



POLICIES AND CURRENT STATUS ON NUCLEAR TECHNOLOGY IN MALAYSIA

Presented by:

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on behalf of

Minister of Science, Technology and Innovation (MOSTI) of Malaysia

17th FNCA Ministerial Level Meeting

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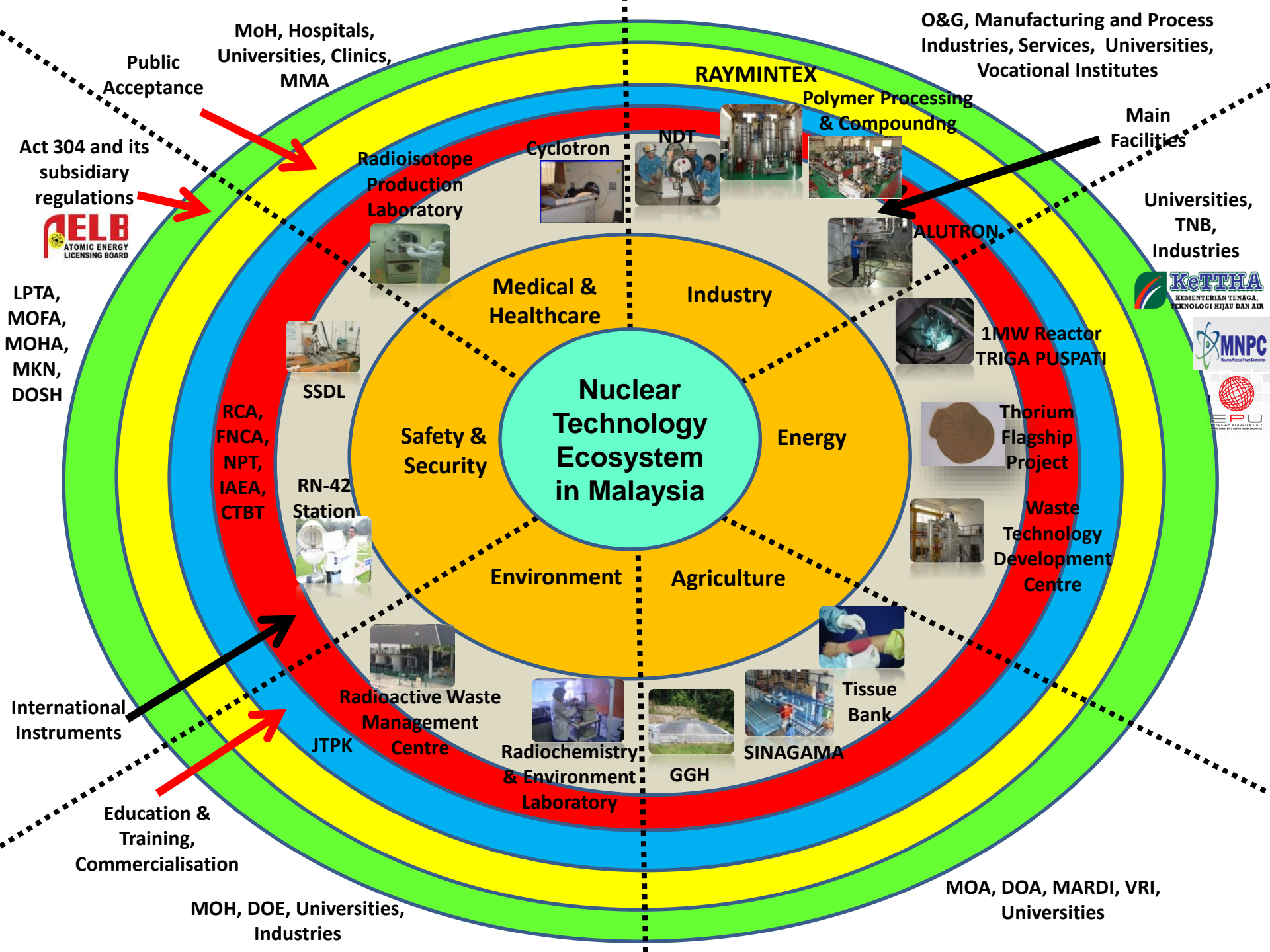
Tokyo, Japan

Outline:

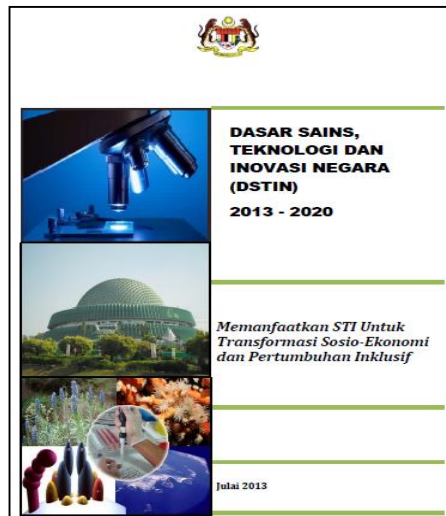
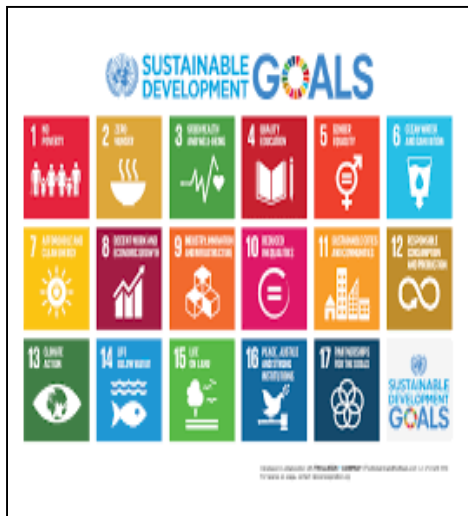
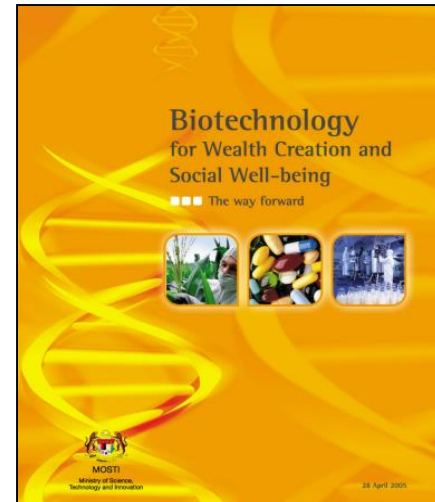
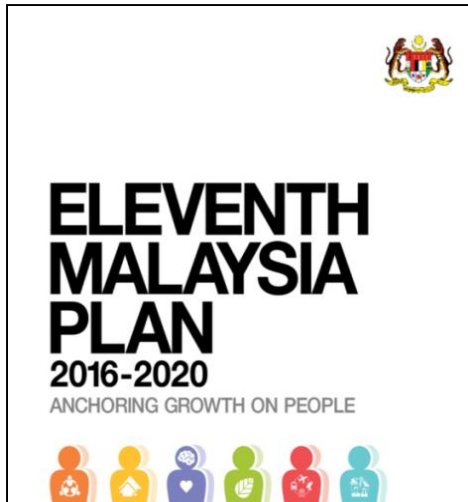
1. Introduction
2. Policy & Current Status of Nuclear Sciences and Applications
3. Policy & Current Status of Nuclear Energy
4. Stakeholder Involvement in Nuclear Technology in Malaysia
5. Summary

Introduction

- Nuclear science and technology has been playing an important role in the overall development of science and technology in the country, has and is contributing to the socio-economic development in Malaysia.
- Since 1972, nuclear science and technology has gained strong recognition and acceptance in various economic sectors in Malaysia such as agriculture, healthcare, industrial, environment and water resource management.



Policy & Current Status of Nuclear Sciences and Applications



Policy & Current Status of Nuclear Sciences and Applications (cont.)

Environment

1. Consultancy services
2. Environmental monitoring
3. Radiochemistry analysis
4. Marine pollution analysis (radioactivity & elemental)
5. Medium and high level radioactive waste management (borehole)



Industry

1. EBM 3Mev and 1Mev for wire & cable or wafer
2. Nuclear industrial devices
3. Non Destructive test (NDT) services for industry
4. Material and structural integrity
5. Iridium -192 production



Agriculture

1. Varieties of new products
2. Food irradiation
3. Community Projects (aerobic rice / Gaharu / vanilla / fertigation)



Medical & Healthcare

1. Medical imaging technique
2. Isotope production
3. Monoclonal antibody
4. Standardized herbal entities



Safety & Security

1. Safety, Safeguard, Security
2. Calibration services
3. Consultancy services
4. Personnel dose monitoring
5. Emergency preparedness



Education & Training

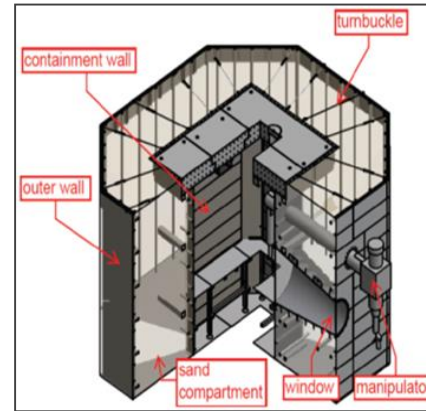
1. Radiation Safety & Health
2. Medical X-Ray
3. Non Destructive Evaluation
4. IAEA Post Graduate Education Course (PGEC)
5. Radiation Protection Officer



Policy & Current Status of Nuclear Sciences and Applications (cont.)



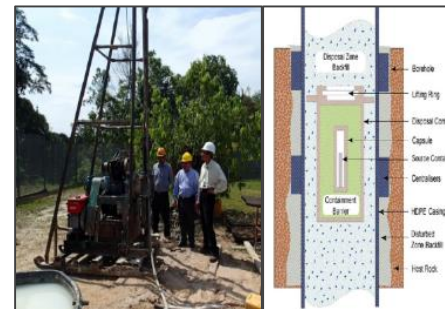
IAEA Collaborating Centre (ICC) For Non-Destructive Testing



Development Of Mobile Hot Cell Facility To Serve A Region



Regional Nuclear Forensics Laboratory

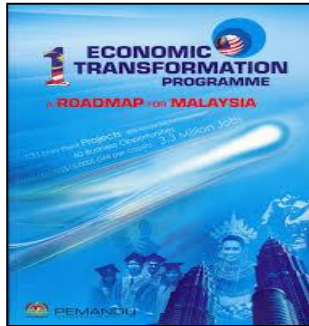


Development Of Borehole Disposal Facility

Policy & Current Status of Nuclear Energy (Nuclear Power)

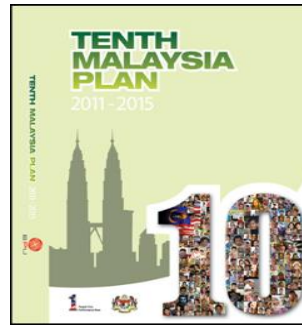
- With rising demand for electricity due to economic growth, declining domestic natural gas resources and increasing reliance on imported coal, Malaysia recognized the potential role for nuclear power in the country's energy mix to meet the demand and energy security.
- Malaysia is actively pursuing nuclear power program and has developed a considerable amount of knowledge and resources and is well prepared to make an informed decision about introducing nuclear power if and when the need arises.

Policy & Current Status of Nuclear Energy (cont.)



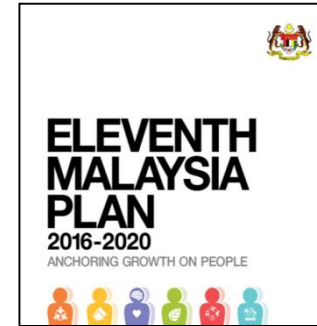
Economic Transformation Programme (ETP) (2010-2020)

- Nuclear power as one of Entry Point Projects in the ETP under the Oil, Gas and Energy sector
- Identified 4 critical path items: (i) promote public acceptance, (ii) sign/ratify relevant treaties, (iii) detailed regulation in place and (iv) approval for plant site including local support



Tenth Malaysia Plan (10MP) (2011-2015)

- Development of nuclear energy as an option for electricity generation will be considered to ensure reliable and cost-effective supply in Peninsular Malaysia
- Efforts will include feasibility studies, human capital development and public awareness campaign



Eleventh Malaysia Plan (11MP) (2016-2020)

- The usage of nuclear power as an alternative resource will be explored further
- Independent atomic energy regulatory commission will be established based on new comprehensive nuclear law
- Implement communication and public awareness programmes to build buy-in for nuclear project

Policy & Current Status of Nuclear Energy (cont.)



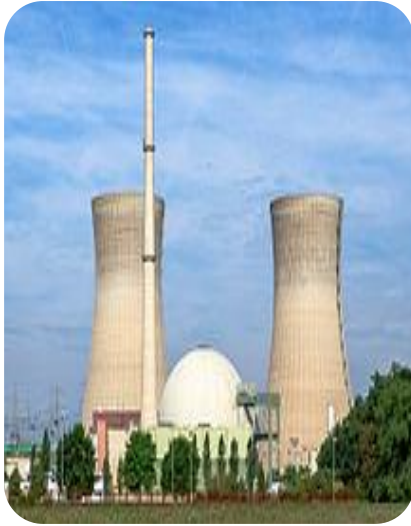
Current Status

- Working towards enactment of a new comprehensive legislation for application, development and management of nuclear technology in Malaysia
- Implementation of the communication plan on nuclear power
- Implementation of Nuclear Power Infrastructure Development Plan (NPIDP) & Nuclear Power Regulatory Infrastructure Development Plan (NPRIDP)

Future Plan

- Continue working on four (4) critical path items of ETP
- Development of national policies on nuclear fuel cycle and radioactive waste & human capital development

Stakeholder Involvement in Nuclear Technology in Malaysia



NUCLEAR POWER

- Stakeholder involvement is one of the priorities in the 11th Malaysia Plan
- Implementation of the 10-Year Comprehensive Communications Plan & Strategies on Nuclear Power by Malaysia Nuclear Power Corporation (MNPC)
- Nation-wide public opinion research
- Public fora and consultation
- Engaging Malaysia on Nuclear Energy: Public Forum by MNPC on 23 May 2014



Stakeholder Involvement in Nuclear Technology in Malaysia (cont.)

NUCLEAR SCIENCES AND APPLICATIONS

- Implemented various public information and awareness programmes targeted at different level of stakeholders such as general public, school and university students, professionals and etc
- Use electronic media, social media, newspaper, forum and dialogue, public lecture, exhibition, visit and nuclear camp to disseminate information
- Nuclear Malaysia received almost 20,000 visitors annually
- Conduct Nuclear Camp: Veni, Vedi, Vici for for students and teachers to get better understanding of nuclear science and technology.



Summary

- Nuclear science and technology is well established in Malaysia and has positively contributed to socio-economic development of the country.
- Malaysia is still active in exploring nuclear energy as an option for electricity generation. The government will engage and educate the public on nuclear energy development before making an informed decision on the issue.
- Malaysia believes that strong collaboration and effective coordination with all relevant stakeholders is a useful mechanism in the promotion of nuclear science and technology in the country. In this regards, FNCA is a good platform for regional networking and to further discuss on strengthening the stakeholder involvement in respond to relevant developmental priorities in nuclear power and nuclear science and technology applications.

THANK YOU FOR YOUR ATTENTION

**The Hon. Datuk Seri Panglima Madius Tangau
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Federal Government Administrative Centre,
62662 Putrajaya**

- about policies and current status on the following three areas:
 - Nuclear energy (Nuclear power use)
 - Nuclear sciences and applications (Non-power use)
 - Stakeholder involvement (power use/non-power use)