

1. I am pleased that our Honourable Prime Minister had taken time to officiate the Malaysia Commercialisation Year or MCY Summit 2016 earlier today.
2. This demonstrates his commitment to elevate the nation's science, technology and innovation capacity to a higher level to bring prosperity to the nation and rakyat.

MCY PUSHING ADVANCEMENT OF TECHNOLOGIES TO MARKET

Ladies and Gentlemen,

3. As Malaysia inches closer towards becoming a high value added and knowledge based economy, innovation will continue to be a critical element in the country's development agenda.
4. Advancement of science, technology and innovation or STI has remain the key factor that drive the nation's socio-economic development. This is more pronounced with the rise of knowledge and innovation fuelled by the digital revolution.
5. Thomas Edison, a famous American inventor described genius as 1% inspiration and 99% perspiration. Anyone who has delved in a commercialisation endeavour, would be able to validate this statement.
6. The 2015 Australian Innovation System Report stated that Australia is exceptional when it comes to research but is still struggling to commercialise its innovations.
7. When Singapore launched its Research, Innovation and Enterprise Plan 2020, a similar desire to do better in the enterprise segment was expressed.
8. In Malaysia too, despite all the efforts to stimulate and push our STI to new heights, commercialisation of research findings still remains a great challenge.
9. To address these concerns and to further boost commercial returns from research, the government has declared 2016 as Malaysia Commercialisation Year.
10. The government had set aside considerable amount of allocation in its annual budget to fund and support R&D projects undertaken by government research institutions and universities.
11. As such, it is only natural for the government to expect the money spent on research to be able to create value and wealth and improve the livelihood of the rakyat.
12. However, we still have some unresolved issues that need to be looked into if we were to achieve the desired success rate.
13. This is in spite of the numerous efforts taken by the government to institute reforms. Furthermore, the research, development and commercialization or R,D&C value chain is a complex one and is always evolving.

14. Therefore, we have to priorities our efforts especially focusing not just based on the number of commercialized projects but rather the quality or impacts they can bring, able to attract foreign investments, creating jobs and also contributing to the advancement of technical and scientific knowledge in the workforce.
15. Realising this, I believe that the role of MOSTI as a one-stop centre for the nation's STI related matters is pivotal in ensuring the direction of STI in Malaysia. In this journey, MOSTI cannot walk alone and requires synergistic partnerships with other ministries as to ensure the direction of national STI agenda remains true to its path.

STI Masterplan

Ladies and Gentlemen,

16. Just like any other country, we in Malaysia strive to be an innovation-driven nation. We have been working very hard trying to build a strong national innovation systems that are built on a foundation of close relationships between the research and industry sectors.
17. In the last 60 days I have had the opportunity to learn first-hand from Japan, Korea and China. **In South Korea, about 800 start-ups are being registered each day and China sees about 5 million start-ups in a year.**
18. They knew what they wanted, they were focused and they had strong leadership to pull private and public sectors together by adopting growth strategies that are heavily underpinned by science, technology and innovation (STI).
19. We too have a strong leader who is ready to make the bold decisions to move our beloved nation forward. The Honourable Prime Minister had the foresight since he took the office in 2009 to promote and inculcate science, creativity and innovation among Malaysian citizens and by doing so, I strongly believe Malaysia can become a scientifically advanced nation.
20. In order to secure long term benefits for the nation's economy, we need a new way of thinking and effective engagement amongst the quadruple helix partners made up of government, researchers, industry and the community.
21. Thus, the quadruple helix partnership must be well blended as a culture and practice, not remain as a mere model. Only then can we boost market driven research and increase commercialisation rate.
22. We cannot do things in silo and expect success to come naturally once we develop a successful product or services. Value creation from R&D requires the right governance framework, STI talent and proliferation of effective collaborative platforms.

23. This tripartite relationship is vital in carrying concerted efforts in commercialisation of research findings from the universities and research institutions into the market.
24. In this regards, collaborative alliances between research institutions and universities and industry is important.
25. The critical ingredients are effective communication and an appreciation by both parties of the limitations, strengths and motivations of the other.
26. To guide future investment and to align it with stronger research-industry collaboration, roadmap for key technologies will have to be developed.
27. One way is through the formulation of an STI Masterplan. This was mandated by the National Science Council and I am pleased to announce that MOSTI will embark on this initiative next year.
28. Malaysia has had a long tradition of an Industrial Masterplan. Similarly, we need an STI Masterplan to harmonise, consolidate and focus all policies related to STI and promote synergistic, purposeful action among all players.
29. Having an STI Masterplan is like having a blueprint that would provide a unifying, coherent and holistic framework that would promote transformative thinking, integrated planning and inclusive implementation of the national STI agenda.

THE TRANSFER, EXPLOITATION AND COMMERCIALISATION OF PUBLIC RESEARCH

Ladies and Gentlemen,

30. Many scientific researches that have passed the laboratory stage never reach the market place and wither away before reaching the commercialisation stage, commonly referred to as the “**valley of death**”.
31. It is not just the invention of a new idea that is important, but rather “bringing it to market”, putting into practice and exploiting it in a manner that leads to new products, services or systems that add value or improve quality.
32. Towards that end, I would like to touch upon the issue of bringing research from lab to the market place in a more strategic manner.
33. From the viewpoint of enhancing the institutional framework, my ministry underwent a restructuring exercise recently.
34. A new **Technology Transfer and Commercialisation Division** was established, which is tasked to enhance and aid commercialisation of research findings through a well-coordinated technology transfer mechanism.

35. To decrease casualties in the **Valley of Death**, this division will carry out assessment of public funded projects to determine the level of readiness of the project in terms of its technology, market and business.
36. Weaknesses will be identified and specific interventions will be proposed. These efforts, when instituted and carried out effectively and holistically, will ensure a better commercialization rate of our research findings.
37. Amongst the more coordinated programmes that will be carried out include providing legal advice and incentives to protect technological assets and also the necessary marketing support to facilitate their adoption and market uptake.
38. For a specific new technology arising from a research project that has a business potential, various supports will be provided to the inventor in the creation of a start-up.
39. I am happy to mention here that MOSTI via the **MCY2.0** programme will partner with the **Malaysian Global Innovative and Creativity Centre or MaGIC** to provide solutions to problems faced by the government, industry and businesses.

4TH INDUSTRIAL REVOLUTION

Ladies and Gentlemen,

40. The Fourth Industrial Revolution is already upon us, but if we don't govern it properly then its full economic and social potential will not be realised.
41. Not to be left behind, the government has recently proposed to establish the **world's first Digital Free Trade Zone** in Malaysia, a platform that will merge physical and virtual zones, with additional online and digital services to facilitate international e-commerce and invigorate Internet-based innovation.
42. We cannot deny that the digital economy or internet economy has changed the landscape of global business operations and has become an important platform that can contribute significantly to the nation Gross Domestic Product (GDP).
43. We just have to see the successes of Uber, Airbnb and Alibaba who have reaped tremendous return relying heavily and almost solely on the well-established digital network that span across the whole globe.
44. This advanced digitization enabled largely by the internet of things or IoT has created the connection and sharing of data between digital devices, ranging from household devices, to automobiles, public transport system and even to hospitals.
45. These big data manipulation is now moving into liquid data manipulation. We do not want just to be able to use the big data but to also having the big insights to better manipulate the information to our advantage.

46. This connectivity and the resulting aggregation of data is creating entirely new business models and revenue streams, both for start-ups and established companies that leverage existing assets in exciting, profitable new ways.

TECHNOLOGY FORESIGHT

Ladies and Gentlemen,

47. This reminds me of Isaac Asimov, a highly successful writer of science fiction literature, who once said and I quote, *"No sensible decision can be made any longer without taking into account not only the world as it is but the world as it will be."*
48. Therefore, the country's scientific community and the industry ought to be able to stay on, if not in front of the curve, rather than being followers or behind the curve, of technological advancement.
49. This is why we must have foresight. We have to ask ourselves what new economic areas should the nation identify and develop to ensure Malaysia's prosperity in the future.
50. Foresight plays an important role in identifying new niche areas for R&D that would create value in the new economy.
51. We have to ask ourselves what new economic areas should the nation identify now and develop to ensure Malaysia's competitiveness and socio-economic development in the future.
52. We can no longer rely on the agriculture sector, the manufacturing sector as well as the oil and gas sector to be the main contributors to our economic pie.
53. With this in mind, my ministry has recently established a Foresight Technology Division as part of our restructuring to study and monitor various mega trends, disruptive technologies and anticipated convergences.
54. This division will work closely with the Academy of Sciences Malaysia particularly formulating interventions for impactful investment in the strategic sectors.
55. MOSTI through the Academy of Sciences Malaysia has also embarked on a Malaysia 2050 Foresight Initiative and we hope to launch the report early next year.
56. These initiatives will facilitate strategic intervention and impactful investment towards Malaysia's STI advancement and competitiveness. I invite all of you to work with us by giving your inputs through dialogues, consultations and workshops to jointly develop the strategic plans and interventions to realise the targeted areas' fullest potential.

RESEARCH MANAGEMENT AGENCY - STRENGTHENING INDUSTRY-ACADEMIA COLLABORATION

Ladies and Gentlemen,

57. We also need to realise that in shaping a Malaysia of tomorrow, we should no longer confine ourselves to the old mould of thinking. We need to find ways to avoid silo approaches and leverage on our available resources to achieve the end game.
58. Understanding this predicament, the Malaysia Government has established a centralized body to manage Malaysia's R&D fund under my Ministry.
59. Known as the Research Management Agency (RMA), not only would be able to streamline the management of R&D funding in Malaysia but also it would be easier to coordinate the whole R&D value chain and be able to measure the deliverables in accordance with the national STI agenda.
60. Furthermore RMA will harmonise, consolidate, and focus all of the nation's R&D related initiatives in consonance with the national aspiration to become a high income, developed nation with an innovation-led economy.

THE IMPORTANCE OF SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS (STEM)

Ladies and Gentlemen,

61. The government also realises the pivotal role of the future generations play in shaping the future of the country. Therefore the pertinent questions to ask, are our youth and young children being prepared for this future now? Will what they are being taught or learning today be relevant then?
62. Taking the cue from the decision of the National Science Council chaired by the Prime Minister early this year, three ministries are already embarking to formulate an action plan for Science, Technology, Engineering and Mathematics or STEM to accelerate the country's vision in achieving developed status.
63. The Ministries tasked are the Ministry of Science, Technology and Innovation, Ministry of Education and Ministry of Higher Education. My Ministry will continue to strive and further improve the STEM initiatives.
64. To undertake this, MOSTI, under the Eleventh Malaysia Plan from 2016-2020, will continue to promote greater collaboration and integration across the government, industry, and academia thus 'incubate' ways to inculcate interests in STEM amongst our future generations.
65. It is my vehement hope that quality STEM expertise and an innovative culture combined with the readiness of industries to embrace move towards a knowledge intensive economy would create the demand for STEM which eventually will attract or increase the number of students taking STEM subjects.

CLOSING

Ladies and Gentlemen,

66. The government has given MOSTI the mandate to lead in the acceleration and advancement of science, technology and innovation to support and sustain the growth of Malaysia's economy. We remain firmly committed in supporting any programmes, which promote innovation and creativeness.
67. With the right approach, innovation promotes opportunities that can be shared by all levels of society, promotes integration and increases productivity and wealth, and ultimately societal well-being.
68. Before I conclude, I would like to take this opportunity on behalf of the Ministry of Science, Technology and Innovation to record my sincere thanks and appreciation to all parties who had contributed in one way or another in making this event a success.
69. With that, I would like to wish you all success in your deliberations and hope you will benefit from the sharing and exchange of new ideas in this summit. Thank you.