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TARIKH: 6 MEI 2016 (JUMAAT)

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KERATAN AKHBAR
NEW STRAITS TIMES (COMMENT) : MUKA SURAT 15
TARIKH : 6 MEI 2016 (JUMAAT)

A glimmer of hope for science

CHALLENGES: The new Science, Technology and Innovation Master Plan must be more comprehensive and not another wasted effort

THE nation's science is in poor shape. Few would dispute that, most of all the science community. Interest among students in science is waning. Less than 30 per cent take up science. Many do not believe science can offer a satisfying career. A growing number prefer to become footballers. They are better paid. The industry is also not investing much in science. Instead of spending their own money to develop products, many still look to government grants. Even government planning bodies have lost hope in science. Many claim science has not truly delivered on its promise.

A recent intellectual discourse hosted by the Academy of Sciences Malaysia (ASM) made another attempt to improve the situation. A panel was assembled to deliberate on a new Science, Technology and Innovation (STI) Master Plan.

ASM has made many attempts in the past to change the fate of science for the better. Not too long ago, a new Science Act was proposed to transform science governance in the country. Admittedly, poor science governance is one contributing factor. This was not well received basically on the grounds that some interest groups may have to surrender their power turf.

There was also an attempt to revamp the teaching of science, taking the cue from some successful models elsewhere. Unfortunately, most such attempts fell on deaf ears. But, this time around, things may be different. At that ASM discourse, Science, Technology and Innovation Minister Datuk Seri Wilfred Madius Tangau gave a refreshing keynote address. Judging from the many messages he made during that presentation, there may be a strong glimmer of hope for science. Fellows of ASM who attended the event agreed that this may be the opportunity we have been waiting for to break the deadlock. Science may at least see better days ahead.

In his address, the minister spoke frankly about the nation's

many challenges in science that call for serious scrutiny. Unless the obstacles are tackled in an objective manner, our aspirations to become a strong force in the world's innovation-led economy may be derailed.

First, he urged we should no longer work in silos. He admitted the fact that science is an agenda for all ministries, and not something exclusively within the domain of the Science, Technology and Innovation Ministry.

Second, he strongly advocated more investment in data gathering to guide the effective implementation of all science initiatives. He was full of praise for the Science Outlook report, recently unveiled by ASM.

To him, the report which was produced for the first time using ASM's own funds, provided an excellent account of the poor state the nation's science is in. Instead of the earlier plan to undertake the survey every two years, the minister has urged that the exercise be done on a yearly basis. Though burdensome for ASM, fellows of the academy showed willingness to do it.

The minister also applauded many of the recommendations of the report. The call to relook the national STI Master Plan attracted his interest. The panel discourse was conducted basically to mine ideas from fellows on how to best proceed to formulate the plan. Unfortunately, the panel was consumed with other matters irrelevant to the theme.

The discourse should have touched on issues, including why we need the plan, what should be the key substance of the plan, how to generate the plan and the timeline for the formulation of the plan. All these were unfortunately missing in the discussion. The presentation which critically compared the nation's bioeconomy plan with that of China's was the only one which stood out. It may warrant another workshop to deliberate on the issues that matter.

One thing is for sure, though. We have produced many plans for science in the past. In fact, even the ministry's National Science, Technology and Innovation Policy 3 (NSTIP 3) has yet to run its full course. Yet, we are thinking of a master plan. Much has been written about the shortcomings of NSTIP3, especially its lack of realistic action plans.

The STI Master Plan must therefore be more comprehensive. This is because without effective implementation, which includes actions in monitoring and evaluation, the new plan will not deliver what the minister and the nation's science community have in mind. It should not be another wasted effort!

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Science, Technology and Innovation Minister Datuk Seri Wilfred Madius Tangau says science is an agenda for all ministries



DR AHMAD IBRAHIM

Penerbangan mikro graviti pertama

■ NOR ATIEYAH YUSOFF

ZG Space City Malaysia Sdn Bhd (ZG) melancarkan program penerbangan mikro graviti atau 'Microgravity Flight' pertama di Malaysia, seakan pengalaman di luar angkasa.

Pengasas ZG, Datuk Steven Gok berkata, projek tersebut tidak dapat direalisasi tanpa bantuan dan galakan dari seluruh dunia.

"Program ini sebenarnya sudah lama diperkenalkan di mata dunia, namun baru sahaja mengaplikasikannya di negara ini."

"Bermula dengan impian, saya sedar ramai menunggu peluang keemasan untuk menyertai program ini," katanya ketika pelancaran program tersebut di Pusat Konvensyen Antarabangsa Genting, baru-baru ini.

Acara pelancaran turut dihadiri ahli ZG Club dari

11 buah negara sempena pelancaran program dan kelab berkenaan.

Katanya, melihat kepentingan program berkenaan, ia dapat menarik lebih ramai penyertaan untuk menyertai penerbangan unik itu.

Sehingga kini, ZG mempunyai 5,000 ahli dalam masa enam bulan dan program tersebut menarik perhatian mereka.

"Saya amat menghargai komitmen dan keberanian mereka menyokong industri baharu ini, selaras dengan perkembangan teknologi."

ZG percaya dengan kepakaran teknikal yang disediakan agensi kerajaan tempatan bagi menggalakkan pelancongan angkasa ke mata dunia," katanya.

Beliau turut menerima kerjasama Kementerian Sains, Teknologi dan Inovasi (MOSTI) bagi menyaksikan



Steven (kanan) selepas menyampaikan cenderahati kepada jemputan kehormat di Malam Gala ZG, baru-baru ini.

kan satu sejarah terlakar di Malaysia.

Pertubuhan Pelancongan

Angkasa, Spaceland Srl and ZG Italia juga bekerjasama dalam perkongsian strategik

pelancongan angkasa itu.

"Penerbangan mikro graviti ini bakal menjadi satu peng-

alamian yang belum pernah dilakukan di negara ini."

"Dalam projek ini, peserta akan menikmati pengalaman terapung dan melambung di udara," katanya.

Projek tersebut masih lagi merangka tarikh penerbangan dan yuran penyertaan mencapai AS\$20,000 seorang.

Sementara itu, angkasawan negara, Datuk Dr Sheikh Muszaphar Syukor Al Masrie percaya, dengan keberanian ZG meneroka industri baharu itu mampu menarik lebih ramai pelancong ke negara ini.

"Saya menyokong sepenuhnya inisiatif itu oleh ZG yang menjadi penyedia penerbangan mikro graviti komersial di Asia," katanya.

Untuk maklumat lanjut tentang ZG Space City Malaysia Sdn Bhd, boleh mengunjungi laman sesawang www.spaceportmalaysia.com/V3/zero_g_malaysia.html.

**BERITA ONLINE
BERNAMA.COM**
TARIKH: 6 Mei 2016 (JUMAAT)



Malaysia Bolot Lima Anugerah Pada WSIS 2016 Di Geneva

KUALA LUMPUR, 5 Mei (Bernama) -- Malaysia meraih lima anugerah dalam empat kategori pada Sidang Kemuncak Dunia mengenai Forum Masyarakat Bermaklumat (WSIS 2016) tahun ini.

Projek "Kemaman Smart Community" dan "Eco2" ialah dua daripada lima anugerah yang diraih oleh Malaysia semasa upacara penyampaian hadiah WSIS 2016 yang berlangsung di Geneva, Switzerland dari 2 hingga 6 Mei 2016.

Suruhanjaya Komunikasi dan Multimedia Malaysia (SKMM) dalam satu kenyataan di sini hari ini berkata pemenang kategori E-alam sekitar Eco2 memaparkan satu-satunya cecair penyejuk ICT di dunia yang boleh diperbaharui, mesra alam, mampan dan tidak toksik yang mengurangkan penggunaan tenaga dan pelepasan karbon sebanyak separuh.

Eco2, teknologi penyejukan pusat data hijau generasi akan datang, dibangunkan oleh pengeluar teknologi hijau Malaysia, Green Data Centre LLP (GDC).

SKMM bertindak sebagai "Technology Kickstarter" manakala Malaysian Technical Standards Forum Bhd (MTSFB) di bawah SKMM dan Kumpulan Kerja ICT Hijau berfungsi sebagai pemudah bagi membangunkan konsep untuk Eco2.

Delegasi Malaysia diketuai oleh Timbalan Menteri Komunikasi dan Multimedia Datuk Jailani Johari.

Green Data Centre LLP diwakili oleh pengasas dan Ketua Pegawai Eksekutifnya, Matthew Rajendra.

Sementara itu, Projek Kemaman Komuniti Bestari, inisiatif oleh SKMM, mendapat pengiktirafan antarabangsa apabila ia disenaraikan sebagai satu daripada lima projek yang memperoleh undian tertinggi daripada 27 projek yang disenaraikan di bawah Kategori Infrastruktur Maklumat dan Komunikasi.

Selain itu, Projek Kemaman Smart Community juga akan disenaraikan dalam "WSIS Stocktaking: Success Stories 2016" iaitu e-penerbitan ITU.

Inisiatif Komuniti Bestari diperkenalkan pada awal 2015 di Kemaman, Terengganu. Objektif utamanya ialah untuk meningkatkan taraf kehidupan dan sosio-ekonomi masyarakat menggunakan ICT sebagai platform untuk menyediakan akses kepada maklumat dengan lebih cepat dan efektif.

Salah satu program utama di bawah inisiatif ini ialah sistem pengurusan banjir yang memanfaatkan ICT dalam pengurusan banjir dan bencana.

Universiti Multimedia (MMU) memenangi dua anugerah dalam kategori E-sains. Kedua-dua penyertaan ialah sistem diagnostik dibantu komputer yang direka untuk membantu doktor dan ahli radiologi.

Yang pertama ialah untuk mengesan kanser payudara melalui analisis pengimbas MRI manakala yang kedua ialah untuk mengesan strok iskemia di peringkat awal.

CyberSecurity Malaysia merangkul anugerah kelima. Anugerah itu ialah dalam kategori Kerjasama Antarabangsa dan Serantau melalui projek bertajuk "Securing the Cyberspace through International Collaboration of the Computer Emergency Response Teams".

Forum WSIS dianjurkan bersama oleh Kesatuan Telekomunikasi Antarabangsa (ITU), Pertubuhan Pendidikan, Saintifik dan Kebudayaan Pertubuhan Bangsa Bersatu (UNESCO), Program Pembangunan Pertubuhan Bangsa Bersatu (UNDP) dan Persidangan Pertubuhan Bangsa Bersatu mengenai Perdagangan dan Pembangunan (UNCTAD).

Forum itu ialah platform untuk penyelarasan aktiviti yang dilaksanakan oleh pihak berkepentingan, pertukaran maklumat dan pengetahuan, perkongsian amalan terbaik dan perkongsian awam/swasta mengenai mencapai sasaran pembangunan.

-- BERNAMA

**BERITA ONLINE
BERNAMA.COM**
TARIKH: 6 Mei 2016 (JUMAAT)



Industri Telekomunikasi Digesa Main Peranan Tangani Isu Global

KUALA LUMPUR, 5 Mei (Bernama) -- Industri pemberi perkhidmatan telekomunikasi digesa memainkan peranan seiring dengan kerajaan dalam menangani isu global termasuk perubahan iklim.

Timbalan Menteri Komunikasi dan Multimedia Datuk Jailani Johari berkata tanggungjawab itu tidak harus diletak di atas bahu kerajaan semata-mata kerana pemberi perkhidmatan telekomunikasi yang sentiasa berinteraksi dengan masyarakat boleh memainkan peranan terutama dalam aspek pengurusan sumber secara berkesan.

Beliau yang mengetuai delegasi Malaysia ke Sidang Kemuncak Dunia mengenai Forum Masyarakat Bermaklumat (WSIS) di Geneva berkata kerajaan dan swasta termasuk para pemberi perkhidmatan telekomunikasi telah bekerjasama dalam menangani isu perubahan iklim sejak 2009.

"Berlandaskan Objektif Dasar Kebangsaan di bawah Akta Komunikasi dan Multimedia 1998, kerajaan dan swasta telah bekerjasama dalam menangani isu berkaitan perubahan iklim dan alam sekitar dengan memberikan fokus dalam aspek Pengurusan Karbon, Pengurusan Sisa dan Pengurusan Sumber secara berkesan," katanya dalam ucapan dasarnya pada persidangan itu semalam.

Kerjasama tersebut termasuklah Inisiatif "Green ICT" dan "e-Waste", katanya.

"Malaysia mengiktiraf peranan yang dimainkan oleh industri ICT dalam menangani isu global. Oleh yang demikian, seiring dengan inspirasi untuk menjadi sebuah negara maju menjelang 2020, kerajaan terus komited bagi memenuhi objektif di bawah Rancangan Malaysia ke-11 (2016-2020) dalam aspek kelestarian dan kebolehahanan sumber dalam isu alam sekitar dan perubahan iklim oleh industri ICT," katanya.

Pada persidangan sama, Malaysia turut memenangi lima anugerah daripada Kesatuan Telekomunikasi Antarabangsa (ITU) termasuk projek "Kemaman Smart Community" yang memenangi anugerah di bawah kategori Infrastruktur Maklumat dan Komunikasi.

Projek "Asia Pacific Green Data Centre Farm" merangkul anugerah di bawah kategori Aplikasi ICT e-Environment, manakala Universiti Multimedia Malaysia menggondol dua anugerah sementara **Cybersecurity Malaysia membawa pulang satu anugerah di bawah kategori Aplikasi ICT:e-Science.**

**KERATAN AKHBAR
UTUSAN MALAYSIA (DALAM NEGERI) : MUKA SURAT 8
TARIKH: 06 MEI 2016 (JUMAAT)**

Keluar mengundi awal, petang hujan

KUCHING 5 Mei - Mereka yang akan keluar mengundi Sabtu ini dinasihatkan berbuat demikian lebih awal kerana dijangka hujan pada sebelah petang.

Berdasarkan ramalan **Jabatan Meteorologi Malaysia**, hujan di satu dua tempat itu melibatkan bandar-bandar utama Kuching, Bintulu, Miri, Sibu selain Limbang dan Mukah.

“Tiada hujan pada pagi Sabtu ini tetapi tidak sebelah petangnya di beberapa tempat di bandar-bandar utama Sarawak,” kata jurucakap jabatan itu ketika dihubungi hari ini.

Suruhanjaya Pilihan Raya (SPR) menyasarkan kira-kira 75 peratus daripada 1,380,650 jumlah pengundi berdaftar di Sarawak akan keluar mengundi pada Pilihan Raya Negeri (PRN) ke-11 ini.

Sasaran itu berdasarkan rekod PRN sejak 1974.

Peratusan tertinggi keluar mengundi direkodkan ialah pada PRN pertama (1969) iaitu 80 peratus.

KERATAN AKHBAR
UTUSAN MALAYSIA (DALAM NEGERI) : MUKA SURAT 10
TARIKH: 06 MEI 2016 (JUMAAT)

Berhenti menjual pengecas telefon tiruan – Suruhanjaya Tenaga

KUALA LUMPUR 5 Mei – Suruhanjaya Tenaga memberi amaran kepada peniaga supaya menghentikan jualan pengecas telefon tiruan bagi menjaga keselamatan pengguna, sekali gus mengelakkan mereka daripada dikenakan tindakan undang-undang.

Pengarah Jabatan Operasi Kawasan dan Penguatkuasaannya, Ir. Othman Omar berkata, kesemua pengecas telefon perlu mendapat kelulusan daripada Suruhanjaya Tenaga terlebih dahulu sebelum diberikan label **SIRIM Berhad (SIRIM)**.

Menurutnya, mana-mana pengimport, pembekal, pengilang dan penjual yang menjual aksesori itu perlu melalui proses tersebut bagi memastikan peralatan dijual selamat digunakan.

“Kegagalan berbuat demikian boleh mengakibatkan mereka dikenakan tindakan undang-undang di bawah Peraturan 97 yang membawa denda RM5,000, penjara setahun atau kedua-duanya sekali.

“Kita memandang serius perkara ini dan kini dalam proses meminda peraturan tersebut kepada tindakan yang lebih tegas iaitu denda sehingga RM20,000 atau penjara

selama dua tahun,” katanya selepas merasmikan Seminar Bijak Tenaga ‘Pengukuhan dan Pematuhan Perundangan’ di sini hari ini.

Yang turut hadir, Pengarah Kawasan Suruhanjaya Tenaga Selangor dan Wilayah Persekutuan, Ir. Mustapha Abu Bakar; Pengurus Besar Negeri (Kuala Lumpur) Tenaga Nasional Berhad (TNB), Datuk Ir. Lim Yew Soon dan Pengurus Besar Negeri (Putrajaya dan Cyberjaya) TNB, Datuk Zulkifli Ab. Rahman.

Dalam pada itu, Othman berkata, pihaknya memandang serius kejadian mencuri elektrik yang dilakukan pemain industri dan pengilang yang menyebabkan pembekal terpaksa menanggung kerugian.

Jelasnya, sehingga April lalu, sebanyak 45 operasi dijalankan dengan kerjasama TNB dan semua kes tersebut telah dikenakan kompaun dan dibawa ke mahkamah.

Beliau turut mengingatkan pihak industri bahawa Akta Bekalan Elektrik 1990 (Pindaan 2015) yang berkuat kuasa 1 Januari lalu, memperuntukkan denda sehingga RM5 juta kepada premis yang mencuri bekalan elektrik.

Risk-taking in business

IT was a cool spring morning at Japan's Narita airport when I landed to attend a symposium on, *Industry 4.0*, which is fast catching on in the global business circle.

Hosted by world renowned Fraunhofer Research Network, Germany, the symposium attracted a 200-strong crowd from the Japanese industry and academia.

This was just a day after the 7.2 Richter scale earthquake hit Kyushu Island in the south, displacing hundreds if not thousands of people. Overall, however, the victims looked very calm and composed.

The Japanese are now known to be more accepting when disasters strike. Most generally believe that calamities are the work of nature, which should be respected. No wonder the Japanese are known for their strong respect for the environment.

The overwhelming attendance clearly demonstrated a strong interest in the subject by industry and the business community in Japan.

It is no secret that Japan is looking for a new recipe to revive the nation's growth which has stagnated for many years now. The

world has become familiar with Japan's stalling GDP growth which is not helping the global economy.

This one-time economic miracle which has for years fascinated the world with its innovative companies seems to have somehow lost its glitter.

The country which is known for its obsession for quality desperately needs a new economic formula. Many who came for the symposium readily admitted to this fact. Experts continue to be baffled.

Many studies conducted have proposed a host of theories. A professor from the German Institute of Japanese Studies in Tokyo came out with arguments which sounded plausible. His findings suggest that the country's anaemic growth can be attributed to its stagnating productivity.

According to published statistics, productivity levels in Japan have stagnated at about 61% of the United States. This is despite the fact that Japan is on par with, if not ahead of, the US on many aspects of innovation-linked productivity performance.

Many would not argue that Japan has done all the right things

when it comes to innovation. The country's investment in R&D and science is ahead of the US on many fronts. We were told that the budget for R&D is higher in Japan. Each year they spend about €135bil in R&D and most were done by industry.

If scientific publications are a measure of success, then Japan's publication in the top journals rival the US on many scores, including impact factor and citation. Even on the question of patents, Japan may also be ahead.

The workforce in Japan is also highly educated. And the country is cash rich. But why has its productivity been stagnating? In contrast, the US which is known to be a heavily-indebted country shows remarkable achievements in productivity.

The professor's studies suggest that what Japan lacks is risk-taking. In the US, taking risks is very much part of the business DNA. Unlike in Japan and many other countries, bankrupts in the US are also not frowned upon.

The lower level of risk-taking in Japan, the professor believes, is rooted in the hiring practice of workers in the country. There, tal-

ents recruited into companies stay loyal till the end of their careers.

It is also a traditional practice in Japan that new CEOs are appointed from within the companies. They mostly rise from the rank and file.

There are, of course, proven benefits from the practice. One has to do with the fact that the new CEOs are already familiar with the entire business policy of the companies.

On the other hand, these CEOs are hesitant to take risks in making changes which may be necessary.

There are studies which confirmed that taking risks is part and parcel of enhancing productivity.

But many in Japanese industry now recognise this flaw and have initiated change, which is not easy. They may want to learn from China where risk-taking flourishes. This may be due to the fact that there are so many casinos in China. In Japan, the popular pastime is going for a karaoke session!

DR AHMAD IBRAHIM
Fellow Academy of Sciences
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Advancing study on weather

ACCORDING to the latest forecast of the Asia Pacific Economic Cooperation Climate Centre (APCC), rainfall over Malaysia in May and June is forecasted to be slightly below normal and normal respectively. However, the air temperature is expected to continue to be slightly above normal and we may still struggle with water supply in the next couple of months despite the favourable condition.

It may take several months to replenish the dams especially since we're moving into the southwest monsoon season which will begin in the middle of May or in June. Seasonally, rainfall is lowest during the southwest monsoon.

After months of coping with the extreme heat and drought, we're indeed relieved that the current El Niño is in its final stretch and the condition in the Pacific Ocean is expected to return to normal next month.

However, the forecasted condition in the Pacific Ocean by the end of the year will put us again in a state of anxiety. The Climate Prediction Centre of the United

States National Oceanic and Atmospheric Administration (NOAA) stated in its climate forecast outlook, which was issued at the end of last month, that a La Niña is forecasted with a likelihood of more than 70% at the end of 2016.

While El Niño brought extreme heat and prolonged drought in Malaysia and the surrounding region, La Niña will bring exactly the opposite – too much rain. La Niña would certainly increase the likelihood of widespread flooding during this coming northeast monsoon season, especially in the eastern states of peninsular Malaysia.

I have devoted 20 years to studying the El Niño and La Niña phenomena after I began research on these subjects for my doctoral dissertation at the University of British Columbia, Canada in 1993. In 1997, I completed my PhD and successfully developed a model to forecast these phenomena. Since its release in 1997, this model has been used to provide El Niño forecasts and it is currently one of a dozen models used by the NOAA

for their forecast outlooks on the condition in the Pacific Ocean.

El Niño and La Niña are naturally-occurring phenomena associated with the oscillation of the atmosphere-ocean coupled system in the Pacific Ocean.

The Pacific Ocean is the largest ocean with a maximum east-west width stretching almost 20,000km.

Together with other oceans and continents in the tropical region, the Pacific Ocean characterises the so-called "Walker Circulation" – east-west atmospheric circulation cells – as part of the global climate system named after the great meteorologist Sir Gilbert Thomas Walker.

Walker identified the Southern Oscillation, a prominent surface pressure swing between Darwin and Tahiti, in the 1920s.

While El Niño was discovered much earlier in 1795, it was only in the 1960s that another great meteorologist, Jacob Bjerknes, discovered a link between it and the Southern Oscillation.

In fact, the El Niño and Southern Oscillation represent the

same phenomenon which is part of the atmosphere-ocean coupled system in the Pacific Ocean. Since the discovery of this "linkage", the oscillation in the Pacific Ocean has been known as the El Niño-Southern Oscillation (ENSO).

The warm phase of ENSO is El Niño while the cold phase is La Niña. In between these phases, the system is said to be in neutral condition.

ENSO is the largest inter-annual climate variability in the climate system. "Inter-annual" means El Niño does not occur every year but once every two to seven years. Since the 1960s, more than 20 El Niños have been recorded. Three were considered very strong, 1982/83, 1997/98 and 2015/2016.

Prior to the current El Niño, the 1997/98 El Niño was considered as the strongest. However, the latest data seems to suggest the 2015/2016 El Niño surpassed the 1997/98 event.

While the linkage between El Niño and Southern Oscillation was discovered in the 1960s, it took the next three to four decades of

research to allow scientists to have a better understanding of the system, especially the mechanism of why it oscillates from one phase (e.g. El Niño) to another (e.g. La Niña).

Advances in research, model and ocean observational network developments in recent decades have led to improved ability to forecast the phenomena by at least six months in advance. These, coupled with the availability of regional climate forecast outlooks provided by centres such as the APCC, and understanding of how the phenomena affect us in Malaysia, should put us in a better position to mitigate and reduce their impacts.

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