermore, I can assure you that the Malaysian government is 100% on board with turning Malaysia into a 21st century digital economy – where it will be a period solely driven by digital innovation and hyper-connectivity.
49. But at the same time, the delivery of building a more resilient nation is not the sole responsibility of governments. The private sector, society and non-governmental groups will have to increasingly play more prominent role in policy and decision-making. Embracing a form of “agile” governance, which will require close collaboration with the business and civil society

TOWARDS TN50

Ladies and gentlemen,

50. If we start thinking of the future of our nation, we must look beyond the goals of 2020. So what can we do today to ensure a brighter future for tomorrow? A future where Malaysia is driven by technological advancements and fuelled by cutting-edge innovations.
51. As we move closer towards 2020, a new vision, TN50 is being introduced as an initiative plan for the future of Malaysia for the period between 2020 and 2050. It is a bottom-up approach which ensures that nation's future direction reflects back on the public's aspirations.
52. Also, the TN50 ecosystem incorporates STI at the centre of the plan and MOSTI is proud to lead two main themes under TN50 to ensure the relevance of the nation in the face of changes.
53. Academy of Sciences Malaysia (ASM) a statutory body under my Ministry through its 'Envisioning Malaysia in 2050 Foresight Initiative' has identified ways to position the country moving forward through maximum use of STI by sustaining the country's development.
54. This study is interdisciplinary as it envisions how Malaysia would be like based on the four components of science and technology, society and culture, economics and finance and governance.
55. I am glad to note that the Academy of Sciences Malaysia through the Ministry of Science, Technology and Innovation has recently produced two key reports; Envisioning Malaysia 2050 - A Foresight as well as the S&T Foresight towards Malaysia 2050.
56. Let me put Malaysia 2050 into perspective:
 - a. By 2050, it is envisioned that Malaysia will have advanced STI capacity and capabilities, displaying prowess in selected technology areas of green technology, biotechnology, digital technology, nanotechnology and even neurotechnology.

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- b. By 2050, Malaysia will be a self-sustaining nation in terms of water, food and energy through application of green technology. Energy will be generated from renewable energy sources such as solar, ocean thermal energy conversion (OTEC) and fuel cell supplied and monitored across the country through super smart grid of renewable energy.
- c. By 2050, Malaysia's ageing population will still contribute proactively to Malaysia's development through application of digital technology. Senior citizens who have mobility problems can utilise affordable intelligent robots to assist in their daily lives.

57. Recommendations from this study will also be included in the TN50 document in determining key strategic areas and detail action plans that enable us to leverage on current strengths for tomorrow's success

CLOSING REMARKS

Ladies and gentlemen,

58. Before I end, let us be reminded that if history has taught us anything, we need to push ourselves further, spurred by an unrelenting ambition to bring Malaysia to greater heights.

59. We need strong STI capability and concerted effort to ensure we progress to the next stage, help shape the "future we want" or our preferred future. By sowing the right seeds today, we can reap the benefits for a better tomorrow.

60. Paraphrasing what the Right Honourable Prime Minister said in his recent speech at the Invest Malaysia 2018 launching, your government will be a government that provides stability, provides strength and also will provide certainty that not only what the rakyat demands from the government but also what our business community and investors want and need.

61. He also further reiterated, under his leadership, this Government will continue to encourage and champion Malaysian companies in their quest to become regional and global players, to establish global brands that can proudly fly our flag across the international markets."

62. Lastly, I would again like to thank ASLI for organizing such a comprehensive and important conference and giving me the opportunity to stand and speak to all of you here today.

63. I leave you here today with high hopes of further collaborative efforts in the sectors of science, technology and innovation (STI) in order for Malaysia to realize its true potential. I wish you all a fruitful summit and best of luck. Thank you.

