

TEKS UCAPAN YB MENTERI PERASMIAAN GRAPHENE MALAYSIA 2016
8 NOVEMBER 2016

Salam Sejahtera, Salam 1Malaysia dan Salam 1MOSTI

Terlebih dahulu saya ingin mengalu-alukan kehadiran semua tetamu ke satu lagi majlis anjuran MOSTI, kali ini menerusi NanoMalaysia Berhad dengan kerjasama Phantoms Foundation. Bagi memanfaatkan kehadiran tetamu kita daripada luar negara, izinkan saya meneruskan ucapan dalam Bahasa Inggeris.

Distinguished Guests, Ladies and Gentlemen,

1. It is indeed my great pleasure to welcome everyone to "GRAPHENE MALAYSIA 2016". Graphene Malaysia 2016 is an event focusing on graphene industry interaction and collaborative innovation under the auspices of NanoMalaysia Berhad as part of the National Graphene Action Plan 2020.
2. I would like to take this opportunity to congratulate NanoMalaysia and Phantoms Foundation for organising this event under the Graphene International Conference series here in Malaysia.
3. This two-day Conference brings together graphene experts from abroad to exchange their ideas and knowledge on graphene.
4. This Conference also shows Malaysia's commitment to nanotechnology development. It highlights the government recognition to nanotechnology as one of the growth engines of the new economic policy.

Ladies and Gentlemen,

5. Competitiveness is never more important to a nation's success and has never been more intense.
6. As one of the Mighty Five countries together with India, Indonesia, Thailand and Vietnam, Malaysia is highly regarded as a competitor in the manufacturing sector.
7. According to the 2016 Global Manufacturing Competitiveness Index Report released by Deloitte Global and the Global Federation Council on Competitiveness, Malaysia is placed at 17th among the top 40 nations in the index this year and is expected to rise to 13th place by 2020.
8. I am also intrigued by some of the recommendations in the Report for companies to be successful which I think is highly relevant to the Graphene Industry today.
9. Firstly, companies should ensure that talent is "the" top priority: Talent is ranked as the most important driver of competitiveness.
10. As the competition among nations and companies is expected to be fierce, having the right talent would make a difference between success and failure.

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11. Secondly, embracing advanced technologies to drive competitive advantage. Advanced hardware combined with advanced software, sensors, and massive amounts of data and analytics is expected to result in smarter products, processes, and more closely connected customers, suppliers, and manufacturing.
12. Predictive analytics, the Internet-of-Things (IoT), both smart products and smart factories via Industry 4.0, as well as the development and use of advanced materials will be critical to future competitiveness; and
13. Thirdly, cultivating smart, strategic public-private partnerships: Governments are becoming increasingly aware of the significant benefits a manufacturing industry provides to national economic prosperity.
14. Likewise, manufacturing companies are keenly aware of the role government policy can play in their success.
15. I think these three elements are extremely crucial in today's globally competitive environment especially in the nanotechnology industry which is projected to have a potential market size of USD 3 trillion by 2020.
16. By employing new talents, deploying advanced technologies and forging strategic partnerships, Malaysian companies can generate wealth out of STI products particularly through graphene-based products such as high value tyres, better performing plastics and longer lasting batteries.
17. This will invariably also help to upgrade our level of competitiveness to be at par or above other developed countries in the world.

INNOVATION AND COMMERCIALISATION OF R&D

Ladies and Gentlemen,

18. Nanotechnology is changing Malaysia's economic landscape. The Government encourages the commercialisation efforts of R&D projects funded by both public and private sectors to support efforts towards enhancement of the national innovation capability.
19. For a start, five applications are selected as initial priority focus areas for Malaysia: lithium-ion battery anodes and ultracapacitors, rubber additives, nanofluids (drilling fluids and lubricants), conductive inks, and plastic additives.
20. Together, these applications have the potential to contribute to achieving additional gross national income impact of more than RM 20 billion and to help create 9,000 new jobs for these industries in Malaysia by 2020.
21. Until recently large scale adoption of graphene has been hampered by limited production capabilities and a high price tag.

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22. Hence, I am indeed elated by the discovery of Malaysia's potential capability to produce its own graphene.
23. Through a technology owned by a Malaysian company, graphene can now be extracted from bio-methane gas from Palm Oil Mill effluence making it a clear cut example of waste to wealth technology.
24. The National Graphene Action Plan 2020 will concentrate on commercialisation instead of expansive research.
25. This entails helping Malaysian companies to develop and capture the initial intellectual property and knowledge together with the development of higher quality products for both exports and for local usage.
26. I am very proud that one of our own local companies, Penchem Technologies Sdn. Bhd., which is facilitated under National Graphene Action Plan 2020 is undergoing a final production of developing graphene-based conductive ink mainly for electronic applications this year.
27. The commercialisation of the final product is expected to generate RM50 million in revenue by 2020 and is projected to create 100 high-value jobs. Congratulations to Penchem!
28. I do hope we can get more participation from local SMEs and start-up companies to venture into the commercialisation of graphene.
29. As Advisor to NanoMalaysia Berhad and co-chair of the National Graphene Action Plan 2020, I applaud the accomplishments made thus far by NanoMalaysia.

STRATEGIC COLLABORATIONS

Ladies and Gentlemen,

30. The year 2016 is the Malaysia Commercialisation Year and the Ministry of Science, Technology and Innovation is trusted to elevate the rate of commercialisation of innovative products.
31. The National Graphene Action Plan 2020 is assisting the elevation plan by strategically applying open innovation approach with greater inclusivity into the projects with participations from the industries, universities and research institutes.
32. Some of the 360 new products to be commercialised by 2020 are now being realised through projects conducted by companies under the National Graphene Action Plan 2020.

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33. Therefore, it is important to optimise resources and collaborate with other agencies and ministries in this area to realise our vision and mission aligning to the National Blue Ocean Strategy.
34. With the facilitation of the National Graphene Action Plan 2020, the implementation of graphene enabled applications depend upon collaboration between companies, graphene suppliers, experts and enabling government bodies.
35. I would like to take this opportunity to thank the Ministry of International Trade and Industry for their support during the early development stages of the action plan.

JOB OPPORTUNITIES

Ladies and Gentlemen,

36. We are committed to ultimately turn the country into a graphene hub in the near future. Therefore, we need more graphene technology experts and workforce sourced either locally or abroad.
37. Companies will require those technology experts for product innovations as well as business development personnel for commercial growth and new market penetration.
38. Therefore, I would like to urge Malaysians to undertake graphene and nanotechnology upskilling and postgraduate programmes to be able to meet job demands created under NanoMalaysia's commercialisation programme as to keep pace with the other Mighty Five countries.

Ladies and Gentlemen,

39. Graphene Malaysia 2016 will provide an open arena for all interested stakeholders, academicians, industries and consumers to know more about the value of graphene via the presented papers and workshops.
40. They can freely exchange new ideas and share common visions, have fruitful discussions on challenges, create a common understanding of how to apply and disseminate scientific knowledge to better prepare for the Fourth Industrial Revolution.
41. I am sure this two-day conference will bring new and exciting scientific and economic insight to all participants
42. On that note, it is now my great pleasure to officially open the GRAPHENE MALAYSIA 2016. Thank you.