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A NOTE FROM THE PRIME MINISTER



2 013 was a challenging yet fulfilling year for the Malaysian economy, as we faced continued headwinds from global economic conditions. Against this backdrop, I am pleased to share results from the Economic Transformation Programme (ETP), together with a report on the progress it has made since 2010.

The ETP has maintained a strong momentum in the last three years, a momentum that was sustained in 2013 and that helped the Malaysian economy to achieve GDP growth of 4.7 per cent during the year. This is despite continued uncertainties in the external environment, which has shown a gradual recovery since the global financial crisis of 2008/2009.

It is important to note that the ETP was formulated not only to help Malaysia achieve its ambitions for developed nation status by 2020, but also in response to the shift in the global economic order. This required us to rethink our strategy for growth to ensure a sustainable economic model that secures global competitiveness for Malaysia.

The ETP incorporates two crucial elements: The 12 National Key Economic Areas (NKEAs) in which growth will be encouraged; and the six Strategic Reform Initiatives (SRIs), which comprise the policies and procedures we have implemented to create a vibrant business environment.

Collectively, these components are aimed at raising Malaysia's GNI per capita to US\$15,000, creating 3.3 million new employment opportunities, and attracting US\$444 billion in investments by 2020.

Since 2010, 196 projects have been launched under the NKEAs, accounting for RM219.3 billion in total committed investments. These, in turn, are expected to generate RM144 billion in GNI and create 437,816 new jobs.

In 2013 alone, the ETP contributed RM7.4 billion to GNI, creating 29,373 new employment opportunities and driving RM8 billion worth of investments. These activities have increased our GNI per capita to US\$10,060 during the year.

The numbers, however, only tell half the story. What has heartened me the most about the ETP has been its ability to improve the *rakyat's* quality of life, whether through projects which are focussed on uplifting local communities or through big ticket initiatives such as the construction of the Mass Rapid Transit (MRT) system in the Greater Kuala Lumpur/Klang Valley NKEA.

These projects were selected for their potential to generate higher incomes for the *rakyat*, contribute to productivity gains and stimulate spill-over effects across the national economy.

The ETP has also made great strides in supporting the growth of Malaysian small and medium-sized enterprises (SMEs), which represent the backbone of our economy. For example, the Electrical and Electronics NKEA has put in place measures to enhance the capability and capacity of our SMEs, pushing them to produce higher quality, higher value products which meet world-class standards.

Malaysia's transformation into a high-income nation hinges as much on the Government's ability to demonstrate fiscal resilience as it does on economic growth.

It is important to note that the ETP was formulated not only to help Malaysia achieve its ambitions for developed nation status by 2020, but also in response to the shift in the global economic order.

In this respect, the Public Finance Reform SRI has played a key role in helping the Government reduce its fiscal deficit. This includes managing the implementation of the Goods and Services Tax, which represents the Government's shift towards the revenue structure of a developed economy, and will allow for more efficient tax collection from a broader tax base.

The ETP, through the Competition, Standards and Liberalisation SRI, also went a long way in developing the country's global competitiveness. This has been achieved through continued measures to ensure a fair and competitive marketplace, improve the quality and standards of Malaysian products and services, and liberalise selected services sub-sectors to attract foreign investment that can help strengthen our expertise in niche industries. These measures are already proving successful: in the World Bank's Ease of Doing Business Index 2014, Malaysia has been in the top 10 position for both 2013 and 2014 at 8th and 6th, respectively.

As I look back on these achievements, I remain confident that we are well on our way to becoming a high-income nation by 2020, with indications that – barring unforeseen circumstances – we may even achieve our ambitions earlier than projected. For this, I must take the time to thank and commend all of our stakeholders in supporting our goals – including the civil service, who continue to work tirelessly to realise our national ambitions. I would also like to express my gratitude to the private sector, which has been a diligent partner in our journey of transformation.

I must stress, however, that much work remains in the years to come. As 2020 nears, it will be crucial for us to sustain the momentum, and ensure we remain on the right economic track. With continued cooperation from all our stakeholders, I believe we will move closer to our ultimate goal under Vision 2020: Developed nation status.



**YANG AMAT BERHORMAT
DATO' SRI MOHD NAJIB TUN HJ. ABDUL RAZAK**

Prime Minister of Malaysia

A NOTE FROM THE DEPUTY PRIME MINISTER



As the Chairman of the Government Transformation Programme (GTP) Delivery Task Force, I am pleased to note that in 2013, the Economic Transformation Programme (ETP) continued on a positive path towards meeting our 2020 goals.

The ETP and the GTP, both residing under the umbrella of the National Transformation Programme, are working in tandem towards reaching our country's aspirations for 2020.

Economic transformation directly focusses on raising the *rakyat's* income through increased opportunities; creating conditions for business and entrepreneurship to flourish, whilst the government transformation works towards improving our delivery system and put the public's needs first. As such, the GTP's National Key Result Areas (NKRAs) are focussed upon ensuring that Malaysia is equipped with the right people, services and infrastructure to enable us to leap into high income status.

This synergistic relationship between the programmes is demonstrated through a number of efforts. For example, in Education, amongst the National Key Economic Area's (NKEA) efforts are to scale up the private early childcare and education centres by encouraging the industry's growth in tandem with the GTP's Education NKRA to increase preschool enrolment in Malaysia to 97 per cent by 2020.

As the Minister of Education, I am particularly pleased by both the Education NKEA and NKRA's measures in producing a nation of enterprising individuals who can contribute positively towards our development goals and cement our future success.

“ I would also like to thank the *rakyat*, who formed the focal point for the implementation of the ETP and GTP, for their support and participation as we undertake this transformation agenda. ”

As we close off the third year of the National Transformation Programme, it is an opportune time to highlight that like the ETP, the GTP is also a mere seven years away from the 2020 deadline of transforming Malaysia into a high-income nation. While much progress has been achieved, the road ahead is fraught with challenges. We must remain committed to our vision for change, and ensure that this change is sustainable for generations beyond 2020.

With this in mind, I must commend the civil service that drives this change within the Government, and throughout the economy as a whole. I would also like to thank the *rakyat*, who formed the focal point for the implementation of the ETP and GTP, for their support and participation as we undertake this transformation agenda.

Collectively, the ETP and GTP aim to achieve sweeping socio-economic change for the benefit of Malaysians. It is my hope that everyone will continue to work together in realising our ambitions to become a high-income nation by 2020. If we can continue to stay on course and maintain the traction that has been achieved in the past three years, I have no doubt that we will succeed in bringing Vision 2020 to reality.



**YANG AMAT BERHORMAT
TAN SRI DATO' HJ. MUHYIDDIN MOHD YASSIN**

Deputy Prime Minister of Malaysia

REVIEW OF THE ETP 2013

Three years into the Economic Transformation Programme (ETP), we are pleased to present this report of progress achieved up to 2013.



SENATOR DATO' SRI ABDUL WAHID OMAR

Minister, Prime Minister's Department,
Economic Planning Unit

The Malaysian economy continued to expand steadily in 2013 despite external uncertainties from volatility of capital flows, weak global recovery and slow economic growth in key advanced economies, among others. During the year, our economy recorded GDP growth of 4.7 per cent, coming in within earlier projections of between 4.5-5 per cent growth¹.

Much of the economy's resilience has been driven by private sector investment, which now accounts for close to 60.9 per cent² of total investment. As we move towards 2020, the private sector is slated to continue in its role of providing impetus to the country's economic growth, in line with the ETP's main objective of returning the private sector to the driver's seat of the economy.

The robust level of investment has succeeded in stimulating job creation, with employment increasing 17.81 per cent since the start of the ETP (from 1Q 2010 to 4Q 2013 (November 2013)). This clearly demonstrates that our efforts are on track to achieve the creation of 3.3 million new jobs by 2020.

The continued momentum in private sector investment and job creation has been reflected in the growth of our Gross National Income (GNI) per capita in 2013³, which has risen to US\$10,060 from US\$7,059 in 2009.

Over and above the presentation of facts and figures, the ETP has been working in the background to reinforce the structure of our economy; evolving towards a model that is more resilient, sustainable and globally competitive. Our focus now is to remain on the right path towards the creation of a high-income economy by 2020, and we must bear in mind that there is much to be done towards achieving our goals.

National Transformation Programme: The Foundation for Growth

The ETP represents one component of the National Transformation Programme (NTP), designed to elevate Malaysia towards high-income status. The NTP embodies the implementation of Malaysia's New Economic Model, mooted by Prime Minister YAB Dato' Sri Mohd Najib Tun Hj. Abdul Razak and formulated by the National Economic Advisory Council in 2010 as a response to the 2008/2009 global financial crisis and its implications for the future of national competitiveness amidst rapid globalisation.

In tandem with the socio-economic reforms targeted by the ETP, the NTP also features the implementation of the Government Transformation Programme (GTP), which institutes public service reforms crucial in supporting our high-income aspirations.

Despite representing two distinct programmes of change, the ETP and GTP are complementary, working synergistically to achieve high-income status for the nation in a sustainable and inclusive manner. With this in mind, the NTP was designed to promote balanced development throughout the country, ensuring inclusiveness and sustainability. The programme was built around a model of sustainable economic growth that is designed to last beyond 2020.

It is also important to note that the programme has set out identifiable targets and outcomes through a clear allocation of resources. Additionally, the NTP takes into account the social aspects which support the achievement of our goals, such as quality of life, cost of living, public safety and security, and social values.



SENATOR DATO' SRI IDRIS JALA

Minister, Prime Minister's Department,
CEO, Performance Management & Delivery Unit (PEMANDU)

Economic Transformation Programme: Reaching High-Income Status through Focus and Competitiveness

The ETP is anchored on the two pillars of focus and competitiveness, embodied by the 12 National Key Economic Areas (NKEAs) and six Strategic Reform Initiatives (SRIs), respectively. The NKEAs represent selected industries; focussed growth clusters chosen by virtue of their existing competitive advantage given Malaysia's unique resources and expertise. While industries which have not been classified as NKEAs are in no way excluded from economic growth and development, the 12 NKEAs represent our areas of priority.

To ensure that Malaysia continues to strengthen its global competitiveness, the SRIs include measures to create conducive conditions for business. In this respect, the private sector represents the driving force behind key reforms aimed at attracting private investment and raising the competitiveness of Malaysian companies, both locally and abroad.

The goals of the ETP are to raise Malaysia's GNI per capita to US\$15,000, create 3.3 million jobs and secure US\$444 billion in investments by 2020. Our target for GNI is based on the World Bank's GNI per capita threshold for a high-income economy of US\$12,276⁴, and takes into account the organisation's historical global inflation benchmark figure of 2 per cent until 2020.

In order to achieve the desired level of private investment, the ETP aims to strengthen private sector participation in the economy. This will be achieved through the implementation of Entry Point Projects (EPPs) under the NKEAs which are driven by the private sector.

Through these measures, private investment is targeted to account for 92 per cent of Malaysia's total investments, driving economic growth. Public spending, which will make up the remainder of total investments, will meanwhile be focussed on catalytic projects such as the Mass Rapid Transit (MRT), River of Life (ROL) and the Pengerang Integrated Petroleum Complex (PIPC).

This approach, which places the private sector in the driver's seat as the main engine of growth, with the Government as an enabler, was designed to create far-reaching multiplier effects that will not only stimulate the 12 NKEAs, but also foster growth opportunities within the entire Malaysian economy.

¹ GDP growth projection from Ministry of Finance (MOF) Economic Report 2013-2014

² Department of Statistics (DOS) 3Q 2013 GDP report

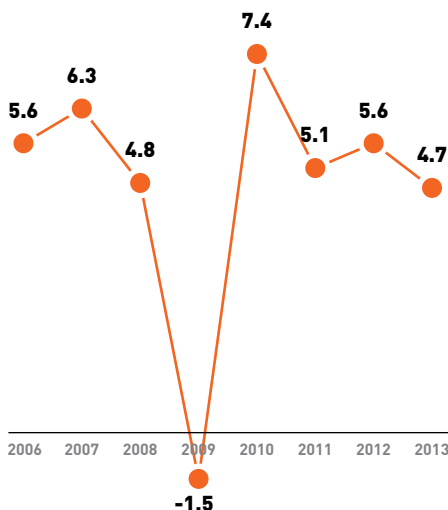
³ Source: Bank Negara Malaysia

⁴ World Bank's high-income threshold figures of 2009

Encouraging GDP Growth

Real GDP Growth % (YoY)

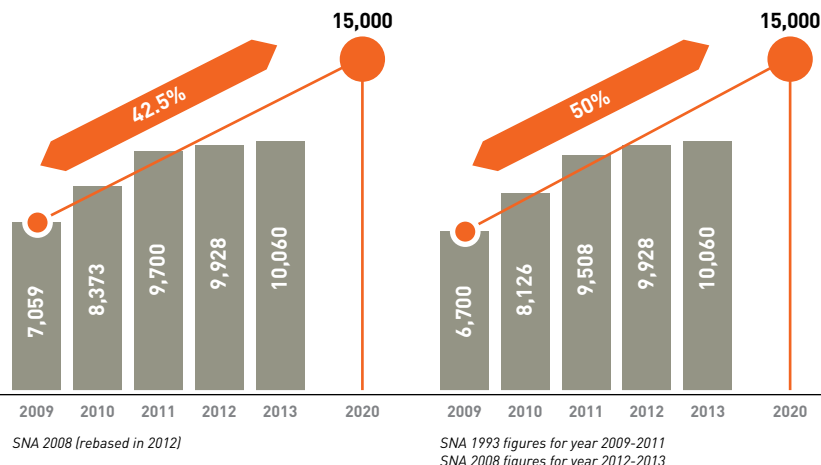
Source: Bank Negara Malaysia



On Track to Achieve GNI Target for 2020

Source: GNI per capita of RM30,809 from Department of Statistics (DOS)

■ GNI (US\$)
— ETP Lab GNI projections



ETP Turns 3: The 10 Points of Success

The year 2013 is a significant milestone, marking the third year since the launch of the ETP. External measurement and validation of the KPI achievements before and after the introduction of the programme clearly indicate that substantial headway has been made towards achieving the country's goals for 2020.

The results that have been reaped over the past three years demonstrate the ETP's effectiveness in working towards economic sustainability and resilience.

1 NKEAs and SRIs stay the course

Since the launch of the ETP in 2010, we have established 196 projects under the NKEAs with a total committed investment of RM219.3 billion. This is projected to contribute RM144 billion to GNI and create 437,816 new jobs. In the past three years, the factors within the NKEAs have created a total of 1.3 million additional employment opportunities⁵.

The SRIs, too, have played their part in catalysing business activities. Among key reforms introduced by the SRIs include the transformation of the public sector, which has paved the way for the rationalisation of 50 per cent of business licenses and increased the ease of conducting business in Malaysia.

On 1 January 2012, we enforced the Competition Act 2010 with the main objective of inculcating a competitive spirit within the private sector. The Government has also announced the liberalisation of 18 sub-sectors to further foster competitiveness within the Malaysian economy and ensure our companies are sufficiently equipped to compete on the global stage.

2 Continued growth in GNI

GNI per capita has climbed steadily from US\$7,059⁶ in 2009 to US\$10,060 in 2013, representing a growth of 42.5⁷ per cent during the period. Based on this growth trajectory and barring major unforeseen disruptions, we are able to report that Malaysia is not only on track to reach its high-income target by 2020, but may even satisfy this goal earlier than planned.

3 GDP expands at firm pace

While uncertainties remain in developed markets, causing ripple effects throughout the global economy, Malaysia's economic growth has remained resilient. This is evidenced by continued expansion of the country's GDP, which rose 4.7 per cent in 2013.

We have also seen the structure of the economy shift from one that was very much public sector driven to one that is fuelled by private sector activities. Most importantly, the continued economic expansion is testament to the ETP's model of sustainability, not just from an environmental perspective, but also in the management of Government spending.

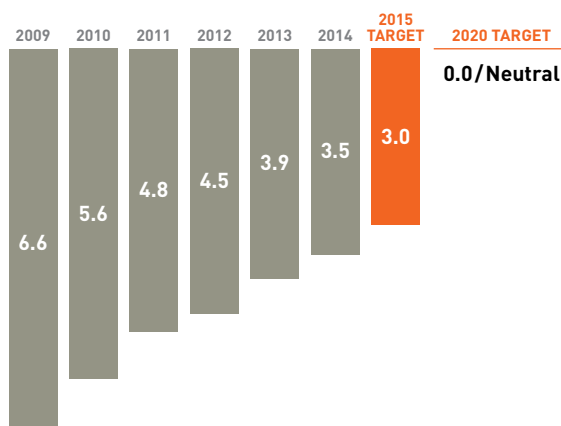
4 Government revenue on the rise

The Government has made great efforts in moving towards a revenue structure befitting a high-income economy. In this respect, we have taken enormous strides to increase the efficiency of tax collection and broaden the tax base. These measures are vital in allowing us to administer targeted socio-economic programmes to promote economic inclusiveness. Since 2010, Government revenue has risen 38.1 per cent to RM220.4 billion⁸.

Fiscal Deficit Reducing

As percentage of GDP (%)

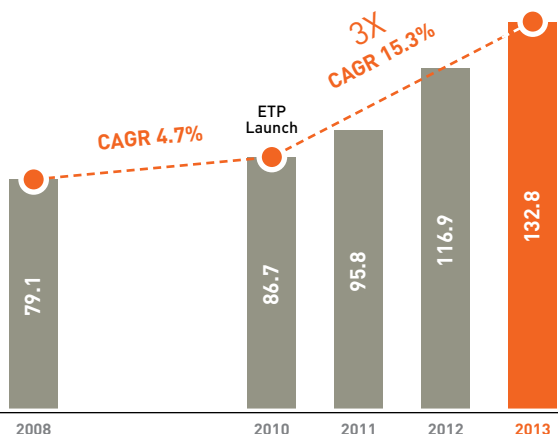
*2015 Target as per 10th Malaysia Plan



Private Investment Accelerated Post-ETP

Prices (RM bil)

Source: DOS



5 Fiscal deficit on the decline

In tandem with increasing the Government's revenue, we have also recorded encouraging performance in reducing the fiscal deficit. From 6.6 per cent of GDP in 2009 to 4 per cent in 2013⁹, we are on target to reduce the fiscal deficit further to 3 per cent in 2015 and achieve a balanced budget by 2020.

A key aspect of narrowing the fiscal deficit is increased prudence in managing Government expenditure. In tandem with this, the Government has implemented a phased rationalisation of subsidies to ensure a more targeted approach in providing financial assistance. Reducing our fiscal deficit is paramount to maintaining the health of Malaysia's credit rating. High deficit levels can result in a downgrading of the national credit rating, making government debt more expensive with detrimental implications for the national economy.

We have paid careful attention to the hard lessons now being learnt by those countries which avoided fiscal reforms, resulting in dramatic and dangerous slowdowns in their economies. By contrast, we are taking disciplined action towards growing Malaysia's economy while instituting fiscal reform, putting in place measures to ensure that we do not fall into the same trap. At this time, it is crucial that our Government retain clarity and remain focussed on trimming the deficit; broadening our revenue base and optimising expenditure. This will ensure that we can continue to assist with the *rakyat's* burdens in a more equitable and sustainable way.

6 Robust private consumption

The ETP's success in raising incomes of the *rakyat* and creating more job opportunities has been reflected in continued growth of domestic private consumption, which now accounts for 51.2 per cent¹⁰ of GDP. In 2013, growing consumer confidence in the Government's reforms contributed to a 7.6 per cent growth in private consumption¹¹, compared with 6.9 per cent in 2010.

7 Vibrant capital market activity

The FTSE-KLCI has reached new historic highs 66 times in the past three years, bearing testament to the vibrancy of the country's capital market activities and resilient investor confidence in the Malaysian stock market. In 2013, the stock market scaled as high as 1,873 points¹².

8 Strong investment growth

As an extension of the vibrancy of our capital market, Malaysia has enjoyed a steady tide of investments in the last three years. Most heartening has been the strong surge in private investment which grew 15.3¹³ per cent for the period between 2010 and 2013 compared to 4.7 per cent between 2008 and 2010, thus tripling the CAGR following the implementation of the ETP. Also, in 2013, private investment reached RM161.12¹⁴ billion surpassing its target of RM148.4 billion by 8.6 per cent.

⁹ Based on employment by NKEA from DOS. Up to 3Q 2013, employment in NKEA sectors was 8.561 million, in 2010 it was 7.232 million; an additional 1.329 million

¹⁰ GNI per capita using SNA 2008

¹¹ Using SNA 2008. Growth will be at 50 per cent if calculated using the SNA 1993 figures for GNI in the year 2009 to 2011 (when ETP was launched). Beginning 2014, PEMANDU will use the SNA 2008 as a reference point for GNI related calculation

¹² Forecast based on MOF economic report 2013/2014, as of 31 Oct 2013

¹³ Based on MOF estimate

¹⁴ DOS 4Q 2013 GDP report

¹⁵ DOS 4Q 2013 GDP report

¹⁶ Closing high as reported by Bloomberg for 30 Dec 2013

¹⁷ Source: DOS, Private Investment in Constant 2005 Prices in RM

¹⁸ Source: DOS, Private Investment in Current Prices in RM

While private investment has been, and should be, the driving force of the country's total investment, public investment will remain an important part of economic development. In this respect, the Government will continue to provide the basic infrastructure, such as roads and utilities, to pave the way for private sector investment.

This is most visibly manifested in the administration of the country's five Regional Economic Corridors of Iskandar Malaysia, the Northern Corridor Economic Region, the East Coast Economic Region, the Sarawak Corridor of Renewable Energy and the Sabah Economic Development Corridor. In these corridors, the Government has opened economic zones and provided the infrastructure and facilities for the private sector to leverage on and inject valuable private investment.

On the back of the Government's investments in the Regional Economic Corridors as well as in other catalytic projects, public investment amounted to RM105.5 million in 2013. This accounted for 39.1 per cent of total investments during the year.

9 Global recognition

Malaysia's transformative progress has not gone unnoticed on the global stage, with independent global agencies continuing to recognise the improvements we have achieved. For two consecutive years, we have been ranked in the top 10 of the World Bank's Ease of Doing Business Index¹⁵, coming in at 6th position for 2014 and 8th in 2013. This puts us ahead of developed economies such as the United Kingdom, which was ranked 10th and 11th for 2014 and 2013, respectively. The index also shows how we have improved the business landscape in Malaysia by leaps and bounds since the start of the ETP, having been ranked 18th in 2012, 21st in 2011 and 23rd in 2010.

10 Encouraging KPI results

As a programme that is very much goal-oriented, the ETP's Key Performance Indicators (KPI) remain a vital measure of its achievements. During the year, our overall KPI results for the NKEAs remained on track with 102 per cent achieved on average, while the SRIs recorded 95 per cent of KPIs achieved. True to the ETP's emphasis on transparency and accountability, the KPI results have been externally validated by global audit firm PricewaterhouseCoopers (PwC).

¹⁵ Malaysia's 2013 ranking was adjusted from 12th to 8th to reflect topics used and data corrections made for the entire 2013 index

Maintaining Focus through NKEAs

The ETP's 12 NKEAs continued to record encouraging results in 2013, demonstrating our sustained focus in improving our capabilities, competitive edge and in moving higher up the value chain within these industries. The following is a snapshot of the activities of each NKEA during the year. Detailed reporting of each NKEA's KPIs, targets and achievements are disclosed within the respective chapters of this report.



Greater Kuala Lumpur/Klang Valley

The Greater Kuala Lumpur/Klang Valley (GKL/KV) NKEA is unique from other NKEAs, in that its initiatives are anchored geographically under a goal to develop the region as the centre of Malaysia's commercial activities. To this end, this NKEA seeks to transform the country's capital into a world-class city and globally competitive economic hub, focussing on nurturing the elements which support economic growth and improve the region's liveability.

Among the NKEA's key achievements in 2013 include InvestKL's success in attracting 15 multinational companies from North America, Europe and Asia to set up regional offices in Greater KL, exceeding the 10 MNCs targeted for the year. The MRT project also surpassed targets with the completion of its elevated guideway foundation and underground station excavation, while the River of Life project saw all 13 key activities under the river-cleaning initiative remain on track. A further highlight for the NKEA during the year includes the planting of 36,246 trees under the Greener KL EPP, which aims to increase green space in the city.



Oil, Gas and Energy

With a focus on expanding the downstream segment, raising local production and exploring sources of renewable energy, the Oil, Gas and Energy NKEA saw significant activity in 2013. These include the creation of valuable partnerships between local firms and global companies to encourage technology transfer and the discovery of further oil and gas reserves.

Among the NKEA's most notable achievements in 2013 include the commencement of operations at PETRONAS' LNG Regasification Terminal in Sungai Udang, Malacca. Following this, the terminal channelled the first imported cargo of liquefied natural gas (LNG) into Malaysia's gas pipelines.

This NKEA also saw the creation of PETRONAS subsidiary, Vestigo, as part of efforts to build specialised capabilities in developing and extracting oil from small and marginal fields.



Financial Services

The Financial Services NKEA represents the backbone of the Malaysian economy, and is focussed on developing the country's financial system in line with the needs of a high-income nation.

An important development within this NKEA during the year included the enactment of the Financial Services Act 2013 and the Islamic Financial Services Act 2013. The new regulations provide Bank Negara Malaysia, the central bank, with more regulatory and supervisory oversight powers to further strengthen the country's financial system. The new laws are also aimed at strengthening financial stability, supporting inclusive growth in the financial system and the economy as well as providing stronger consumer protection.



Wholesale and Retail

The Wholesale and Retail NKEA is focussed on turning Malaysia into the region's retail hub while supporting domestic consumption to drive economic growth.

In 2013, achievements recorded by the NKEA during the year include investments from major names such as Sime Darby Brunsfield to develop both a Big Box Boulevard (BBB) and a Makan Bazaar in Ara Damansara, Selangor. With the participation of Sime Darby Brunsfield, two new BBB EPP Champions have been identified, exceeding the 2013 target of attracting one company. Furthermore, new EPP champions have pledged to invest RM3.53 billion and committed to create more than 9,700 jobs.



Palm Oil and Rubber

With the Palm Oil and Rubber industries representing areas in which Malaysia has built up an expertise, this NKEA is focussed on moving the local industry higher up the value chain and improving productivity, placing emphasis on the use of new technologies.

As a result, the Palm Oil industry was able to withstand yet another year of volatile market conditions in 2013. This was driven in part by increased replanting of palm oil by smallholders, the adoption of the Cantas™ harvesting tool by major plantations and the improvement of yields through the establishment of cooperatives which implement international best practices in palm oil planting. Going downstream, a total investment worth RM218 million has been committed by local palm oil companies to boost the food and health segment of the palm oil industry. While there is no new entrant into the high-value oleochemicals segment, the committed investments since 2011 are rapidly being realised.

A major achievement recorded by the Rubber NKEA during the year was the continued successful commercial production of specialty rubber, Ekoprena and Pureprena, by FELDA Rubber Industries Sdn Bhd. In 2013, the company commenced production of Ekoprena and Pureprena at its own production plant in Palong 8, Negeri Sembilan. Overall industry performance on the other hand is projecting a steady growth in export for natural and compound rubber, as well as latex products from 2012.



Tourism

The Tourism NKEA focusses on high-yield tourism, targeting leisure and business tourism to grow tourist arrivals and receipts.

The Government continues to step up efforts to boost tourist arrivals and receipts, especially in shopping. The Mitsui Outlet Park KLIA in Sepang was launched and represents the second outlet centre in Malaysia after the Johor Premium Outlets in Kulaijaya.

Malaysia has also become a very attractive destination for international events and this was reflected in the increase in the number of events hosted in Malaysia. Business Tourism also recorded significant achievement with the Malaysia Convention & Exhibition Bureau (MyCEB) securing a total of 38 association events to be held from 2013–2020 and this is targeted to have an economic contribution of about RM400 million.

Inroads have also been made on cruise tourism to take advantage of Malaysia's strategic location. In fact, amongst Asian countries, Malaysia has been singled out for its significant efforts in facilitating nationwide coordination and development of the local cruise industry.



Electrical and Electronics

This NKEA saw the commencement of E&E 2.0 during the year, representing a new phase in the implementation of this NKEA. This new phase has seen the launch of several new EPPs, which have been grouped into five clusters together with existing EPPs aimed at enabling business opportunities across a wider swathe of the E&E industry to strengthen the path towards the NKEA's 2020 targets.

Among this NKEA's key achievements in 2013 include strong progress in the completion of the MIMOS Failure Analysis and Testing Labs, the formation of a Malaysian LED Consortium of 10 local solid-state lighting companies to collaborate in product development and marketing, and the launch of the National Instruments Academy and Innovation Nucleus (NI-AIN). The NI-AIN aims to provide shared technology infrastructure to SMEs.



Business Services

The Business Services NKEA aims to raise Malaysia's expertise and capabilities in selected sectors in which we can create a niche for ourselves.

In 2013, this NKEA saw aerospace giant Airbus selecting Malaysia as one of its five global customer service centres, while Swiss-based aviation component maintenance, repair and overhaul (MRO) company SR Technics launched its facility in the country as the hub for the region. Additionally, Canadian multinational CAE committed to invest significantly; to open a regional Centre of Excellence (CoE) for aircraft simulation and modelling in the country.



Communications Content and Infrastructure

This NKEA is focussed on putting in place the policies and communications infrastructure required for Malaysia's development into a knowledge-based economy.

During the year, this NKEA launched the Film In Malaysia incentive for productions above RM2.5 million per project. The incentive has attracted total production spend of RM149 million including the production of international films such as Michael Mann's *Cyber*.

Close to 90 per cent of schools and close to 3,000 health facilities have since been connected with high-speed broadband, while 70 per cent of all Government services are now available online. The broadband household penetration for the year is 67.2 per cent (end 3Q).



Education

In recognition of the vital role of education in developing the human capital needs of a high-income nation, the Education NKEA takes a multi-pronged approach to ensuring the availability of education and reskilling opportunities for all levels of society.

Notable achievements recorded by this NKEA in 2013 included the growing number of students enrolled at EduCity@Iskandar, with enrolment in the education hub reaching 1,701. The year also saw the establishment of the Sunway TES Centre for Accountancy Excellence, which will contribute towards Malaysia's transformation into a leading accountancy hub.



Agriculture

The Agriculture NKEA seeks to move the industry towards agri-businesses, raising agriculture productivity and nurturing agriculture entrepreneurs.

In 2013, the NKEA achieved significant headway in increasing the income of farmers, with 45 per cent of farmers in *Taman Kekal Pengeluaran Makanan* surpassing the targeted income of RM3,000 per month.

Additionally, initiatives to increase productivity of paddy farming in MADA have resulted in an average income growth of 11 per cent for season 1/2013, while average incomes in dairy clusters in Johor have risen by 35 per cent.



Healthcare

This NKEA is committed to providing high-quality and affordable healthcare to the *rakyat* while exploring new growth opportunities within the industry.

During the year, four new EPPs were introduced under this NKEA. Of its now 17 EPPs, some major milestones recorded in 2013 include significant interest recorded from MNCs with local manufacturers to produce and co-develop patented and generic medicines. The Ministry of Health has also commenced drafting the Aged Healthcare Act to support and better regulate the aged care industry.

Global Competitiveness through SRIs

The six SRIs were formulated from policy recommendations from the NEM and represent the components required for Malaysia to achieve global competitiveness.



Competition, Standards and Liberalisation

The Competition, Standards and Liberalisation SRI was designed to develop an efficient and competitive environment for the benefit of business, consumers and the economy.

In 2013, the Malaysia Competition Commission (MyCC), which oversees the implementation of the Competition Act 2010, continued to promote public advocacy of the Act. Public awareness of the Competition Act especially amongst companies has increased, with several case announcements by MyCC involving the logistics, transportation and the steel industries.

In terms of Standards, efforts have been focussed on increasing utilisation and compliance of standards to improve the quality of Malaysian products and services. The Department of Standards has also initiated the National Standards Compliance Programme in collaboration with SME Corporation. A One-Stop-Centre (OSC) has been set up to promote awareness and utilisation of standards especially amongst SMEs. Meanwhile in the services sector, the Government will continue to improve the ecosystem to ensure effective implementation of liberalisation. In support of this, the Malaysia Productivity Corporation has completed the business-enabling frameworks for autonomously liberalised sectors announced by the Government. For transparency, this has been uploaded onto MITI's website.



Human Capital Development

In line with the needs of a high-income nation, the Human Capital Development SRI implements policies aimed at fostering workplace and workforce transformation, creating a competitive working environment, attracting and retaining talent and upskilling the existing workforce.

This SRI undertook various activities in the year under review, with major achievements including the enforcement of the Minimum Wages Order 2012 and the Minimum Retirement Age Act 2012 in January 2013. The SRI also saw good progress towards achieving a 30 per cent composition of women in decision-making positions, with 83 women having been appointed to the boards of public-listed companies. Additionally, the MyProCert Programme to upskill and address skills gaps within the existing workforce surpassed its target of enrolling 3,000 into the programme through the enrolment of 4,785 participants.



Reducing Government's Role in Business

In an effort to strengthen private sector involvement in the economy, this SRI seeks to clearly establish the Government's role in business, developing a clear divestment plan for selected Government-owned entities, and identifying clear governance guidelines for Government and state-owned companies.

Divestment activities during the year included the sale of Khazanah Nasional Bhd's entire interest in mobile phone operator DiGi.Com Bhd and the divestment of Stadium First Sdn Bhd, owned by Stadium Malaysia Corporation, a unit under the Ministry of Youth and Sports.



Public Finance Reform

The Public Finance Reform SRI represents a crucial component in the Government's goal of achieving a balanced budget by 2020.

During the year, this SRI reported an improvement of revenue collection for both direct and indirect taxes while achieving savings from the implementation of the e-Bidding initiative.

Further progress in broadening the Government's revenue base was recorded with the Prime Minister's proposal of the introduction of the Goods and Services Tax (GST) during the tabling of Budget 2014. The GST, which will replace the current Sales Tax and Service Tax, is targeted for implementation in 2015 at a rate of 6 per cent.



Public Service Delivery

At the heart of the implementation of the Government's programmes and policies is the public sector. Thus, the Public Service Delivery SRI focusses on enhancing the Government's efficiency in business and public-related services, shifting the country's civil service towards a high-performance culture.

The SRI continued to record progress in all its initiatives during the year, such as in the implementation of the Business Licensing Electronic Support System (BLESS), reducing the number of licenses required by business and implementing the Single Sign-On system to enable a secured access identity gateway to access all Government agencies' online services.



Narrowing Disparity

In this SRI, the focus is to decrease the gap for income and wealth disparity across the country's various communities and promote inclusive economic growth.

In line with the national agenda of increasing Bumiputera economic development, this SRI saw the launch of the Bumiputera Economic Empowerment Programme in 2013, the introduction of the Bumiputera New Entrepreneurs Start-Up Scheme and the announcement of the establishment of Bumiputera Economic Empowerment Units in all Ministries.

2020: Achieving the Vision

As we move closer to 2020, we have much to be thankful for. Malaysia's economic fundamentals remain strong, with a current account surplus, ample international reserves and an improving fiscal position, all of which put us in good stead to weather uncertain conditions in the external economy. To preserve these advantages, we must remain cognisant of further improvements that can be made to our economic structure.

We must be reminded that in implementing the ETP, we are focussed on transforming the whole of the Malaysian economy. With the launch of the 196 EPPs since 2010, we believe that we are now achieving a sufficient critical mass of projects to catalyse transformation. Our focus going forward will be on the management of the broader economy, as the EPPs have now translated into significant realised investments that will create further knock-on effects.

The most important thing for Malaysia now is staying focussed on our strategic goals. Just as an athlete can only succeed by concentrating on improving his talents in his specialised field, we must remain aware that the target of a high-income nation can only be achieved by focussing on specific sectors for our growth. The key challenge for any Government in such an endeavour is the eternal economic question of limited resources. The solution is conscious fiscal discipline and the will to remain focussed in implementing the ETP.

Of paramount importance is the private sector's role in driving the ETP. While the Government will provide support to catalyse private investment, assisting in infrastructure spending to promote the viability of private sector projects, by and large we will rely on collaboration from the private sector to ensure our targets are brought to fruition.

This spirit of collaboration is paramount in all of the Government's initiatives, and is embodied in the relationship between the Economic Planning Unit (EPU) and PEMANDU. It is often overlooked that like the ETP and GTP, the EPU and PEMANDU are separate yet complementary, working together to realise the country's economic ambitions.

In this regard, PEMANDU's mandate centres around coordinating, assisting and monitoring the implementation of both the GTP and the ETP, while the EPU is tasked with formulating the medium and long-term plans, policies and strategies to ensure sustainable socio-economic growth. It is in these areas that PEMANDU and the EPU have built a partnership to drive implementation; assessing the progress and delivery of the country's development programmes.

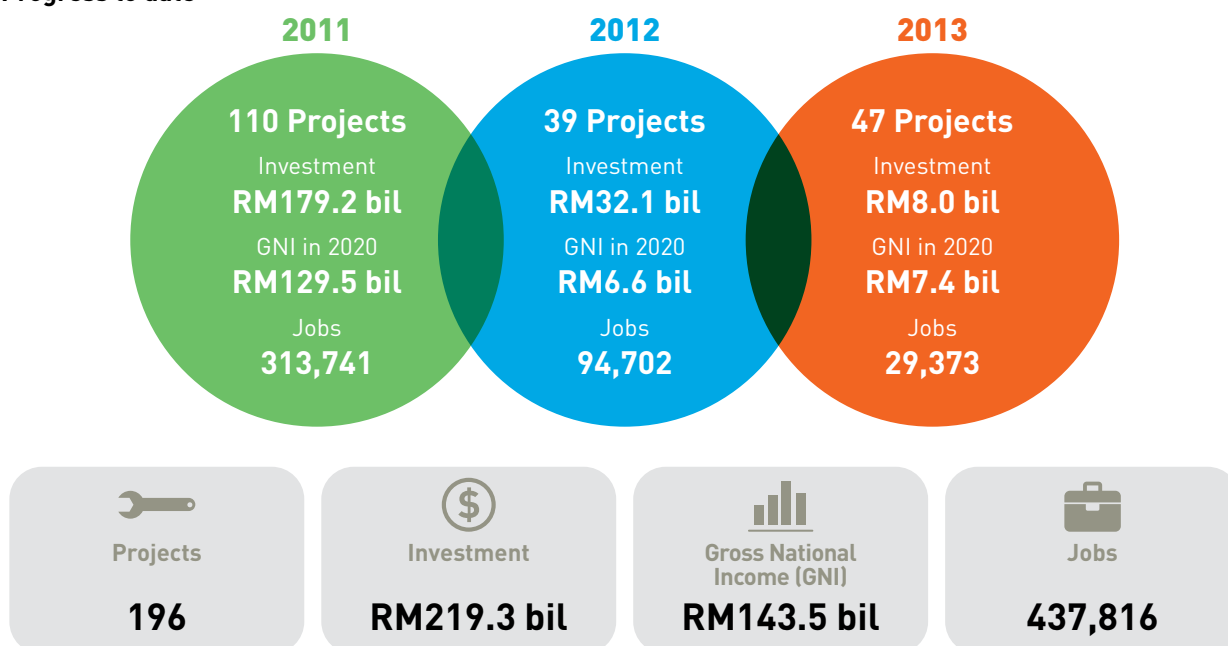
On PEMANDU's part, there remain four critical pressure points for which we must provide support until we achieve our goals for 2020. These are:

1. Helping the civil service institutionalise the reforms that have been put in place in 2010, allowing the public sector to become more proactive and responsive in the face of change
2. Assisting Malaysian companies to keep innovating products and services to achieve global competitiveness, with the adoption of standards and certification playing a crucial role in this respect
3. Improving the quality of national education. The fate of our future generations hinges upon the quality of human talent, and we will have to rapidly address the quality of our education system to ensure we meet the human capital needs of a developed nation
4. Increasing Malaysia's trade surplus, as the domestic economy is too small to sustain local businesses in the long-term. Currently, our net trade stands at 7.17 per cent of GDP

Other countries are nipping at our heels, gaining a competitive advantage on the global stage. This makes it even more crucial for us to promote a culture of quality and innovation within our economy to ensure we do not lag behind other countries, especially the fiercely competitive emerging markets which have materialised as the global economy's new engine of growth.

Nonetheless, with the necessary groundwork already in place to catapult our transformation into a high-income economy, we remain confident that together, we will be able to enjoy the rewards of our efforts not just in 2020, but for many years to come.

Progress to date



*Committed Investment, GNI and Jobs till 2020

PEMANDU'S METHODS TOWARDS TRANSFORMATION

PEMANDU's role is to catalyse the transformation of Malaysia's economy and government, working with the Malaysian Government to improve public service delivery outcomes and setting precedents for future economic efficiencies.

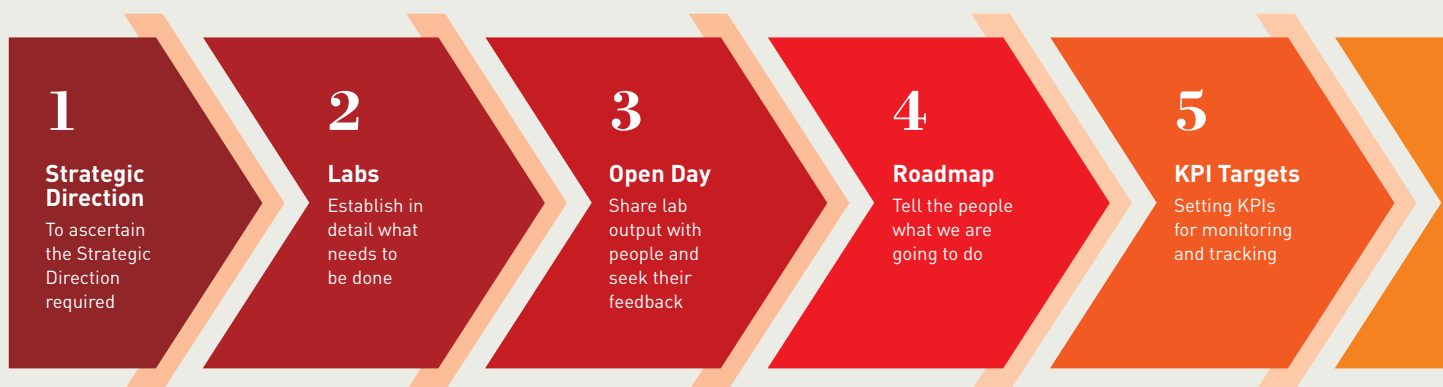
In working towards this aim, it has set "True North" goals of targeted GNI, Jobs and Investment growth, to serve as the guides that keep the entire transformation process on track, using measurable Key Performance Indicators, validated by PricewaterhouseCoopers (Malaysia).

PEMANDU is a catalyst that leads the impetus of the Economic Transformation Programme (ETP) and Government Transformation Programme (GTP), working alongside the civil service to assist in delivery transformation. It operates by setting fresh examples in specific cases of assistance; streamlining and improving older, outdated existing processes for more relevance to current economic conditions.

PEMANDU's 8-Step Process for transformation is a systematic and structured approach incorporating clear diagnosis, planning, implementation, execution and feedback; in a sequence which ensures transparency and accountability.

The 8-Step Process has been applied with success to the ETP, and is used in conjunction with tracked Ministerial KPIs, regular Steering Committee Meetings, and the Problem Solving Methodology (also known as the Putrajaya Inquisition), to deliver transformation and improve the processes of governance and implementation.

8 STEPS OF TRANSFORMATION



1 STRATEGIC DIRECTION

At this first phase, multiple Cabinet meetings are held to set the strategic direction of the ETP and its initiatives. The involvement of the Government's top decision-makers from this stage onwards has been a key factor in ensuring the rapid and effective implementation of projects and timely problem-solving.

2 LABS

The lab approach is another hallmark of the ETP and GTP that has been part of the programmes' implementation plan since its inception in 2010. The programme commenced with an 8-week lab session which saw the participation of key stakeholders from the Government and the public sector and NGOs to identify factors such as industry needs, initiatives to be undertaken and allocation of resources. Although now organised on a smaller scale, labs continue to be a part of both the ETP and GTP. Amongst other things, labs help people on the ground to take ownership of highlighted problems by involving those sectors most affected by a given issue in developing effective solutions.

3 OPEN DAYS

Open days are held to create a forum for information-sharing and to receive feedback on the findings of Labs from the *rakyat*, who are one of the ETP's key stakeholders. These events are helpful not only to communicate the significance of the ETP, but for the Government to understand the *rakyat's* socio-economic needs and concerns.

4 ECONOMIC TRANSFORMATION PROGRAMME ROADMAP

The execution of the ETP is guided by the ETP Roadmap, which was published at the start of the programme. The Roadmap details the justifications for the ETP and its initiatives, as well as specific objectives and action plans for Malaysia's transformation into a high-income nation, acting as a point of reference during implementation.

5 KEY PERFORMANCE INDICATOR (KPI) TARGETS

KPIs are set on an annual basis by PEMANDU's Ministerial Key Results Area team and Ministry officers. They not only serve as delivery targets for each NKEA and SRI, but ensure that the initiatives outlined in the Roadmap remain on track up until 2020. KPIs are periodically assessed to evaluate their delivery, as well as to consider any challenges faced in implementation.

6 EXECUTION

As demonstrated in the previous five steps, the ETP undergoes extensive planning before it reaches the execution stage. With 196 Entry Point Projects and various other initiatives underway, the execution of the ETP is a nationwide effort which involves the participation of all levels of the Government and its private sector partners. It is at this stage that PEMANDU's role is at its most vital, with the unit coordinating and monitoring the implementation of the ETP while leading any problem-solving and remedial actions needed.



7 AGREED-UPON PROCEDURES

External verification of the programmes' KPIs and other data is conducted by PricewaterhouseCoopers Malaysia (PwC) to validate the ETP's results. In this process, PwC undertakes a series of Agreed-Upon Procedures (AUP) to review KPI results and projects. Further details on this process are available at the end of this Annual Report in the AUP Report by PwC.

8 ANNUAL REPORTS

The ETP's activities and progress are disclosed on a yearly basis in the programmes' Annual Report. The publication serves to communicate to the *rakyat* and other stakeholders what has been delivered during a particular year, as well as to record the challenges faced in the programmes' implementation.

The Problem-Solving Methodology

In line with the 8-Step Process to ensure effective and efficient delivery of the ETP, obstacles and challenges are highlighted, addressed and overcome through PEMANDU's Problem Solving Methodology (PSM).

The PSM, which typically involves defining the problem statement, determining the impact or implication of the problem and establishing the PSM decision, has proven invaluable in overcoming various stumbling blocks encountered during the course of implementing the ETP. These include land issues faced under the Agriculture NKEA, in which a lack of coordination among Federal and State Governments had impacted allocation and approval of land for Agriculture NKEA projects.

In this case, the shortcoming resulted in the delay of projects worth RM300 million in GNI. Upon utilising the PSM, the case was resolved with the Federal and State Governments agreeing to improve existing One-Stop Centres, to manage land allocation and land use.




The PSM was also useful in resolving underground land ownership in relation to the Mass Rapid Transit (MRT) project under the Greater Kuala Lumpur/Klang Valley NKEA. Here, the problem statement identified that land ownership issues relating to the MRT's underground physical structure caused delays in the project's construction. Additionally, existing laws stated that land owners must be given a minimum depth of 10 metres, while some parts of the MRT underground structure was less than 10 metres in depth. This resulted in a delay in the excavation works for 9.5km of the underground MRT line. Nonetheless, following the application of the PSM, all granting agencies, including the Attorney-General's Chambers, *Jabatan Ketua Pengarah Tanah dan Galian* (KPTG) and *Pejabat Pengarah Tanah dan Galian Wilayah Persekutuan* (PTGWP), agreed to revise regulations to allow for land owners and MRT Corp, which is developing the MRT project, to co-exist.




Further use of the PSM was seen in the Business Services NKEA, where delays in the tendering process for solid waste treatment plants in Kepong, Selangor; Bukit Payung, Johor; and Sungai Udang, Malacca raised the risk of not meeting Malaysia's 40 per cent reduction of waste to landfill target by 2020. This challenge further jeopardised investments for three solid waste treatment plants, while the country's existing landfills were reaching capacity.

With the involvement of the Ministry of Urban Wellbeing, Housing and Local Government, the National Solid Waste Management Department and the Public Private Partnership Unit, the tendering process for the solid waste treatment plants was expedited according to a fixed timeline.

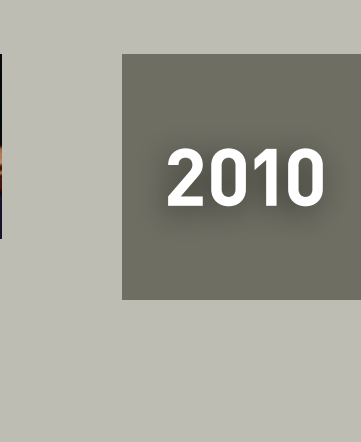

ETP MILESTONES

2013	 <p>28 DEC</p> <p>BUKIT BINTANG KLCC WORLD FIESTA PARADE Street Festival jointly organised by BBKLCC Tourism Association & Tourism Malaysia</p>	 <p>12 DEC</p> <p>LABOUR MARKET INFORMATION AND ANALYSIS PORTAL LAUNCH</p>			
	 <p>1 JUL</p> <p>MINIMUM RETIREMENT AGE Enforced at 60 years old for employees in private sector</p>	 <p>13 MAY</p> <p>1st MALAYSIA CRUISE INDUSTRY WORKSHOP Presenting B2B opportunities between International Cruise Liners and Malaysian representatives</p>	 <p>19 MAR</p> <p>GTP & ETP ANNUAL REPORT 2012 Launch by the Prime Minister at Angkasapuri</p>		
2012	 <p>27 NOV</p> <p>ETP TURNS TWO Implementation in full swing</p>	 <p>16 NOV</p> <p>PROGRESS UPDATE 20 new ETP and Corridor projects announced 3 SRI updates</p>	 <p>1-15 NOV</p> <p>SPECIAL NEEDS EDUCATION LAB</p>	 <p>18-19 SEPT</p> <p>SENIORS' LIVING LAB</p>	 <p>13 SEPT</p> <p>PROGRESS UPDATE 21 new projects announced 3 SRI updates</p>
	 <p>8 SEP</p> <p>InvestKL Announced by the Prime Minister</p>	 <p>5 JUL</p> <p>ETP UPDATE Launch of the six Strategic Reform Initiatives</p>	 <p>1 JAN</p> <p>TALENTCORP Initiation of a government agency tasked to attract Human Capital talent</p>		

 <p>12 NOV</p>	 <p>3 OCT</p>	 <p>28 AUG</p>
<p>SOFT LAUNCH NATIONAL STANDARDS COMPLIANCE PROGRAMME (NSCP)</p>	<p>AIRBUS SETS UP REGIONAL SERVICE CENTRE</p>	<p>MALAYSIA GOOD AGRICULTURE PRACTICE LOGO (MYGAP) LAUNCHED</p>

 <p>19 FEB</p>	 <p>7 FEB</p>	 <p>1 JAN</p>
<p>LAUNCH OF FILM IN MALAYSIA INCENTIVES (FIMI) BY FINAS</p>	<p>INTERNATIONAL PERFORMANCE REVIEW</p>	<p>MINIMUM WAGES ORDER TAKES EFFECT FOR EMPLOYEES RM900 for Peninsular, RM800 for Sabah & Sarawak</p>

 <p>28 MAY</p>	 <p>MAY - JUNE</p>	 <p>2 APR</p>	 <p>14 FEB</p>	 <p>7 FEB</p>
<p>PROGRESS UPDATE 21 new projects announced 6 SRI updates</p>	<p>ELECTRICAL & ELECTRONICS 2.0 LAB</p>	<p>GTP & ETP ANNUAL REPORT 2011 Launch by the Prime Minister at Angkasapuri</p>	<p>CITIES AND CORRIDORS OPEN DAY Held at Kota Kinabalu</p>	<p>INTERNATIONAL PERFORMANCE REVIEW</p>

 <p>2010</p>	 <p>30 NOV</p>	 <p>25 OCT</p>
	<p>PROGRESS UPDATE Strong start continues with announcement of 9 more projects</p>	<p>ECONOMIC TRANSFORMATION PROGRAMME ROADMAP Launched by the Prime Minister with announcement of 9 projects</p>



NATIONAL KEY ECONOMIC AREA

Focussed Approach to Economic Growth

Malaysia will leverage its competitive advantages by prioritising investment and policy support behind a selected number of key growth engines. Hence, the Economic Transformation Programme focusses on 12 National Key Economic Areas (NKEAs) as announced in the 10th Malaysia Plan. These NKEAs will receive prioritised government support including funding, top talent and Prime Ministerial attention.

The Government nonetheless remains committed to provide ongoing support for the growth of the non-NKEA sectors. However, the Government will focus its efforts on the NKEAs because of their significant role in driving the economy through GNI contribution.



GREATER KUALA LUMPUR/KLANG VALLEY



OIL, GAS AND ENERGY



FINANCIAL SERVICES



WHOLESALE AND RETAIL



PALM OIL AND RUBBER



TOURISM



ELECTRICAL AND ELECTRONICS



BUSINESS SERVICES



COMMUNICATIONS CONTENT AND INFRASTRUCTURE



EDUCATION

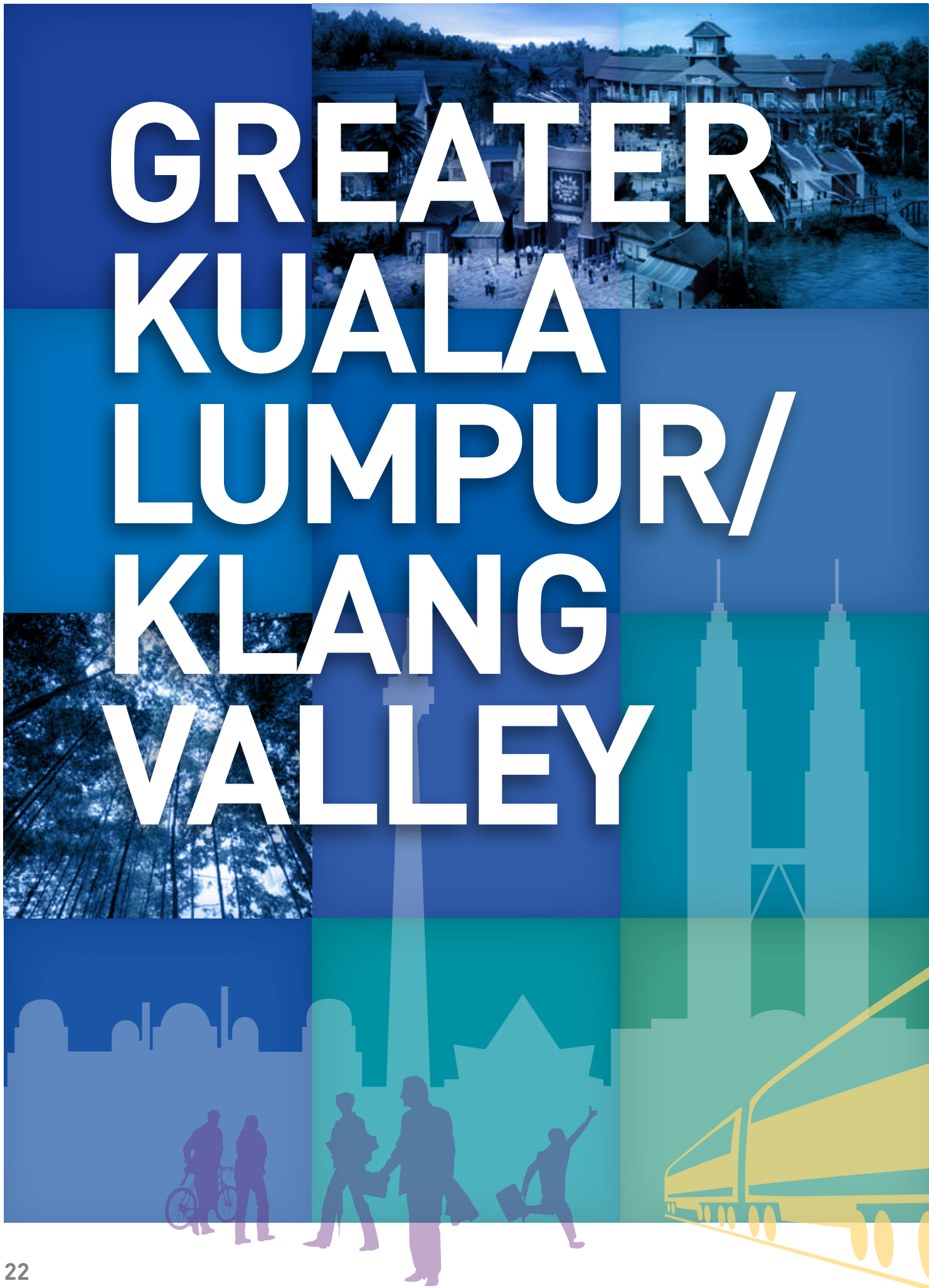


AGRICULTURE



HEALTHCARE

GREATER KUALA LUMPUR/ KLANG VALLEY





Datuk Seri Tengku Adnan Tengku Mansor
Minister of Federal Territories



I am pleased to report that the Greater Kuala Lumpur/Klang Valley NKEA continued to progress well in 2013. The EPPs remain on track, and all stakeholders continue to commit to the goal of making Kuala Lumpur a world-class city by 2020.

A flagship project under this NKEA, the Mass Rapid Transit (MRT) system, in particular, achieved significant headway in the completion of the system's foundation. The project remains well on schedule, with its first phase, the Sungai Buloh-Kajang line, on schedule to commence operations in December 2016.

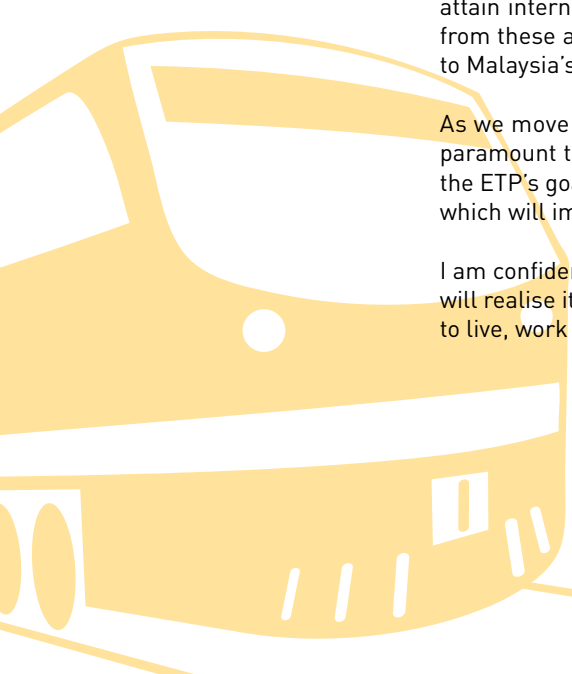
Under the River of Life project, much work has also been done in cleaning the Klang-Gombak River corridor, not only to raise the quality of the river, but to elevate the standards of its surrounding areas toward becoming a thriving waterfront.

We have also executed various efforts such as enhancing greening the Greater KL/Klang Valley environment and creating unique attractions, all of which contribute towards the region's development as a leading metropolis.

In addition, this NKEA has taken great strides to attract the foreign investment and human capital required to help drive our private sector. InvestKL has surpassed its 2013 goal by successfully attracting 15 MNCs to set up offices in Kuala Lumpur, while TalentCorp continued its initiatives to attain internal and external talent to benefit the nation. Following continued encouraging results from these agencies in 2013, both have set even higher targets for 2014 in pursuit of contributing to Malaysia's high-income aspirations.

As we move closer to the 2020 deadline, I must reiterate that support from the *rakyat* remains paramount to our success. It is important to note that initiatives under this NKEA, while driven by the ETP's goal of transforming Malaysia into a developed nation, create important spillover effects which will improve the Greater KL/Klang Valley region for the benefit of its native citizens.

I am confident that with continued commitment and support from all our stakeholders, this NKEA will realise its vision of making Greater KL/Klang Valley a cleaner, more efficient and vibrant place to live, work and play.



GREATER KUALA LUMPUR/ KLANG VALLEY

The Greater Kuala Lumpur/Klang Valley (GKL/KV) NKEA seeks to realise the region's full potential as the pulse of Malaysia's commercial activities. In doing so, this NKEA aims to transform Malaysia's capital into a world-class city and globally competitive economic hub.

With its initiatives anchored on a geographic region, the Greater KL/KV NKEA is unique from other NKEAs. As a result, while the Greater KL/KV NKEA contributes indirectly to the country's GNI and job creation, its efforts are not immediately driven by these goals. It is instead more focussed on developing the factors which support economic growth and improve its liveability.

These factors include attracting investments from multinational companies (MNCs) and attracting skilled human capital. The NKEA also gears the region's liveability towards the standards of other global cities by improving the public transport system and the environment while enhancing the region's unique places of interest.

The Mass Rapid Transit (MRT) and River of Life (RoL) are the flagship projects of Greater KL/KV that enable more investments and employments within the GKL/KV area. Both projects have already started and are right on track to be completed by 2020, thus meeting the economic and competitive demands of a global city.

2013 Key Performance Indicators

Greater Kuala Lumpur/Klang Valley NKEA		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
EPP #1	Conclude Letter of Intent for 10 MNCs OHQ relocation in GKL/KV	10	15	150	●	100	●	1.0	●
	Employment committed	600	610	102	●	100	●	1.0	●
EPP #2	Number of approved application under Returning Expert Programme	1,200	900	75	●	75	●	0.5	●
	Number of approved application under Residence Pass-Talent Programme	800	859	107	●	100	●	1.0	●
	New JPA scholars under STAR Programme	400	424	106	●	100	●	1.0	●
	Number of internship places filled under Structured Internship Programme	10,000	10,824	108	●	100	●	1.0	●
EPP #3	HSR Phase 1B Feasibility Study complete findings by June 2013 to include: (i) Economic benefit analysis (ii) Strategic implementation plan (iii) Required technical/engineering components	100%	100%	100	●	100	●	1.0	●
EPP #4	MRT Line 2 & Line 3 - Completion of Final Implementation Plan after agreement with the relevant stakeholders for EC/Cabinet's decision	100%	100%	100	●	100	●	1.0	●
	Completion of elevated guideway foundation	72%	78%	108	●	100	●	1.0	●
	Tunnel Boring Machines (TBM) delivered to site	10	7	70	●	70	●	0.5	●
	Seven underground station excavation	50%	54%	108	●	100	●	1.0	●

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Greater Kuala Lumpur/Klang Valley NKEA		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
EPP #5	Installation of wastewater Treatment Plants at 3 wet markets (Pasar Borong Selayang, Jalan Klang Lama & Pasar Air Panas)	100%	100%	100	●	100	●	1.0	●
	Installation of additional gross pollutant traps	69	69	100	●	100	●	1.0	●
	Percentage reduction in oil & grease levels from 83 communal grease traps installed at MPS and MPAJ hawker centres	92%	99.98%	109	●	100	●	1.0	●
	Construction of 14 packages	90%	91%	108	●	100	●	1.0	●
	Construction of Gross Pollutant Traps (GPT), log boom & trash rakes	358	371	117	●	100	●	1.0	●
	Installation of Oil & Grease Trap for 14 sites (MPS)	50%	82.64%	165	●	100	●	1.0	●
	Percentage completion of 4 construction packages: (i) Rehabilitation of existing sewerage pipe network in KL (Package G06) (ii) Rehabilitation of existing sewerage pipe network in KL and Selangor (Package G07) (iii) Upgrading of 4 Sewerage Treatment Plant at Gombak, Selangor (Package B21) (iv) Upgrading of 2 Sewerage Treatment Plant at Gombak, Selangor (Package B22)	59%	59.17%	100	●	100	●	1.0	●
EPP #6	Number of trees planted	30,000	36,246	121	●	100	●	1.0	●
	Tree sponsorship from private sectors	5,000	11,460	229	●	100	●	1.0	●

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Greater Kuala Lumpur/Klang Valley NKEA		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
EPP #7	Completion of Heritage Trail 2 and 3	100%	86%	75		75		0.5	
	Upgrading Masjid Jamek	100%	100%	100		100		1.0	
	Malaysia Truly Asia Centre (MTAC): Completion of Land matters, authority approvals and PM Announcement	50%	25%	50		50		0.5	
	Countdown Clock to year 2020	50%	45%	90		90		0.5	
EPP #8	Upgrade of non-covered pedestrian network system (km)	12	11.87	99		99		0.5	
EPP #9	Setting up of composting or anaerobic digestion facility for food wastes	To start T&C of AD Facility	60%	60		60		0.5	
	Setting up of Construction and Demolition Waste Facility	Begin operation by 1st December 2013	100%	100		100		1.0	
				98%		88%		79%	

Exhibit 1.1

Method 1 Scoring is calculated by a simple comparison against set 2013 targets. The overall NKEA composite scoring is the average of all scores

Method 2 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is less than 100%, score #2 is taken as the actual percentage
- If the scoring is equal or more than 100%, score #2 is taken as 100%. The overall NKEA composite scoring is the average of all scores

Method 3 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is equal and less than 50%, score #3 is indicated as 0
- If the scoring is more than 50% and less than 100%, score #3 is indicated as 0.5
- If the scoring is equal or more than 100%, score #3 is indicated as 1

ENTRY POINT PROJECTS

EPP 1 Attracting 100 of the World's Most Dynamic Firms within Priority Sectors

A previous Hoover's study of 2,794 companies, excluding large companies such as PETRONAS, indicate that the top four per cent of organisations in Greater KL/KV contribute 79 per cent of total revenue while the top 10 per cent provided 63 per cent of total employment. Therefore, this EPP aims to attract the world's leading companies to relocate their headquarters to Greater KL/KV to further stimulate economic activity in the region.

Initiatives are focussed on attracting MNCs in priority sectors. These include financial and business services, education, tourism and retail which contributed 41 per cent to Greater KL/KV's total GNI in 2009. To address this task, InvestKL was established in 2011 with a specific mandate to attract 100 MNCs to set up regional headquarters in Greater KL/KV by 2020.

Achievements and Challenges

In 2013, InvestKL's achieved its target for the year of attracting 10 MNCs to set up regional offices in Greater KL/KV. These MNCs comprise Bechtel Corporation, Epson Toyocom, Hitachi Systems, Linde, Clariant, Cerner, Rentokil Initial, Naton, Turner and Colas Rail Asia.

However, in drawing these companies, InvestKL received feedback that the MNCs faced challenges in hiring the talent required to operate regional headquarters. As such, the agency will continue collaborating with EPP 2 partner, TalentCorp, to create talent with specialised skills for new services industries and the commodities-based industries such as oil and gas.



InvestKL also faced challenges in attracting trading companies to Greater KL/KV. This is due to the nascent country's ecosystem for new activities in the services-based industries lagging behind established trading hubs like Singapore. To address this, the InvestKL team will work closely with investors to create an environment more conducive for trading businesses. Its efforts will include organising workshops and labs between investors, regulators, stakeholders and local partners.

Moving Forward

As InvestKL approaches its fourth year of operations in 2014, the agency has set itself a higher target of attracting 13 MNCs for the year. This is expected to create at least 600 new employment opportunities.

EPP 2 Attracting Internal and External Talent

The population of Greater KL/KV will need to grow from six million to 10 million by 2020 to meet employment and GNI growth demands. This EPP has identified several programmes which must be in place to attract the optimal number of desired talent to support the region's vision of achieving this population base by 2020.

These include:

- Building a local ecosystem to create a large number of jobs

- Developing a comprehensive talent attraction programme
- Attracting qualified and skilled Malaysians living abroad
- Retaining foreign talent currently residing in Malaysia

In 2010, TalentCorp was established to drive this EPP forward. Its efforts are anchored on the following strategic thrusts:

- Optimising Malaysian talent – In this regard, the agency implements the Returning Expert Programme (REP) to attract qualified and skilled Malaysians to return to the country. The programme offers incentives such as tax relief and expedited permanent resident applications for direct family members
- Attracting and facilitating global talent – The agency has introduced the Resident Pass Programme, which improves the benefits offered to current Employment Pass holders by offering incentives such as long-term work visas and employment mobility
- Building networks of top talent – This initiative focusses on creating networks for future leaders, the expatriate community and the Malaysian diaspora

TalentCorp also oversees the Structured Internship Programme (SIP) which provides companies a double tax deduction for expenses incurred in hiring interns under the programme. In addition, the agency together with the Public Service Department (*Jabatan Perkhidmatan Awam* – JPA), had launched the Talent Acceleration in Public Service (TAPS) programme in October 2011 to provide employment placement for returning scholars in the public sector, and the Scholarship Talent Attraction and Retention (STAR) programme for JPA scholars to serve their scholarship bond in the private sector.

Other programmes which have been launched to meet the objectives of this EPP include the Graduates Employability Management Scheme (GEMS), which was introduced to enhance the employability of graduates to meet the economy's human capital needs.

Achievements and Challenges

In 2013, TalentCorp exceeded its targets under the Residence Pass Programme for the third consecutive year. However, the agency faces difficulties in attracting the Malaysian diaspora under the REP due to a diminishing pool of those qualified and interested in returning. Nonetheless, its efforts under the programme remain on-going, with initiatives including:

- Increasing promotion/awareness through online media
- Implementing the REP (returnee)-get-REP programme
- Organising joint outreach and engagement sessions with companies interested in hiring Malaysians residing abroad. These companies will conduct interviews on the spot with a view to hire
- Working with priority companies to bundle REP incentives as part of their remuneration package

Other challenges faced by TalentCorp include implementing the STAR programme, namely in ensuring scholars are fully committed to serve the private sector upon returning, while strict adherence to scholarship bonds has yet to be implemented effectively.

Moving Forward

For 2014, higher targets have been set for this EPP as it continues with efforts to build the required skilled workforce to meet employment and GNI growth needs. These include increasing the number of talent through the various programmes as follows:

- 1,200 Malaysians under the REP
- 1,000 persons under the Residence Pass Programme
- 12,000 internship places filled under the SIP
- 2,000 JPA Scholars recruited under the STAR Programme
- 7,000 places under GEMS & Upskilling

This EPP will also see the implementation of the RP-T (Residence Pass – Talent), an initiative to attract and retain top foreign talent in the country. It is offered to highly qualified expatriates already in Malaysia seeking to continue living and working in the country on a long-term basis. Future plans under this programme include:

- Identifying expatriates for the Invite To Apply (ITA) initiative via magazines, newspapers and chambers
- Broadening engagement with the expatriate community (e.g. through chambers) and MNCs present in the country's regional corridor developments

The SIP aims to enhance the quality of internship programmes through partnerships with industry bodies. The programme will target internship placements with top graduate employers, key universities and regional corridor authorities.

In addition, the parties involved in the STAR Programme will work closely to improve the scholarship management process.

With regard to GEMS, future plans for the programme include:

- Campus outreach and engagement
- Sector-focussed career fairs with public and private tertiary education institutions
- Career Talk (C-Talk) sessions

EPP 3 High-Speed Rail Connection to Singapore

The Land Public Transport Commission (*Suruhanjaya Pengangkutan Awam Darat* or SPAD) has been tasked with overseeing a high-speed rail system (HSR) to connect Kuala Lumpur and Singapore. This initiative is expected to enhance commerce and services between two of Southeast Asia's largest economic hubs.

Commuters of the HSR can expect a faster and more reliable commute between both cities, as the journey will take around 2-2.5 hours in point-to-point travel. Furthermore, towns along the rail connection are expected to benefit from this project, with opportunities for development, business and employment.

Achievements and Challenges

SPAD continued to pave the way in building the HSR, which will be Southeast Asia's first high-speed rail track. In June 2013, SPAD presented results of the Phase 1B Feasibility Study to the Economic Council. The study included an economic benefit analysis and a strategic implementation plan. It also identified the required technical and engineering components for the project. The Economic Council provided positive feedback on the study and gave its approval for SPAD to proceed with Phase 2A.



Exhibit 1.2: Illustration of potential economic development zones around the HSR station – station view

The main challenge to this EPP has been managing public perception and expectations on the HSR project. As such, SPAD will continue to engage with consultants and subject matter experts in reviewing case studies and the experiences of other countries with operational HSR networks. This will also provide SPAD's project team with the latest emerging technologies and promote the benefits of the HSR to Malaysians.

Moving Forward

SPAD plans to complete Phase 2A in 2014. This phase will include:

- Government-to-Government engagement and agreement with Singapore
- Technical surveys
- Socioeconomic analysis on the five HSR stations
- Environmental analysis along the track alignment
- Setting up a dedicated HSR team

Spotlight on High-Speed Rail

The Malaysia-Singapore High-Speed Rail (HSR) has been described as a game-changer that will catalyse economic growth on both sides of the causeway. From enabling time savings for daily commuters to attracting multinationals who want to take advantage of the improved connectivity between the two countries, the possibilities for value creation from the HSR are immense.

In a research paper published on 21 January 2013, the World Bank suggests that major transport investments like the rail network could offer benefits beyond the conventional expectations of expanding regional economic development, increasing market access for goods and services, and reducing air pollution, noise and road accidents. The organisation is now studying China's HSR programme to begin identifying and quantifying these potential additional benefits.¹

Apart from economic benefits of the HSR, Malaysians can also look forward to world-class amenities at the railway's five stations in Kuala Lumpur, Seremban, Ayer Keroh, Muar, Batu Pahat and Iskandar (See Exhibit 1.2). While planning for these stations has yet to be completed, travellers can expect accommodation, retail and entertainment offerings mirroring those seen at renowned HSR stations worldwide.

These include Kyoto's HSR Station, which is 15 storeys high and houses an integrated shopping centre with hotels, movie theatres, museums and galleries, as well as Berlin's Central Station, which covers 160,000 sq ft of retail and office space.

¹ Andrew Salzberg, Richard Bullock, Ying Jin, and Wanli Fang, 'High-Speed Rail, Regional Economics, and Urban Development in China', January 2013

EPP 4 Building an Integrated Urban Mass Rapid Transit System

With the population of Greater KL/KV expected to grow to 10 million by 2020, the development of an integrated public transport network is necessary to improve the region's connectivity. The mass rapid transit (MRT) system was proposed to ease congestion and provide commuters to the city centre with an efficient and environmentally sustainable mode of public transportation.

MRT Corp was established by the government in September 2011 to specifically develop the MRT project. The project involves the construction of a rail-based public transport network that will integrate with the existing light rail transit (LRT), KTM Komuter, KLIA Ekspres and KL Monorail systems.

The Sungai Buloh-Kajang (SBK) line is divided into two phases: Phase One, from Sungai Buloh to Semantan is expected to be operational by the end of 2016, while Phase Two from Semantan to Kajang will be operational by July 2017.

Achievements and Challenges

The MRT project made significant progress in 2013, with work continuing on the system's elevated guideway foundation and underground station excavation following the delivery of 10 Tunnel Boring Machines (TBMs) to various sites.

In June 2013, SPAD presented its final implementation plan for MRT Line 2 and Line 3 to the Economic Council. The plan is now pending approval from the Government.



Semantan Portal in February 2013

As Malaysia's largest infrastructure project, the construction of the MRT project has some challenges to overcome. These include:

1. Design and construction of the Bukit Bintang Station in a congested urban environment
2. The physical scale of the Pasar Rakyat Station, which requires 300,000 m³ of excavation, and ensuring the structure of the station is completed on time

3. Insufficient trained and experienced personnel to manage several TBMs simultaneously
4. High concentration of uncharted utilities conflicting with foundations of viaduct piers

Nonetheless, MRT Corp has implemented innovative methods to overcome the aforementioned challenges, such as by utilising high-tech equipment, diversifying resources and training the workforce involved in the project.

Moving Forward

The construction of the MRT will approach its peak in 2014. MRT Corp targets (KPIs) for the year comprise:

- 90 per cent completion of elevated piers
- 80 per cent completion of elevated guideways
- 80 per cent completion of tunnel construction
- 80 per cent completion of underground station excavations

The agency has also introduced a new safety-based KPI at MRT construction sites to increase awareness. While the timely completion of the project is critical, the Government is cognisant that it is crucial to protect the project's workers, who are contributing to the country's achievement of high-income status.



Bukit Bintang MRT station under construction

EPP 5 Revitalising the Klang River into a Heritage and Commercial Centre

The River of Life (RoL) project was initiated to transform the Klang-Gombak River corridor in the city centre of Kuala Lumpur into a vibrant and liveable waterfront of high economic value.

This will be achieved by raising the water standards of the Klang-Gombak River and its tributaries to recreational standards (Class IIb) by focussing on three key areas: River cleaning, river beautification and land development.

The Department of Irrigation and Drainage Malaysia (JPS Malaysia) leads the river cleaning initiative with the support of 26 agencies across four Ministries. The agencies include three local authorities where the Klang-Gombak River flows through their respective jurisdictions. They are *Dewan Bandaraya Kuala Lumpur* (DBKL), *Majlis Perbandaran Ampang Jaya* (MPAJ) and *Majlis Perbandaran Selayang* (MPS).

The river beautification works are based on the RoL Master Plan's development precincts. The planning and implementation of these precincts are driven by the DBKL's Physical Planning Department (JPF).

Leveraging on the 10.7km river beautification works is the development of Government-owned land along the river corridor. The development model will be anchored to the recommendations of the economic impact study to be undertaken by the DBKL's Economic Planning and Development Coordination Department (JPEPP).

Achievements and Challenges

The river cleaning programme has recorded many achievements since the basic foundation for the execution of RoL was laid in 2012. However, most of these were not visible as river cleaning works are at locations which are inaccessible to the public. The results of river cleaning also require a longer period of time to become apparent, as shown by the experience of Singapore, which took 10 years to clean its rivers.

Thirteen river cleaning initiatives were undertaken in 2013. Key achievements of these initiatives include DBKL's completion of the installation of 69 gross pollutant traps under its jurisdiction.

Furthermore, JPS Malaysia exceeded its target by completing the construction of 359 gross pollutant traps, log booms and trash rakes. Other achievements recorded include the continued reduction of oil and grease levels from a total of 63 communal grease traps installed within the areas under the MPS and MPAJ's jurisdiction.

As part of the public awareness campaign for the RoL Project, Phase 1 of a Public Outreach Programme (POP) at the Upper Sungai Klang catchment area was successful in engaging the local community. The POP is implemented in phases according to geographic areas. Under the programme, the RoL River Carnival was held in conjunction with World Rivers Day on 29 September 2013. Phase 2 of the POP started in 3Q 2013, focussing on the Sg Bunus catchment within the city.



Jalan Jelatek, Kuala Lumpur



Sg Klang, Pasar Seni Station, Kuala Lumpur

Gaining public support and cooperation to uphold the RoL Project's objectives remain one of the main challenges of this EPP. Key to the project's success is for members of the public to have a deep sense of responsibility and ownership towards caring for the river. Illegal occupation in the form of settlement, commercial and industrial activities within the river reserve is also causing delays to the RoL project.

Moving Forward

The year 2014 will see the commencement of construction works for river beautification in Precinct 7. The first stage of laying the interceptor pipe for river cleaning in Precinct 7 will also be implemented during the year.

Construction works at Precinct 7 will create visibility for the RoL project. The public will be able to see the actual river beautification works in the heart of the city centre.

Relocation of squatters will be one of the focusses under river cleaning in 2014. Based on mutual understanding and for the good of the general public, the Selangor State Government and the Federal Government are working closely on the relocation programme.

The economic impact study of the land development programme will commence in 2014. The study's objective is to seek the most feasible development model to unlock the value of Government-owned land along the 10.7km RoL corridor and recoup an expenditure worth RM4 billion for the RoL project.

With regard to the project's public awareness programme, POP Phase 2 study for Sg Bonus catchment will be in full swing throughout 2014.

EPP 6 Greener Kuala Lumpur

This EPP aims to increase KL's green space in line with making it one of the top 20 liveable cities in the world. The city currently has 11 m² of green space per person, compared with 22 m² in Vancouver, Canada, which has been ranked a top liveable city.

DBKL, which leads this EPP, targets to plant 100,000 large-coverage trees within the city by 2020. In addition, they will seek sponsorship from the private sector to plant trees as well as establish pocket parks in Kuala Lumpur. Outdoor activities will also be promoted and encouraged to increase the number of commercial activities within the city centre, thus indirectly contributing towards the GNI.

Achievements and Challenges

A total of 36,178 trees were planted under the annual 30,000 tree-planting programme in 2013. Of the 100,000 trees targeted for planting, a total of 99,523 trees have been planted. In addition, another 5,000 trees were sponsored by the private sector and NGOs.

One of the challenges of this EPP is the need to manage expectations of potential sponsors under the Signature Park Adoption Programme. Although companies seek prime locations of pocket parks to capitalise on opportunities for visibility and branding, these locations are limited. Therefore, early adopters will have more choices of pocket park locations to choose from as the programme is conducted on a first-come, first-serve basis.

The limited space within KL city also places constraints on identifying suitable locations to plant trees. Hence, new solutions are being considered, such as greater utilisation of rooftop gardens.

Moving Forward

DBKL will plant another 30,000 trees in 2014 and maintain trees which have been planted in the past three years.

At the same time, it will improve its efforts to increase participation by public and private sector companies in greening KL. The Greener KL team will also continuously seek private sector participation via tree sponsorships, tree planting or pocket park adoption.



Planting bamboo trees on World Bamboo Day, Bukit Jalil Park

EPP 7 Creating Iconic Places and Attractions

This EPP targets to create unique and iconic attractions to strengthen the appeal of Greater KL/KV to both residents and tourists. DBKL, together with the Ministry of Federal Territories, will lead this EPP to identify and leverage existing landmarks to enhance KL's distinct identity and heritage.

Initiatives identified under this EPP include the following:

- **Establishing and enhancing Heritage Trails (HT):** Through this initiative, guided pedestrian trails have been developed through landmark sites such as Dataran Merdeka, Medan Pasar and Central Market. Trail maps, supporting articles and guided walks will be added as informational facilities. Historical buildings along the trail will be preserved under this initiative and managed as tourism-related landmarks. Three routes were identified:
 - HT Route 1: Masjid Negara – Dataran Merdeka
 - HT Route 2: Masjid Jamek – Pusat Perhutanan Bukit Nanas
 - HT Route 3: Medan Pasar – Hang Kasturi – Jalan Petaling – Lebuhraya Pudu – Bangkok Bank
- **Reviving Medan Pasar:** This old clock tower area has been transformed into a pedestrian arcade but since it lacks sidewalk cafés, souvenir shops and restaurants, some changes to the retail operations will take place
- **Upgrading Masjid Jamek:** As the oldest mosque in KL, Masjid Jamek is a significant tourist attraction that is located along the confluence of the Klang and Gombak River. This EPP has overseen restoration of the mosque with improved facilities
- **Developing the Malaysia Truly Asia Centre (MTAC):** This project is under review following the Government's decision to maintain the aesthetic of the last 65.66 acres of natural green space in the heart of the city

Achievements and Challenges

Following the completion of restoration work on Masjid Jamek, the mosque was reopened to the public in June 2013. The project team is continuing efforts to beautify the mosque, including improving the lighting of its façade.

Among challenges seen in this EPP include in the procurement of consultants/contractors and monitoring the progress of work for the Heritage Trails project. Obstacles include difficulty in contracting capable local players, and coordination of implementation by the agencies involved in this EPP.



Medan Pasar as a pedestrian arcade



Masjid Jamek after restoration work

Moving Forward

In the year ahead, the teams leading the implementation of projects under this EPP will focus on realising the investments that have been injected since 2011. These include shifting the business direction of commercial activities in the Medan Pasar area to increase contributions to GNI and job creation. At the same time, the area will be revitalised to enhance its value as a tourist attraction. Efforts will also be taken to promote and integrate iconic and heritage places in KL to increase awareness and attract tourists.

Following the completion of Heritage Trail 2 in 2013 and Heritage Trail 3 in 1Q 2014, a selection process to identify Heritage Trail 5, in the form of a competition, is now being organised for 2014. Heritage Trail 4, which will cover the route towards Petaling Street, falls under Precinct 7 (River of Life project).

To ensure that other heritage buildings and iconic places are not left out in planning of the trails within KL, a comprehensive study is being conducted together with *Badan Warisan* to produce a master plan of heritage trails.

EPP 8 Creating a Comprehensive Pedestrian Network



Jalan Ipoh, Kuala Lumpur

This EPP aims to improve accessibility in Greater KL/KV for pedestrians and the physically challenged, creating a fully integrated and barrier-free pedestrian network by 2020.

Facilities will be designed following the Safe City Concept, which focusses on the use of environmentally-friendly design and placement of security devices to minimise potential criminal opportunities. The Safe City Concept is an initiative under the Government Transformation Programme's Crime National Key Result Area.

Achievements and Challenges

In 2013, upgrading works on the following stretches of pedestrian walkways were completed:

- A 5.9km stretch of sidewalk along parts of Jalan Ipoh, Jalan Pahang, Jalan Raja Muda Abdul Aziz and Jalan Dr Latiff
- A 4.0km stretch of sidewalk along Jalan Binjai, Persiaran KLCC and Jalan Kia Peng
- A 3.8km stretch of sidewalk along Jalan Dang Wangi, Jalan Conlay, Jalan Khoo Teik Ee, Jalan Melati and Jalan Horley

Transforming Kuala Lumpur into a Pedestrian-Friendly City

Pedestrian connectivity from one point to another is an integral element of a liveable city. The world's most liveable cities such as Vancouver and Melbourne have a comprehensive pedestrian network that provides seamless connectivity to every part of the city.

Walking is a custom in these cities, with pedestrian networks given high priority in the development of these cities to offer pedestrians convenient and safe access to destinations which are within walking distance.

EPP 8: Creating a Comprehensive Pedestrian Network, seeks to improve pedestrian connectivity in Kuala Lumpur to match that of other liveable cities, increasing pedestrian access where it was previously lacking.

The ultimate goal of this EPP is to transform Kuala Lumpur into a pedestrian-friendly city where pedestrian walkways are more visible, accessible and safe to use.



The main challenge in realising the objective of this EPP remains with motorcyclists who continue using the sidewalks as a shortcut to avoid traffic jams or as parking spots. As round-the-clock enforcement against this infringement is unfeasible, public awareness and consideration play an important role in combating this shortcoming.

Moving Forward

For 2014, this EPP will focus on upgrading the remaining 5km of the total 42km of pedestrian walkways to be improved. The project delivery team will also revisit the walkways upgraded in 2011 for the possibility of covering the walkways to complement DBKL's street level covered walkways.

EPP 9 Developing an Efficient Solid Waste Management System

This EPP seeks to improve Greater KL/KV's solid waste management system in order to enhance the region's liveability. This EPP has identified four major initiatives to achieve this:

- Encouraging greater implementation of the 3R (Reduce, Reuse, Recycle) programme
- Increasing waste treatment capacity to reduce heavy reliance on landfills
- Improving governance of solid waste management and public cleaning services
- Assessing the use of new waste management solutions, such as automatic waste collection and the use of deep bins

Achievements and Challenges

This EPP's implementing agency, the National Solid Waste Management Department (*Jabatan Pengurusan Sisa Pepejal Negara* or JPSPN) – has established a Construction and Waste Demolition plant in Sungai Kertas. However, the completion of an Anaerobic Digestion plant in Sungai Besi was delayed due to land-related issues.

Moving Forward

The JPSPN targets to process 10,800 metric tonnes of waste at the Sungai Kertas Construction and Waste Demolition plant in 2014.

Plans to build the Anaerobic Digestion plant in Sungai Besi remain ongoing, with the JPSPN to continue engaging with relevant agencies and Ministries to bring the facility to fruition. The target starting capacity for the plant is to process 30 metric tonnes of food waste a day. Once fully operational, the plant, which will represent Malaysia's first large-scale Anaerobic Digestion facility, will have the capacity to process food waste and municipal sludge into about 48,729 litres of natural gas per month and 162 metric tonnes of compost or fertiliser per month.

BUSINESS OPPORTUNITIES

1

Vitalising Putrajaya

The Government administrative capital, Putrajaya, is an ideal satellite township to benefit from the spillover effects of Greater KL/KV's development. However, it currently lacks vitality despite being equipped with world-class infrastructure. The following initiatives have been identified to help Putrajaya reach its potential:

- Reshaping the main boulevard by populating 4.2km of the town's main strip with retail shops and upmarket street vendors to boost foot traffic
 - Leverage waterfront potential by developing a commercial and recreational area around the natural lake waterfront
 - Increase connectivity by improving its accessibility to surrounding townships (e.g. Cyberjaya and Dengkil)
 - Stimulate economic activity and development by building supporting industries in the area (e.g. education)
 - Increase tourism and optimise the use of the Putrajaya International Convention Centre by raising the number of events and visitors
- For 2013, the following initiatives were carried out to stimulate economic activity and development:
- City Trail – a new trail along the promenade was created from Dataran Putra to Alamanda with information boards and maps developed and tram services introduced. Other infrastructure, lighting and CCTV in the area were also improved to enhance security and safety of trail users
 - Lighting Promenade 2013 – this initiative involves lighting up the promenade along Precincts 1, 2, 3, 4, 5 and 18 in preparation for Putrajaya Lighting Festival which was held in December
 - Other than the above developments, Putrajaya was also host to the following events:
 - FLORIA Putrajaya (June 2013)
 - Putrajaya International Islamic Art and Cultural Festival (1-10 November 2013)
 - Putrajaya Light Festival (13-15 December 2013)
 - Putrajaya City Trail Promotion

2

Housing

This Business Opportunity is no longer tracked by the Greater KL/KV NKEA and has been moved under the jurisdiction of the Ministry of Urban Wellbeing, Housing and Local Government.

3

Basic Sewerage Services

An efficient sewerage system is a basic amenity in any city. As the population of Greater KL/KV is expected to grow from six million to 10 million by 2020, existing facilities will have to be upgraded in tandem.

Efforts are underway for the rationalisation of small sewerage treatment plants (STPs), which will be moved towards regionalised networks that are bigger, more efficient and using the latest technology.

About 32 regional STPs and 1,495 multi-point STPs currently do not meet the standards of the Department of Environment. The Government will fund the improvements required to upgrade 91 per cent of all STPs to Standard A Category 1 by 2020. Additionally, 346km of the existing sewer network will be upgraded.

Summary of Greater Kuala Lumpur/Klang Valley NKEA

	2020 Target
Incremental GNI Impact	RM190 billion
Additional Jobs	0.32 million
Critical targets for 2014 <ul style="list-style-type: none"> To achieve rank of 75 on the Liveability Index MNC Attraction <ul style="list-style-type: none"> Letter of Intents concluded for MNCs to set up Regional Headquarters/Regional Hub activity in GKL is targeted at 13 Targets 600 employment generation under Greater KL/KV Talent Attraction <ul style="list-style-type: none"> The Returning Expert Programme aims to see 1,200 expats return to Malaysia The Residence Pass Programme targets for 1,000 approved passes The STAR Programme aspires to have 2,000 JPA scholars The Structured Internship Programme aims to attract 12,000 interns The GEMS & Upskilling initiatives targets 7,000 participants High-Speed Rail (HSR) <ul style="list-style-type: none"> Completion of Detailed Environmental Impact Assessment study along proposed HSR alignment Completion of a Social Impact Assessment study along the proposed HSR alignment My Rapid Transit <ul style="list-style-type: none"> Complete 90% of piers Complete 80% of the elevated guideway foundation Complete 12,818 metres of the underground tunnel Complete 80% of underground station excavations 	<ul style="list-style-type: none"> River of Life <ul style="list-style-type: none"> Complete 73% of the six construction packages towards sewage facilities Reduce 80% of rubbish collected by log booms located at SMART Construction of 14 packages for river cleaning to be 100% completed Results from water quality monitoring stations meets river Water Quality Index of 60 Complete 25% of interceptor system and collapsible weir construction at Precinct 7 Complete 25% of river beautification works at Precinct 7 Iconic Places <ul style="list-style-type: none"> Attain 10,000 local and international tourists from the Heritage Trails Pedestrian Walkway <ul style="list-style-type: none"> Upgrade 12km of non-covered pedestrian walkways Solid Waste Management <ul style="list-style-type: none"> 100% completion of testing & commissioning of anaerobic digestion plant Tonnage of construction and demolition waste processed in Sg Kertas facility to be 10,800 metric tonnes



Enabling Change

GREATER KUALA LUMPUR/ KLANG VALLEY

*on the ground with
the civil service*



Datuk Seri Adnan Md Ikhsan

Secretary-General of the
Ministry of Federal Territories

The Greater Kuala Lumpur/Klang Valley NKEA is unique among the NKEAs in that its initiatives are focussed on the development of a geographic region. Led by the Ministry of Federal Territories, the NKEA also involves the efforts of more than 40 Government agencies and private sector firms to transform the Greater KL/Klang Valley region into a vibrant, world-class hub for residents and visitors alike to live, work and play.

“The Ministry, therefore, can be seen as the focal point and hub of the initiatives for the Greater KL/Klang Valley NKEA. Being a multi-sectoral NKEA, this is a very challenging task and therefore we have had to engage, coordinate, facilitate and address issues together with the various implementing agencies and stakeholders to implement the EPPs,” notes Datuk Seri Adnan Md Ikhsan, Secretary-General of the Ministry of Federal Territories.

However, the complexity of the NKEA requires close coordination and cooperation among the participating agencies. “There is a need to bring down the barriers and to encourage everyone to open up and go beyond their comfort zones,” says Datuk Seri Adnan, who adds that he sees the NKEA moving in the right direction in this regard.

“I am proud to say that we are now very focussed on nurturing the seeds of transformation, thus paving the way for Kuala Lumpur to achieve the ultimate goal of being amongst the top cities in terms of economic growth, and amongst the world’s top liveable cities by 2020.

“As I reflect back on how things have progressed, I can say that many of the EPPs have shown major achievements in 2013 and this has been the product of hard work by many people in the public sector, such as *Derwan Bandaraya Kuala Lumpur* (DBKL – Kuala Lumpur City Hall), the Department of Drainage and Irrigation and the Department of Sewerage Services, to name a few. The Mayor of Kuala Lumpur, for example, leads the Joint Development Committee for the River of Life project, which is a joint effort involving more than 26 Government agencies, the private sector and consultants,” he says.

Nonetheless, challenges remain in implementing the NKEA, especially in gaining the *rakyat*’s acceptance. “This NKEA has some of the biggest and most costly projects in the nation, and yet at the same time, they are projects which have the most direct positive impact on the *rakyat*. In this light, one of the biggest challenges that we face is to ensure the support and acceptance of the *rakyat* on the projects, especially big impact projects such as the MRT and River of Life.

“The Government is doing a tremendous job in providing the infrastructure and services that will alleviate the quality of life within Kuala Lumpur, but at the same time, I feel there are still sections of the community who have little understanding and appreciation of the efforts put in by the Government,” Datuk Seri Adnan notes.

To overcome this, Datuk Seri Adnan says the Ministry has endeavoured to engage and communicate with the *rakyat*, although he believes more work can be done in this area. Some initiatives already undertaken include the development of websites for specific projects to explain their aims, as well as to provide first-hand information on their progress and impact to the *rakyat*.

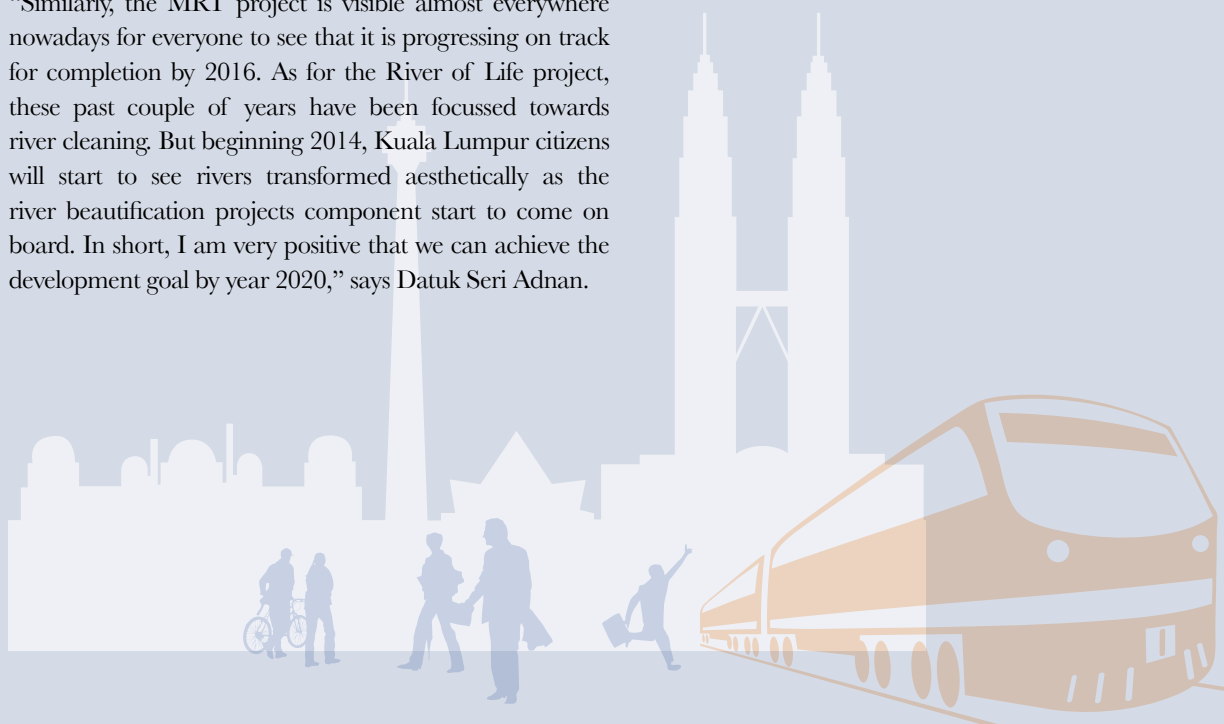
The Ministry also plans to work closely with implementing agencies and PEMANDU to ensure a more holistic and integrated approach in its communications plan.

“Based on the current rate of progress, I am very confident that the NKEA is well on its way to achieve its targets for 2020. To mention a few, in 2013 for example, InvestKL over-achieved its yearly target of attracting 10 MNCs to Kuala Lumpur when it actually secured the move of 15 MNCs to set up operations in Kuala Lumpur.

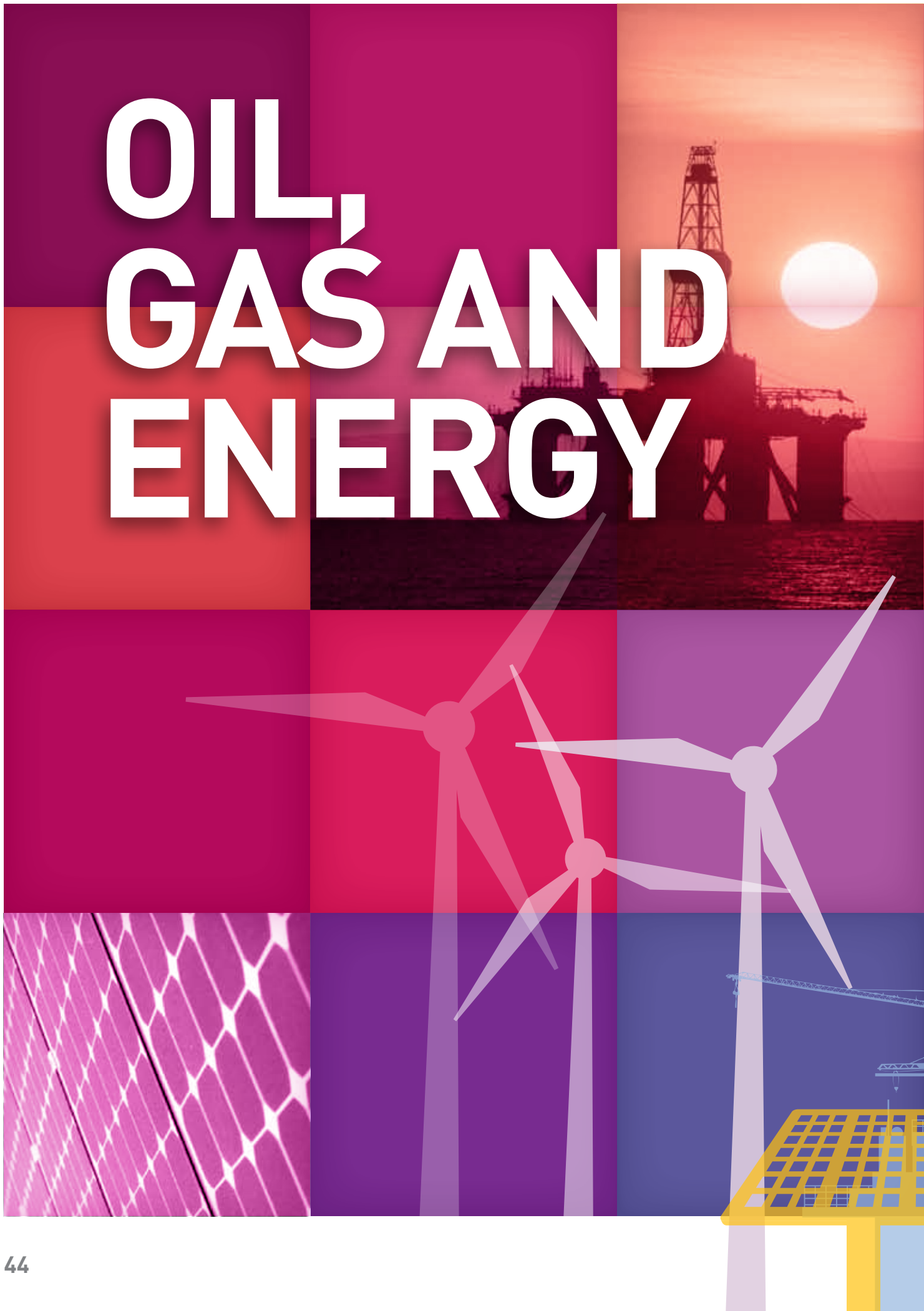
“Similarly, the MRT project is visible almost everywhere nowadays for everyone to see that it is progressing on track for completion by 2016. As for the River of Life project, these past couple of years have been focussed towards river cleaning. But beginning 2014, Kuala Lumpur citizens will start to see rivers transformed aesthetically as the river beautification projects component start to come on board. In short, I am very positive that we can achieve the development goal by year 2020,” says Datuk Seri Adnan.

He also notes that the civil service has been instrumental in facilitating these achievements, with the public sector also transforming in tandem with Malaysia’s development into a high-income nation.

“In my long service, I have seen the civil service transformed over the years to become more dynamic, responsive and business-like. As such, they have played a major role in driving the transformation and represent the core of the delivery system of the NKEA initiative. The process is challenging but our priority now is to work hard to speed up the implementation and to expedite the decision-making. I am totally impressed with the level of commitment that has been shown from the team despite all the hurdles and problems that we have faced,” he says.



OIL, GAS AND ENERGY





Datuk Seri Panglima Dr. Maximus Ongkili
Minister of Energy, Green Technology and Water



Global energy markets are undergoing great changes. The United States is set to re-emerge as the world's single largest producer of oil and gas this year thanks to a boom in shale petroleum exploration and production.

Furthermore, the era of massive liquidity in emerging Asian markets and commodity futures could end once the US cuts back on its bond buying programme as its economy recovers, creating more volatility.

The Government and PETRONAS have worked hard as custodians of the country's energy resources, from exploring hard-to-reach oil fields and building up reserves to extracting more value from marginal oil fields. We have also gone on to build on an extensive petrochemicals industry with integrated complexes in Johor and Sabah. If this is done right, it will add tremendous value to Malaysia's energy supply chain and transform the country into an oil and gas hub in its own right.

This also means rethinking how Malaysia uses energy to power export-orientated industries. This calls for encouraging energy efficiency, rationalising subsidies and using renewable sources of energy such as solar power and biomass that collectively have the potential to generate cost savings for both industries and the Government while expanding technological know-how and innovation.

There have been some strong wins. Proactive steps to encourage investment in marginal fields offshore Malaysia have resulted in local firms forging valuable partnerships with global companies, a boost in domestic production and a vibrant culture of technology transfer.

PETRONAS's regasification terminal in Malacca has channelled the first imported cargo of liquefied natural gas into Malaysia's gas pipelines this year. This is part of the long-term measure of ensuring energy security and rationalising subsidies for the industrial sector.

There are, however, challenges to consider. The restructuring of the power markets in the Peninsular as well as Sabah and Sarawak must be done gradually to avoid burdening the *rakyat*. At the same time, the Government is taking a serious look at the power generation mix in this country as competitive bidding for power plants get underway.

With a clear vision in mind, the country is primed to get the most efficiency and value from the energy sector to benefit its main stakeholders – the *rakyat*, for decades to come.

Water is Life, Energy is Wealth and Green Technology the Game Changer

OIL, GAS AND ENERGY

The Oil, Gas and Energy (OGE) sector constitutes roughly 20 per cent of the Malaysian economy.

In order to add further value, the Oil, Gas and Energy NKEA focusses on three areas – expanding the downstream sector, lifting domestic production and pushing into renewable energy.

Thirteen EPPs will deliver this NKEA's target of generating Gross National Income (GNI) of RM131.4 billion and creating an additional 52,300 jobs by 2020. These projects include transforming Malaysia into an oil and gas hub and offering tax incentives to explore and develop marginal fields, adding more heft to the country's status as the second-largest oil producer in Southeast Asia.

Coupled with building a sustainable energy platform that includes fuel subsidy rationalisation and a greater push for renewable energy, this NKEA also targets to achieve five per cent growth in the sector annually up until 2020. As Malaysia's national oil company, PETRONAS will lead the charge in this NKEA, supported by major industry players such as Shell, ExxonMobil and Royal Vopak which have contributed to considerable investments in this sector. Government ministries and agencies such as the Ministry of Energy, Green Technology and Water (KeTTHA), Ministry of International Trade and Industry (MITI), Malaysian Petroleum Resources Corp (MPRC) and Sustainable Energy Development Authority (SEDA) also play key roles in developing this NKEA.

As Malaysia moves closer to 2020, the public and private sectors will come closer together to create more value for the oil and gas industry. The natural evolution of any extractive industry is to add more value to the products and derive sustainable economic returns. At the same time, energy has to be used efficiently to power industries and continue Malaysia's strong growth rates.

In 2013, three EPPs have been renamed in order to reflect changes in the dynamically evolving OGE sector. EPP 6 has been renamed "Encouraging investments in the Oil & Gas Services and Equipment (OGSE) industry" to focus on helping companies to specialise in highly lucrative niches in the industry. Meanwhile, EPP 7 has progressed from spurring industry consolidation to encourage local firms with the right potential, to export their services and products and limit dependence on local projects. EPP 8 was also renamed to reflect a renewed focus towards attracting multinational companies to set up their operations in Malaysia through partnerships with local firms.

2013 Key Performance Indicators

Oil, Gas and Energy NKEA		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
EPP #1	Addition Resources – Million Stock Tank Barrel (MMstb)	*Information kept confidential at request of involved parties							
EPP #2	Production from Marginal Field (Oil) - Thousand Barrels per Day (kbd)								
	Production from Marginal Field [Gas] - Million Standard Cubic Feet Per Day (MMscfd)								
EPP #3	Number of explored wells								
EPP #4	Number of oil trading companies based in Malaysia	6	10	167	<div></div>	100	<div></div>	1.0	<div></div>
EPP #5	Implementation of third party access (Preparation of 4 key legal frameworks)	100%	90%	90	<div></div>	90	<div></div>	0.5	<div></div>
EPP #6 & 8	Amount of investments made by Oil & Gas Supplier, Services and Equipment (OGSE) companies (under the purview of MPRC) (RM million)	2,000	1,832	92	<div></div>	92	<div></div>	0.5	<div></div>
EPP #7	Number of first-time bidders (companies) for international projects in new markets segments (includes new countries or new segments within the same country)	4	5	125	<div></div>	100	<div></div>	1.0	<div></div>
EPP #9	Reduction in electricity bill through energy management in all government offices	Begin implementation of EPC in Government buildings	50%	50	<div></div>	50	<div></div>	0.5	<div></div>
	Market share of 5-star appliances	40%	46%	115	<div></div>	100	<div></div>	1.0	<div></div>

(more on next page)

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Oil, Gas and Energy NKEA		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
EPP #10	Additional amount of grid-connected renewable energy power plants installed capacity (MW)	150	149.78	100	●	100	●	1.0	●
EPP #13	Completion of Pengerang Integrated Petroleum Complex (PIPC) Masterplan	100%	100%	100	●	100	●	1.0	●
	Completion of Sipitang Oil & Gas Industrial Park (SOGIP) Masterplan	100%	100%	100	●	100	●	1.0	●
				97%		85%		73%	

Exhibit 2.1

Method 1 Scoring is calculated by a simple comparison against set 2013 targets. The overall NKEA composite scoring is the average of all scores

Method 2 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is less than 100%, score #2 is taken as the actual percentage
- If the scoring is equal or more than 100%, score #2 is taken as 100%. The overall NKEA composite scoring is the average of all scores

Method 3 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is equal and less than 50%, score #3 is indicated as 0
- If the scoring is more than 50% and less than 100%, score #3 is indicated as 0.5
- If the scoring is equal or more than 100%, score #3 is indicated as 1

ENTRY POINT PROJECTS

EPP 1 Rejuvenating Existing Fields through Enhanced Oil Recovery (EOR)

The EOR EPP encourages the use of advanced technologies to increase output from Malaysia's mature oil fields. EOR can boost oil recovery to as much as 30-50 per cent, compared to the industry's historical recovery rate of 20-35 per cent. With energy demand growing worldwide, the technical know-how gained from developing EOR projects in Malaysia can be put to use in international exploration and production projects.

Achievements and Challenges

Among notable achievements by PETRONAS in this area is the ongoing collaboration with ExxonMobil to implement EOR techniques at Tapis field. In 2013, the project, which also involves PETRONAS Carigali Sdn Bhd and is located offshore Peninsular Malaysia, reached a key milestone with the completion of a central processing platform known as Tapis-R topsides. The platform was built by PETRONAS subsidiary Malaysia Marine and Heavy Engineering Sdn Bhd (MMHE) and is scheduled to be installed on its jacket by 1Q 2014.

The project aims to boost production from 2014 onwards to reach 25,000 to 35,000 barrels per day (bpd) by 2017 from 5,000 bpd currently. As the largest offshore EOR in Southeast Asia, the project aims to extend the field's life by another three decades with total investment of RM10 billion.

Moving Forward

PETRONAS will continue exploring EOR opportunities and implementing EOR techniques in suitable fields offshore Malaysia. PETRONAS has identified 14 potential fields including Tapis, Baram Delta and North Sabah, with five in Sarawak, four in Sabah and the remainder in Peninsular Malaysia. PETRONAS expects to extract 750 million to 1 billion barrels of oil from these 14 fields.

With the Tapis field project already at an advanced stage, other projects will be progressively implemented in due course.

EPP 2 Developing Marginal Fields through Innovative Solutions

Due to their complex geology and petrophysics, marginal fields are technically and economically challenging to explore and extract oil from. As a significant proportion of Malaysia's remaining resources lie in fields with less than 30 million barrels of recoverable oil, this EPP aims to unlock the value of these fields in order to maintain petroleum production while encouraging local and foreign companies to develop new technical skills.

Under this EPP, PETRONAS has undertaken the following measures to encourage investments into these small fields:

1. Introduced new production sharing contract (PSC) terms to ensure sufficient incentives are offered to operators of these small fields
2. Sought to attract exploration and production (E&P) operators with specialised capabilities in developing small fields
3. Facilitated collaboration between industry players to improve the economics of small field development and encourage the sharing of facilities

Achievements and Challenges

The Berantai field, which commenced production in 2012, achieved an increase in estimated recoverable gas resources by 15 per cent compared to 2011. Additionally, the Balai field commenced production on 6 November 2013, utilising an early production vessel (EPV) as part of the risk service contract (RSC) area's Extended Well Testing (EWT) programme. The Balai Cluster RSC was awarded in August 2011 to BC Petroleum Sdn Bhd, a partnership between Roc Oil (Malaysia) Pty Ltd, Dialog D & P Sdn Bhd and PETRONAS Carigali Sdn Bhd.

Moving Forward

Petronas has set up Vestigo Petroleum Sdn Bhd, a subsidiary dedicated to developing Malaysia's marginal and mature fields and pursuing additional growth in this area through operational, technical and cost effective methods. One of Vestigo's strategic objectives is to build up niche technical and execution capabilities in developing and extracting oil from small and marginal fields in Malaysia and abroad.

EPP 3 Intensifying Exploration Activities

This EPP focusses on discovering new reserves within this decade to maintain Malaysia's oil and gas production. Exploring new fields will however involve intensive capital outlay, with any new reserves discovered likely to take several years to develop and produce.

The exploration will also require geological and geophysical studies, seismic surveys, and exploration well-drilling and testing of new exploration methods. As such, PETRONAS will review PSC terms and introduce new petroleum contract arrangements to attract the necessary exploration investments and expedite exploration projects.

Achievements and Challenges

In 2013 PETRONAS announced the successful drilling of the Cendor Graben-2 appraisal well within Block PM304 offshore Peninsular Malaysia. The drilling of the well was undertaken by Petrofac (Malaysia PM304) Ltd, the operator for Block PM304, together with joint venture partners PETRONAS Carigali, Kuwait Foreign Petroleum Exploration Company and PetroVietnam Exploration Production Corporation Ltd.

The efforts undertaken successfully transformed Cendor from a field deemed marginal to one of the biggest oilfields in Malaysia, increasing its estimated recoverable resource to over 200 MMstb, a growth of more than 16 times from when it was discovered. It is expected to produce approximately 30,000 bpd per day by the end of 2013.

During the year, PETRONAS also announced the discovery of oil and gas via the Adong Kecil West-1 well in Block SK333, onshore Sarawak, representing the first onshore oil and gas discovery in Malaysia in 24 years. The Adong Kecil West-1 well, located about 20km northeast of Miri, was drilled by JX Nippon Oil & Gas Exploration (Onshore Sarawak) Ltd, the operator for Block SK333, together with its joint venture partner PETRONAS Carigali.

Production testing of the field achieved flow rates of about 440 barrels of crude oil per day and 11.5 million standard cubic feet of gas per day. JX Nippon Oil & Gas Exploration is now undertaking technical assessments to determine the field's resource volume.

Moving Forward

As the custodian of Malaysia's petroleum resources, PETRONAS will continue to drive resource growth and add value to these resources, in recognition of the need to continue exploring innovative ways to unlock the hydrocarbon resource potential in Malaysia's matured acreage.

PETRONAS will also continue exploring ways to develop more challenging fields in a sustainable process to help boost oil production in the face of decreasing reserves and growing demand. Additionally, JX Nippon Oil & Gas Exploration and PETRONAS Carigali will continue onshore exploration activities to support PETRONAS's effort to rejuvenate the country's onshore oil and gas exploration.

There are also indications that the deeper regions onshore Sarawak may hold additional upside potential for hydrocarbon accumulation. However, with the higher borehole pressure expected, drilling operations will be more challenging for the deeper reservoirs and rigs, requiring higher specifications to test such intervals.

EPP 4 Building a Regional Storage and Trading Hub

Asia's rapid economic development has created high demand for energy and feedstock, with its imports of petroleum products expected to double to 1.8 million bpd by 2020 from 730,000 barrels now. As a result of this, adequate oil storage is necessary to meet the region's rising oil needs and to create a larger storage buffer of crude oil and its associated products.

Efforts under this EPP therefore seek to build an oil storage and trading hub to complement Singapore's 10 million cubic metres of independent storage capacity. Malaysia expects to achieve this by leveraging on strategic ports along the Straits of Malacca, deepwater marine accessibility and land availability.

3. Blending various refinery outputs to meet the diverse mix of downstream products
4. Tapping arbitrage opportunities, where contracts for oil products can be hedged via physical storage

The Malaysia Petroleum Resources Corporation (MPRC) plays a key role in this EPP by working with Federal Government agencies, State Governments and Regional Economic Corridor authorities to encourage private investment. Its tasks include formulating solutions to address key investor issues such as permits and incentive schemes, as well as tracking the development of key projects.

Among projects which have already materialised from this EPP include a public-private partnership between the Johor State Government, Holland's Royal Vopak and Dialog Group to build an independent deepwater oil storage terminal in Pengerang, Johor, and the launch of the Global Incentives for Trading (GIFT) in October 2011.

GIFT, spearheaded by the Government, the MPRC and the Labuan Financial Services Authority, comes under the Labuan International Trading Commodity Company (LITC). The programme offers a variety of tax incentives to attract oil and gas players to trade petroleum and its derivative products in Malaysia.

Achievements and Challenges

Much progress has been made with existing and new investments. ATT Tanjung Bin Sdn Bhd, a wholly-owned subsidiary of VTTI BV, launched Malaysia's largest capacity oil storage terminal in January 2013. The facility has a total capacity of 890,000 cubic metres with an investment value of RM1 billion.

The Dialog-Royal Vopak joint venture to develop an independent oil storage terminal with a capacity of 1.3 million cubic metres in Johor's Pengerang Integrated Petroleum Complex is currently in the final stage of phase one construction. The terminal is scheduled to receive its first cargo shipment by end of 1Q 2014.

An additional 10 companies have registered under the GIFT programme in 2013, bringing the total to 20 companies since the inception of this initiative in 2011.



Dialog Independent Deepwater Terminal – Jetty 1

This EPP has also identified four emerging business drivers which could support this goal:

1. Breaking the bulk of larger crude oil and fuel cargoes from outside Asia into smaller cargoes for distribution around Asia
2. Reducing costs by blending crude oil output from regional producers before supplying the product as feedstock to regional refiners

The key challenges faced in this sector nonetheless represent opportunities to be pursued. This is as the market for oil storage and trading derives opportunities and risks from crude price volatility. With world demand growing at 1.5 per cent per annum, driven mostly by developing countries, Malaysia is best placed to capture market share and transform itself into a regional oil storage hub.

However, construction of oil storage can be capital intensive. As Malaysia starts developing a reputation as a nascent oil and gas trading hub, new challenges such as rising construction costs have started to appear. These are being addressed progressively on a project-specific basis.

Moving Forward

Companies such as ATB Tg Bin, an anchor tenant in the Tanjung Bin Petrochemical and Maritime Industrial Centre in Johor, plan to add storage capacity of about 250,000 cubic metres. The additional capacity is scheduled to be commissioned in 2Q 2015. PUMA Energy's bitumen storage facility in Tanjung Langsat, for which the company commenced ground-breaking in 2Q 2013, is expected to reach its first phase capacity of 64,000 cubic metres in 2Q 2014.

EPP 5 Unlocking Premium Gas Demand in Peninsular Malaysia

Peninsular Malaysia's industrial and power sectors are facing slowing domestic gas production, leading to pent-up demand for energy. This EPP intends to address this supply shortage and meet industrial demand by importing liquefied natural gas (LNG) from farther afield at market prices.

It will also address the more than 500 million standard cubic feet per day (mmscfd) of additional latent gas demand by 2020, of which 270 mmscfd is estimated to comprise demand from companies that did not invest in Malaysia due to the limited gas supply. A total of 230 mmscfd of the demand meanwhile is projected to represent demand from industrial users utilising higher-priced diesel seeking cheaper natural gas.

Achievements and Challenges

The completion of the PETRONAS Gas Bhd (PGB)'s LNG Regasification Terminal (RGT) in Sungai Udang, Malacca, fulfils the two-pronged strategy of safeguarding the long-term security of domestic gas supplies and preparing for future increases in gas demand in Malaysia by supplementing domestic gas supplies with imported LNG.

Designed to receive, store and regasify up to 530 mmscfd of imported LNG up to more than a quarter of the current local supply of 2,000 mmscfd from offshore Terengganu, the terminal received its first cargo on 30 April 2013 from Bonny Island, Nigeria, transported by the MISC Seri Bijaksana vessel. The terminal was commissioned less than a month later on 23 May 2013.



PETRONAS Malacca Regasification Terminal in operation starting 23 May 2013

The development of the RGT faced a number of project challenges, given the scale and complexity of the project. Some of the challenges faced were schedule-driven, as the nation's critical gas supply situation required the project to be completed within a compressed duration of 18 months. Despite the challenges with the work on the topside and regasification module, the project team pooled its resources and doubled its efforts to ensure that all key elements of the project were completed in time for commissioning in the middle of 2013, some 29 months from its inception.

The Energy Commission has prepared the relevant regulatory framework to ensure sufficient supply of natural gas in Peninsular Malaysia and Sabah and to encourage petroleum companies to start supplying LNG into the Malaysian market at world prices, in what is known as Third-Party Access (TPA).

End-users can source for their own gas supply and import it through the RGT by paying PGB a fee for using the regasification facility and the existing pipeline to deliver the fuel. The innovation in design has enabled the accelerated development of the facility that would enable the safe and reliable delivery of a vital, clean energy source for the country.

The legal framework will consist of an amendment to the Gas Supply Act (GSA) 1993, a new Gas Supply Act 2013 in its entirety and a third-party access code that have to be gazetted by the Attorney-General's Chambers and passed in Parliament. The Energy Commission will kick off the implementation plan once Parliament passes the bill in 1Q 2014. The implementation plan for TPA, meanwhile, will be progressive and go beyond 2020.

Moving Forward

The completion of the RGT allows PGB to promote TPA, offering external gas shippers other than PETRONAS to access and transport their imported gas via its pipeline infrastructure under a specific tariff structure. The introduction of PGB's network Code was announced on 23 December 2011 through Bursa Malaysia. By promoting supply diversification and competition, TPA helps ensure reliable and efficient supply of gas into Peninsular Malaysia.

PETRONAS and PGB will continue supporting the Energy Commission in developing the regulatory framework to facilitate TPA. Together with the RGT, TPA will pave the way for the liberalisation of the gas market in Peninsular Malaysia.

Malaysia's first regasification terminal, developed by PGB, starts up in May 2013

The development of the LNG Regasification Terminal (RGT) Sungai Udang was officially announced by the Prime Minister of Malaysia on 11 June 2010 as an EPP under the Oil, Gas and Energy NKEA. With an estimated budget of RM3 billion, the facility is Malaysia's first ever LNG regasification terminal.

The project was carried out under a strategic alliance comprising PETRONAS Gas Bhd (PGB), Muhibbah Engineering (M) Bhd and Perunding Ranthill Worley Sdn Bhd.

The facility, situated three kilometres offshore Sungai Udang, Malacca, is considered an engineering feat by the industry. The RGT was developed based on a revolutionary design, which comprises the world's first-of-its-kind regasification unit on an island jetty (JRU), two floating storage units (FSU) and a 3km sub-sea pipeline. The sub-sea pipeline is linked to a new 30km onshore pipeline that connects to PGB's existing Peninsular Gas Utilisation (PGU) pipeline network. The FSU concept has enabled the project team to accelerate the construction of the facility, as compared to the amount of time required to build a conventional land-based regasification and storage facilities.

The two FSUs, formerly Tenaga-class LNG tankers owned by PETRONAS's shipping arm MISC Bhd, will be permanently berthed at the JRU. The conversion of the tankers into FSUs was carried out at Malaysia Marine and Heavy Engineering Holdings Bhd's (MHB) shipyard in Pasir Gudang, Johor, and Keppel Shipyard, Singapore. The FSUs have been designed to be berthed for at least 20 years without the need for dry docking.

As of October 2013, the RGT has received a total of 19 LNG cargo, providing diversity and strength to the security of gas supply in Peninsular Malaysia.

EPP 6 Encouraging Investments in the Oil & Gas Services and Equipment (OGSE) Industry



Aerial view of the outdoor exhibition booths at the Offshore Technology Conference, Houston, Texas

Initiatives under this EPP target to transform Malaysia into an Asia-Pacific hub for oil and gas services and equipment (OGSE) activities by encouraging domestic and foreign direct investments. This move will help transform the country into a cost-efficient base for engineering, procurement, installation and commissioning activities in the Asia-Pacific region.

As such, this EPP focusses on attracting international major firms, especially technology-based companies, to use Malaysia as a base for their regional operations as well as encourage domestic direct investments to acquire proprietary technology and capital intensive assets.

Achievements and Challenges

Capital expenditure by local firms are on the rise, for instance with UMW Oil & Gas Bhd acquiring the Naga-4 jack-up drilling rig, capable of drilling at 400 ft water depth and deep drilling of 30,000 ft depth, for RM691 million. Perisai Petroleum Teknologi Bhd has acquired a second jack-up drilling rig for RM642.72 million, while KKB Engineering Bhd is expanding its fabrication capabilities to meet the demands of the oil and gas sector.

Local companies are also forging joint ventures (JV) with foreign firms. For example, TH Heavy Engineering and McDermott International Inc have formalised their JV via a share swap arrangement between McDermott Inc's locally incorporated Berlian McDermott Sdn Bhd and TH Fabricators Sdn Bhd, a wholly-owned subsidiary of TH Heavy Engineering Bhd.

MPRC, in collaboration with MITI, MIDA and MATRADE, has taken great strides in elevating Malaysia's status as a centre for oil and gas activities. Since 2012, it has participated in the Offshore Technology Conference (OTC) in Houston, Texas, to attract potential investments and showcase local oil and gas firms. Malaysia, through MPRC, has also won the exclusive rights to host the inaugural OTC Asia in Kuala Lumpur in 2014 and 2016.

However, with the rapid expansion of the industry, key challenges remain. These include boosting human capital based on industry requirements and creating more advanced technology-based services to support investments by major industries – an opportunity that requires greater attention by Government agencies.

Moving Forward

The EPP, spearheaded by MPRC and MITI, will be more focussed on attracting more specialised technology companies and partnering them with local entities by leveraging on linkages with foreign government agencies such as UK Trade & Investment, Scottish Development International, Energy Industry Council, Innovation Norway and Greater Stavanger Economic Development. At the same time, the MPRC, MIDA and SME Corp, among others, will continue to support domestic direct investments by encouraging strategic investments and technology acquisitions.

EPP 7 Taking local Oil and Gas Services & Equipment Companies to the Global Stage

Consolidation among domestic fabricators, which was this EPP's previous objective, has been successful after two years, with the establishment of three sizeable Malaysian EPCC entities from eight small and medium-sized fabricators. These companies have broadened their skill sets, improved their competitiveness and financial resources, and gained better knowledge through transfer of technology. Therefore, this EPP, led by MPRC, has naturally evolved over time and will now focus on helping these companies and many others in the industry to take on the global stage.

To this end, EPP 7 has been revised to focus on encouraging local firms to export their services and products to international markets in a bid to limit dependence on local projects. This will go a long way in realising the country's goal in becoming a leading oil and gas hub in the Asia-Pacific region.

Achievements and Challenges

The MPRC and the Malaysia External Trade Development Agency (MATRADE) led a delegation of 14 Malaysian oil and gas companies on a specialised marketing mission (SMM) to Myanmar, where they met with key government officials and Myanmar firms. The SMM has helped Malaysian companies make inroads for projects controlled by Myanmar Oil & Gas Enterprise (MOGE) with Dimension Bid, Mir Valve, ProEight and Scomi pre-qualifying for inclusion in a vendor list for international oil companies operating in the country.

Companies such as Wasco Energy Group and Deleum Group have made great strides in the global arena. Wasco won the OTC 2013 Spotlight on New Technology Award for its NEPTUNE Advanced Subsea Flow Assurance Insulation System that involves using chemical innovations developed by Dow Chemicals.

In addition, Deleum Group was selected by OTC to present a technical paper. This is considered a feat in itself as all technical papers go through a programme committee consisting of experts from every field in the offshore energy industry.

Nonetheless, it is still a challenge for smaller Malaysian oil and gas field service providers to explore opportunities outside Malaysia. This is as they face difficulties in obtaining international accreditation and competition for high-risk, international projects.

Moving Forward

MPRC will continue to engage with the oil and gas services industry in Malaysia to identify new markets of interest. With strong results from the working trip to Myanmar, the MPRC will look for other government-to-government linkages that will help Malaysian companies find new markets. It will also continue working with MATRADE on fostering such linkages and finding potential technology partners to encourage greater transfer of cutting-edge innovations to Malaysian firms.

EPP 8 Attracting MNCs to set up Operations in Malaysia and Partner with Local Firms

This EPP has a two-pronged strategy. Firstly, encouraging multinational firms to relocate or start up regional operations in Malaysia and secondly, getting these world-class players to start up JVs with local oil and gas services and equipment (OGSE) firms. This will help strengthen local companies' competitiveness in domestic and international job tenders, enhance growth prospects and transform Malaysia into a regional oil and gas hub.

Achievements and Challenges

Aberdeen Drilling School has set up a learning centre in Malaysia to provide customised training in drilling practices and technology, cost reduction/unscheduled events prevention, safety, communication and leadership. Aberdeen's long-term plan is to use Malaysia as a base for its regional expansion.

Several local companies have inked JVs with foreign specialists, giving them access to technology and gaining experience that better positions them for future jobs and new markets. These include the Atlas Hall-Oil Tools JV, the Farley Riggs-D&P Services JV, a JV between Johor Corporation's Tanjung Langsat Port Sdn Bhd (TLP) and Dubai's Oilfields Supply Centre Ltd, and a JV between TH Heavy Engineering and McDermott International.

Despite this progress, more can be done to promote JVs as an investment structure. It can also be a challenge to find companies that can work well together, taking into account shareholder requirements and differing corporate governance structures.



Malaysian delegation at the Offshore Technology Conference, Houston in 2013, led by Malaysia Petroleum Resources Corporation

Moving Forward

To maintain the momentum of MNCs' partnerships with local companies, there will be a push to engage with industry players and identify additional policies and incentives to grow OGSE companies. To attract more foreign MNCs, plans are underway to present Malaysian OGSE companies at international conferences such as the OTC, Offshore Europe and the World Gas Conference. There is also a move to identify sub-sectors within the oil and gas services industry that present opportunities for Malaysian companies to expand upon.

EPP 9 Improving Energy Efficiency

Malaysia's energy usage has increased in tandem with the country's industrialisation. However, the limited supply of fossil fuels coupled with the negative effect of these fuels on the environment has created a need for the country to improve its energy efficiency, especially in terms of power and fuel consumption.

The main initiative under this EPP is to promote the use of alternatives to traditional sources of energy. Five key Government-led initiatives under this EPP include:

- 1) Government leading by example on energy efficient practices
- 2) Stimulating sales of energy-efficient appliances
- 3) Working with Tenaga Nasional Bhd (TNB) to make co-generation economically viable
- 4) Regulating to ensure better insulation for new and renovated buildings
- 5) Encouraging sales of energy-efficient vehicles by offering rebates

Achievements and Challenges

The country's energy efficiency has improved from Government-led measures to offer households rebates of 5-7 per cent on energy-efficient appliances and to establish a minimum-energy performance standard for products. Today, energy efficient fridges and air conditioners account for a 42.2 per cent market share in Malaysia. Additionally, the number of brands offering energy-efficient appliances has more than doubled to 13 from five, with brands catering for energy-efficient chillers alone rising to five from zero previously.

The challenges under this EPP centre on the Government's efforts to introduce energy-saving methods in public-sector buildings under the Government Lead by Example (GLBE) programme and to encourage energy performance contracting methods for procurement. This requires continuous capacity building for occupants, project managers and facility managers as the individuals involved are mainly employed on a short-term contract basis. There are also limited allocations for energy management programmes.

Moving Forward

The Sustainability Achieved via the Energy Efficiency (SAVE) programme will continue to track the market share of energy-efficient appliances in Malaysia and carry out further awareness and promotional campaigns for energy-saving methods and appliances. In time, more energy-efficient appliances are expected to enter the market, continuing the momentum created by the SAVE programme.

A greater push is required to monitor key government buildings under the GLBE programme, support energy management programmes by providing training and capacity building and move forward with energy performance contracting. This will go a long way in embedding an energy efficiency culture in current management systems.

EPP 10 Building Up Renewable Energy and Solar Power Capacity



A solar powered generation plant in Port Dickson, Negeri Sembilan

This EPP supports existing initiatives such as those under the 10th Malaysia Plan which target for renewable energy to account for 5 per cent of the country's total capacity mix in 2015. This represents 985 megawatts of the country's renewable generating capacity and is an increase from less than one per cent of renewable energy in the country's energy mix today.

Part of efforts to build the country's renewable energy capacity includes a target under the National Renewable Energy Policy for solar power to contribute at least 220 megawatts to the total capacity mix. In aid of this, the authorities have implemented a regulatory framework for the feed-in tariff mechanism, which allows locally-produced electricity to be sold to power utilities at a fixed premium for a specific period. This, in turn, is targeted to allow renewable energy generation to expand over time as a fraction of total power generation.

This initiative has also encouraged the private sector to strengthen their business models in this sector, supported by the financial sector, TNB and the Government.

Achievements and Challenges

The following table shows the installed capacity of renewable energy in 2012 and 2013 (as at 30 September):

Installed capacity (MW)	2012	2013 (as at 30 September 2013)
Target	110	150MW
Achievement	100.47 (91.34%)	120.09 (80.06%)

Exhibit 2.2

The growth in renewable energy installed capacity has been gradual due to a number of challenges. These include time required by TNB to sign renewable energy power purchase agreements, the number of approvals required and unviable expectations by applicants which disrupt the application process.

Additionally, it is essential to identify an appropriate tariff rate for the FiT that will keep up with the rapid development of renewable energy, especially solar PV. Furthermore, considerations to fund the implementation of the FiT must be taken to account to ensure there are sufficient funds for the period of implementation. To date, the quota release is based on existing funds. Currently, among the types of renewable power sources, solar PV receives higher demand than others due to better FiT rates.

Other factors that must be taken into consideration in implementing the FiT include Malaysia's continued reliance on gas subsidies, allowing conventional power plants to offer a cheaper tariff compared with the FiT.

Moving Forward

The main challenge is to ensure the long-term economic sustainability of renewable energy. It is also imperative to formulate an appropriate incentive structure to enable the sector to become self-sustaining while ensuring it does not burden the taxpayer, with the potential economic savings generated from renewable energy plants only visible once the power market has been liberalised.

Efforts will also be taken to identify new renewable energy resources to diversify the renewable energy portfolio. In view of this, comprehensive renewable energy wind mapping will be completed in 2014, while a study on the potential of geothermal energy in Ulu Slim, Perak, will be completed in 2015.

In addition, stronger advocacy and a strategic communications plan will be undertaken with regard to future charges on electricity tariffs under the Renewable Energy Fund as part of efforts to achieve national renewable energy targets.

Following a workshop held in June 2013 to analyse policies for an alternative bidding mechanism to support renewable energy development, a study on this matter will be undertaken going forward.

Renewable energy competency and capacity building will also continue. This will include on and off-grid training in solar PV for installers/chargemen/wiremen, extending the Malaysian Grid Connected PV Design Course to international participants, as well as training on biomass/biogas and small hydro.



A 1.1 MW renewable energy plant by Felda Palm Industries in Jempol, Negeri Sembilan

EPP 11 Deploying Nuclear Energy for Power Generation

To ensure Malaysia keeps its options open in the event that nuclear power becomes essential to support the country's economic growth, the Government is putting in place a framework to ensure it is done safely and efficiently. Malaysia is following the roadmap as established by the International Atomic Energy Agency (IAEA) to ensure that the regulatory, technical, safety and environmental foundation is available should any future decision on nuclear power be made.

The Malaysia Nuclear Power Corporation (MNPC) was established in 2011 as the Nuclear Energy Programme Implementation Organisation (NEPIO) based on the IAEA guidelines. The MNPC will focus on critical enablers as identified in the ETP, including public acceptance of the project and the readiness of the correct regulatory framework in Malaysia.

EPP 12 Tapping Malaysia's Hydroelectricity Potential

This EPP spearheads the use of hydroelectricity in the country to help reduce carbon dioxide emissions and ensure secure and sustainable power supply. To this end, different agencies in Sabah, Sarawak and Peninsular Malaysia have been tasked with ensuring hydroelectric potential has been tapped in a responsible, sustainable and optimal manner.

Up to 2013, the installed capacity of small hydro was 15.70MW, contributing to a total of 59,552MWh power generated. This represents an increase of 25,630MWh.

The expansion of small hydro capacity in Malaysia is supported by the FiT programme for the next 21 years from the commencement date.

EPP 13 Increase Petrochemical Outputs

This EPP is driven by PETRONAS's development of the Refinery and Petrochemical Integrated Development (RAPID) in Johor and the Sabah Ammonia Urea (SAMUR) projects. Involving investments exceeding RM65 billion, RAPID and SAMUR are targeted to increase the volume of the country's petrochemicals outputs and cater to the Asia-Pacific region's demand for premium specialty chemicals.

To be developed at a cost of RM60 billion, RAPID will account for the largest green field investment in Malaysia. Located within the Pengerang Integrated Petroleum Complex (PIPC) in Johor, the facility - which will house a 300,000 bpd-capacity crude oil refinery - is strategically located for easy access to regional demand centres in China and India. It will also include a naphtha cracker with a combined production capacity of three million tonnes of C2, C3, C4 and C5 olefins. There will also be further development of 22 downstream plants.

SAMUR is projected to cost US\$1.5 billion to build. Upon completion, it will house a fertiliser plant with urea production capacity of 1.2 million metric tonnes per annum (mmtpa). The plant is located in the Sipitang Oil & Gas Industrial Park (SOGIP) in Sabah and is expected to commence operations by 2015 following the start of its construction in 2Q 2012.

Achievements and Challenges

The SOGIP Master Plan was completed in June 2013 in collaboration with Federal and Sabah State agencies, as well as PETRONAS. The SOGIP Master Plan outlines planned development and identifies potential companies required to position SOGIP as a premier industrial park focussing on petrochemicals and fertilisers. The main challenge is to ensure infrastructure development progresses according to plan in order to support commissioning of SAMUR by 2015.

- Infrastructure development:
 - A new water treatment plant with the capacity of 40 million litres per day (MLD) will be completed by 1Q 2014 to supply water to SOGIP. The water treatment plant includes treatment facilities, storage reservoir and approximately 11km of pipelines. As of August 2013, the site preparation work has been completed and the water treatment plant project is in the construction phase
 - Work is in progress to construct the 4.7km access road to SOGIP from Jalan Sipitang-Sindumin with completion targeted for 4Q 2014. As of August 2013, about 1.8km of the road's sub-base has been laid

As of August 2013, the SAMUR project was more than 50 per cent complete, with three gas turbine generators and an ammonia converter delivered to the site.

Meanwhile, the Johor State Government endorsed the PIPC Master Plan in 1Q 2013. The Master Plan serves as a guideline to develop PIPC into a world-class integrated petroleum complex.

The main challenge is to ensure timely development of infrastructure such as roads, drainage and utilities prior to the commissioning of RAPID and Pengerang Independent Deepwater Terminal projects.

Site preparation for RAPID has started with completion slated for 4Q 2014. Village relocation, starting with a Muslim cemetery, will begin in 3Q 2014. This is to preserve the safety and heritage of Pengerang residents. The Government is also constructing public amenities ranging from schools to clinics and a commercial area to accommodate villagers' basic needs.

Moving Forward

The EPP will focus on identifying additional investors in PIPC and SOGIP to build up these world class projects.

For SOGIP, there is a push to attract investors with expertise in manufacturing of petrochemical and fertiliser products such as caprolactam, diammonium phosphate, ammonium sulphate, urea-formaldehyde and ammonium nitrate.

Key to the PIPC project's success is the timely completion of the infrastructure work to ensure the investor development plan and the well-being of Pengerang residents are not affected.

BUSINESS OPPORTUNITIES

1

Process Improvements

Process improvements in operating refining and petrochemical facilities in line with global best practices have the potential to create economic benefits. On average, such improvements can lead to efficiency gains of 0.5 per cent annually.

2

Economic Growth

The oil, gas and energy sector is expected to continue growing in tandem with the expected three per cent growth in Malaysia's energy consumption, fuelled by the country's resilient economic growth. This will create progressive additional demand for all types of energy, and consequently will also require additional investments.

Summary of Oil, Gas and Energy NKEA

	2020 Target
Incremental GNI Impact	RM131.4 billion
Additional Jobs	52,300
Critical targets for 2014 <ul style="list-style-type: none"> • EPP 4 <ul style="list-style-type: none"> - Continuation of GIFT promotion through direct engagement with potential companies and involvement in forums - Close monitoring of committed storage capacity within network • EPP 5 <ul style="list-style-type: none"> - Ensuring implementation of third party access (tabling of the new GSA 2013 bill in Parliament by 1Q 2014) - PETRONAS to reach final investment decision for Pengerang RGT - PETRONAS to finalise GSAs for Pengerang RAPID and RGT – at market price • EPP 6, 7 and 8 <ul style="list-style-type: none"> - Direct engagement with potential companies for advice and facilitation - Organise/Coordinate/Participate in major international and domestic oil and gas-related forums <ul style="list-style-type: none"> › OTC Asia 2014 › OTC Houston 2014 › Financial Forum 2014 	<ul style="list-style-type: none"> • EPP 9 <ul style="list-style-type: none"> - Continuation of monitoring impact of SAVE programme towards the market share of 5-Star Appliances • EPP 10 and 12 <ul style="list-style-type: none"> - Continuation of FiT programme • EPP 11 <ul style="list-style-type: none"> - Tabling and passing of new nuclear bill - Facilitate the setting up of new commission under the Prime Minister's Department - Completion of Nuclear Power Infrastructure Development Plan (NPIDP) • EPP 13 <ul style="list-style-type: none"> - Focus on facilitating the establishment of governance structure for PIPC <ul style="list-style-type: none"> › Setting up of project management office to monitor and manage initiatives in PIPC › Strategise and facilitate formation of development corporation for PIPC - Facilitation of SOGIP internal and external infrastructure projects



FINANCIAL SERVICES





Dato' Seri Ahmad Husni Mohamad Hanadzlah
Minister of Finance II



I am pleased with the performance of our supervisory agencies, Bank Negara Malaysia, Securities Commission and Bursa Malaysia in achieving their respective Key Performance Indicators (KPI).

These include the issuance of a sustainable social lending framework for Development Financial Institutions (DFIs), devising the framework on a trading venue for unlisted firms and surpassing the target value of new listings (including GLC listings) respectively.

We have successfully achieved our objectives under the first Financial Services Master Plan and our Capital Markets Blueprint, both for the period of 2000-2010, by Bank Negara Malaysia and the Securities Commission respectively. We are now working very hard on the 2011-2020 master plans to ensure we meet our clear-cut objectives to further strengthen the capabilities and capacity of the Malaysian financial sector in supporting the nation's high-income economy aspiration.

The financial services industry plays a significant role in ensuring the stability and in facilitating development of our economy. It is imperative that our financial system remains resilient in the face of potential sources of systemic risk. These must be managed in timely and appropriate ways. It is thus essential that we develop our financial sector carefully and assiduously.

Despite recent external uncertainties and global stresses, the Malaysian capital market continues to play a central role in financing economic growth and mobilising the country's savings. The Malaysian capital market registered strong growth with the benchmark index emerging as the top performing major market in ASEAN while the Malaysian debt securities market remained the third largest bond market in Asia (as a percentage of GDP). Malaysia also continues to be the global leader in the *sukuk* market.

In strengthening the country's financial system, Bank Negara Malaysia has also been given more regulatory and supervisory oversight powers with the enactment of the Financial Services Act 2013 and the Islamic Financial Services Act 2013. The newly-introduced legislations are aimed at strengthening financial stability, supporting inclusive growth in the financial system and the economy, as well as enhancing consumer protection.

I look forward to working with Bank Negara Malaysia, Securities Commission and Bursa Malaysia to ensure the KPIs for 2014 are successfully achieved. I have no doubt that if we are to at least repeat the level of collaboration, commitment and dedication that was demonstrated in 2013, our KPI achievements for 2014 would be excellent indeed.

Thank you.

FINANCIAL SERVICES

The Financial Services NKEA is focussed on developing Malaysia's financial industry in tandem with the needs of a high-income nation. With a growing contribution to the country's GDP which has expanded rapidly in the last decade, the financial industry represents a core component and a key driver of Malaysia's economy.

The industry however has faced several challenges in achieving its next stages of growth. Among these is a lack of scale in certain segments of the banking industry, which has hindered the competitiveness of local banks against some of their regional neighbours. In addition, the types of investors, products and currencies available in the capital markets must be extended to enable continued economic growth.

There is also a need to improve on the prevailing low levels of personal financial literacy among the country's population. Furthermore, the local industry must operate in a competitive environment where other markets in the region, such as Hong Kong and Singapore, are alternative sources for capital as well as alternative markets for investors.

The Financial Services NKEA has therefore identified 10 EPPs aimed at addressing these issues. The EPPs were developed according to four strategic thrusts comprised of strengthening the industry's core; serving the needs of a high-income population; developing new growth sectors; and aggressively targeting new markets and enhancing the industry's niche in Islamic finance.

These initiatives target to grow the industry's GNI contribution to RM180.2 billion and create 275,400 new jobs by 2020.

2013 Key Performance Indicators

Financial Services NKEA		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
EPP #1	Increase no. of products and offerings	5	7	140	●	100	●	1.0	●
	Complete regulatory framework on a trading venue for unlisted firms	100%	100%	100	●	100	●	1.0	●
	Average Daily Value (ADV) - (RM billion)	1.7	1.92	113	●	100	●	1.0	●
	Value of new listings (Including GLC listings) - (RM billion)	15	36.433 (Oct)	243	●	100	●	1.0	●
EPP #2	Value of issuance (RM mil) on the Exchange Traded Bonds and <i>Sukuk</i> (ETBS)	300	300 (Oct)	100	●	100	●	1.0	●
EPP #3	Issuance of a sustainable social lending framework for DFIs	100%	100%	100	●	100	●	1.0	●
EPP #3	Issuance of guidelines to increase DFI resource capacity and capability in advisory R&D	4Q 2013	85%	85	●	85	●	0.5	●
EPP #4	All government payments to be made via electronic funds transfer	2Q 2013	99.2%	99	●	99	●	0.5	●
EPP #7	Provide proposal and recommendation on the development of a Mercantile Exchange	4Q 2013	100%	100	●	100	●	1.0	●
EPP #10	Issuance of Shariah Parameters on <i>Mudharabah</i> , <i>Musharakah</i> and <i>Ijarah</i>	100%	96%	90	●	90	●	0.5	●
				117%		97%		85%	

Exhibit 3.1

Method 1 Scoring is calculated by a simple comparison against set 2013 targets. The overall NKEA composite scoring is the average of all scores

Method 2 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is less than 100%, score #2 is taken as the actual percentage
- If the scoring is equal or more than 100%, score #2 is taken as 100%. The overall NKEA composite scoring is the average of all scores

Method 3 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is equal and less than 50%, score #3 is indicated as 0
- If the scoring is more than 50% and less than 100%, score #3 is indicated as 0.5
- If the scoring is equal or more than 100%, score #3 is indicated as 1

ENTRY POINT PROJECTS

EPP 1 Revitalising Malaysia's Equity Markets



Felda Global Ventures Holdings Bhd IPO prospectus launch.
Photo courtesy of BERNAMA Images

This EPP aims to enhance the vibrancy and liquidity of Malaysia's capital market to attract quality stock market listings and investors, which will in turn mobilise capital to fund business growth and stimulate new investment. Specifically, this EPP targets to increase Bursa Malaysia's market capitalisation to RM3.9 trillion by 2020 from RM1 trillion in 2010, accounting for a compound annual growth rate (CAGR) of 15 per cent. Additionally, efforts under this EPP also aim to improve liquidity, measured by trading velocity, from 31 per cent of total market capitalisation to 60 per cent in line with regional averages.

Other measures to be undertaken through this EPP include improving the breadth and depth of product offerings, accelerating liberalisation of the stockbroking industry and integrating Bursa Malaysia with leading exchanges.

Achievements and Challenges

Bursa Malaysia continued to make great strides and is steadily strengthening its position as a key driver of the nation's economic growth. In 2013, the Exchange undertook several key initiatives to strengthen its position as an attractive investment destination.

In line with Bursa Malaysia's first Strategic Intent, which is to create a more facilitative trading environment, the Exchange has launched its new trading engine, Bursa Trade Securities 2 (BTS2) on 2 December 2013, well ahead of the initial 1Q 2014 target. BTS2, powered by NASDAQ OMX's X-Stream INET, reputedly the world's fastest trading engine, will provide the necessary headroom for the market to grow in terms of trade volume and participation while enhancing trading experience.

On top of that, Bursa Malaysia also rolled out initiatives targeted at enhancing market micro structure such as enhancing the Regulated Short Selling and Securities Borrowing and Lending framework to facilitate more efficient price discovery (22 July 2013), introducing "Green Lane Policy" to enhance efficiency of doing business for equity brokers (2 May 2013) as well as the introduction of e-initiatives such as eRights services (28 March 2013) and eStatement services (11 December 2013) to improve market efficiency.

Bursa Malaysia's second Strategic Intent is to facilitate more tradeable alternatives in the marketplace. In this respect, the Exchange has made significant progress with the launch of the Exchange Traded Bonds and *Sukuk* (8 January 2013), Stapled Securities (9 May 2013) and Gold Futures Contract (3 October 2013), thus widening the Exchange's product universe.

Over the course of 2013, Bursa Malaysia continued its promotional activities and engagement programmes, targeted at building both retail and institutional participation to take advantage of the infrastructure and products offered. For retail, with the advent of the ASEAN Link, the Exchange has gone out to promote the Malaysian market to retail investors in Indonesia, Singapore, Thailand and Cambodia. As for institutions, Bursa Malaysia conducted outreach initiatives to attract foreign funds from the US, Hong Kong and the UK.

Bursa Malaysia remains an active and vibrant market for fund raising. This was reflected in the 18 new listings for both Main Market and ACE Market. UMW Oil & Gas Corporation Berhad recorded the highest amount of IPO funds raised (RM2.36 billion) while the largest market capitalised IPO was Westports Holdings Berhad (RM8.53 billion). Another landmark listing for 2013 was the listing of the first Malaysian stapled securities with RM13.09 billion market capitalisation comprising shares of KLCC Property Holdings Berhad and units of KLCC REIT.

In May 2013, the Securities Commission (SC) introduced a conceptual framework for Malaysia's first online platform for unlisted securities and alternative investment products (MyULM). The platform is aimed at addressing the narrow base of financing and limited supply of long-term risk capital and meeting the needs of underserved market segments to access funding in a more efficient, organised and transparent manner.

The platform has been envisioned as a one-stop gateway for capital raising and trading of securities of start-up companies and small-to-medium sized entities. The platform also utilises a modular and phased approach, enabling it to accommodate various alternative investment products once their respective legal frameworks for trading are established. Taking advantage of technology and social media tools, the framework will be supported by an infomediary platform to provide vital linkages and services for an integrated virtual marketplace.

Collectively, the online trading and infomediary platforms will connect the capital market to various alternative investment products, including innovative ventures, creative works and socially responsible investments. The platform will also complement and support various development efforts and initiatives currently led by both Government agencies and the private sector.

Moving Forward

Following the completion of the MyULM regulatory framework in 2013, the SC will launch a crowdfunding platform in 2014.

As Bursa Malaysia looks to grow retail participation and build the trading and investing mindset amongst Malaysians, especially the younger generation, the Exchange is focussing on technology and innovative channels such as digital platforms to expand its reach. Bursa Malaysia is hopeful that the launch of the new eCommunity platform in the first half of 2014 will enable the Exchange to reach a wider span of retail investors, in a quicker and more efficient manner.

The Exchange will continue to leverage on ASEAN growth to attract more investors to the Malaysian market as part of its efforts to become ASEAN's leading marketplace.

EPP 2 Deepening and Broadening Bond Markets

This EPP will strengthen Malaysia's bond market, which is already among the most well-developed in Asia and a global leader in Islamic bond, or *sukuk*, issuances, by broadening the market's investor base and increasing participation by foreign issuers.

It will also boost liquidity in the market and seek greater participation from retail investors. Overall, this EPP targets a CAGR of 23 per cent in the average annual traded value of bonds and *sukuk* to RM618 billion by 2020¹.

Measures will also be taken to widen the bond market's credit spectrum. GLICs will be encouraged to further diversify their bond portfolios to ensure a commensurate return based on the risk.

Achievements and Challenges

As at end of October 2013, total bond issuances amounted to RM58 billion, with *sukuk* accounting for 74 per cent of total issuances. Malaysia continues to be a global leader in the *sukuk* market, both in terms of issuances and notes outstanding. The country is also the third-largest bond market as a percentage of GDP in Asia.



Launch of a retail *sukuk* by Dana Infra Nasional Bhd on 8 January 2013. Photo courtesy of Star Publications (Malaysia) Bhd

Following its inaugural retail *sukuk* issued in January 2013, DanaInfra Nasional Bhd offered its second issuance of retail *sukuk*, or Exchange Traded Bonds and *Sukuk* (ETBS) in November. The company issued up to RM100 million worth of the 15-year papers, which will be used to finance the Mass Rapid Transit project. It received RM219.01 million worth of applications from the Malaysian public for the issuance, which was priced at a profit rate of 4.58 per cent.

¹ According to PEMANDU projections

Syarikat Prasarana Negara Bhd's RM1 billion *sukuk* issuance in August was among the largest during the year. The papers were sold to fund the expansion of Malaysia's public transport network.

In October, national mortgage lender Cagamas Bhd raised RM3.8 billion in Malaysia's largest *sukuk* commodity *murabahah* offering of the year.

One of the challenges during the year was market volatility due to uncertainty on the US Federal Reserve's tapering of its quantitative easing programme.

Moving Forward

Potential US tapering of its quantitative easing programme in 2014 and the cyclical return of capital to developed financial markets may create pressure on the bond market to enable borrowers to tap on to the best instruments that suit their project needs.

Nonetheless, on the local front, the Government will continue to ensure that the yield profile of Government securities achieve a smooth forward yield curve.

EPP 3 Transforming Development Financial Institutions (DFIs)

DFIs play an important role in developing specific sectors such as small and medium-sized enterprises (SMEs), infrastructure and agriculture, as well as in promoting financial inclusion and achieving the nation's development goals.

Measures under this EPP will focus on reviewing the mandates and activities of DFIs to improve the institutions' productivity and sustainability.

DFIs will also be encouraged to expand their services to advisory or technical assistance and to adopt an "Islamic finance first" approach.

Achievements and Challenges

Several initiatives and prudential guidelines have been introduced to further strengthen the capacity and capability of DFIs to ensure effective performance of their mandated roles, especially in supporting the development of strategic economic sectors. During the first eight months of 2013, total financing outstanding of DFIs increased by 8.5 per cent to RM117 billion (end-2012: 10.1 per cent; RM111.1 billion). This was due to higher financing given for consumption credit, the maritime sector and export-oriented industries.

Consumption credit was largely extended by Bank Kerjasama Rakyat Malaysia Berhad (Bank Rakyat) and Bank Simpanan Nasional, which recorded loan growth of 11 per cent to RM60.8 billion as at end-August 2013 (end-2012: 14.5 per cent; RM57.5 billion). In addition, financing to the business services sector expanded to RM3.6 billion (end-2012: RM3.2 billion) primarily due to higher financing given to cooperatives.



During the same period, lending to the maritime sector turned around and increased 11.4 per cent to RM2.4 billion, extended mainly for the construction of naval vessels (end-2012: -6.8 per cent; RM2 billion). Financing to export-oriented industries continued to show strong growth at 18.2 per cent, totalling RM5.4 billion as at end-August 2013 (end-2012: 23.6 per cent; RM4.3 billion). This was despite the uncertain global economic environment.

Total SME loans outstanding extended by DFIs grew 6.8 per cent to RM13.1 billion as at end-August 2013 (end-2012: -1.1 per cent; RM12 billion). Meanwhile, total deposits received and borrowings from the Government remained the major source of funding for DFIs, accounting for 70.5 per cent of its total resources.

Moving Forward

Bank Negara Malaysia (BNM) will continue to monitor the implementation of strategies to enhance the DFIs' governance and improve the efficiency and effectiveness of DFIs in carrying out their mandated roles.

EPP 4 Creating an Integrated Payment Ecosystem

Malaysia remains largely a cash-based society, with 91 per cent of transactions completed using cash. The usage of cheques, e-money, credit card and Internet banking meanwhile only account for 1.3 per cent, 4.7 per cent, 1.8 per cent and 0.6 per cent of transactions respectively.

This EPP therefore seeks to create an efficient economy and reduce dependence on cash transactions to 63 per cent of total transactions by 2020. It also targets to raise e-payment transactions to 200 per capita per year and 25 point-of-sale (POS) terminals per 1,000 inhabitants by 2020.

These goals will be driven by efforts to encourage consumer, business and Government adoption of electronic payment systems, increase merchant acceptance of cashless payments and reduce the use of cheques. Specific initiatives undertaken through this EPP, developed by BNM in collaboration with relevant agencies and merchant acquirers, include:

- Sourcing cheaper POS terminals
- Providing a competitive discount rate through tiered pricing
- Attracting consumer demand for cashless payments through loyalty programmes

Other efforts implemented under this EPP include the Ministry of Finance gradually increasing the stamp duty on cheques and eliminating the use of cheques in Government-related payments. Initiatives will also be undertaken to further integrate and promote cross-border financial intermediation in the retail market. This will be achieved through efforts by MEPS (Malaysian Electronic Payment Systems Sdn Bhd) to expand its strategic partnerships abroad, allowing Malaysians to benefit from cheaper transactions in partner countries such as South Korea, China and Vietnam.

Achievements and Challenges

In March 2013, BNM announced that banks will impose a cheque processing fee of 50 sen on cheque issuers effective 1 April 2014. The new pricing is being introduced to promote greater efficiency and is in addition to the existing stamp duty of 15 sen per cheque leaf. It is also in line with measures to increase the charge for cheques to reflect its actual production cost, which is currently at RM3.

During the year, BNM also worked closely with the financial industry to further improve the payment infrastructure to ensure payment services are easily accessible, secure and convenient. For instance, commercial banks are required to credit funds transferred via Interbank GIRO (IBG) to the recipient on the same day as a step further in making e-payment faster and more convenient. E-payment migration is also driven by incentivising users to switch from higher cost payment methods to lower cost alternatives. In this respect, among the measures which took effect in 2013 include setting a low fee of 10 sen for online IBG transactions.

Online payment would provide significant benefits to individuals and businesses through the convenience of transacting anytime and anywhere, and by avoiding queues at bank counters. Businesses, on the other hand, can lower the costs of doing business through the reduction or redeployment of resources used for handling cash and cheques.

Moving Forward

By 2020, pricing of all payment services will be based on the cost of providing the service. In the nearer-term, adjustments in pricing for other payment channels and methods, including automatic teller machines (ATM), will be phased in progressively to encourage the adoption of more cost effective electronic payment methods.

EPP 5 Insuring Most, If Not All, of Our Population



This EPP seeks to increase the penetration rate of life insurance and family *takaful* in Malaysia particularly amongst lower income earners. This is to enhance financial security and create a social safety net in the country in line with the needs of a developed nation.

By 2020, efforts under this EPP are targeted to increase the country's life insurance penetration rate to 75 per cent of the population.

Achievements and Challenges

In November, BNM published a concept paper titled "*Life Insurance and Family Takaful Framework*", that sets out proposals to support the long-term sustainable growth and development of the life insurance and family *takaful* industry, with increased value proposition to consumers. The aim of the framework is to achieve a higher penetration rate, while at the same time ensuring consumers' interests are protected.

Under the framework, life insurers and family *takaful* operators will be given greater operational flexibility to spur product and marketing innovation and increase productivity. Life insurers and family *takaful* operators will also be made to offer their products to consumers through multiple delivery channels to provide convenience to consumers.

Consumers' interests will also be further promoted through strengthened market conduct, including enhanced professionalism of intermediaries, intensification of consumer education efforts and enhanced disclosure standards to promote consumer empowerment. Other initiatives proposed under the framework include offering commission-free life insurance and family *takaful* products via direct channels to lower the cost of these products.

Moving Forward

Upon receiving public feedback and comments, BNM will implement the framework, which is aimed at transitioning the life insurance and family *takaful* industry into a more conducive environment to achieve a higher penetration rate.

EPP 6 Accelerating the Growth of the Private Pension Industry

This EPP has spearheaded the creation of a private pension industry in Malaysia to allow Malaysians to maintain a comfortable lifestyle upon retirement. The country's pension system, which had previously solely been led by the Employees Provident Fund, has now been supplemented with the establishment of private pension funds. This is also in line with the World Bank's multi-pillar pension framework which includes private savings and pension schemes.

The development of the country's private pension industry is also aimed at providing options for people who do not participate in the EPF system.

Efforts under this EPP focus on promoting the growth and sustainability of the private pension industry via among others, tax exemptions on private pension disbursements and tax relief on contributions by individuals and employers.

Achievements and Challenges

The net asset value of private retirement schemes (PRS) reached RM177.22 million involving 42,298 members as at the end of October 2013. Since the launch of the scheme by the Prime Minister in July 2012, 11 schemes with 41 retirement funds have been offered.

However, as at end of September 2013, only 7 per cent of PRS members are below the age of 30, while 26 per cent are in the 30-40 age range. To further encourage youths to undertake long-term investment through the PRS, in Budget 2014, the Government proposed a one-off incentive of RM500 to PRS contributors with a minimum cumulative investment of RM1,000 within a year. The incentive, which is available for individuals aged between 20 and 30 years, is expected to attract 420,000 youth contributors nationwide. The incentive will be implemented from 1 January 2014 for a period of five years, involving an allocation of RM210 million.

During the year, the industry undertook several initiatives to ensure the successful development of the PRS industry:

- **Setting up of an industry development fund** - Private Pension Administrator ("PPA"), the centralised administrator for the PRS industry, has set up an industry development fund with contributions from all PRS Providers. Subsequently in August 2013, PPA launched an intensive education and public engagement campaign to be implemented over a five-year period



The launch of the Private Retirement Scheme.
Photo courtesy of BERNAMA Images

- **Reducing commission rate** - The commission rate to investors was reduced for PRS
- **Empowering investors** - To empower investors and to enhance transparency, an easy to understand product highlight sheet has been required for all PRS funds. A user-friendly fee comparison table of all the relevant fees and charges has also been made available on the PPA's website
- **Investor protection** - In a measure to provide further investor protection, the scope of compensation of the Capital Market Compensation Fund, which was established via the 2012 amendments to the Capital Markets and Services Act, has been widened to include private retirement schemes. Moving forward, investors to the PRS would have recourse to compensation upon meeting key criteria

Moving Forward

The SC and PPA will continue to intensify the national advertising and marketing effort for PRS in 2014, coupled with various investor education and awareness programmes.

EPP 7 Spurring the Growth of the Nascent Wealth Management Industry

Malaysia's wealth management industry remains small, with products largely catered to mass affluent banking and financial planning. This has been a result of the lack of competitive products and the time taken to approve retail investment products, leading Malaysians to seek wealth management options outside the country and hindering the local market's attractiveness to foreign investors.

This EPP therefore targets to increase assets under management (AuM) in the country's wealth management industry to RM350 billion by 2020 by increasing the range of wealth management products. It will also implement measures to attract more wealth managers to the market and leverage the country's expertise in Islamic finance to create a competitive edge in Islamic wealth management. To this end, regulators have undertaken a gradual liberalisation of wealth management products to allow for a wider range of products, while the Securities Commission (SC) has fully liberalised the Islamic fund management industry.

Achievements and Challenges

Pursuant to the Prime Minister's announcement in July 2012 of Malaysia's intention to establish a mercantile exchange, the SC has been tasked to present a proposal for the establishment of a mercantile exchange. Pursuant to this, a proposal has been prepared by the SC. In the course of preparing the proposal, the SC had also carried out an assessment of the landscape for investing and trading in gold and other precious metals and how investors, physical users and product issuers can be provided with opportunities to invest in and hedge through such an exchange. This included a review of the needs and demands of stakeholders locally and the business and operating models of similar exchanges globally.

Moving Forward

The proposal is in the process of being implemented.

EPP 8 Accelerating and Sustaining a Significant Asset Management Industry

Similar to challenges faced by the country's wealth management industry, Malaysia's asset management industry also remains at a nascent stage. The market has also recorded limited growth in attracting international funds, while the activities in the industry are concentrated on its top five players which account for more than 55 per cent of total AuM.

This EPP therefore aims to transform Malaysia into a vibrant regional asset management hub, increasing AuM to RM1.7 trillion by 2020 through a CAGR of 17 per cent.

This will be achieved by attracting more leading funds to operate in Malaysia by offering larger GLIC mandates to external fund managers. These mandates will be raised to 15 per cent of AuM, with RM1 billion-RM2 billion of these funds to be allocated to top fund managers. Efforts will also be taken to increase the scale of and attract more foreign investors to the country's Islamic asset management market.

Achievements and Challenges

In April, Employees Provident Fund (EPF) outsourced RM57.67 billion to external fund managers, or roughly 11 per cent of the mandatory national retirement scheme's investment assets. EPF's allocation to external managers was part of its diversification strategy and to further develop the fund management industry in Malaysia. EPF noted that Malaysia's fund management industry has grown in size and capability, from only a handful of local managers previously to an impressive list that includes foreign players today.

Moving Forward

EPF will closely monitor its external managers to ensure they deliver value for plan participants, where EPF will reward the performers while those who underperform will be phased out.

EPP 9 Nurturing Regional Banking Champions

This EPP encourages the continued regional and international expansion of Malaysian banks, who must seek new markets outside of Malaysia to contend with the country's limited and maturing market. While efforts under this EPP are largely market-led and dependent upon banks' needs and the approval of BNM, it has targeted for Malaysian banks to be among the top three in ASEAN in terms of market capitalisation by 2020.

To this end, the Government and BNM will support well-managed and well-capitalised Malaysian banks to expand globally in a meaningful manner. This EPP also encourages Malaysian banks to expand beyond ASEAN to high-growth markets such as China and South Asia.

Achievements and Challenges

Malaysian banks continued to strengthen their regional operations following active expansion in 2012. As at end-October 2013, six of the eight domestic banking groups have overseas operations in 22 countries, with at least one Malaysian bank present in all ASEAN member states.

In May 2013, Public Bank Bhd signed a Memorandum of Understanding with Japan's Resona Bank to strengthen existing business collaborations between the two banks. The agreement will enable the banks to promote their respective products, particularly for cross-border banking services, to customers in Malaysia and Japan.

Malayan Banking Bhd (Maybank) and CIMB Group Holdings Bhd (CIMB), the country's largest banks in terms of assets, continued to lead the expansion of Malaysian banks abroad. In November, Maybank, which is present in all 10 ASEAN member states, added four more branches in Cambodia, bringing its branch network in the country to 16.

Meanwhile, CIMB announced in June that it had received Bursa Malaysia's approval to list its shares on the Stock Exchange of Thailand. The banking group has also applied for licences in Cambodia and Vietnam; and in July, launched its institutional brokerage business in Taiwan.

With the increased overseas presence, BNM has also implemented a more rigorous oversight of these banks to ensure the safety and soundness of the banking groups. This effort includes closer cooperation with the relevant host supervisory authorities to conduct more effective cross-border supervision and assessments on a group-wide basis.

Moving Forward

Towards meeting the vision of an ASEAN Economic Community, efforts are being undertaken to accelerate banking sector integration in ASEAN. In this regard, the ASEAN central bank governors are in the advanced stages of finalising the ASEAN Banking Integration Framework, which aims to promote a greater role for ASEAN banks in facilitating intra-ASEAN trade and investment by 2020.

EPP 10 Becoming the Indisputable Global Hub for Islamic Finance

Malaysia has grown into a global leader in the Islamic finance industry, spearheading the growth of the world's *sukuk* market. Nonetheless, other aspects of the industry must be enhanced for the country to become the indisputable global hub for Islamic finance. As such, this EPP will support the market's development into an international intellectual and capital centre for Islamic finance.

Specific targets identified under this EPP include increasing Islamic financing's share of the country's total financing assets to 40 per cent by 2020.

The steps taken to achieve these objectives comprise:

- Codifying and standardising *Shariah* guidelines by speeding up BNM's issuance of *Shariah* parameters for developing Islamic financial products and services. This will ensure consistent interpretation of *Shariah* contracts in Malaysia, facilitate the development of policies and guidelines, promote innovation and enable faster time-to-market for new products

- Becoming a centre of excellence for Islamic finance research, development and education by building on the establishment of human capital development institutions in Malaysia including the International Centre for Education in Islamic Finance (INCEIF), the International Shariah Research Academy for Islamic Finance (ISRA) and the Asian Institute of Finance. To this end, investments will continue in Islamic finance research and education, focussing on the areas of research development and innovation, law and human capital

Achievements and Challenges

Malaysia remains the global leader in *sukuk* issuances, accounting for 67.8 per cent, or RM132.1 billion of new Islamic bonds issued globally in the first half of 2013 (Source: Global Sukuk Report 2013, KFH Research Ltd). With high liquidity levels in the *sukuk* market, Malaysia saw growing interest from foreign issuers to tap into the domestic sector in 2013.

As at the end of August, Bursa Malaysia continued to be ranked as the top exchange for *sukuk* listing, which amounted to RM102 billion. In July 2013, the *sukuk* market saw a significant development with the inaugural issuance of Government Investment Issues (GIIs) under the *Murabahah* structure.

The GIIs based on the *Murabahah* contract is essentially a certificate of indebtedness arising from a deferred mark-up sale transaction of an asset, such as a commodity (mainly crude palm oil), compliant with *Shariah* principles.

Malaysia also contributed to the growth of Islamic finance on the international front when the International Islamic Liquidity Management Corporation (IILM), an international institution established on 25 October 2010 by central banks (including BNM), monetary authorities and multilateral organisations to develop and issue short-term *Shariah*-compliant financial instruments, launched a three-month *sukuk* with a nominal value of US\$490 million in August 2013.

IILM's efforts are part of ongoing initiatives currently underway to enhance liquidity management in Islamic finance globally. By creating more liquid *Shariah*-compliant financial instruments for institutions offering Islamic financial services, the IILM is expected to play a greater role to better facilitate effective cross-border liquidity flows, international linkages and financial stability.

Moving Forward

The new Islamic Financial Services Act 2013 (IFSA) which came into force on 30 June 2013 is set to provide the foundations for end-to-end *Shariah* governance and compliance for the Islamic finance industry in Malaysia. Moving forward, the IFSA will serve as the legal premise towards the development of a contract-based regulatory framework reflecting the specific details of various types of *Shariah* contracts. This will support the delivery of various value propositions of Islamic finance by ensuring effective application of Islamic contracts in offering Islamic financial products and services, encompassing risk-transfer and risk-sharing modes.

Malaysia will continue its growth path of the Islamic financial sector with focus on three key areas: Expertise, *Shariah* governance and practices, and the legal and regulatory framework.

INCEIF and ISRA will be further empowered for world-class graduates and research in Islamic finance to take the next steps.

BUSINESS OPPORTUNITIES

1

Investment Banking

The continued growth of the investment banking sector has resulted in various opportunities. These include the potential to increase initial public offerings, integrate regional capital markets and for higher merger and acquisition activities through the consolidation of key sectors.

2

Other Segments including DFIs

Malaysia's financial industry also includes financial services providers such as DFIs, private equity and venture capital companies. Under the 10th Malaysia Plan, the following areas were identified for further growth:

- Opportunities in private equity and venture capital for innovation and green financing, especially in the area of renewable energy such as biofuels
- Moving private equity and venture capital firms higher up the value chain through the more vibrant capital market
- Moving from informal to formal money lending and remittance businesses
- Shifting to more productive and higher value-added activities by financial institutions through back-office centralisation

3

Commercial Banking

The commercial banking sector is expected to maintain an annual growth rate of seven per cent over the next 10 years as a result of the following business opportunities:

- Innovating the delivery of financial services through new business models which explore underserved segments and the adoption of new branch formats such as branchless banking
- Increased financial inclusion from the national financial literacy programme
- Serving SMEs
- Rapid growth in the personal finance segment

4

Insurance and *Takaful*

The insurance and *takaful* markets are expected to benefit from a number of business opportunities which include:

- Higher insurance penetration
- Expected consolidation and rationalisation of the industry which will strengthen insurers and *takaful* providers and their platform for growth
- Growing viability of micro-insurance

5

Asset and Wealth Management

The following business opportunities are expected to contribute to the continued growth of the asset and wealth management industries:

- A RM500 million fund for innovative start-ups
- The Mudharabah Innovation Fund outlined under the 10th Malaysian Plan
- Outsourcing opportunities arising from the RM20 billion public-private partnership fund established to support of the 10th Malaysian Plan
- Greater demand for asset and wealth management services in tandem with growing Malaysian wealth
- Higher demand for unit trusts, mutual funds and wealth management services from foreign workers and Malaysians returning from abroad
- Increasing awareness and critical mass for retail aggregators such as FundSupermart, which can negotiate lower fees for unit trusts

6

Islamic Banking

The country's Islamic banking industry is expected to continue enjoying growth through the following business opportunities:

- Islamic pawn-broking (*ar-rahnu*)
- Migration of money lending businesses to conventional and Islamic banking following proposed amendments to rules on money lending

Summary of Financial Services NKEA

	2020 Target
Incremental GNI Impact	RM121.5 billion
Additional Jobs	275,400
Critical targets for 2014 <ul style="list-style-type: none"> • Launch of crowdfunding platform • Development of operating rules for National Bill Payment Scheme (NBPS) • Establish a framework for the provision of basic life insurance and family <i>takaful</i> products through direct channels • Investor education and awareness programme on Private Retirement Scheme (PRS) • Finalise the ASEAN Banking Integration Framework (ABIF) for endorsement at the ASEAN Finance Ministers' meeting 	



Enabling Change

FINANCIAL SERVICES

*on the ground with
the public service*

A note from



BANK NEGARA MALAYSIA
CENTRAL BANK OF MALAYSIA

The Malaysian financial sector has undergone significant transformation over the last five decades and continues to have a facilitative role in the growth of the Malaysian economy. Throughout the various phases of the financial sector's development, Bank Negara Malaysia (BNM), together with the Government, other regulatory authorities and the industry has continued to be instrumental in shaping the financial landscape in meeting new challenges and the changing needs of the economy.

In order to enhance the resilience of the financial sector following the 1997-1998 Asian financial crisis, comprehensive structural and financial reforms were undertaken, including consolidation of domestic financial institutions as well as the development of deep and vibrant financial markets. New measures were also introduced to enhance the regulatory framework of financial institutions, particularly in the areas of corporate governance and risk management standards.

These measures have not only placed the financial sector on the path of recovery after the crisis but have also set in place the foundation for a more dynamic financial sector moving forward, supporting sustained economic growth for the benefit of the nation.

As the pace of globalisation and liberalisation intensified in the early 2000s, BNM recognised the importance for greater integration with the global economy and hence, the need to manage the liberalisation of the Malaysian financial sector. The Financial Sector Masterplan (FSMP) was thus introduced in 2001, outlining strategies for growth of the financial sector over a 10-year period. Central to the FSMP was the development of a stable, competitive and efficient financial sector that supports and contributes positively to the growth of the economy. The recommendations under the FSMP were implemented in three phases to ensure an orderly and sustainable development of the financial sector. The first phase was essentially aimed at building the capacity of our domestic players in preparation for deregulation of the operating environment pursued in the second phase of the FSMP. Premised on the state of readiness of the financial players, the final phase of the FSMP focussed on driving the liberalisation agenda and harnessing greater regional and international inter-linkages.

Under the liberalisation of the financial services sector in 2009, the Bank undertook the issuance of new banking and family *takaful* licenses, allowed higher foreign equity limits in financial institutions as well as granted greater operational flexibility for locally-incorporated foreign-owned financial institutions.

Within the 10-year period, the financial sector has also progressed beyond its role as facilitator of growth to become a growth sector itself with the sector expanding at an average annual rate of 7.3 per cent since 2001 to account for 11.7 per cent of real GDP in 2010 (2001: 9.7 per cent). The robustness of the Malaysian financial system is also evident when the financial system successfully navigated through the recent global financial crisis relatively unscathed.

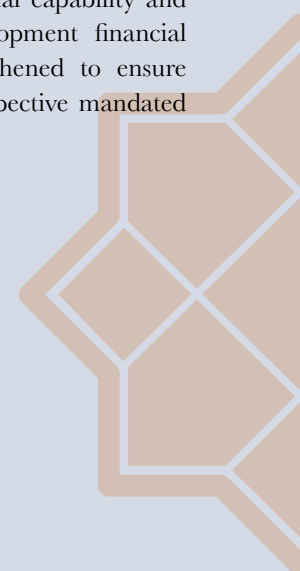
Building on the significant progress achieved and the strong foundations laid by the FSMP, BNM launched its second 10-year strategic plan, the Financial Sector Blueprint 2011-2020 (Blueprint), that charts the vision and future direction of the financial sector as Malaysia transitions towards becoming a high value-added, high-income economy. The Blueprint envisages a more significant role of financial industry players towards realising the vision of a more competitive, dynamic, inclusive, diversified and integrated financial system.

In formulating the Blueprint, BNM drew important lessons from the recent global financial crisis and continues to uphold the mandate of safeguarding financial stability. To ensure an orderly and sustainable development of the financial sector that best serves the needs of the Malaysian economy and one which is firmly anchored in the growth of the real economy, the Blueprint is thus tailored to focus on nine key components:

- effective intermediation for a high value-added, high-income economy
- development of deep and dynamic financial markets
- financial inclusion for greater shared prosperity
- strengthening regional and international financial integration
- internationalisation of Islamic finance
- enhancing regulatory and supervisory regime to safeguard the stability of the financial system
- electronic payments for greater economic efficiency
- empowering consumers
- talent development for the financial sector

The initiatives undertaken thus far have borne positive results. Malaysian financial institutions today are not only competitive in the domestic market, but are also emerging as regional champions, particularly in ASEAN. Six of the eight domestic banking groups have overseas operations in 22 countries, with presence in all ASEAN countries.

Malaysia has also one of the largest debt securities market in the region with a sizeable *sukuk* and private debt securities market. The operational capability and financial sustainability of the development financial institutions were significantly strengthened to ensure continued intermediation in their respective mandated strategic economic sectors.



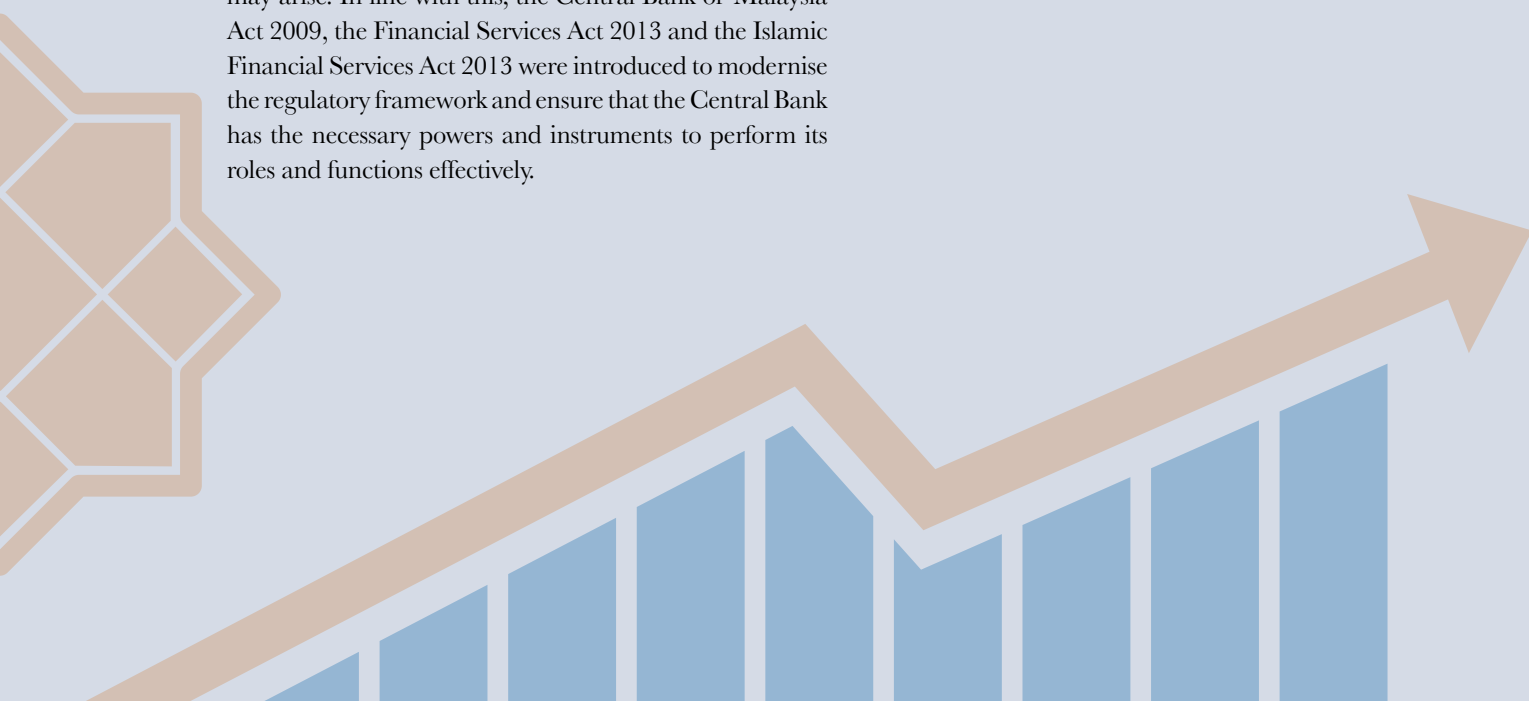
Review of the payment ecosystem has enabled the public to enjoy faster, cheaper and more convenient modes of funds transfer and a wider range of delivery channels for financial services.

Significant advancements were also made in the area of financial inclusion to ensure that all Malaysians are able to participate in and benefit from Malaysia's economic development. The agent banking framework that was introduced has expanded the accessibility to quality and affordable financial services, particularly in the remote and underserved areas. As a result of the various initiatives undertaken, all 144 districts in Malaysia have access to banking services either through branches or the agent banking network since 2011. Malaysia is also ranked highly in several of the international financial inclusion rankings, such as the World Bank's Doing Business report, where Malaysia has consistently ranked first in "Getting Credit" since 2008.

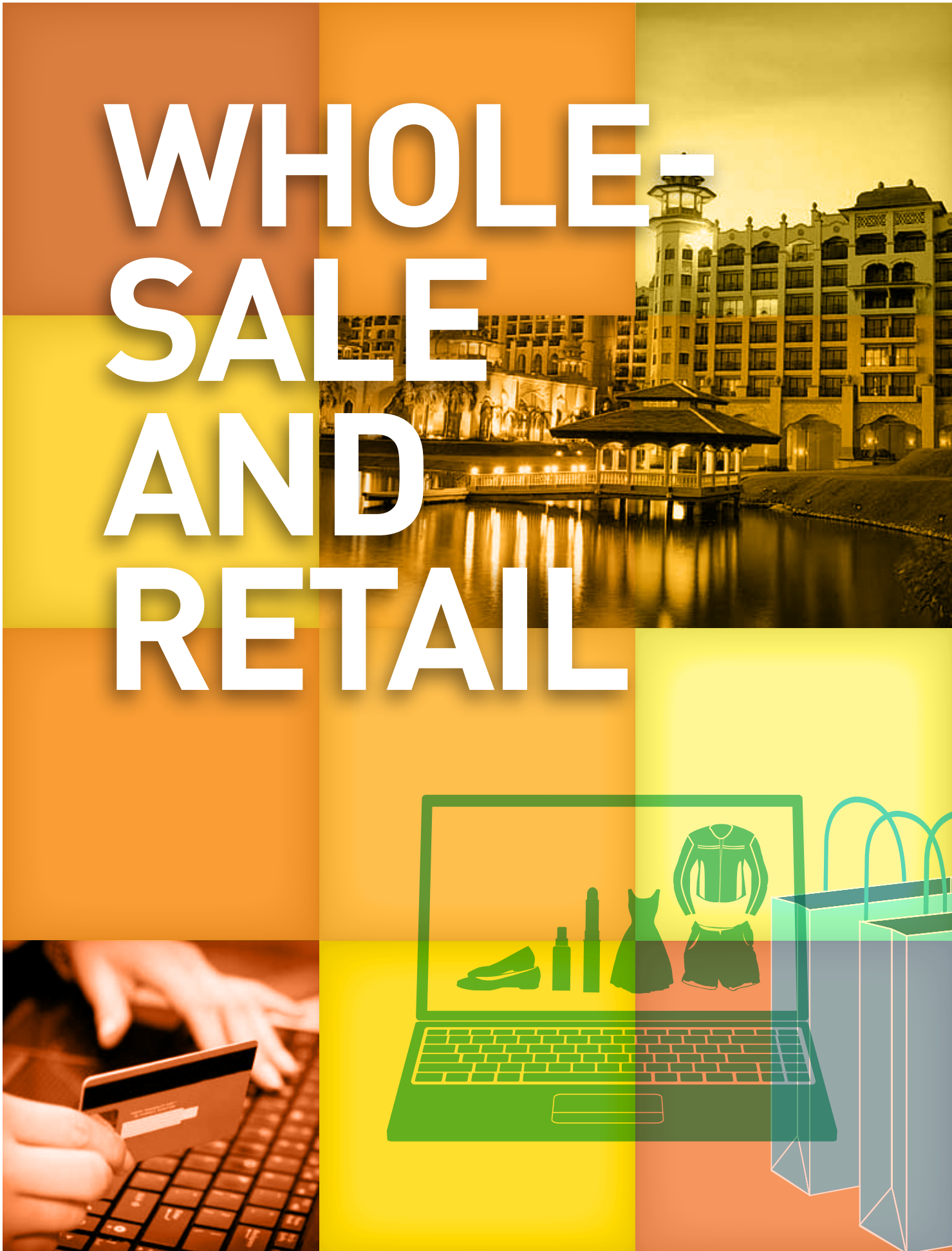
As the financial sector continues to advance over the next decade, it will become increasingly crucial for BNM to be able to respond effectively and efficiently to challenges that may arise. In line with this, the Central Bank of Malaysia Act 2009, the Financial Services Act 2013 and the Islamic Financial Services Act 2013 were introduced to modernise the regulatory framework and ensure that the Central Bank has the necessary powers and instruments to perform its roles and functions effectively.

BNM has also implemented a more rigorous oversight of financial institutions and financial markets to ensure the resilience and smooth functioning of the financial system. This effort includes closer cooperation between the Bank and the relevant regulatory and supervisory authorities both at home and abroad, to ensure a more effective conduct of surveillance and cross-border supervision.

In the immediate-term, BNM's priorities are to pursue strategies that promote inclusive access to financial services, greater efficiency in financial transactions, advance the development of Malaysia as an international Islamic financial centre, further enhance Malaysia's regional and international connectivity as well as promote talent development in the financial sector. These strategies will be pursued in tandem with Malaysia's aspirations to transition into a high value-added, high-income economy by 2020.



WHOLE- SALE AND RETAIL





Dato' Sri Hasan Malek

Ministry of Domestic Trade, Co-operatives and Consumerism



The Wholesale and Retail NKEA has played an important role in supporting domestic demand and, in turn, helping to drive overall economic growth. This is evidenced in the quarterly and annual updates of the Malaysian economy by the Ministry of Finance.

Malaysia's domestic demand looks set to continue on a growth trajectory. The Wholesale and Retail NKEA has helped develop the sector through initiatives that will modernise the industry and prepare it for further expansion.

One of the key programmes in the NKEA, the Small Retailer Transformation Programme (TUKAR), has seen a jump in participation this year. It was also encouraging to see participation from more ethnic groups this year as compared to previously. TUKAR participants are also reporting more sustainable improvements in their operations and surveys show that they have also seen revenue increase thanks to the programme.

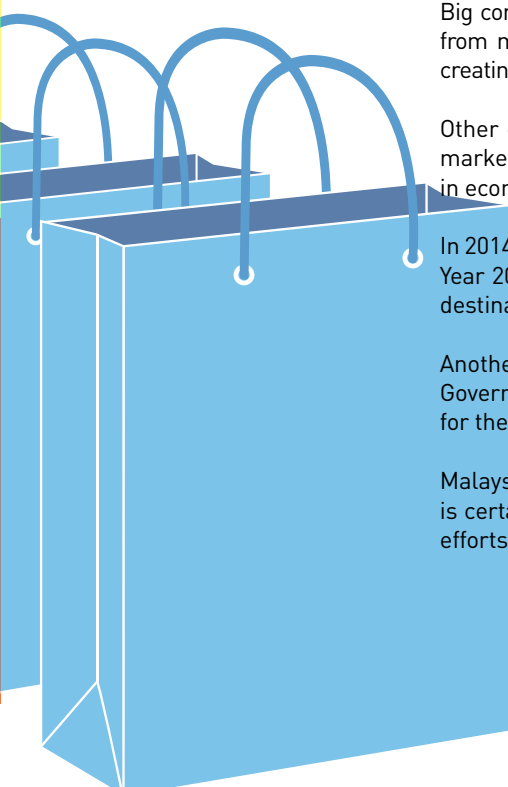
Big corporates also warmed up to the NKEA's initiatives and 2013 saw large investment commitments from major players such as Sime Darby Brunsfield. The Government-linked company is investing in creating a multi-themed Big Box Boulevards and a Makan Bazaar, which are two EPPs under this NKEA.

Other exciting developments include the potential opening of the first 1Malaysia Mall in a foreign market in the near future. Aside from the investment involved, these and other EPPs play a vital role in economic growth by generating employment opportunities.

In 2014, the NKEA will focus on helping retailers prepare for the influx of visitors during Visit Malaysia Year 2014. It will also look toward strengthening the country's position as the fourth-best shopping destination in the world, as ranked by the Globe Shopper Index survey.

Another area that is being looked at for 2014 is growing premium Malaysian brands, with the Government exploring possibilities to facilitate their growth. The NKEA will also help retailers prepare for the implementation of the Goods and Services Tax in 2015.

Malaysia ranked 13th in AT Kearney's Global Retail Development Index 2013. This tells us that there is certainly much room for growth under the NKEA, and the Ministry is committed to continuing its efforts to bring the sector to the highest levels of development.



WHOLESALE AND RETAIL

With over 60 per cent of the country's GDP derived from domestic consumption, the Wholesale and Retail NKEA represents the fourth-largest contributor to GNI among the 12 NKEAs. It has also contributed to a growing share of GDP in the past three years, contributing RM100.6 billion in 2010, RM114.4 billion in 2011 and RM125 billion in 2012.

The rapid growth gives a positive indication that this NKEA is on track to meet its 2020 targets, which is to boost the wholesale and retail sector's contribution to GNI by RM156 billion and create 454,190 new jobs. This year alone, new Wholesale and Retail EPP champions have pledged to invest RM3.53 billion and committed to create more than 9,700 jobs.

The strategy to generate an internal source of growth via domestic consumption will also help ensure the country's economy can still expand in the face of global economic uncertainties.

As Malaysia progresses towards its goal of becoming a high-income nation by 2020, the country's consumers are expected to become more sophisticated and discerning. This NKEA will thus introduce new retail concepts that will spur consumer spending and support domestic demand while consolidating the country's position as one of the world's top five shopping destinations.

Initiatives under this NKEA will also evolve in accordance with the growth potential in consumer retail spending as Malaysian incomes rise. This will be achieved through the implementation of its EPPs, which have been clustered under the key themes of Modernise, Globalise and Revolutionise.

The EPPs under the Modernise theme address the processes and systems in traditional retail outlets. The aim is to help small retailers transition to modern format stores. In Globalise, the EPPs help local retail players seek opportunities abroad. Under Revolutionise, the EPPs look into concepts and strategies that have yet to be adopted by the Malaysian retail sector.

Some of the key EPPs in this NKEA include the development of Big Box Boulevards and increasing large format stores. Trends that support the adoption of more Big Box Boulevards and large format stores in Malaysia are growing retail expenditure, urbanisation and population growth.

2013 Key Performance Indicators

Wholesale and Retail NKEA		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
EPP #1	Number of new hypermarkets	6	6	100	●	100	●	1.0	●
	Number of new superstores	10	11	110	●	100	●	1.0	●
EPP #2	Number of establishments modernized under the TUKAR programme	500	522	104	●	100	●	1.0	●
EPP #4	Number of workshops modernised under the ATOM programme	120	203	169	●	100	●	1.0	●
EPP #5	New Operational Makan Bazaar site	1	1	100	●	100	●	1.0	●
EPP #6	Identification of one new EPP player	1	1	100	●	100	●	1.0	●
EPP #7	New Operational Virtual Mall	1	1	100	●	100	●	1.0	●
EPP #9	Percentage increase of Cost, Insurance and Freight (CIF) for 328 selected imported finished products (RM billion)	40% RM2.57 Billion	152% RM4.61 Billion as at Sept 2013	179	●	100	●	1.0	●
EPP #10	Identification of one new EPP Player	1	1	100	●	100	●	1.0	●
EPP #11	No. of sub-sectors involved in 1Malaysia Unified Sale	52	55	106	●	100	●	1.0	●
EPP #13	Identification and announcement of new EPP player	1	2	200	●	100	●	1.0	●
				124%		100%		100%	

Exhibit 4.1

Method 1 Scoring is calculated by a simple comparison against set 2013 targets. The overall NKEA composite scoring is the average of all scores

Method 2 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is less than 100%, score #2 is taken as the actual percentage
- If the scoring is equal or more than 100%, score #2 is taken as 100%. The overall NKEA composite scoring is the average of all scores

Method 3 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is equal and less than 50%, score #3 is indicated as 0
- If the scoring is more than 50% and less than 100%, score #3 is indicated as 0.5
- If the scoring is equal or more than 100%, score #3 is indicated as 1

ENTRY POINT PROJECTS

EPP 1 Increasing the Number of Large Format Stores



Tesco Ara Damansara which was opened to the public on 21 November 2013

The presence of large format stores such as hypermarkets have helped boost competition and quality in the retail market due to their purchasing power and modern retailing practices. The Malaysian retail market has seen significant growth of such outlets since the large format retail sub-sector was liberalised in 1995, with the market now made up of a healthy mix of both local and foreign players.

This EPP will boost large format store floor space by 50 per cent from the current base of 1.4 million sq metres by establishing 61 hypermarkets and 163 superstores until 2020. Each hyperstore will be 5,000 sq metres or more in size, while each superstore will be between 3,000 and 4,999 sq metres.

Initiatives under this EPP require the involvement of the Ministry of Domestic Trade, Co-operatives and Consumerism, leading foreign players like Tesco, Giant and Aeon Big and home-grown champions such as Mydin, Eonsave and TF Value Mart.

Achievements and Challenges

Six hypermarkets and 11 superstores were established in 2013, meeting the yearly target set. This EPP is well on course to meet the 2020 target of 61 hypermarkets and 163 superstores.

The year also saw local players moving to capture the premium market segment which has traditionally been dominated by foreign companies. For example, local hypermarket operator Mydin opened its first premium supermarket, SAM's Groceria. This shows that local companies are not only able to offer higher quality but also diversify and cater to different segments of the market.

Moving Forward

This EPP will ensure that the reach of hypermarkets extends to all areas of the country to meet demand from the growing population, which is also becoming increasingly urbanised, especially in Sabah and Sarawak. The number of hypermarkets is expected to continue to grow.

Hypermarkets and superstores launched in 2013

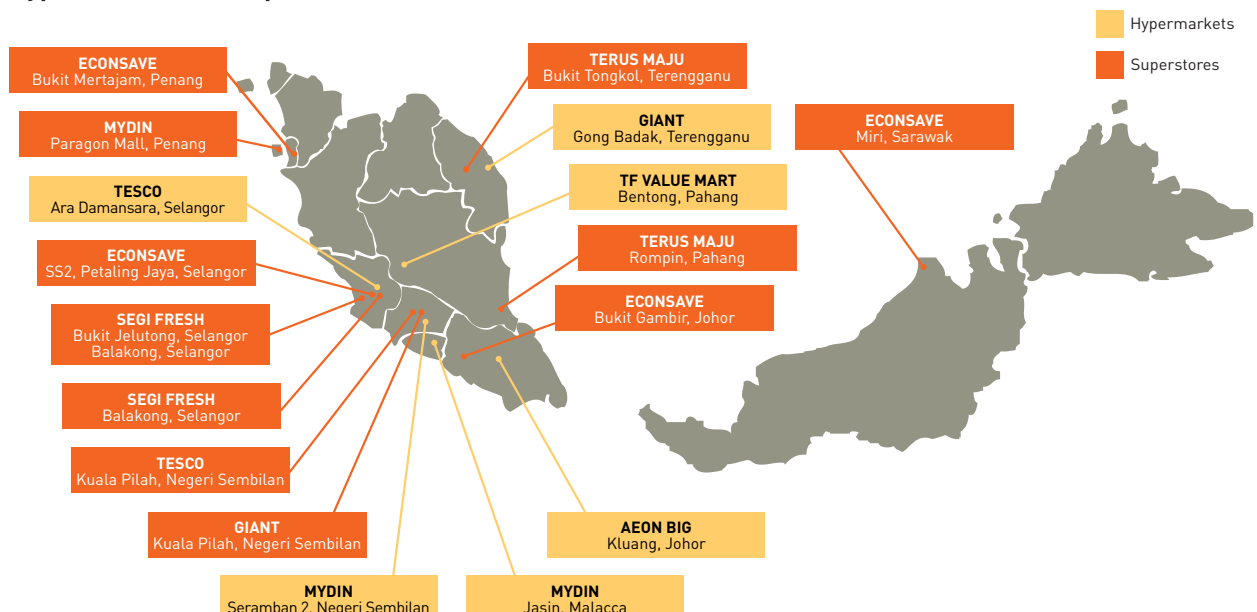


Exhibit 4.1: Hypermarkets and superstores launched in 2013

EPP 2 Modernising via the Small Retailer Transformation Programme (TUKAR)

This EPP aims to address the need for “mom-and-pop” shops to evolve in order to keep up with rapidly changing consumer tastes and help them maintain their appeal to shoppers. This will be achieved through the small retailer transformation programme, or Program Transformasi Kedai Runcit (TUKAR), which focusses on upgrading small retailers with the assistance of large format store players. Major retailers such as Mydin, Tesco and Carrefour have agreed to impart retail expertise to participating sundry shops.

Knowledge transfer under TUKAR includes providing advice on redesigning and modernising store layouts, preparing planograms for optimum product placement and participating in hand-holding development. TUKAR participants can also take up a soft loan from Bank Kerjasama Rakyat Malaysia Bhd (Bank Rakyat) which offers easy payment terms of three per cent interest rate on a reducing balance over a maximum of 15 years.



After: Kedai Runcit Masa Dagang



Before (top) and after (below): Kedai Runcit Masa Dagang, Sungai Rambai, Malacca

Distribution centres to help reduce the cost of goods sold and enhance efficiency will also be established to support TUKAR stores once a sufficient number of retailers have signed on to participate.

The first pilot Distribution Centre which is located within the Klang Valley began operations in August 2013. The Distribution Centre, managed by Koperasi Jaringan Sepadu (KOJARIS), will supply products to both TUKAR and non-TUKAR stores and currently has 239 different Stock-Keeping Units (SKUs) available; ranging from basic goods such as sugar, to consumer items such as coffee and biscuits.

Taylor Nelson Sofres Malaysia (TNS) was also engaged to conduct a survey to assess the impact of the TUKAR programme to date. Over 800 stores were surveyed, including 616 stores which have been in the programme for more than one year. From those 616 stores, survey findings highlighted that at least 78 per cent of the stores declared an increase in revenue, 10 per cent remain unchanged and 12 per cent declared a decrease in revenue in comparison to the year prior to joining the programme. 45 per cent declared an increase of 40 per cent or more in revenue, with 18 per cent of stores declaring an achievement of more than 100 per cent in revenue increase post-transformation.

The results of the impact study will allow further improvements and enhancements to the programme.

There was a setback however when *Koperasi Peralihan Cina Malaysia* was excluded from the list of partner cooperatives due to its inability to meet required KPIs, reducing the total number of partner cooperatives from six to five.

2013 TUKAR stores by State and Ethnic Group

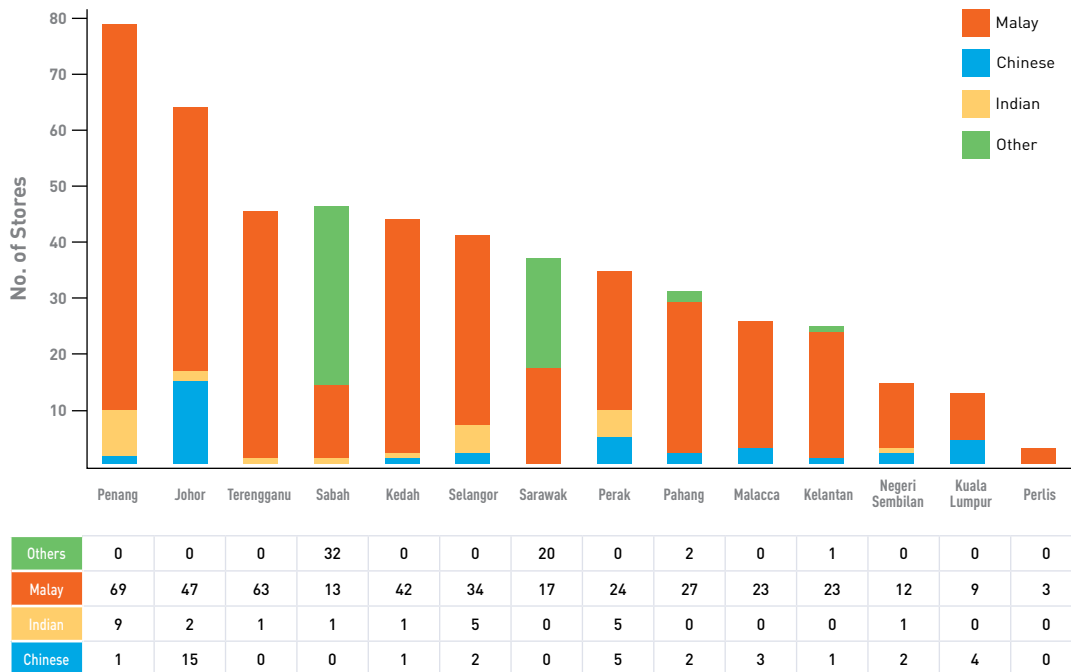
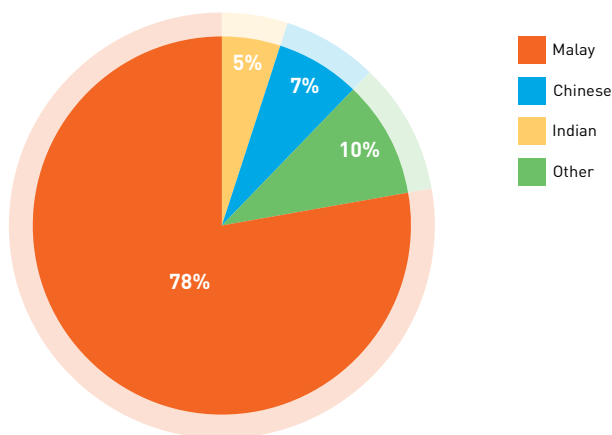


Exhibit 4.2: A snapshot of TUKAR participants in Malaysia

2013 Percentage of TUKAR Communal Participation



Achievements and Challenges

As of 31 December 2013, 522 sundry shops were transformed all over Malaysia, exceeding the target of 500 stores for 2013.

This brings the total number of stores transformed by the TUKAR programme to 1,609 since it was launched in 2011.

It is noteworthy that there has been greater participation from other ethnic groups this year as compared with the start of the programme.

Moving Forward

In 2014, the programme will be reviewed to ensure a continuous impact based on current requirements with 500 stores targeted for enrolment in the programme for the year. The programme will also be improved based on the results of the TNS Impact Study. It will also begin the transition of TUKAR stores in preparation for the implementation of the Goods and Services Tax (GST) in 2015. This effort will involve training and education initiatives.

EPP 3 Developing Pasar Komuniti

This EPP was transferred to the Agriculture NKEA in 2012 as most of its stakeholders are from agro-based industries.

EPP 4 Transforming Automotive Workshops



The ATOM logo prominently displayed at a transformed workshop

There are approximately 18,000 auto workshops in Malaysia of widely varying quality (source: The Economic Transformation Programme Roadmap). The Automotive Workshop Modernisation (ATOM) project undertaken through this EPP therefore aims to modernise and enhance service standards of grassroots automobile workshops, a relatively informal sector that is not subject to much regulation or benchmarking.

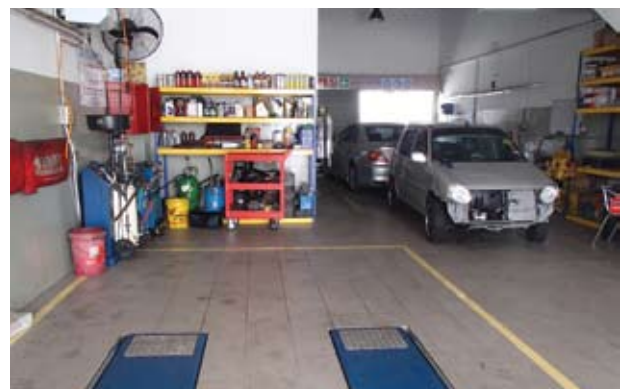
This EPP also addresses widespread perception of a lack of transparency in the way workshops charge for their services, especially as an estimated RM10 billion is spent on the maintenance of the over 13 million registered vehicles in Malaysia.

There is also no structure governing the skill levels of the mechanics, hampering their ability to adopt the latest technological advancements.

ATOM workshops are also offered financing on easy terms from Bank Rakyat, which provides loans of up to RM100,000 for car workshops and RM100,000 for motorcycle workshops for a maximum tenure of 15 years.

Achievements and Challenges

By the end of 2013, 203 automotive workshops were transformed all over Malaysia, exceeding the revised target of 120 for the whole year due to overwhelming demand from industry players. This brings the total number of stores transformed by the ATOM programme to 368 since it was launched in 2011.



Workshops before (top) and after (below) transformation by KOJADI

2013 ATOM workshops by State and Ethnic Group

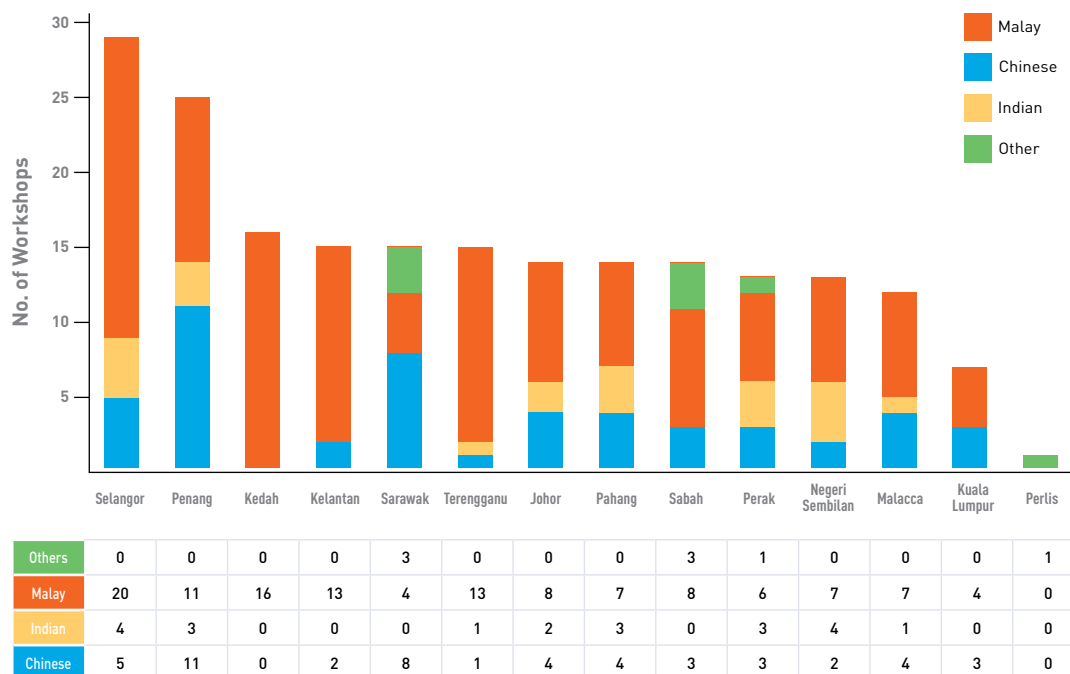
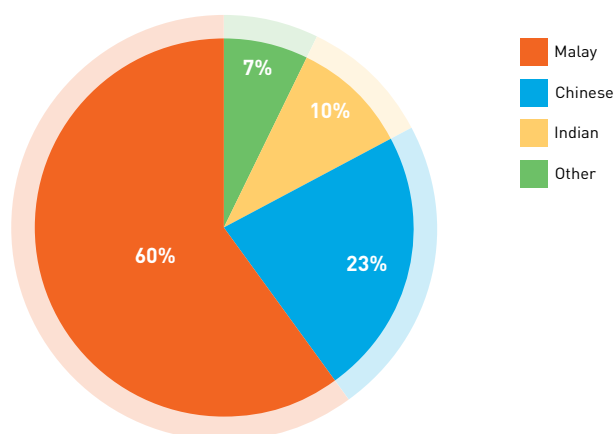


Exhibit 4.3: A snapshot of ATOM participants in Malaysia

2013 Percentage of ATOM Communal Participation



TNS was also engaged to conduct an impact assessment on the ATOM programme. From over 150 stores surveyed, the study showed that of 131 workshops which have been in the programme for at least 12 months; 81 per cent of the stores declared an increase in revenue, 12 per cent remain unchanged and seven per cent declared a decrease in revenue. Overall, 45 per cent of the 131 ATOM participants declared an increase of 40 per cent and more in revenue, with 15 per cent of stores declaring more than 100 per cent in revenue increase post-transformation.

The results of the impact study will allow further improvements and enhancements to the programme.

With regard to financing from Bank Rakyat, the loan amount for motorcycle workshops was increased from RM50,000 to RM100,000 this year based on feedback from participants and industry groups.

The ATOM programme also saw the enrolment of one new partner, Koperasi Belia 1Malaysia, bringing the total number of cooperative partners to six. Meanwhile, *Koperasi Peralihan Cina Malaysia* was removed from the programme due to its inability to meet required KPIs.

Moving Forward

This EPP will use findings of the TNS impact study to enhance the ATOM programme. It will also begin the transition of ATOM workshops towards the implementation of the GST in 2015. This effort will involve training and education initiatives.

The EPP targets to enrol at least another 175 workshops in 2014.

EPP 5 Developing Makan Bazaars



Aerial view of Oasis Square Makan Bazaar

Although Malaysia is renowned for its delicious food, the professionalism and hygiene of its food outlets have sometimes fallen short of meeting required standards. The Makan Bazaar EPP aims to change this with the establishment of one-stop food centres that offer the best of Malaysian and international food in a clean and professional setting where quality is assured.

The concept involves setting high benchmarks for professional management of the food outlets with the long-term goal of nurturing and improving the standard of food service providers in the country.

Achievements and Challenges

In 2013, Sime Darby Brunsfield announced the development of a one-stop food centre in Ara Damansara, Selangor, where diners can find the best of Malaysian and international food. This project involves an investment of RM117.3 million by 2020 with a GNI impact of RM52.3 million and 450 jobs created.

The Bazaar is already operational with 15 individual waterfront restaurants which offer a mixture of Malaysian, German, Chinese, Japanese, Korean, Indian and Middle Eastern cuisine. The waterfront premises alone cover a total area of 205,000 sq feet.

This Ara Damansara Makan Bazaar is the second in the country with the first located in the Mall of Medini, Johor, which opened in 2012.

Moving Forward

This EPP will ensure full utilisation of retail space within the Ara Damansara Makan Bazaar. In 2014, a food court will be added to the bazaar, with further plans to expand the surrounding retail area to cater to the bazaar's patrons. The bazaar is expected to be able to serve over 3,500 diners.

Additional sites for Makan Bazaars will also be identified in line with the target of 10 Makan Bazaars by 2020.



Front entrance of Oasis Square Makan Bazaar



Oasis Square Makan Bazaar night scene

EPP 6 Developing 1Malaysia Malls

Malaysia's malls are among the largest and best in the world, creating a base of expertise which could be used to establish Malaysian-owned malls overseas. The 1Malaysia Malls will therefore leverage the skill sets of Malaysian mall operators and retailers while providing an avenue for Malaysian brands to go global.

This EPP will also make Malaysia more attractive for foreign brands to base their regional headquarters here given the potential for quick expansion into other markets via 1Malaysia Malls.

In support of this EPP, PEMANDU and the Ministry of Domestic Trade, Co-operatives and Consumerism will continue talks with potential partners to establish 1Malaysia Malls. The focus will be on developing markets with large populations such as Vietnam which remain underexposed to the integrated retailing offered by shopping malls.

Achievements and Challenges

Berjaya Corporation Bhd has agreed to explore further the potential of having its Berjaya Great Mall Development in China as part of the 1Malaysia Mall EPP. Located at Sanhe City, Hebei Province, China, it is a mixed development project that will include retail, entertainment, theme park and water park components.

A few Malaysian companies have explored the possibility of entering Vietnam, but have found that it is not economically viable. The challenge for this EPP, therefore, is finding suitable foreign markets for players to venture into. Efforts are currently being taken to work with Malaysian developers and retailers in China in order to establish 1Malaysia Malls there.

Moving Forward

This EPP will continue to source for alternative markets for the establishment of 1Malaysia Malls. It will also explore working with Malaysian developers that are venturing abroad such as SP Setia. In addition, this EPP may be reviewed to consider different approaches to facilitate and provide incentives to EPP Champions.

EPP 7 Developing a Virtual Mall

Online shopping has gained increasing acceptance in Malaysia. This has been supported by the growing popularity of smartphones, ongoing rollout of high speed broadband and a population that is more comfortable shopping online – putting in place the elements for an online retail revolution.

The online shopping market is expected to grow to RM5 billion in 2014 with the majority of purchases made on local websites. If the share of online retail sales in Malaysia reaches that of developed countries like the United Kingdom, Internet sales in the country could reach RM12 billion by 2020.

This EPP therefore capitalises on opportunities in this market, with the proposed virtual mall replicating brick-and-mortar hypermarkets. In addition, the initiative will help develop and enable local small and medium-sized retailers to conduct business online, while large retailers will also be invited to participate in the virtual mall.

Achievements and Challenges

Major hypermarket chain Tesco has started offering online shopping for a range of products from groceries to clothes.

The challenge for this EPP is to create an end-to-end mall selling a full range of products. While there are existing shopping websites that are successful, they are limited to only one category and are considered specialty online shops rather than virtual malls.

Moving Forward

This EPP will encourage domestic online shopping via the virtual mall platform. It will also provide additional support to existing players.

EPP 8 Facilitating Local Businesses to Acquire Stakes in Foreign Retail Businesses

The growth of local retail players can be accelerated by engaging in merger and acquisition activities involving foreign retailers. This will also allow local retailers to retain a portion of the foreign player's profits in Malaysia.

This model can be similar to the joint venture that Sime Darby has with United Kingdom-based Tesco to operate the Tesco chain of hypermarkets in Malaysia.

Achievements and Challenges

This EPP is still identifying more acquisition targets for Malaysian retailer players.

The challenge for this EPP is in matchmaking and finding suitable acquisition targets for Malaysian acquirers because these tend to be market-driven activities.

Moving Forward

In 2014, the EPP will seek to generate more matchmaking opportunities and explore various options where the Government can facilitate the acquisition of foreign brands by local players. It will also explore possible ways of enhancing the EPP by including elements of strengthening local premium brands as part of the brand-building process and to spur further economic growth.

EPP 9 Making Malaysia Duty Free

Malaysia is one of the most popular tourist destinations in the world with shopping accounting for the second-highest expenditure of visitors to this country after accommodation.

While Malaysia's duty-free waiver since January 2011 on certain imported goods has increased the country's popularity as a shopping destination, there is potential to gain a larger share of tourist spend by making more items duty free.

Achievements and Challenges

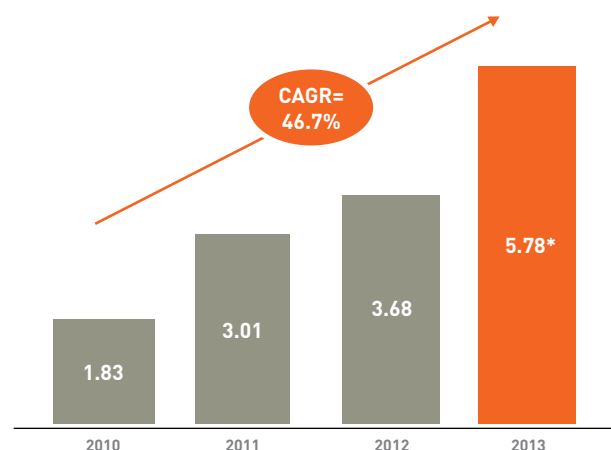
As at November 2013, the CIF (Cost, Insurance and Freight) value reached RM5.78 billion, surpassing the target for 2013.

Moving Forward

In 2014, it is anticipated that the increase in tourist arrivals during Visit Malaysia Year 2014 will create a multiplier effect, resulting in a higher total CIF value.

The CIF Value of the 328 goods declared duty free has been increasing year on year since the policy change was introduced in 2010

RM Billion



* CIF Value for 2013 is as of November 2013 as the data is released three months behind actual month

Exhibit 4.4: CIF 2010 – November 2013

Source: Royal Malaysian Customs

EPP 10 Setting Up Wellness Resorts



Perspective of the Senja Aman Wellness Resort from the Andaman Sea

This EPP will capitalise on Malaysia's existing strength in this area and tap into this important source of foreign exchange by establishing wellness resorts in strategic locations.

These locations include Penang, Selangor and Pahang. These fully integrated resorts will focus on anti-ageing as well as aesthetic and regenerative treatments, complete with supporting retail outlets.

Achievements and Challenges

The Senja Aman Integrated Wellness Resort, a new luxury wellness resort in Teluk Bahang, Penang, has been identified as an EPP Champion for this initiative. The resort consists of a 90,000 sq ft wellness centre, a hotel and luxury apartments. In March, Senja Aman secured the Banyan Tree group to operate its hotel component. The entire project is estimated to involve an investment of RM293 million and contribute RM157 million in GNI by 2020.

The Mines Wellness City just outside Kuala Lumpur is also progressing well. The development will be officially launched in 2014.

Moving Forward

In 2014, this EPP will look to attract more industry participants and grow the wellness industry.



An aerial view of The Chateau Spa and Organic Wellness Resort

EPP 11 Organising Unified Malaysia Sales

Malaysia organises nationwide sales several times a year which have benefited the retail sector. This EPP will bring together more sectors of the economy – from retailers to F&B as well as hotels and travel providers – via the annual 1Malaysia Unified Sale.

Achievements and Challenges

This EPP managed to get more sub-sectors to participate in 2013, increasing the number from 52 to 55. The 1Malaysia Unified Sale was also successfully held in conjunction with the Mega Sale to drive higher sales. The sale period was from 29 June 2013 to 1 September 2013. Some 940 companies and 10,707 outlets participated in the sale.

Figures provided by Bank Negara Malaysia's Electronic Payments Report showed expenditure of RM17 billion and RM2 billion in credit card and debit card transactions respectively during the sale period. This was an increase of 7 per cent and 33 per cent respectively from the corresponding period in 2012.



Launching ceremony performance for the Unified Malaysia Sale

Moving Forward

In 2014, the EPP will look into increasing products and services diversity during the sales. It will also encourage more companies and sub-sectors to take part in the 1Malaysia Unified Sale and explore the possibility of further collaboration with Tourism Malaysia.

EPP 12 Transforming KLIA into a Retail Hub

Kuala Lumpur International Airport (KLIA) is the country's most important gateway for foreign visitors. It is connected to over 100 international destinations and in 2012, handled nearly 40 million passengers.

Given that travellers tend to spend time shopping in transit, there is much potential to turn KLIA into an international shopping haven. To fully capitalise on this potential, a shopping hub, the Gateway Mall, will be created alongside the new KLIA2 terminal which is expected to open in 2014.

The key components of the retail hub will be driven by Malaysia Airports Holdings Bhd (MAHB)'s overall Aeropolis masterplan.

Achievements and Challenges

KLIA scored a significant achievement when Japan-based Mitsui Fudosan Co Ltd committed in early 2013 to develop its first upscale Japanese outlet park in Southeast Asia at the airport. The factory outlet park, to be known as Mitsui Outlet Park KLIA, will be built on approximately 50 acres of land within the KLIA development. The project is tracked under the Tourism NKEA as it falls under EPP 3: Establishing Premium Outlets in Malaysia.



Artist impression of Gateway Mall

The development of the Gateway Mall in KLIA2 is on track and will be operational upon completion of the new airport.

Moving Forward

This EPP will ensure high utilisation of available retail space in KLIA2's Gateway Mall. It will also explore adding other retail components to the KLIA masterplan.

EPP 13 Developing Big Box Boulevards

The trend of locating integrated large-scale retailers and factory outlets in single, concentrated locations as is common in Europe and the United States has yet to catch on in Malaysia. With demand for the large-scale retail experience growing, this EPP will therefore see the development of very large, integrated retail outlets for various categories of retailers such as food courts, boutique stores and hypermarkets.

The outlets will be concentrated within a single location and referred to as a Big Box Boulevards or BBB.

One example of a BBB is The Nilai 3 Wholesale City (Nilai 3) which has been developed by the Hatia Group as a one-stop shopping paradise.

The total size of the development is approximately 427 acres. The total investment by 2020 is expected to hit RM1.37 billion with a GNI impact of RM2.92 billion. The project will also create 6,505 jobs.

Achievements and Challenges

KLLC Park Sdn Bhd will develop the NICE project in Nilai which will house five BBBs, seven warehouses, a shopping mall, hotels, office towers, condominiums, an international school and a hospital.

The site is aimed at concentrating large-scale retailers in a single location for the convenience of customers. This project will see an investment of RM1.1 billion with a GNI impact of RM489.1 million and 3,154 jobs created by 2020.



Artist rendering of Oasis Mall

The Sime Darby Brunsfield Group will also develop a BBB in its large scale multi-themed retail complex in Ara Damansara. This multifaceted complex will be home to automotive retail outlets, a lifestyle mall, a hypermarket and F&B outlets. Notable automotive retail outlets in this development include Mercedes-Benz, BMW, Porsche, Land Rover, Ford, Peugeot, Alfa Romeo and Hyundai.

The project will involve RM1.52 billion in investment and have a GNI impact of RM308 million by 2020 and create 2,409 jobs.

Moving Forward

This EPP will explore the potential of creating BBBs in Nusajaya, Johor, to leverage the growth in Iskandar Malaysia.



Artist rendering of Oasis Corporate Park

BUSINESS OPPORTUNITIES

Further growth in the wholesale and retail sector is projected to be spurred by three distinct economic drivers; the first being higher retail expenditure per capita due to increased GNI per household.

The second driver is urbanisation, with migration from rural to urban areas creating more demand for goods and services including higher value-added products.

The third driver is population increase which will also result in demand for more goods and services.

Summary of Wholesale and Retail NKEA

	2020 Target
Incremental GNI Impact	RM55.4 billion
Additional Jobs	454,190
Critical targets for 2014 <ul style="list-style-type: none"> • 500 TUKAR shops • 175 ATOM workshops • Six Hypermarkets and five Superstores • 70 per cent utilisation of retail space in KLIA2 • 70 per cent utilisation of retail space in Gateway @ KLIA2 	



Enabling Change

WHOLESALE AND RETAIL

*on the ground with
the civil service*



Encik Mohd Fariszan Ahmad

*Head of the Delivery Management
Office at the Ministry of Domestic
Trade, Co-operatives and
Consumerism*

As domestic demand accounts for a growing share of the Malaysian economy, partly due to efforts under the Economic Transformation Programme to raise the *rakyat's* income, so have consumption patterns changed in tandem with the country's developing economy. In this respect, the Wholesale and Retail NKEA plays a key role not just in ensuring diverse and high-value offerings for local and foreign shoppers, but also that wholesalers and retailers alike provide competitive goods and services.

"Shoppers used to have to travel to different locations to buy different items. However, as consumers seek more convenience and to save more time, we can see that shoppers increasingly prefer a one-stop shopping experience, such as in malls.

"It is with this in mind that Big Box Boulevards (BBB) are being developed under this NKEA, such as the BBB in Ara Damansara developed by the Sime Darby Brunsfield Group, which will feature an auto-city, a hypermarket, a shopping mall and food and beverage outlets," says Mohd Fariszan Ahmad, Head of the Delivery Management Office (DMO) at the Ministry of Domestic Trade, Co-operatives and Consumerism.

The DMO is tasked with coordinating and monitoring the implementation of the Government and Economic Transformation Programmes (GTP & ETP). In strengthening the competitiveness and quality of Malaysian retailers, the DMO also provides support and facilitates collaboration in the implementation of the *Program Transformasi Kedai Runcit* (TUKAR) and the Automotive Workshop Modernisation (ATOM) projects. These projects have helped to raise the revenue of participating sundry stores and workshops and increase participants' expertise in their respective fields. "Some of the sundry shops were at the brink of closing and after joining this programme, their sales have increased 30 per cent. It has changed their lives," says Mohd Fariszan.

Much of the DMO's efforts are realised through the work of the civil service, who, Mohd Fariszan says, have raised their standards in providing services in tandem with the KPI culture inculcated by the National Transformation Programme. This has contributed towards reducing bureaucracy in Government services, allowing for faster decision-making and implementation of impactful projects.

As a result, efforts under the Wholesale and Retail NKEA have paid off handsomely since the start of the ETP, with the NKEA achieving all its KPIs in the past three years. Some of this has partly been due the cooperation among various Ministries and Government agencies, which helped ensure Malaysia becomes a retail hub in the region.

The DMO's also facilitates private sector participation, such as foreign investment, through Entry Point Projects.

"In taking care of foreign participation, we facilitate fast-lane approvals, and where there may be Bumiputera equity requirements, we will connect private investors with relevant agencies such as TERAJU (*Unit Peneraju Agenda Bumiputera*) or Ekuinas (Ekuiti Nasional Bhd) to accelerate investment," says Mohd Fariszan.

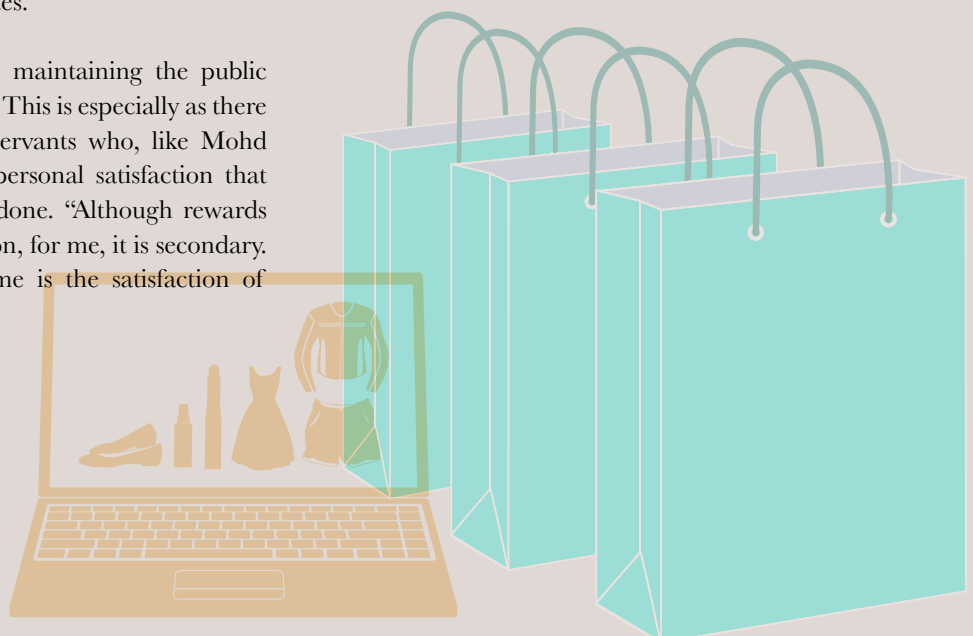
Mohd Fariszan adds the success of the NKEA also resulted from the strong cooperation between the private sector and the Government. "Both have demonstrated strong commitment and intention to see the ETP through," he says.

He concedes, however, that some challenges remain in implementing the NKEA. For example, the private sector has sometimes shown a lack of focus in implementing projects. "We must sometimes remind them to stay focussed on their plans, and not to be over-dependent on Government funds," he notes.

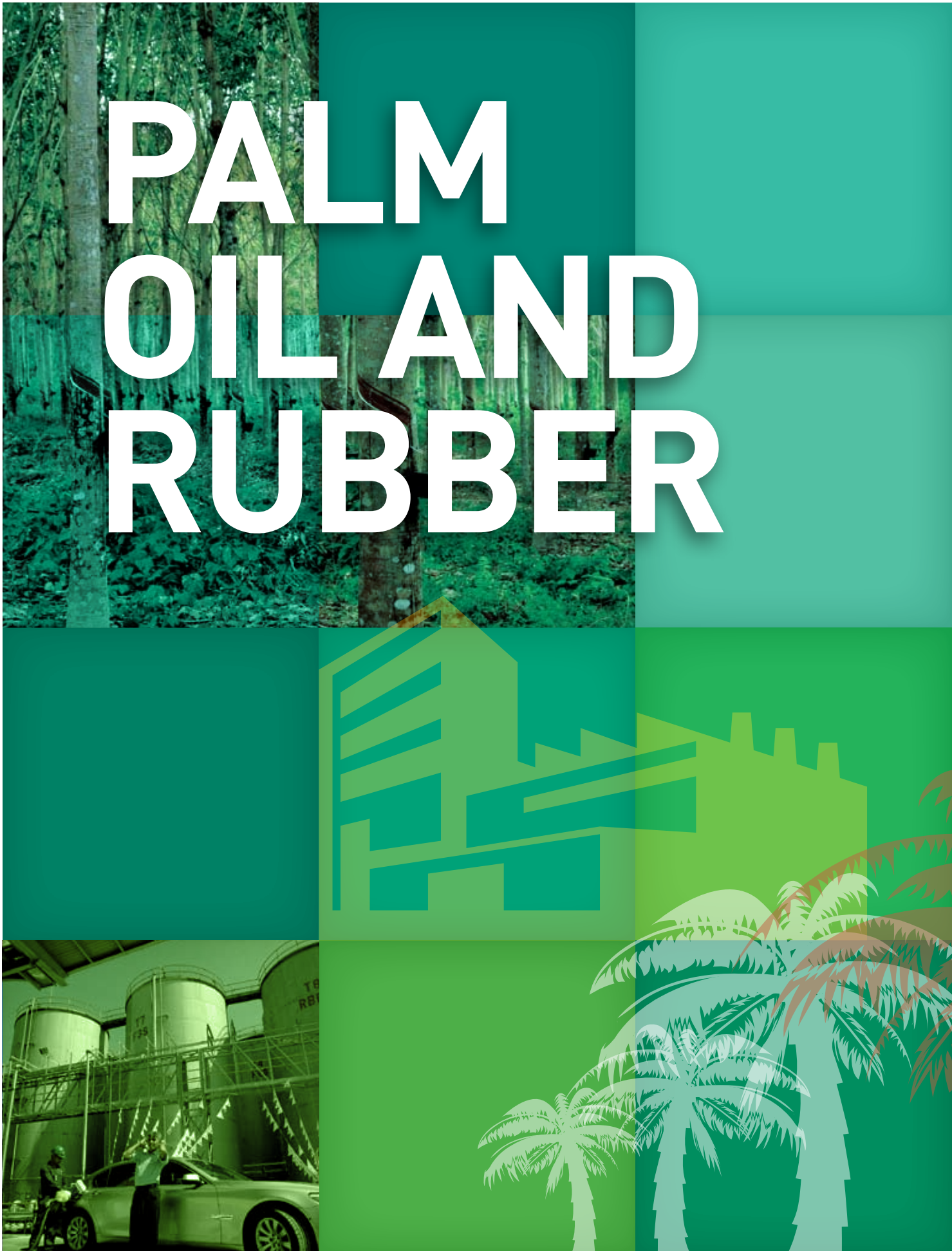
There also exist challenges in maintaining the public sector's momentum for change. This is especially as there are limited rewards for civil servants who, like Mohd Fariszan, rely mainly on the personal satisfaction that comes about from a job well done. "Although rewards serve as an important motivation, for me, it is secondary. The main consideration for me is the satisfaction of helping the *rakyat*," he adds.

Nonetheless, the civil service has undergone important reforms since the start of the ETP. "The way we do our work has changed. We must work very closely with the private sector to ensure that they deliver on their investment commitments; and we must always engage with the private sector to see where we can help.

"We must also make the effort to go to the ground to monitor the progress of projects. Additionally, we must recognise that the economy is dynamic, requiring civil servants to be more responsive and creative in addressing challenges and achieving results. Most importantly, we must remember that we are here to facilitate, not to frustrate," says Mohd Fariszan.



PALM OIL AND RUBBER





Dato' Sri Douglas Uggah Embas

Minister of Plantation Industries and Commodities



The palm oil industry is at a very advanced stage in Malaysia – providing direct employment to nearly one million people, spearheading research and development into the consumer and health sectors, generating new innovations for harvesting fresh fruit bunches and most importantly, supplying cargoes to the world's top two food importers, India and China.

This NKEA has brought together the best and brightest to formulate strategies to market eco-friendly palm oil to the world, develop new, high value phytonutrients, and improve upstream productivity.

It achieved significant progress in 2013, despite the volatile market conditions over the past year. More smallholders took the bold step of replanting existing areas with better oil palm clones to improve yields and thus reap better returns while major plantation firms are taking to the Cantas tool for productivity improvements in a challenging labour market besides investing in downstream production plants to add more value to their exports.

The Malaysian Palm Oil Board (MPOB) has played the role as an enabler in these initiatives, from assigning personnel to ensure productivity in mills to formulating the Malaysian Sustainable Palm Oil certification system that would help the country reassure consumers about our commitments to preserving forests and wildlife.

The Government has also proactively helped the downstream sector emerge from a very difficult year after another palm oil producer revised their export taxes to make their products more attractive. For example, the Government discontinued a duty-free export quota of crude palm oil and reduced crude palm oil export taxes beginning 1 January 2013 to level the playing field.

With regard to the rubber industry, the plan is to regain the country's historic competitive advantage by boosting production and enhancing upstream activities that will ensure domestic supplies for latex glove and green rubber industries that Malaysia now dominates.

The Palm Oil and Rubber NKEA shows that Malaysia stands committed to meet growing demand for these key commodities as global population grows and becomes more wealthy and discerning. On this note, I would like to thank the various Government agencies, plantation firms and smallholders for signing on to make this NKEA a resounding success.

PALM OIL

Malaysia's palm oil industry has bolstered the economy since the colonial era. Palm oil continues to account for more than five per cent of the country's annual exports. However, more needs to be done to boost production and generate high-value products to maintain Malaysia's position as the world's leading downstream palm oil player.

A major challenge faced by the local industry is limited land space. Nonetheless, oil palm planted area expanded to 5.23 million hectares while scientists have mapped the oil palm genome and small farmers have benefited from Government incentives to boost productivity. Efforts have also been taken to capitalise on opportunities in the downstream segment of the palm oil industry, such as in the food and health-based segments, which have shown strong potential for growth.

The push to move into higher-value segments of the industry accounts for a major initiative under this NKEA. However, the country still has further inroads to make in exploring downstream opportunities. In 2013, only 18.6 per cent of Malaysian palm oil exports were made up of downstream products, compared to the 81.4 per cent of exports comprising upstream products. Therefore, it is imperative for Malaysian companies to invest further resources in downstream segments or in research and development (R&D) to ensure the industry's long-term sustainability.

Measures under the Palm Oil NKEA are targeted to generate RM178 billion in GNI by 2020. Towards this end, this NKEA will continue focussing on increasing upstream productivity and value-adding downstream activities.

2013 Key Performance Indicators

Palm Oil and Rubber NKEA		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
EPP #1	Area of replanting and new planting by independent smallholders (ha) - land preparation completed	30,000	15,005.44	50	●	50	●	0	●
EPP #2	Number of new smallholders cooperatives (launched)	7	7	100	●	100	●	1.0	●
	New area of plantation/smallholders complying with COP/NSGAP/RSPO/ best practice - (ha)	200,000	210,457.39	105	●	100	●	1.0	●
	Increase in national average yield (mt/ha/year)	5.0%	0.7%	14	●	14	●	0	●
EPP #3	Number of Cantas taken up by plantations and smallholders	1,500	1,247	83	●	83	●	0.5	●
EPP #4	Number of new palm oil mills certified by MPOB for Code of Practice and other international certification	25	28	112	●	100	●	1.0	●
	Oil extraction rate	21.05%	20.25%	96	●	96	●	0.5	●
EPP #5	Number of new mills built with biogas facility	8	5	63	●	63	●	0.5	●
	Number of new mills connected to national grid	2	1	50	●	50	●	0	●
EPP #6	Take-up rate for the oleo derivatives and bio-based acquisition funds	100%	0	0	●	0	●	0	●
EPP #8	Take-up of funds for food & health based products (RM mil)	100%	100%	100	●	100	●	1.0	●

(more on next page)

(continued from previous page)

Palm Oil and Rubber NKEA		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
EPP #9.1	Establishment of Malaysian Rubber Budwood Centre	2	2	100	●	100	●	1.0	●
EPP #9.2	Area of replanting and new planting by smallholders (ha)	47,000	47,119.12	100	●	100	●	1.0	●
	Malaysian export of natural rubber and compound rubber (million tonnes)	1.20	1.35	113	●	100	●	1.0	●
EPP #9.3	Malaysian export revenue from latex products (RM bil)	12.85	12.13	94	●	94	●	0.5	●
EPP #9.4	Production of ekoprena and pureprena (MT)	1,000	714.37	71	●	71	●	0.5	●
				78%		76%		59%	

Exhibit 5.1

Method 1 Scoring is calculated by a simple comparison against set 2013 targets. The overall NKEA composite scoring is the average of all scores

Method 2 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is less than 100%, score #2 is taken as the actual percentage
- If the scoring is equal or more than 100%, score #2 is taken as 100%. The overall NKEA composite scoring is the average of all scores

Method 3 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is equal and less than 50%, score #3 is indicated as 0
- If the scoring is more than 50% and less than 100%, score #3 is indicated as 0.5
- If the scoring is equal or more than 100%, score #3 is indicated as 1

ENTRY POINT PROJECTS

EPP 1 Accelerating the Replanting and New Planting of Oil Palm

High palm oil prices often discourage the industry from undertaking aggressive replanting schemes, leading to a backlog of ageing oil palm trees, above 25 years old, with yields declining to below 15 metric tonnes per hectare per annum. Small farmers and plantation firms often delay replanting schemes to profit from stronger prices, although this compromises productivity in the long-run.

This EPP, which targets to replant low-yielding mature trees with more productive seedlings, was initially planned to run for three years until 2013. This has since been extended to 2014 as the budget could not be fully used up due to land ownership and suitability issues in Sarawak under the new planting programme as well as low take-up rate for replanting incentives nationwide.

This initiative complements that of the target being set out under EPP 2, which is to increase the national Fresh Fruit Bunch yield to 26.2 metric tonnes per hectare by the year 2020.

Achievements and Challenges

To date, the backlog areas cleared by plantations and organised smallholders stood at 251,024 hectares – meeting the total three-year KPI target set in 2010 by the Lab, while the area of replanting and new planting by independent smallholders was recorded at 57,679.27 hectares from January 2011 to date. The effort to encourage independent smallholders to replant and new planting has been rather challenging especially in 2013. This year, the Government has set an ambitious 30,000 hectares as the target for replanting and new planting of oil palm by independent smallholders. Only 15,005.44 hectares, or 50 per cent of the 2013 target, of replanting and new planting were completed during the year.

The challenges faced by the Government in delivering this year's KPI target include uncertainty in oil palm prices, limited interest by independent smallholders to replant as well as land ownership and suitability issues in Sarawak.



A scientist looks at some of the palm shoots in a climate-controlled room

Applications for financial incentives of up to RM9,000 per hectare for independent smallholders to implement replanting or new planting were the highest from Sarawak. To safeguard the interests of the State and the smallholders in Sarawak on property rights, the State Government has imposed stricter land ownership and suitability verifications. This is an important process to ensure targeted assistance is given out to smallholders in suitable areas for oil palm planting that will deliver yields under the most optimum environment. As a result of this, there were delays in the implementation of the projects in 2013. The Government together with the independent smallholders are committed to complete the backlog projects in 2014.

Moving Forward

This EPP aims to continue to spearhead initiatives and provide financial assistance to independent smallholders to carry out replanting and new planting. This will contribute towards a sustainable supply of fresh fruit bunches with a reduction in the proportion of mature oil palms. Moving forward, the Government is committed to deliver the replanting and new planting by independent smallholders that were delayed in 2013 and has allocated an additional RM28 million to enable new applications by independent smallholders with an overall 2014 KPI target of 35,000 hectares.

EPP 2 Improving Fresh Fruit Bunch Yield

Smallholders, who constitute about 40 per cent of Malaysia's oil palm plantations, are being strongly supported by the government to boost their overall yield. This is part of the task to achieve the 2020 target of lifting annual yields to 26.2 metric tonnes per hectare for national average across all ownerships, smallholders and plantations included.

Some of the ways to achieve this is to encourage independent smallholders to adopt the best industry practices and set up cooperatives of oil palm planters across the country to educate and increase awareness of new technologies. The results speak for themselves with 210,457.39 hectares of land achieving compliance with various best practices in 2013, exceeding a target of 200,000 hectares.



Palm seeds are carefully sorted and packed for the nursery before being sold to other plantations that require high quality seeds

Achievements and Challenges

To date, this EPP has successfully established a total of 30 cooperatives. Under the umbrella of a cooperative, smallholders can enjoy bulk discount in purchasing agricultural inputs and more importantly, they receive better pricing for their produce sold to palm oil millers. In a pilot initiative, a smallholders' cooperative in Saratok managed to offer 20 per cent higher price for fresh fruit bunches produced compared to the price offered by existing dealers.

About 210,457.39 hectares have achieved compliance with best industry practices like MPOB's Code of Practices and Roundtable on Sustainable Palm Oil (RSPO). As the result yields have improved, the annual national average has risen to 19.02 metric tonnes of fresh fruit bunch per hectare in 2013 compared to 18.89 metric tonnes in the year before.

Moving Forward

EPP stakeholders will ensure the sustainability of the 30 established cooperatives and assist in lifting their business performances. As a start, the MPOB is now tasked with ensuring 10 cooperatives to sell a minimum 400 metric tonnes of fresh fruit bunches on average per month to maintain operating sustainability.

There will also be a greater push for more advisory visits to low yielding plantations besides ensuring the Malaysian plantations sector applies for and complies with the MPOB's Code of Practice and the Malaysian Sustainable Palm Oil (MSPO) certification scheme, which was formulated by the MPOB together with the industry.

EPP 3 Improving Worker Productivity



A field worker harvesting fresh fruit bunches

The palm oil industry has traditionally been a labour intensive sector, with the employment for field work that includes harvesting, fresh fruit bunch evacuation, maintenance and others dependent on foreign labour.

As such, this EPP aims to introduce new techniques and methods to smallholders and plantation companies that could help increase productivity and cut down on labour costs. To this end, the MPOB is spearheading an initiative that encourages the use of a motorised sickle called the Cantas™.

Achievements and Challenges

In 2013, a total of 1,247 units of Cantas™ were taken up by plantation firms and smallholders.

To familiarise the industry with the tool and to convince major stakeholders of its key improvements, MPOB has forged field trial partnerships with major plantations firms. This year, a field trial covering 21 estates showed the Cantas™ could harvest 6.75 metric tonnes of fresh fruit bunch a day, nearly double the 3.4 metric tonnes collected using the traditional sickle and pole.

Moving Forward

Cantas™ V2014, the latest model of the tool, will be introduced to the industry in 2014. The new model will allow harvesters to reach heights of 21-23 feet. A previous model, Cantas™ 5, only went up to 17 feet. The MPOB also plans to organise and host an oil palm mechanisation competition in 2014 with details to be made available in the first quarter. The main aim is to generate new ideas among industry players to boost worker productivity.

EPP 4 Increasing the Oil Extraction Rate (OER)



Heavy machinery is used to transport palm fruits to the mill via the rail system

A key performance indicator for the palm oil industry is its oil extraction rate (OER), which has remained lacklustre at below 20.5 per cent. The EPP aims to increase OER to 23 per cent by 2020, chiefly by getting more mills certified under the MPOB's Code of Practice. The MPOB has also placed more than 200 of its officers at selected mills across the country to provide advisory and enforcement services in crop quality. This will ensure that only high quality and ripe fresh fruit bunches are accepted and processed at all mills.

Achievements and Challenges

Year 2013 has been a challenging year as the statistics on national OER showed a dip by 0.10 per cent to 20.25 per cent in 2013 from 20.35 per cent in 2012. Four out of 12 states with oil palm mills saw improvement in OER - Kedah (+0.05 per cent), Malacca (+0.40 per cent), Selangor (+0.04 per cent) and Sabah (+0.03 per cent) while the other OER in the other states fell between 0.06 per cent to 0.31 per cent.

MPOB continued to strengthen the foundations to improved OER and quality of crude palm oil through adoption of standards. This is being carried out through awareness activities on the part of palm oil mills to comply and obtain certification under MPOB COP and other international certification such as RSPO. In 2013, a total of 28 mills were certified under MPOB's code of practice and other international certifications, exceeding the target of 25 mills.

Moving Forward

MPOB plans to hire an additional 53 enforcement officers to bring the total to 294 personnel. The enforcement officers will be assigned to targeted mills and they will be monitored and evaluated based on the OER performance and unripe crop intake at their assigned mills. This initiative is expected to contribute to increasing the OER at their assigned mills by 0.1 - 1 percentage point.

EPP 5 Developing Biogas Facilities at Palm Oil Mills

The milling process produces a by-product called palm oil mill effluent (POME) that needs to be treated via anaerobic digestion. This in turn generates a huge amount of methane – a greenhouse gas with renewable energy potential.

This EPP encourages palm oil millers to capture the methane via the construction of biogas trapping facilities that will transform the gas into heat and power that can be utilised in palm oil mills and the electricity can be also be channelled to the national power grid.

Achievements and Challenges

In 2013, one mill was successfully connected to the national grid and is selling electricity under the Feed-in-Tariff (FiT) programme. However, there remain significant technical challenges in ensuring a cost-positive outcome when mills are not located close to a grid. MPOB is working closely with the Ministry of Energy, Green Technology and Water (KeTTHA), the Sustainable Energy Development Authority (SEDA) and Tenaga Nasional Bhd to determine mills which are best suited for connection to the national grid.

Moving Forward

In late 2013, taking into consideration the industry's feedback on the lack of uses of biogas, the NKEA Palm Oil and Rubber Steering Committee approved a budget of RM8.5 million to invest in a pilot project to produce bio-compressed natural gas (bio-CNG) in collaboration with industrial partners. MPOB has identified the potential collaborator, a palm oil mill in Selangor owned by a major plantation company, as well as the technology providers. Detailed negotiations will be finalised by early 2014 before the construction of the pilot project can begin. Upon completion, the bio-CNG will be sold as a supplement fuel to nearby industrial customers which are located within 80 -140 km radius of the palm oil mill in Selangor.

To boost the image of a greener and sustainable palm oil industry, the Government is considering a proposal to impose a mandatory requirement for all mills, including new applications, to have a minimum methane trapping standard. Therefore, effective 1 January 2014, new mills and all existing mills which apply for throughput expansion will be mandated to install full biogas trapping or methane avoidance facilities. There are also plans to revise incentives for biogas to encourage more investments in the sector and channel more energy into the national power grid.

EPP 6 Developing High Value Oleo Derivatives and Bio-based Chemicals

Malaysia's downstream palm oil sector is in a state of flux. On one hand, top producer Indonesia has reformed its export tax regime to develop its downstream manufacturing sector, making refined palm oil products much cheaper and competing strongly against Malaysia's dominant market share. At the same time, consumers have become more environmentally conscious, shifting demand from petrochemicals to eco-friendly oleo-chemicals.

Together, both factors provide an opportunity for Malaysia's downstream sector to move towards production of higher value oleo-chemicals. Used in products ranging from food to industrial applications, capacity-building in this sector will also insulate plantations from volatile commodity price shocks, whilst reducing the over-reliance of the palm oil sector towards the upstream plantation segment.

Achievements and Challenges

Since the start of this EPP, seven companies including Kuala Lumpur Kepong Bhd and Emery Oleochemicals have committed investments totalling RM1.35 billion to develop plants and factories that specialise in producing these high-value oleo derivatives such as surfactants, a key ingredient in home and personal care products.

As these companies have committed a significant amount of investment in 2011 and 2012, it has been an uphill challenge to attract other major players in 2013. Nevertheless, discussions are underway for six new firms nationwide to set up processing plants.

Moving Forward

In order to encourage more players to participate in the oleo derivatives segment, the Government has allocated an additional budget of RM56 million as developmental grants in 2014.

EPP 7 Commercialising Second Generation Biofuels

This EPP aims to fast-track the commercialisation of biomass-to-liquid technology so that oil palm can be used to generate electricity, fire up boilers and to fuel diesel engines. This follows the global shift to develop biofuels from non-food biomass, commonly known as second generation biofuels, which are less likely to impact food prices. The palm oil industry has a key candidate for this in the form of oil palm biomass, made up of empty fruit bunches (EFBs), trunks and tree fronds.

In support of this initiative, the first edition of the National Biomass Strategy (NBS) 2020 was published in November 2011 by the National Innovation Agency (*Agensi Inovasi Malaysia* - AIM) after extensive collaboration between the Malaysian Government, private sector companies and research institutes. A subsequent edition (NBS 2020 v2.0) was launched in June 2013 to reflect all new activities from oil palm biomass to forestry and dedicated crops.

Achievements and Challenges

In June 2013, the local industry achieved a major breakthrough for the NBS with the formation of the Lahad Datu Biomass joint venture cluster in Sabah by local mill owners, AIM, the Sabah Ministry of Industrial Development and POIC Sabah. The cluster comprises an initial group of eight plantation companies including Teck Guan Group, Bell Group, Genting Plantations Bhd, Kelas Wira Sdn Bhd and Golden Elate Sdn Bhd, with the group expected to expand to include more mill owners as it progresses.

Collectively, the eight companies own over 20 mills in Lahad Datu and have a production capacity of more than 400,000 metric tonnes of biomass. A portion of this could be mobilised as feedstock for downstream activities such as solid and liquid second-generation biofuels and biochemicals in the area's Palm Oil Industrial Cluster.

Teck Guan group in Sabah has established Malaysia's first biomass-to-ethanol pilot plant in collaboration with Mitsui and Inbicon.

Another NBS 2020 initiative was the establishment of the Pellet Association Malaysia to help align Malaysian pellet producers to capture a larger share of the growing demand for biomass pellets in Asia, which is estimated to reach around 10 million metric tonnes per year by 2020. Malaysia has the potential to produce around 5-7 million metric tonnes of pellets per year by 2018. PAM now has 10 members, five of which have already started production of the biomass pellets.

As a direct impact from facilitation by PAM for the pellet industry, Malaysian biomass pellet manufacturers signed deals in October 2013 with companies from China and South Korea for the supply of biomass pellets to help meet their countries' renewable energy targets. These companies are Detik Aturan Sdn Bhd with South Korea's BC21 Co Ltd and Global Green Synergy Sdn Bhd with Chinalight (GuangZhou) Import & Export Corp of China.

In order to ensure Malaysian companies actively participate in these exciting new downstream industries, AIM has worked closely with other Government agencies and Ministries to provide incentives for companies wanting to turn biomass into fuels or chemicals. In addition, Malaysia's Renewable Energy Act 2011 provides a Feed-In Tariff for renewable energy from biomass.

One challenge in the use of biomass is that the vast majority of oil palm biomass generated today, which is returned to the field for soil replenishment and nutrients release, only contributes a small percentage of total fertiliser requirements. As such, a critical success factor will be the mobilisation of biomass, both with regard to logistics and the cost of logistics, to ensure globally competitive costs. It will also be critical to create best-practice joint structures to enable smaller mills and smallholders to participate.



A renewal energy biomass plant

Moving Forward

It is critical that biomass owners adopt a longer-term view to extract higher value biofuels (pellets, bioethanol, butanol) and second-generation bio-based chemicals from the available biomass.

The creation of multiple joint-venture (JV) clusters throughout the country between now and 2020 will help alleviate the risk of vertical market failure between the owners of biomass and downstream users and to enable the mobilisation of a large amount of biomass within a location. Ideally, JV clusters would take ownership stakes in downstream industries, thereby giving the owners of biomass a share in the additional value creation. The Government can facilitate the establishment of such partnerships and provide capabilities, expertise and advice where required by the biomass owners.

It is expected that from 2014 to 2017, the JV clusters will increasingly focus on bioenergy and biofuels (solid and liquid) production. From 2017 to 2020, when biomass-to-chemicals becomes commercialised, the JV clusters will increase production of bio-based chemicals.

Spotlight on the National Biomass Strategy 2020

The usage of biomass for higher value products such as fuels and chemicals, is new globally, and this is a unique opportunity for Malaysia to be at the forefront. Recent announcements of commercial scale second-generation biofuels production have accelerated predictions of technology maturity, with global production expected to begin by 2015. The National Biomass Strategy (NBS) 2020 plays an instrumental role in allowing Malaysia to capture opportunities in this sector.

NBS 2020 aims to assess and inform stakeholders on how Malaysia can develop new industries and high-value opportunities by utilising agricultural biomass for high value products. This will help catapult Malaysia to the forefront of the development of new biomass-based industries, ultimately contributing towards Malaysia's GNI and high-value job creation.

The strategy also seeks to capitalise on opportunities available from the significant amount of biomass generated every year from Malaysia's agriculture sector; in addition to biomass derived from forestry, dedicated biomass crops and municipal waste. Furthermore, the palm oil sector, as the largest contributor to the agriculture industry, correspondingly generates the largest amount of biomass, estimated at 83 million dry tonnes in 2012. This is expected to increase to about 100 million dry tonnes by 2020, primarily driven by increases in yield.

Mobilising a portion of this oil palm biomass could result in significant incremental income to the country's economy. 25 million metric tonnes of biomass mobilised from the palm oil sector by 2020 in a portfolio of energy pellets, wood products, electricity, biofuels and bio-chemicals, could contribute an additional RM30 billion per year to the economy and create 65,000 new jobs, many of which are of high value.

The different uses of biomass possess very different risk-return profiles depending on technological maturity, global demand potential and competitive dynamics. The highest-value opportunities – biofuels and bio-based chemicals – also carry the highest technological uncertainties and competitive risks. Therefore, a portfolio approach is critical for the nation to ensure there are short-to-medium-term investments in immediate opportunities and longer-term investments in higher value-added opportunities.

Over and above a significant incremental contribution to the nation's income, the NBS 2020 offers Malaysia a way to meet its renewable energy target and reduce emissions. Moreover, the strategy offers an opportunity for Malaysia to build several biofuels (pellets and ethanol) and bio-based chemical downstream clusters to ensure the nation and its citizens benefit from the downstream value creation potential.

In order to ensure realisation of NBS 2020, the PM launched the 1Malaysia Biomass Strategy delivery unit (1MBAS) led by AIM. 1MBAS will facilitate and provide support to all local and international companies that have interest to participate and create sustainable biomass industries in Malaysia.



Biomass from the palm oil sector could contribute RM30 billion

EPP 8 Expediting Growth in Food and Health-Based Segment

Playing a complementary role to EPP 6, this EPP focusses on driving the expansion of the food and health-based downstream segment of the palm oil industry. This is to capitalise on opportunities in this segment, which produces a variety of innovative health and beauty products. The potential is similar to the development of fish oil and its anti-cancer omega-3 fatty acids, which has grown into a multi-billion dollar global industry.

To date, much of the efforts were put in place to promote the production of Tocotrienol, a palm-based phytonutrient which is also part of the Vitamin E family. Tocotrienol can be used in a variety of pharmaceutical and healthcare applications as preliminary research has shown that the nutrient can help fight fatty liver disease, reduce cardiovascular diseases, prevent strokes and help to combat various types of cancers.

The MPOB has taken the initiative to award research grants to international research institutions for conducting clinical trials related to palm-based phytonutrients such as carotenes, tocotrienols and palm phenolics. Beneficiaries of these grants include Ohio State Medical University in the United States, South Africa's Cape Peninsula University of Technology and Australia's Commonwealth Scientific and Industrial Research Organisation.

Studies on tocotrienols are also being conducted extensively in Malaysia, which already is the world's largest supplier and exporter of the product. As an example, trials on the use of tocotrienols for neuroprotection in type 1 and type 2 diabetes patients are being conducted in Universiti Sains Malaysia, Penang.

Davos Life Science, a subsidiary of Kuala Lumpur Kepong Bhd, has also completed its move from Singapore to Malaysia, setting up the world's largest tocotrienols production complex in Klang. Carotino Sdn Bhd, another company based in Pasir Gudang, Johor, has invested in a phytonutrient plant.

Achievements and Challenges

In 2013, MPOB identified three new high-value investments that amount to RM218 million. These comprise a project in Pasir Gudang, Johor, which will produce specialty fats while two other plants in Kuantan, Pahang, and Bintulu, Sarawak, will be producing tocotrienols. The development of the three plants is expected to begin in early 2014 and completed by mid-2015.

Additionally, agreements for three research and development projects were signed in 2013, following approval by the NKEA steering committee in 2012. The signing of the agreements were delayed in 2012 as the terms of the agreements were not finalised.

Moving Forward

To further encourage more R&D and commercial projects in this high potential sector, the Government has allocated RM50 million under Budget 2014.

Did you know that?

- Crude palm oil contains around 1 per cent of valuable components (phytonutrients) that are beneficial to health. These phytonutrients include tocopherols, tocotrienols, carotenoids, phytosterols, squalene, lecithin, co-enzyme Q10 and polyphenols
- Crude palm oil is nature's richest source of carotenoids as compared to other vegetable oils - **15 times more than carrots, and 30 times more than tomatoes**
- Other health benefits of carotenoids include anti-cancer, anti-oxidant, stimulation of the immune system, cardioprotection, prevention of night blindness and cataracts

RUBBER

As one of the first commercially-produced agriculture commodities in Malaysia, the rubber industry is one that historically, possessed a competitive advantage. However, the country's natural rubber productivity began declining upon the introduction of oil palm cultivation in the 1980s.

In view of this, initiatives under this NKEA seek to boost production and enhance upstream activities in the industry. Key targets for the rubber industry include ensuring availability of domestic supplies to develop higher-valued rubber products. Efforts will also focus on strengthening Malaysia's niche in areas such as latex glove and green rubber production.

By 2020, these efforts are targeted to increase the industry's contribution to GNI to RM52.9 billion.

EPP 9.1 Increasing Average National Rubber Productivity

From supplying glove manufacturers and automobile makers, the rubber industry is the second-largest in the world after iron and steel. However, the industry has not reached its full potential as growers are struggling to lift supply and meet demand. This has mainly been due to a shortage of skilled tappers, unpredictable weather and limited availability of land to expand rubber cultivation.

To realise an annual productivity target of 2,000 kg per hectare by 2020, this EPP has taken on a variety of initiatives:

Seeds Production Areas (SPA)

Malaysia needs to grow rootstocks to produce high-yielding planting materials. SPA was established by the Malaysian Rubber Board (MRB) to supply additional rubber seeds for the preparation of the rootstocks by nurseries, should it be necessary.

Malaysian Rubber Budwood Centre (MRBC)

The MRBC supplies sufficient quantity of high quality bud-eyes to nurseries to produce planting materials of high-yielding clones. There are currently four MBRCs across the country, which each cover an area of 15-30 hectares.

i-KLON and RiTeS

i-KLON, a digital scanner, was introduced to add value to the current process of screening rubber clones that is usually done manually and also to speed up the certification process for nurseries. To this end, a subjective mechanism, known as the Rubber Information and Traceability System (RiTeS), was also developed to monitor and track the sources of planting materials.

ARTS and Other Systems to Support Mechanisation

The Automatic Rubber Tapping System (ARTS) is undergoing pre-commercial trials at the MRB's field and Sime Darby's plantation. Several technologies to mechanise field operations were also launched, including Soil Filling Machines (SoFiL), Planting Machines (PMac) and Latex Collection Vehicles (LCV).



Replanted rubber trees tapped for latex

Good Agricultural Practices (GAP)

The Rubber Industry Smallholders Development Authority (RISDA) and the Sabah Rubber Board (*Lembaga Industri Getah Sabah* – LIGS) have spearheaded training smallholders across Malaysia to ensure young rubber trees are grown to reach their highest potential.

Achievements and Challenges

The Malaysian Rubber Board met its 2013 target of setting up two new Rubber Budwood Centres for the year. Located in Kota Tinggi, Johor, and Sungai Sari, Kedah, the centres will cater to the industry's need for high-quality planting materials.

Moving Forward

This KPI will no longer be tracked from 2014 as no more rubber budwood centres are required following the establishment of the Kota Tinggi and Sungai Sari centres this year, providing sufficient supply of budwood.

EPP 9.2 Ensuring Sustainability of the Upstream Rubber Industry

Rubber planting land has progressively been converted for use by other cash crops, reducing acreage by 27.3 per cent to 1.04 million hectares in 2012/2013 from 1.43 million hectares in 2000. This EPP will ensure rubber areas are expanded and maintained at 1.2 million hectares, of which 1 million hectares are harvested. With yields expected to reach 2,000kg per hectare each year by 2020, Malaysia is set to produce 2 million metric tonnes of rubber that can comfortably meet the demand requirements of the downstream sector.

The Government, through implementing agencies such as RISDA, LIGS (Sabah), DOA (Sarawak), FELDA and FELCRA, is also supporting replanting and new planting activities among small farmers by offering grants ranging from RM9,000 to RM14,000 per hectare. Generally, most of the replanting occurs in Peninsular Malaysia while new planting takes place in Sabah and Sarawak.

Achievements and Challenges

In 2013, approximately 47,119.12 hectares of rubber replanting and new planting has been implemented nationwide. Rubber replanting and new planting is carried out by three main implementing agencies across Malaysia namely RISDA, LIGS and DOA. RISDA, which focuses mainly on the replanting of rubber nationwide, planted a total of 39,721.38 hectares during the year. LIGS carried out 4,610.21 hectares worth of new planting in Sabah while DOA implemented 2,787.53 hectares of new planting in Sarawak.

Moving Forward

The Government has allocated a total of RM244 million worth of developmental funds for the year 2014 for the continual efforts in promoting replanting and new planting of rubber in Malaysia.

EPP 9.3 Increase World Market Share of Latex Gloves to 65 per cent by 2020

Malaysia is home to the world's leading rubber glove producers who collectively are a key employer and revenue generator in the country. However, these glove-makers face labour shortages and tight rubber supply. To this end, the industry has embarked on automation to cut down its reliance on manual labour while investing in ensuring a steady supply of raw materials.

This EPP aims to boost the global market share of Malaysia's natural rubber gloves to 65 per cent by 2020 with an annual rate of 13 per cent.

Achievements and Challenges

The total export revenue of Malaysian latex products, of which latex gloves is a major contributor, was recorded at RM12.13 billion in 2013, accounting for approximately 94.4 per cent of the targeted revenue of RM12.85 billion for the year.

Moving Forward

The total export revenue of Malaysia latex products in 2014 is targeted at RM13.5 billion.

EPP 9.4 Commercialising Ekoprena and Pureprena

The MRB has driven the domestic natural rubber industry to stay one step ahead of regional competition by capitalising on growing environmental awareness that has created consumer preference for natural and renewable materials over synthetic products.

Malaysia is now the pioneer in the production of specialty rubber such as epoxidised natural rubber (Ekoprena) and deproteinised natural rubber (Pureprena) that can be used in green tyres and high-performance engineering products. In this regard, FELDA Rubber Industries Sdn Bhd (FRISB), a subsidiary of FELDA Holdings Bhd, has been involved in the production of these green specialty rubber products.

Since 2012, FRISB has produced Ekoprena and Pureprena using the MRB's facilities in Selangor.

Achievements and Challenges

In 2013, FRISB started producing Ekoprena and Pureprena in their own production plant in Palong 8, Negeri Sembilan. A total of 714.37 metric tonnes of Ekoprena and Pureprena has been produced, accounting for approximately 71.4 per cent of the targeted production of 1,000 metric tonnes for the year. The products have been introduced to the market by way of promotional samples to potential customers, technical visits to major tyre companies such as Pirelli in Italy and Hankook in Korea as well as global conferences and industry meetings.

Moving Forward

The total targeted production of Ekoprena and Pureprena for the year 2014 is 2,000 metric tonnes.

BUSINESS OPPORTUNITIES

1

Palm oil's profitability stems from its yields and versatility. Once planted, the tree can produce edible oil for more than 25 years, yielding more edible oil per hectare than any other oilseed. Palm oil finds its way into products ranging from lipstick and soap to biofuels, positioning itself for major growth in the years ahead and providing income and employment to rural communities.

Expansion of Plantation Land Bank

As land runs out in Malaysia and becomes more expensive to develop in Indonesia, plantation firms listed in Malaysia, Indonesia and Singapore have turned to greenfield areas in Myanmar, Philippines as well as West African countries.

The policy encompasses five strategic thrusts, namely:

- Thrust 1: Biofuel for Transport
- Thrust 2: Biofuel for Industry
- Thrust 3: Development of Indigenous Biofuel Technologies
- Thrust 4: Biofuel for Export
- Thrust 5: Biofuel for Cleaner Environment

2

Development of Existing Downstream Activities

Malaysia is counting on increased awareness of the benefits of palm-based tocotrienols to boost the industry towards further growth. It is already the world's biggest commercial exporter of tocotrienols, exporting RM50 million of the supplement to major markets such as the US, Europe, Japan and South Korea.

The development of National Biodiesel Activities through the blending of palm biodiesel in the national diesel supply is an integral part of the policy. This will help reduce greenhouse gas emissions, enhance palm oil utilisation, reduce palm oil stocks and boost the palm oil price.

Achievements and Challenges

The implementation of biodiesel use in the country requires the establishment of blending facilities in 36 petroleum terminals all over the country. As of October 2013, 13 blending terminals have been completed, with the rest targeted for completion in phases by July 2014.

3

Development of National Biodiesel Activities

Summary

The development of national biodiesel activities is in line with the National Biofuel Policy, which was launched in 2006. The National Biofuel Policy envisions:

- The use of environmentally friendly, sustainable and viable sources of energy to reduce the dependency on depleting fossil fuels
- Enhanced prosperity and well-being of all the stakeholders in the agriculture and commodity-based industries through stable and remunerative prices

The implementation of the B5 (blend of 5 per cent palm biodiesel with 95 per cent petroleum diesel) programme in the subsidised transport sector commenced in retail stations in the central region of Peninsular Malaysia beginning with Putrajaya in June 2011, and was extended to Malacca, Negeri Sembilan, Wilayah Persekutuan Kuala Lumpur, and Selangor by the end of 2011. In February 2012, it was extended to the skid tanks fleetcard and fisheries sector in the central region.

With the completion of three blending facilities in Johor, the B5 programme was launched in the south (Johor) in July 2013. The implementation of B5 in all retail stations and other subsidised sectors in central and south Peninsular Malaysia will utilise about 150,000 metric tonnes of biodiesel a year (requiring 150,000 metric tonnes of palm oil as feedstock).

One of the challenges in implementing the B5 programme is the difficulty in obtaining quick approval from some local authorities. This has delayed the B5 programme for the Northern region.

Moving Forward

In 2014, the construction of all blending terminals will be completed. It is envisaged that B5 implementation for the subsidised sector will be implemented for the Eastern and Northern regions of Peninsular Malaysia by February and March 2014, respectively, and for Sabah and Sarawak by July 2014.

The implementation of the B5 programme in the industrial sector will commence in July 2014 together with nationwide implementation, with nationwide implementation of the programme to utilise 500,000 metric tonnes of palm oil a year. In the meantime, consultations are underway with all stakeholders such as vehicle manufacturers, petroleum companies, biodiesel producers and various industries on increasing the blend to B7 and subsequently to B10.

However, issues of engine warranty must be resolved for blends higher than B5, particularly above B7. As such, MPOB is in the process of conducting field trials and engine tests on B10 before any decision is made on mandatory B10 implementation. The use of biodiesel above 10 per cent blend is encouraged on a voluntary basis for engines and plants which can use higher blend ratios.

It is expected that by 2014, the palm biodiesel industry will be revitalised with at least 10 plants in operation, supplying the needs of the local biodiesel programme and for export. The challenge is to overcome the technical issues for the local programme and increase the blending ratio to 10 per cent at the earliest possible date.

Summary of Palm Oil and Rubber NKEA

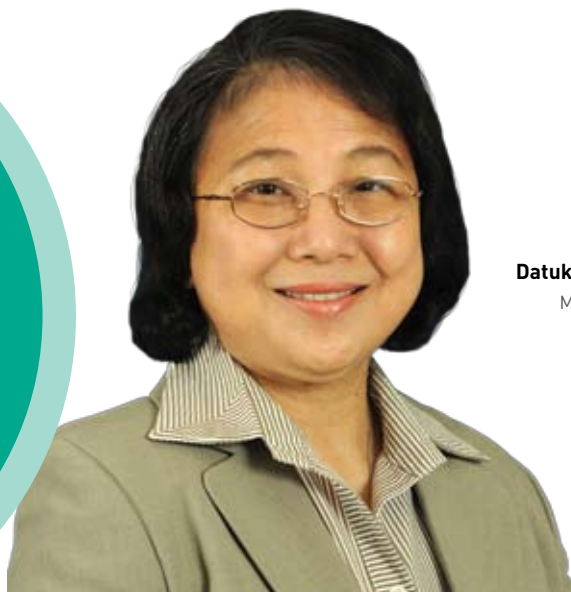
	2020 Target
Incremental GNI Impact	RM230.9 billion
Additional Jobs	41,600
Critical targets for 2014	
Palm Oil	
<ul style="list-style-type: none"> • Area of replanting and new planting by independent smallholders to 35,000 hectares • Ensure that 10 cooperatives are able to sell a minimum of 400 metric tonnes of fresh fruit bunch on average per month to maintain operating sustainability • Improve national oil extraction rate to 21.05% • Encourage uptake of connection to the Feed-in Tariff system by biogas plants 	
Rubber	
<ul style="list-style-type: none"> • Area of replanting and new planting of rubber by independent smallholders to 47,000 hectares • Improving the export of natural rubber and compound rubber to 1.2 million metric tonnes • Establishing the market for Ekoprena and Pureprena as well as ensuring that production is increased to 2,000 metric tonnes 	



Enabling Change

PALM OIL AND RUBBER

*on the ground with
the public service*



Datuk Dr. Choo Yuen May

MPOB Director-General

As the world's second-largest producer and exporter of palm oil and palm oil-based products, the world's top producer and exporter of rubber gloves and the third-largest exporter of natural rubber, Malaysia has long enjoyed the benefit of being a commodities-driven economy. Yet the Palm Oil and Rubber NKEA does not just represent an industry which has helped to drive the Malaysian economy – the industry also provides important opportunities for Malaysia to move higher up the value chain, while helping to raise incomes of commodity-based entrepreneurs.

"I have tried to create a conducive ecosystem to nurture innovation, as innovation is pivotal to the success of the industry," says Malaysian Palm Oil Board (MPOB) Director-General Datuk Dr. Choo Yuen May, who is responsible for providing strategic direction in research and development including planning, development and implementation of programmes for the oil palm industry.

The efforts of Datuk Dr. Choo and her team have been credited with leading innovations that have since gained commercial success, including in palm biodiesel and phytonutrients, especially carotenes and tocotrienols. Further efforts from Datuk Dr. Choo and MPOB also ensured these innovations could be achieved amid challenges which may have hindered Malaysia's progress in this area.

"Being a scientist myself, I have deep empathy for the constraints faced by researchers and have taken steps to improve working conditions and put in place relevant reward systems to recognise the contributions of MPOB officers. I formulated research strategic and non-research strategic thrusts to address pertinent issues and challenges facing the oil palm industry and to elevate MPOB to a world-class organisation," says Datuk Dr. Choo.

These initiatives proved fruitful when MPOB succeeded in publishing two papers on the oil palm genome in *Nature*, an internationally-renowned scientific journal. The Board's efforts in research also demonstrates its firm commitment to raising productivity and sustainability through innovation, and is further in line with the Palm Oil NKEA's target of increasing the value of the industry.

Efforts under the Rubber NKEA also focus on innovation and sustainability within the industry, as governed by the Malaysian Rubber Industry Strategies and the Malaysian Rubber Board Strategies 2010-2020.

"The Malaysian Rubber Industry Strategies are aimed at sustaining the Malaysian rubber industry's contribution to a high-income economy while the Malaysian Rubber Board Strategies chart a roadmap to enable the Malaysian Rubber Board's (MRB) transition as a global centre of excellence for rubber. The strategies outline the prioritisation, implementation and the expected outcome that the MRB would undertake to ensure the continued sustainability of a fully integrated rubber industry," says Datuk Dr. Salmiah Ahmad, Director-General of the MRB.

Mechanisation is another core thrust to ensure sustainability of the rubber industry, with the goal of attracting higher local-worker participation making up a key goal under this measure. "Given the lack of interest among local workers to work in the plantation and the difficulty in employing foreign workers in the near future, the way forward for the plantation industry is to undertake greater mechanisation efforts," says Datuk Dr. Salmiah.

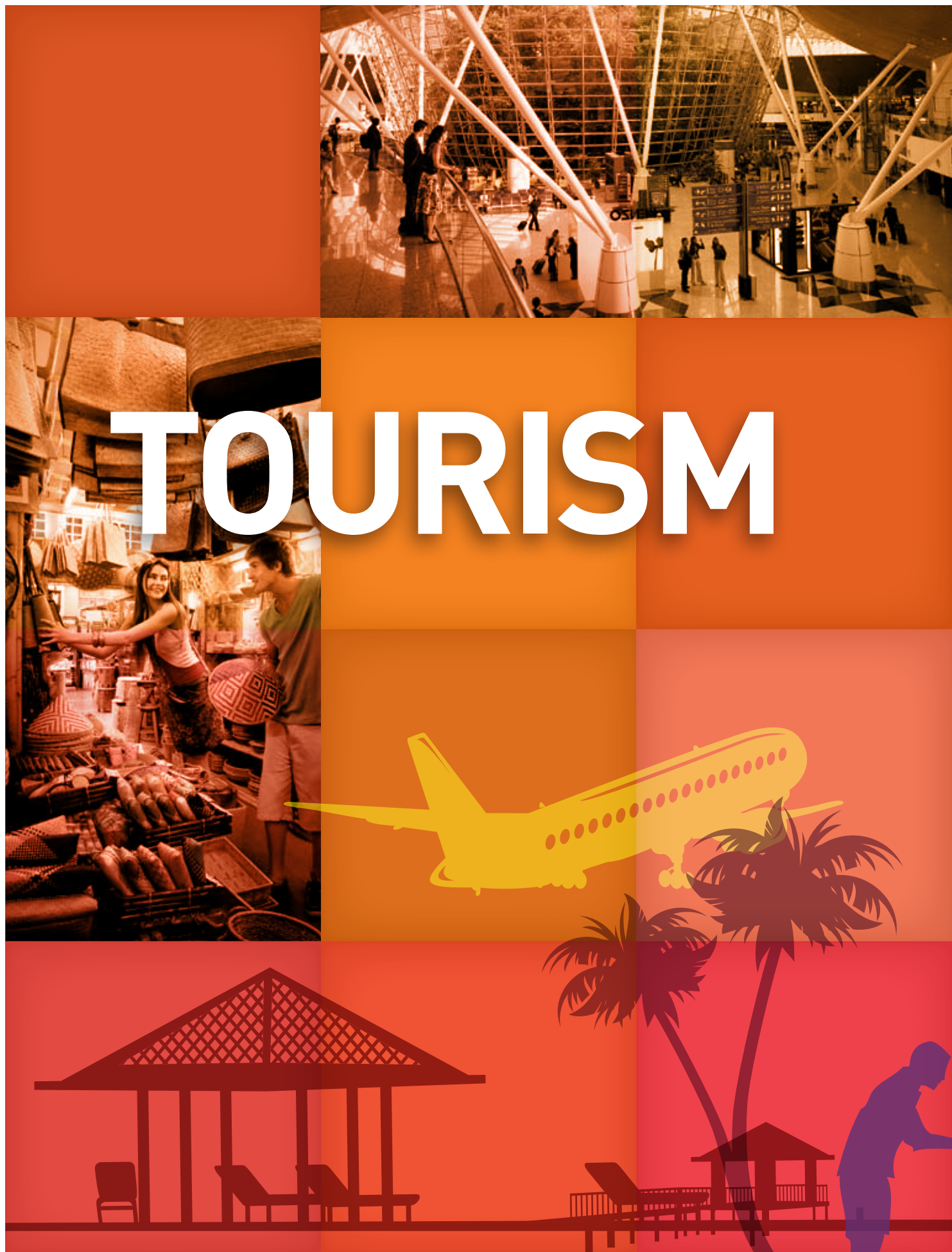
Equally vital is the MRB's role in promoting the growth of the industry's 450,000 smallholders, guided through policies from the Ministry of Plantation Industries and Commodities and which will further ensure the sustainability of the rubber industry.

Datuk Dr. Salmiah says: "In Malaysia, smallholders in the rubber and oil palm sector are an integral part of the ETP. This also applies to the whole value chain of rubber industry both upstream and downstream. My utmost responsibility, be it rubber or any other commodity, is to help the smallholders to address rural poverty and raise their socio-economic levels."



Datuk Dr. Salmiah Ahmad

MRB Director-General



TOURISM



Dato' Seri Mohamed Nazri Abdul Aziz
Minister of Tourism and Culture



Tourism continues to assume a key role in the Economic Transformation Programme (ETP) to propel Malaysia into a high-income nation by the year 2020.

The tourism sector contributed significantly to the economy as it accounted for 12.5 per cent of Gross Domestic Product (GDP) and 16.4 per cent of total employment in 2012. In absolute terms, the tourism sector provided 2.1 million jobs and generated RM103.3 billion in income from international and domestic tourism. Additionally, the tourism sector is the second largest foreign exchange earner with tourist receipts of RM60.6 billion in 2012, registering a surplus in the tourism and travel services account of the Balance of Payments.

Globally, Malaysia was ranked as the 10th most-visited nation on the World Tourism Organisation (UNWTO)'s Tourism Highlights 2013 Edition with a record high of 25 million tourist arrivals in 2012. Kuala Lumpur has also been ranked as the 4th best shopping city in the world by CNN Travel for two consecutive years since 2012. In addition, Lonely Planet's Best in Travel 2014 has listed Malaysia as one of the top 10 countries to visit. This international recognition bears testimony to the attractiveness of Malaysia as a preferred tourist destination.

The strong performance of the tourism sector can be attributed to, among others, the commitment of the Government and enhanced public-private partnership. It also contributed towards the achievement of Key Performance Indicators under NKEA Tourism in 2013. In addition, the merging of the tourism and culture portfolios under a single Ministry in May 2013 has resulted in greater synergy towards tourism development, which in turn, will provide further impetus to expedite the growth of the tourism industry.

Moving forward, Malaysia will celebrate VISIT MALAYSIA YEAR (VMY) in 2014 with the theme **"Celebrating 1Malaysia Truly Asia"**. VMY 2014 is a national mission that mobilises Government agencies, private sector firms, non-Governmental organisations and citizens to offer our Malaysian hospitality to foreign and domestic tourists. In addition, the entire value chain of the tourism industry will be raised to realise a higher level of tourism services and product offerings including mega events, concerts and festivities.

The nation is also geared up for Malaysia Year of Festivals 2015. Taking into account the concerted effort that will be undertaken during VMY 2014 and the Malaysia Year of Festivals 2015, the tourism industry is expected to grow at a higher trajectory and, therefore, is poised to achieve the targets of welcoming 36 million tourists and generating RM168 billion in foreign exchange earnings by the year 2020.

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TOURISM

A major contributor to Malaysia's GDP, the tourism industry has sustained an average growth rate of 12 per cent per annum since 2004. The sector continues to fare well, with Malaysia representing the only Asian country to have made the cut in Lonely Planet's "Best in Travel 2014 – Top 10 countries", ranking 10th on the list. Malaysia was also ranked by Singapore's Crescent Rating as the world's best Muslim travel destination in 2013.

The Tourism NKEA will continue to focus on high-yield tourism, driving economic and employment growth for the nation. Targeting leisure and business tourism, the NKEA will also focus on growing tourist arrivals and receipts to stimulate the industry's contribution to the nation's economy.

The targets set under the Tourism NKEA will be achieved through the implementation of 12 EPPs clustered under five themes: Affordable luxury, nature adventure, family fun, events, entertainment and business tourism. Additionally, three Business Opportunities have been identified within this NKEA, revolving around food and beverage outlets, local transportation and tour operators. The development of this NKEA, led by the Ministry of Tourism and Culture, is also supported by cooperation with other ministries, agencies and the private sector.

2013 Key Performance Indicators

Tourism NKEA		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
EPP #1	Shopping spend per tourist (RM)	840	769	92	●	92	●	0.5	●
EPP #2	Retail revenue per sq ft (RM/sq ft)	1,500	1,574	105	●	100	●	1.0	●
EPP #3	Establishment of 2nd outlet center	20%	100%	100	●	100	●	1.0	●
EPP #4	Complete upgrade of sites with Malaysia Mega Biodiversity Hub potential	2 sites	97%	97	●	97	●	0.5	●
	Establishment of Rainforest Discovery Centre	Confirm site	100%	100	●	100	●	1.0	●
EPP #6	Number of international cruise calls at 6 terminals (Port Klang, Penang, Langkawi, Malacca, Kota Kinabalu, Kuching)	380	359	94	●	94	●	0.5	●
EPP #7	Number of international tourists at International Events supported by MyCEB	56,800	97,211	171	●	100	●	1.0	●
EPP #8	Establishment of entertainment zones	1	2	200	●	100	●	1.0	●
EPP #9a	Number of spa therapists trained/undergoing training	165	150	91	●	91	●	0.5	●
EPP #9b	Revenue generated from golf tourism (RM mil)	300	304	101	●	100	●	1.0	●
EPP #10	Number of delegate days for events secured (international delegates only)	195,000	289,867	149	●	100	●	1.0	●

(more on next page)

(continued from previous page)

Tourism NKEA		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
EPP #11	Increment of weekly seats to identified priority countries (China, Japan, India, Taiwan, Australia, Korea)	17,921	17,921	100	●	100	●	1.0	●
	Increment of weekly seats to new market (France) to be identified by MOT and MOTAC	1,484	1,484	100	●	100	●	1.0	●
EPP #12	Availability of new 4 & 5-stars hotel rooms	4,000	4,173	104	●	100	●	1.0	●
				115%		98%		86%	

Exhibit 6.1

Method 1 Scoring is calculated by a simple comparison against set 2013 targets. The overall NKEA composite scoring is the average of all scores

Method 2 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is less than 100%, score #2 is taken as the actual percentage
- If the scoring is equal or more than 100%, score #2 is taken as 100%. The overall NKEA composite scoring is the average of all scores

Method 3 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is equal and less than 50%, score #3 is indicated as 0
- If the scoring is more than 50% and less than 100%, score #3 is indicated as 0.5
- If the scoring is equal or more than 100%, score #3 is indicated as 1

ENTRY POINT PROJECTS

EPP 1 Positioning Malaysia as a Duty-Free Shopping Destination

This EPP aims to create an environment that allows retail products to be offered at competitive prices to attract tourists and increase sales in order to position Malaysia as the region's duty-free haven by 2020.

To this end, efforts under this EPP have focussed on the abolition of import duties, especially on products which have high tourist spend. This began with the announcement in Budget 2011 on the removal of import duties on 328 items under eight categories.

Additionally, Tourism Malaysia and the Ministry of Domestic Trade, Co-operatives and Consumerism have begun monitoring the price of goods to assess the country's product and price competitiveness against its regional neighbours.

Achievements and Challenges

Strategic efforts by Tourism Malaysia to promote shopping in Malaysia has increased total tourist shopping spend per arrival from RM743 in 2012 to RM769 in 2013.

During the year, various promotional initiatives focussed on creating awareness on duty free shopping to the domestic and regional markets. These included the Kuala Lumpur Fashion Weekend, Duty-Free Roadshows to Kuala Lumpur, Penang, Johor Baru and Kota Kinabalu, and Seminar Presentations to British Brand Owners and Principals to encourage their presence in Malaysia.

Moving Forward

Tourism Malaysia will continue to lead both promotional and awareness campaigns for shopping in Malaysia. Engagement efforts with leading brands and key shopping markets to promote Malaysia's offerings will also be intensified.

EPP 2 Designating Bukit Bintang-Kuala Lumpur City Centre Area as a Vibrant Shopping Precinct

Although a thriving business district and a major tourist attraction, Kuala Lumpur has seen its ability to draw shoppers hampered by limited connectivity and relative isolation between its key shopping areas. This restricted the growth of the city's shopping areas, while creating poor traffic flows, inaccessibility for pedestrians, poor streetscape and an overall lower yield on tourism-related assets such as hotel rates and retail rental.

This EPP addresses these issues to increase the city's vibrancy as a shopping destination by connecting its major shopping centres, Bukit Bintang and Kuala Lumpur City Centre (BB-KLCC), into a single precinct.

The connectivity of the precinct has been improved with the construction of pedestrian walkways and improvements in public transportation. The EPP has also seen the establishment of the BB-KLCC Tourism Association, comprising landowners, mall owners and retailers, to manage, promote and develop the precinct into a major tourist attraction.

Achievements and Challenges

The BB-KLCC Tourism Association has continued with branding and promotional efforts towards making BB-KLCC an international shopping paradise. During the year, the archways under a Street Illumination project at Bukit Bintang and KLCC, together with the fountains, chandeliers and meteor lights along the streets were refreshed according to the festivities in Malaysia. This followed the launch of the first phase of the Street Illumination project in 2012.

Members of the Association, in collaboration with Tourism Malaysia, also organised the year-end World Fiesta, a signature event under this EPP. The fiesta, which was promoted to visitors and tourists, increased the vibrancy in the area, featuring floats and performances from seven continents.



BB-KLCC World Fiesta

The Association is also working closely with the police to enhance security for tourists and visitors in the vicinity to ensure that it is a safe place to visit.

A notable initiative in 2013 was a collaborative operation led by the Polis Diraja Malaysia (PDRM) to assist in the cleaning up of the BB-KLCC area in the lead-up to Visit Malaysia Year 2014. Agencies & Ministries involved included *Suruhanjaya Pengangkutan Awam Darat* (SPAD), *Jabatan Imigresen Malaysia*, *Jabatan Pengangkutan Jalan* (JPJ), *Dewan Bandaraya Kuala Lumpur* (DBKL), *Jabatan Kebajikan Masyarakat* (AADK), Ministry of Domestic Trade, Co-operatives and Consumerism, Ministry of Tourism and Culture and Tourism Malaysia.

Moving Forward

The BB-KLCC Tourism Association will continue to step up efforts in providing more events and promotional initiatives to complement shopping within the area. In addition, the Association will continue working with mall and shop operators in the area to organise more engaging events for visitors.

Spotlight on the Private Sector: Bukit Bintang-Kuala Lumpur City Centre (BB-KLCC) Tourism Association

Established in September 2011, the BB-KLCC Tourism Association supports the Ministry of Tourism and Culture by improving connectivity and streetscaping in the city, while increasing its commercial mix to increase shopping spend in the area.

Its responsibilities include organising world-class events at the precinct to draw visitors from across the globe.

Members of the Association include Bukit Bintang Plaza, Berjaya Times Square, Fahrenheit88, Federal Hotel KL, Lot 10, Piccolo Mondo, Plaza Low Yat, Pavilion Kuala Lumpur, Sungei Wang Plaza, Suria KLCC and Starhill Gallery.

EPP 3 Establishing Premium Outlets in Malaysia



An artist impression of Mitsui Outlet Park KLIA bird's-eye view

The establishment of premium outlets offering discounted luxury items in Malaysia aims to support the country's goal of becoming a leading shopping destination in the region, complementing its existing retail offerings. This will draw more tourists and increase tourist spend by providing better retail offerings.

This EPP has since overseen the successful launch of Johor Premium Outlets in 2011 as well as its fast-track expansion. Being the first retail destination of its kind in Southeast Asia, Johor Premium Outlets, along with other attractions in Iskandar Malaysia such as Legoland, Lat's Place and Hello Kitty theme parks has increased visitors to Johor and the southern region of Malaysia.

Achievements and Challenges

Johor Premium Outlets opened its second phase with an additional 40 outlets on 15 November 2013. It now houses a total of 120 outlets, providing a larger and enhanced shopping experience for the public and tourists alike.

Malaysia Airports Holdings Bhd and Mitsui Fudosan will also embark on the development of a second outlet centre in Malaysia, Southeast Asia's largest-known to-date, named Mitsui Outlet Park KLIA. The two parties signed a joint venture agreement on 22 August 2013 and development will take place on 44 acres of land in Sepang generating a GNI of RM220 million and creating 2,577 jobs by 2020.

Moving Forward

Efforts will be taken to continue to promote the outlet centres. The Government will also continue facilitation to ensure smooth implementation of the construction and timely completion of the Mitsui Outlet Park.



Johor Premium Outlets, Kulaijaya

EPP 4 Establishing Malaysia as a Global Biodiversity Hub

Malaysia is rich in biodiversity but has yet to fully leverage on the potential of ecotourism. To become a leading ecotourism destination, a comprehensive system is required to monitor and conserve the presentation of the country's natural attractions.

To reinforce this goal, the Malaysia Mega Biodiversity Hub (MMBH) Interim Board, comprising private and public sector and NGO representatives, was established in December 2010 to provide policy direction and decisions to improve the standards of excellence in the management and preservation of key ecotourism sites. It also identifies and monitors eco-sites, and ensures the sustainability of ecotourism development.

Achievements and Challenges

As part of ongoing initiatives from 2012, Kuala Gandah Elephant Sanctuary and Kinabalu Park were identified for upgrading. Work at Kinabalu Park was completed in June 2013 ahead of schedule, with an improved frontage and various new visitor-friendly amenities.

However, the completion of upgrading at Kuala Gandah has been delayed to February 2014. This was despite the project's good progress up until the middle of 2013. Efforts will continue to ensure that the project will be completed in early 2014.

Following the completion of the MMBH Criteria & Indicators (C&I) in 2012, pilot tests were completed for Taman Negara Pahang, Pulau Tioman and also Royal Belum Forest in 2013. The MMBH C&I is a monitoring system to evaluate Malaysia's ecotourism products. It also allows for recommendations and improvements that may be required by each assessed site.

The results of the pilot tests revealed the strengths and shortcomings of each respective site and were handed over to the relevant park management to guide future improvements.



Previously completed pontoons at Royal Belum during C&I assessment



New Kinabalu Park entrance signage

Meanwhile, the Ministry of Natural Resources and Environment has identified a site for a Rainforest Discovery Centre (RDC). The RDC will centralise efforts to promote Malaysia's biodiversity. The identification of the site followed a lengthy period of consultations with potential stakeholders to determine its suitability and the completion of a workshop outlining the guidelines for the RDC earlier in the year.

Aquaria's efforts to enhance its Marine Discovery Centre also showed good progress, with plans to launch new interpretive offerings in January 2014. Amongst their efforts include the promotion of the natural habitats around Malaysia of the various species showcased at Aquaria.

Moving Forward

The MMBH C&I will be refined further with plans to develop a detailed implementation plan for the rest of Malaysia's key nature sites, which will be tabled to the MMBH Interim Board.

Meanwhile, all sites which have been upgraded in the past three years will be continually monitored to assess the tourism impact to these sites. This will also help determine if more promotions are necessary to further boost these tourism sites.

Efforts on the RDC will be focused towards fine-tuning the developmental framework for the site identified, along with the facilitation of potential private sector investors. The challenging task of determining the most appropriate design and operational models to ensure sustainable conservation and site management will be the key thrust for 2014.

EPP 5 Developing an Eco-Nature Integrated Resort

This EPP targets the development of an eco-nature integrated resort in Karambunai, Sabah, helmed by the private sector.

The establishment of the resort is led by Karambunai Corp Berhad (KCB), which commenced development planning in 2011. KCB continues to work with the Government to facilitate approvals needed for the project's final plans.

Achievements and Challenges

KCB is currently finalising its development plans for submission for approval by the State Government.

Moving Forward

The Government will await the submission of the updated development plans by KCB to further facilitate the progress of this initiative.

EPP 6 Cruise Tourism: Creating a Straits Riviera

In an effort to capitalise on an international cruise passenger market that has grown at an average of 14 per cent annually in the past 10 years, this EPP will see the development of a Straits Riviera comprising Penang, Port Klang, Kota Kinabalu, Langkawi, Malacca, Kuching and other secondary ports. The six primary ports were identified in the Cruise and Ferry Seaport Infrastructure Blueprint commissioned by the Economic Planning Unit in 2011.

Efforts to grow this segment also resulted in the establishment of the Malaysia Cruise Council (MCC), a policy-making advisory committee comprising representatives from both public and private sectors. Co-chaired by the Secretary-Generals of the Ministry of Tourism and Culture and the Ministry of Transport, the MCC provides direction for industry development, policies and framework. Under the MCC, six sub-task forces were formed for the six primary ports to efficiently address port-specific issues and provide focussed recommendations.

Achievements and Challenges

The inaugural Malaysia Cruise Industry Workshop was successfully held in Penang in May 2013, in collaboration with the Cruise Liners International Association (CLIA) Asia (previously known as the Asia Cruise Association). The workshop marked a milestone as it was the first time key decision-makers from international cruise lines and local industry players were able to directly engage with one another.



Cruise Liner Representatives Familiarisation Tour pre-CSAP 2013

The workshop was attended by key representatives from five international cruise liners who were present to engage with representatives from the six sub-task forces to provide constructive feedback on the respective ports' infrastructure, operations and future plans. Results of these engagements were positive and remedial actions have been taken by the respective sub-task forces to address the issues raised, where possible.

During Cruise Shipping Asia-Pacific 2013, the largest cruise-focussed convention in Asia-Pacific, which was held in Singapore in October 2013, Malaysia was singled out amongst other Asian countries by key international cruise industry representatives with high commendations on its ongoing efforts to facilitate the industry in a coordinated manner.



First ever home porting by Star Cruises at Kota Kinabalu Port

Malaysia's development as a cruise destination was further acknowledged with the appointment of Kota Kinabalu as a home port for cruise ships for the first time, following Star Cruises' deployment of its Superstar Aquarius cruise ship to the port from November 2013. International cruise lines such as Royal Caribbean and Princess Cruises will also see new deployments in Malaysia planned for 2014 onwards.

The total number of cruise calls at six primary ports in 2013 is approximately 359 calls. Larger ships are now coming to Malaysia, including the Royal Caribbean's Mariner of the Seas, a 3,800-passenger ship that sailed to Southeast Asia in 2013. It should also be noted that positive results from the cruise initiative are only expected to emerge in future years, as cruise liners plan their itineraries as early as two years before actual deployment.

Moving Forward

Tourism Malaysia will leverage the connections made during the Cruise Shipping Asia-Pacific 2013 and Cruise Industry Workshop to provide regular updates on Malaysian ports to the cruise industry's key decision-makers.

In the meantime, with larger ships being deployed to the region, efforts to facilitate the calls at the six primary ports will continue. In tandem with this, efforts will be taken to enhance the tourism offerings surrounding the ports.

Secondary ports such as Kuantan and Bintulu, which have seen increased interest by cruise liners in planning new itineraries, will also have operational matters facilitated.

The Government will continue to facilitate any plans by the private sector to develop new ports to serve this fast-growing sector.

EPP 7 Targeting More International Events

This EPP addresses the need to improve Malaysia's attraction as a destination for international events.

In support of this, the Malaysia Convention and Exhibition Bureau (MyCEB) has formed a dedicated Malaysia Major Events Unit (MME - formerly known as International Events Unit) to identify and bid for international events to be hosted locally. MME also works with local players to develop and grow homegrown events and cluster smaller events around major events to boost visitor numbers and spend.

Achievements and Challenges

Malaysia saw an increase in the number of concerts and international events held in 2013, with The Central Agency for Application for Filming and Performance by Foreign Artistes (PUSPAL) approving 317 shows during the year compared with 310 in 2012. This bodes very well for the growth of the industry in Malaysia.

Efforts must be continued to further streamline and enhance the approval process for such events to encourage more event promoters to come forward. Additionally, the industry must be well-equipped to be able to competitively bid for events to be held in Malaysia.

In 2013, MME supported 32 events ranging from arts/lifestyle, entertainment and sports which are estimated to contribute a total tourist spend of RM477 million for the year. Compared with 2012, efforts by MME have successfully increased the number of events supported by them from 19 in 2012 to 32 in 2013, while international spectators have also increased from 60,000 in 2012 to 97,211 in 2013.

Other than supporting the growth of international events in Malaysia, MME also played an important role in bidding and securing events to be hosted in Malaysia, which include the Ironman World Championship scheduled to be held at Putrajaya and Langkawi in April and September 2014, respectively.



XTERRA Malaysia 2013

Following a repackaging of the Formula 1 (F1) and MotoGP to showcase exciting cluster events aimed at further boosting spectatorship from both domestic and international markets, both events showed an increase in spectators in 2013 compared to 2012. For F1, the top five international markets for spectators were Australia, India, Monaco, United Kingdom and Indonesia while for MotoGP, the top five international markets were Indonesia, Australia, Singapore, Spain and Thailand.

Sepang International Circuit (SIC), which manages the Sepang race track, reached two major milestones during the year. SIC was successful in securing an extension to host the MotoGP World Championship for another three years until 2016. SIC was also appointed as the headquarters for the Shell Advance Asia Talent Cup, a feeder series to the world of international motorcycle racing that showcases Asian riding talent. The Championship is scheduled to consist of six rounds starting from the 2014 MotoGP season opener in March to be held in Qatar. A total of 108 riders from nine countries attended selection for the Asia Talent Cup in October 2013.

Moving Forward

MME will continue to engage with the private sector to help bid for international events to be hosted in Malaysia. In this respect, efforts will also be stepped up to enhance the awareness and capabilities of local promoters.



SIC F1 2013

Spotlight on Impression Melaka

Impression Melaka has been endorsed as an EPP by the Ministry of Tourism and Culture. This unique tourism product will feature a mega outdoor performance directed by Zhang Yimou, Wang Chaoge and Fan Yue - directors of the opening and closing ceremonies at the 2008 Beijing Olympics.

The event will be the first and only Mega Outdoor Impression Series outside China, and exclusive to the Southeast Asia region. It will add a key highlight to Malaysia's event calendar and contribute to making the country a preferred destination. Impression Melaka targets to host two or three shows every night, each approximately 70-90 minutes in duration. It will also boast an audience seating that can accommodate up to 2,000 visitors per performance.

This project is scheduled to be launched in 4Q 2014 and will represent one of the iconic events for Visit Malaysia 2014.

EPP 8 Dedicated Entertainment Zones (DEZ)

The establishment of Dedicated Entertainment Zones (DEZ) has been identified as a key driver in creating a vibrant and lively entertainment scene in the country. In this respect, Zouk KL and four entertainment outlets in Genting Highlands have since been identified as DEZs.

This EPP was reviewed in 2013 to encapsulate the various nightlife offerings around Malaysia.

The site appointments are decided through discussions between entertainment outlet owners, respective local councils and Government agencies to study the sustainability of such outlets as a tourism attraction. Identified entertainment premises will be evaluated to ensure their compliance with the DEZ guidelines, which include the need to be soundproof, located away from residential and religious areas, are equipped with adequate security facilities, accessible to public transportation and easy for tourists to visit.

Achievements and Challenges

Two sites in Sabah have been identified to be included as DEZs. This is in spite of the challenges facing this EPP, given public concerns on requests by operators to extend the operating hours of their outlets. Nevertheless, following several positive engagements with the local authorities in Kota Kinabalu, both the Ministry of Tourism and Culture and KePKAS (Ministry of Tourism, Culture and Environment Sabah) have supported two separate applications for DEZ status.

Zouk KL and Genting also reported an increase in the number of foreign patrons.

Moving Forward

With the review of this EPP, efforts will be increased to identify new prospective sites which may have previously not been categorised. Monitoring of the identified sites will continue and promotions by Tourism Malaysia of the endorsed sites will be under the banner of Lifestyle and Nightlife.

EPP 9a Developing Local Expertise and Better Regulating the Spa Industry

Over the past few years, more hotels have begun offering spa services, leading to the rapid growth of the industry. As a budding industry, however, its continued growth has been hindered by issues such as a shortage of skilled spa therapists and high quality spa centres.

Through this EPP, the National Spa Council was established in 2011 to regulate the industry and address these and other related concerns. Its members comprise industry professionals from the public and private sectors. The Council has since developed an official criteria rating for the industry, which is used by the Ministry of Tourism and Culture to rate all spa centres in Malaysia.

The establishment of Centres of Excellence (COEs) to train and recruit Malaysians to become spa therapists has also been a key measure in developing this sector. The COEs, together with the Ministry of Tourism and Culture and Ministry of Human Resources, have conducted roadshows across the country to highlight industry opportunities, driving interest from candidates interested in becoming spa therapists.

Achievements and Challenges

Five COEs have been established to recruit and train locals to become spa therapists. These COEs are Energy Academy, Stella-In Beauty Academy, Langkawi International Spa Academy, Jari Jari Academy and Beaubelle Academy. Strategically located in Petaling Jaya, Langkawi, Kota Kinabalu, Johor Baru and Penang, these centres have attracted a total of 150 trainees for the Spa Therapists Course. Upon graduation, these therapists will be employed by 3- to 5-star rated spas around the country.



Spa therapists along with key ministry representatives at ETP Link Event

In its effort to better regulate the spa industry, the Ministry of Tourism and Culture has rated 196 spas nationwide. Spas that meet the rating criteria are eligible for inclusion in promotional efforts by the Ministry, and will be able to employ the trained local therapists by the COEs.

The smooth implementation and monitoring of this EPP has been achieved by the close collaboration of several ministries namely the Ministry of Tourism and Culture, Ministry of Human Resource, Ministry of Health and Ministry of Home Affairs, together with spa operators and their associations.

The involvement of the Government has allowed the industry to address the public's negative perception towards the nature of services offered by spa therapists. The Spa Therapists Course offers local therapists a *Sijil Kemahiran Malaysia* (SKM) Level III course syllabus which is recognised by the Ministry of Human Resources, with eligible candidates' fees borne by the Ministry of Tourism and Culture. Additionally, many from low-income households via the e-Kasih programme have benefited from this course.

Moving Forward

COEs will step up efforts to recruit and train local spa therapists in meeting the industry's demand. The Ministry of Tourism and Culture will continue to support the COEs and promote the industry.

EPP 9_b Golf Tourism

Golf in Malaysia has grown rapidly as a key sporting pastime over recent years and our golf courses have been selected as the venue for International Tournaments sanctioned by the various controlling World Tours. This EPP seeks to tap opportunities in golf tourism by enhancing and repackaging products to attract high-yield visitors including those who come for business purposes or to attend the many Conventions which are held here.

The country has over 200 golf courses, some of which are located at beautiful, scenic venues, as well as in the city or in the rainforests of Sabah and Sarawak. Malaysia also hosts four major golf events annually – the Maybank Malaysia Open, CIMB Classic, Sime Darby LPGA Open and Iskandar Johor Open. These events and existing infrastructure will be leveraged to increase the number of incoming golf tourists.

To promote the nation as a desired golf destination, the Malaysia Golf Tourism Association (MGTA) was formed to coordinate efforts made by various golf tour operators, golf clubs, golf courses, hotels and media to increase the number of golf tourists. The Association has since launched its website (www.golftourismmalaysia.com), which provides dynamic content that is updated regularly and has been rated by many as the best of its kind.

MGTA's responsibilities also include auditing member golf clubs and courses to determine if they are export-ready, or deemed as having sufficient facilities and access for international golf tourists. Audits are based on guidelines by the International Association of Golf Tour Operators (IAGTO). The Association also works closely with Tourism Malaysia to better facilitate and cluster golf tour packages developed by tour operators, thereby capitalising on all major golf events held in the country.

Achievements and Challenges

Malaysia continues to feature prominently in the golfing world, with its major tournaments reaching new heights. Of particular mention is the classification of the CIMB Classic with Fedex Cup points being awarded for the first time outside of the US, which resulted in the strongest field ever by players from the PGA Tour on Malaysian soil in 2013.



CIMB Classic 2013

Tourism Malaysia and MGTA have taken full advantage of these events by organising media familiarisation trips clustered around them and providing hospitality to key international media contacts throughout the tournaments. MGTA was also able to record interviews with the top male and female golfers participating in these world events, all of whom shared positive feedback on Malaysia. These interviews have been published on MGTA's website and further endorse Malaysia's status as a global golfing destination.

The MGTA's efforts during the year also included the production of dedicated golf media kits which highlight golf courses around Malaysia to golf travellers. The kit includes a detailed Malaysia Golf Map and a targeted Golf Tourism Brochure which are now available at all Tourism Malaysia offices worldwide. The publications form part of MGTA's collaterals used and are also distributed by the MGTA at all major golf conventions and tournaments.

The association also maintained its momentum from 2012 by recording a significant presence by its members at key international conventions such as the China Outbound Travel & Tourism Market (COTTM), the Golf Exhibition in Orlando, Florida, the Asian Golf Tourism Convention (AGTC) in Pattaya, Thailand, and the International Golf Travel Market 2013 in Catalonia, Spain. These platforms have been very impactful in putting Malaysia on the golf tourism world map.

A challenge that the local golf industry continues to face is a lack of caddies. This is despite the Ministry of Tourism and Culture's efforts in giving preference to foreign caddies at IAGTO-rated courses. In order to facilitate this matter, a dialogue session was held in December 2013 for MGTA golf courses to gain a better understanding of existing guidelines and initiatives by the Government to assist in filling this shortage.

Moving Forward

MGTA's efforts in promoting Malaysia will place further emphasis on the key markets of Australasia, Japan, China, Korea, India, UK, Sweden and Germany via targeted niche and digital marketing through IAGTO. A comprehensive marketing plan has been developed in collaboration with IAGTO to target these aforementioned markets.

With respect to major golfing events, Malaysia has been selected to host the prestigious EurAsia Cup presented by DRB-HICOM in March 2014. The inaugural Tour-sanctioned, match play, team tournament with a similar format as the Ryder Cup, this new international event will be played bi-annually and feature the best of the Asian Tour versus the best of the European Tour. MGTA and Tourism Malaysia will be taking advantage of this landmark and other existing major golf events to further promote Malaysia as a golfing destination, with plans to do so already underway.

EPP 10 Establishing Malaysia as a Leading Business Tourism Destination

Business tourism is a high-yield segment that has the potential to develop and contribute towards Malaysia's growth. The Malaysia Convention & Exhibition Bureau (MyCEB) was established to expand the segment and position the country as a leading destination for business events (meetings, incentives, conventions and exhibitions) and has also been tasked with raising the standards and skills of professionals within the business events industry.

MyCEB serves as a central hub to assist meeting and event planners to bid and secure international and regional business events for Malaysia, and act as a conduit for national product development. MyCEB's other services include government liaison, event marketing, delegate boosting, providing on-site event support and advice on local products and services.



The Prime Minister and Minister of Tourism and Culture officiated the International Dragon Award (IDA) 2013 Annual Meeting

Achievements and Challenges

In 2013, MyCEB was able to bid for and secure 42 association meetings which will be held from 2013-2020. The events are targeted to attract approximately 39,110 delegates, contributing to an estimated economic impact of RM449 million. Amongst the major bids won are the 9th Asia-Pacific Clinical Nutrition Society Conference (APCCN) 2015, Spine Week 2016 and the Asia-Pacific Conference of the Junior Chamber International (APJCI) 2015. These three events are targeted to attract more than 10,000 delegates.

Apart from bidding for business events, MyCEB plays an important role in spurring the growth of the business events industry in Malaysia. Amongst the initiatives supporting this industry is the Kesatria 1Malaysia Programme; where key industry leaders voluntarily assist in identifying and encouraging other potential local hosts to bid for and stage international conventions. Since its inception in 2012, 26 Kesatrias have been appointed, generating 40 leads, attracting an estimated 67,000 delegates and creating an economic impact of RM833 million.

MyCEB also held seminars and workshops through its Industry Partner Programme to continuously educate and provide latest updates to the industry. This has resulted in improvements to the industry, as shown by the awards presented during the inaugural "Recognising Award Winning Results" (rAWr) Awards 2013, where MyCEB together with the Malaysian Association of Convention and Exhibition Organisers and Suppliers (MACEOS) recognise excellence, leadership, professional standards, innovation and best practices within the industry.

Moving Forward

MyCEB will continue to spearhead the development of the business events industry and focus on attracting more international business events to Malaysia.



MyCEB in collaboration with MACEOS, recognises industry excellence through the inaugural "rAWr Awards" 2013

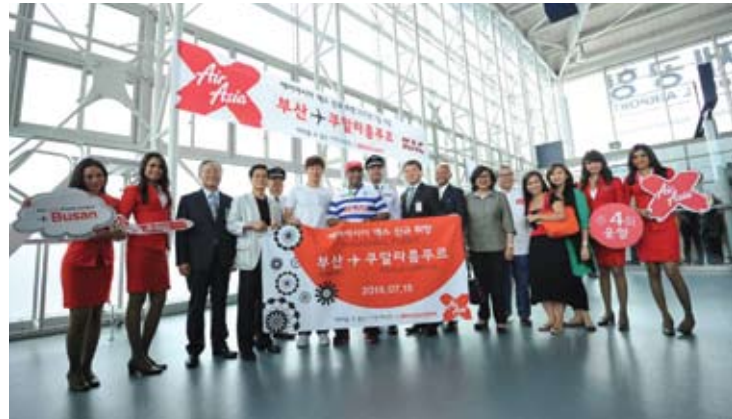
EPP 11 Enhancing Connectivity to Priority Medium-Haul Markets

The medium-haul segment, representing flights of four to six hours, has great potential to bring in high-yield tourists. This EPP focusses on enhancing Malaysia's connectivity for medium-haul flights with China, Japan, Australia, India, Korea and Taiwan.

Efforts under this EPP have also focussed on Tourism Malaysia's discussions with chartered flight operators to provide services during peak seasons to complement regular scheduled flights. This has resulted in increased chartered flights, including new routes from Australia and Russia.

Achievements and Challenges

The number of seats by the national carriers to the six target medium-haul countries of Australia, China, India, Taiwan, Korea and Japan recorded positive growth in 2013. The largest increase was seen in flights to China, which rose by more than 7,500 weekly seats to 34,033 seats, representing a 28 per cent increase over 2012. India and Taiwan also saw double-digit growth (21 per cent to 21,175 seats and 31 per cent to 9,418 seats, respectively). In total, flights to all six countries recorded an increase of 17,921 weekly seats, up 20 per cent from 91,151 in 2012.



AirAsia X inaugural flight to Busan

Subsequently, 109,072 weekly seats are now available from national carriers to the target medium-haul countries. This bodes well for the upcoming Visit Malaysia Year 2014, with more increases expected in the coming year as well. This growth trajectory has also surpassed projections from the initial ETP lab for this EPP, which targeted an increase of 31,319 weekly seats to the six medium-haul countries by 2020.



MAS accepts delivery of its 6th A380 at KLIA

In the past three years, the number of weekly seats has increased by 33,568, with growth expected to continue. This growth is attributed to efforts by the Ministry of Transport to facilitate the necessary approvals as well as ongoing Government-to-Government negotiations to obtain more air rights where the airlines require.

Tourism Malaysia's efforts in targeted marketing via Joint Promotions in China, Japan and India have yielded significant impact during the year, with charter flights to China, Korea, Hong Kong, Japan and Taiwan yielding a 37 per cent growth from 2012 to 42,535 seats. Tourism Malaysia also launched a significantly enhanced website and has undertaken various digital marketing campaigns, including collaborations with Google and the development of a new Trip Planner app, available for free download on all Android and iOS devices (<http://www.tourism.gov.my/en/my/Web-Page/Footer/Resources-2/Mobile-Apps>).

Moving Forward

Further growth is expected in 2014 in line with the aggressive campaign that has been undertaken by Tourism Malaysia in conjunction with Visit Malaysia Year 2014. Tourism Malaysia is also expected to enhance its digital platforms further with an aim to keep Malaysia trending in the global tourism arena.

The Ministry of Transport and national carriers' ongoing efforts to promote medium-haul travel to Malaysia is expected to support the growth trajectory of available air connectivity. Efforts will also be focussed on working with Malaysia Airports Holdings Bhd to determine initiatives that can be undertaken to facilitate foreign flights to Malaysia.

Meanwhile, the Ministry of Transport will continue bilateral talks with Governments of target countries to increase flight frequencies, expand routes, assist chartered flight operations during peak seasons and develop new routes. The Ministry of Tourism and Culture, on the other hand, will continue to collaborate with local travel industry players to ensure that the medium-haul market will be able to cater to the increase in tourist arrivals each year.

EPP 12 Improving Rates, Mix and Quality of Hotels

This EPP supports the Tourism NKEA's goal of attracting high-yield tourists by ensuring the optimal mix and quality of hotels which provide high-quality service. Given that Malaysia targets to attract 36 million tourists by 2020, an additional 91,000 new hotel rooms were earmarked under the ETP Roadmap to cater to these tourists. In line with this, the Government has introduced several tax incentives to encourage investment into 4- and 5-star hotels, supporting the growth of the hotel industry.

Achievements and Challenges

A total of 4,173 new 4-star and 5-star hotel rooms have been completed for the year, and are located throughout the country namely in Kuala Lumpur, Ipoh, Kuala Terengganu, Kuching, Johor Baru, Alor Star, Kota Baru and Langkawi. Amongst the completed hotels are Aloft KL Sentral, Renaissance Johor Baru, Traders Hotel Puteri Harbour, WOLO Bukit Bintang and Hotel Pullman Kuala Lumpur Bangsar. This is in addition to the 7,104 new 4-star and 5-star hotel rooms completed from 2011 to 2012.

The Government has announced an extension for the Investment Tax Allowance until 2016 to further boost the development of 4- and 5-star hotels in Malaysia.

The Government also offers Pioneer Status for new hotels with a 4- and 5-star rating. Hotels fully owned by foreigners are also eligible for these incentives. Furthermore, equity conditions for tax incentive eligibility have been revised to allow more Malaysians to invest in 1- to 2-star hotels, while foreign equity conditions will be gradually liberalised for 3-star hotels.

Moving Forward

Efforts will continue to focus on encouraging the development of more hotels in Malaysia.

BUSINESS OPPORTUNITIES

1

Food and Beverage Outlets

Opportunities in the food and beverage market are available in most of the Tourism EPPs. Contributions to GNI are also expected to grow with the increase in tourist arrivals and shift towards high-yield tourists.

From 15 May 2013, all city taxis were allowed to ferry passengers to and from the Kuala Lumpur International Airport (KLIA) airport. Passengers will have an option to utilise the airport taxis using a coupon system (zonal fare) or city taxis using a meter system with a RM2 surcharge.

The number of tour operators in the country has also increased. Based on the business license approved for Tour Operating Business and Travel Agency, a total of 8,928 licenses were issued in 2013 compared to 8,426 licenses in 2012.

Tour operators will need to attend and complete the Travel & Tour Management Course (TTMC) and Travel & Tour Enhancement Course (TTEC) prior to renewal of their operating licenses. The Ministry of Tourism and Culture will propose for these courses to be held more frequently to facilitate the growing number of tour operators.

In an effort to encourage tour operators, tax incentives have been provided to tour operators. Tour operators that manage a minimum of 750 foreign tourists or at least 1,500 local tourists are eligible for a 100 per cent tax exemption and this incentive will continue until 2015, taking into account Visit Malaysia Year 2014.

2

Local Transportation

The Taxi Ambassadors Programme was introduced by the Ministry of Tourism and Culture to improve the image of Malaysian taxi drivers. Launched in March 2012, the programme involved 3,000 budget taxi drivers, 500 executive taxi drivers and 500 limousine taxi drivers. There are currently 79,571 registered taxi drivers, with 33,000 based in Klang Valley.

3

Tour Operator Segment

In 2013, the Ministry of Tourism and Culture recorded a six per cent increase in the number of tour guides (both City and Nature Guides) to 10,941. The number of City Guides increased from 7,984 to 8,448 while Nature Guides increased from 2,342 to 2,493.

Summary of Tourism NKEA

	2020 Target
Incremental GNI Impact	RM66.7 billion
Additional Jobs	497,000
Critical targets for 2014	
<ul style="list-style-type: none"> • Completion of second phase of Johor Premium Outlets • Development of outlet centre in Sepang • Concerted development of the cruise industry • Increase spectatorship to international events • Setting up of additional Centres of Excellence to train spa therapists • Increase in number of bids won and number of delegates for MICE • Expand routes and explore new routes with chartered flights • Development of more 4-star and 5-star hotels 	



Enabling Change

TOURISM

*on the ground with
the civil service*

**Datuk Dr. Ong
Hong Peng**

Secretary-General
of the Ministry of
Tourism and Culture



Cooperative efforts between the public and private sectors is crucial in maximising growth of the tourism sector, as the Government targets to attract 36 million international tourist arrivals and generate RM168 billion in tourist receipts by the year 2020.

The answer to achieving this, says Datuk Dr. Ong Hong Peng, Secretary-General of the Ministry of Tourism and Culture, lies in forging a holistic strategic partnership that creates the synergy and commitment to work together in a concerted manner to realise the agreed targets of the tourism industry.

“This essentially involves the active engagement and participation of the public and private sectors, non-Governmental organisations and our *rakyat* to achieve clear goals and objectives,” says Datuk Dr. Ong.

According to Datuk Dr. Ong, the Tourism NKEA is geared towards mobilising resources to implement its 12 EPPs in an optimal manner. “In this regard, the process of planning, implementation and evaluation of the Tourism NKEA is a classic example of holistic strategic partnership in practice. It stems from political will and commitment at the highest level and cascades down to all relevant parties and stakeholders,” he says.

He also says the civil service assumes the role of an enabler to nurture a holistic partnership, provide a conducive environment and facilitate the smooth implementation and monitoring of the EPPs under the Tourism NKEA. Their success in this area has been reflected in the NKEA's achievements in 2013, with all of the KPIs achieved during the year.

In addition, Datuk Dr. Ong says this holistic partnership has also enabled Malaysia to be ranked as the 10th-most visited country in the global arena.

“Given the strong performance, NKEA Tourism is on track to attain the overall tourism targets set for the year 2020,” he says. This puts it in good stead to roll out Visit Malaysia Year 2014 (VMY 2014).

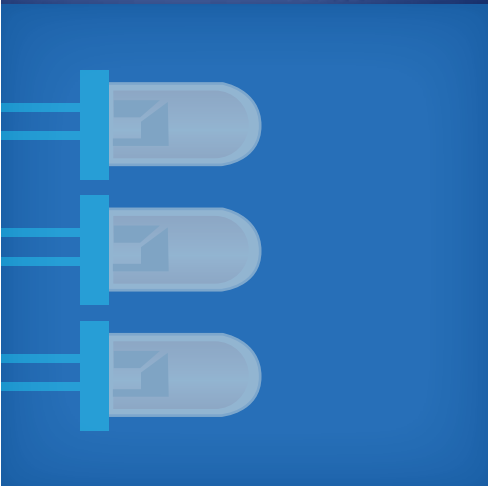
“Aptly themed, ‘Celebrating 1Malaysia Truly Asia’, 2014 will be a fun-filled year with events, festivities and special offerings for tourists to have an enjoyable experience and bring back fond memories of Malaysia.

“VMY 2014 is a national mission. Let us build upon our holistic partnership to raise the whole value chain of the tourism industry to a higher level for wealth creation and nation building. Together, let us transform Malaysia into a top-of-the-mind tourist destination,” he says.

“WE ARE THE HOST”



ELECTRICAL AND ELECTRONICS





Dato' Sri Mustapa Mohamed
Minister of International Trade and Industry



Datuk Dr Ewon Ebin
Ministry of Science, Technology and Innovation



This year marks the third year of the implementation of the Electrical and Electronics (E&E) NKEA and the beginning of E&E 2.0, which was launched in March 2013.

The formulation of E&E 2.0 was in view of the industry's need to keep pace with global technology development. We believe this can be achieved by refocussing efforts to attract more domestic and foreign investments into Malaysia; high value investments that create more high-income jobs, and increased GNI. This calls for greater collaboration among industry, academia and government agencies.

Although the Malaysian E&E industry continues to progress both technologically and commercially, we need to strengthen the E&E ecosystem. This is necessary in the face of challenges from increasing competition as a result of globalisation and free trade arrangements such as the Trans-Pacific Partnership (TPP) and shift in demand brought on by technological advancement and environmental compliance requirements. There is a pressing need to accelerate capacity-building in the small and medium-sized enterprises (SMEs), in order to encourage them to compete globally.

The Ministry of International Trade and Industry (MITI) and its agencies will continue to formulate policies and strategies in this sector to enable domestic players to engage in high-value activities and be globally competitive.



As we reflect on the progress of this NKEA in 2013, one of our critical success factors has been in our ability to converge with the demand and requirements of the global market.

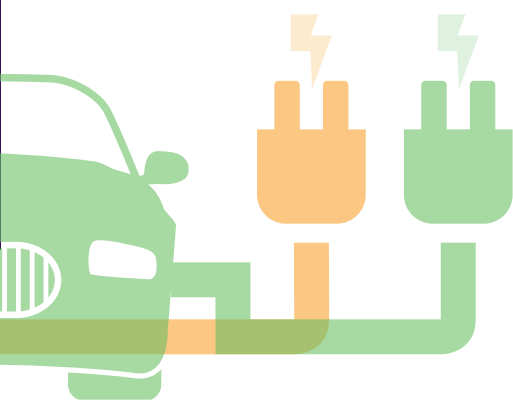
Apart from our strength in innovation, we have similarly demonstrated our capabilities in conforming to global standards.

This has been realised partly through efforts under the Competition, Standards and Liberalisation Strategic Reform Initiative, which drives, among others, the development and promotions of standards in local goods and services so as to enhance the global competitiveness of Malaysian products and companies.

In this respect, we must also recognise the importance of research and development (R&D) in enhancing our products and capabilities, in particular in the E&E sectors. Towards this we have established among others, design and testing facilities/labs to assist the industry in furthering their higher value operations here. Additionally, the Ministry will continue to support the commercialisation of locally-manufactured E&E products to complete their value-chain, from innovative idea to R&D and finally to market.

However, our efforts must be complemented with proactive efforts from industry players themselves. While Malaysia has traditionally been a leading player in E&E manufacturing, the industry can no longer remain complacent as the global market shifts into new and higher technologies.

Nonetheless, as we oversee the progress of the E&E industry, in terms of both the products developed and the expertise gained, we will continue in our resolution to assist the industry to realise its full potential and capitalise on the business opportunities created to contribute to Malaysia's high-income aspirations.



ELECTRICAL AND ELECTRONICS

The Electrical and Electronics (E&E) industry remains one of the key drivers of Malaysia's industrial development. The country's E&E products have historically been its largest traded items, allowing the industry to gain valuable capabilities and capacity in the manufacturing of consumer electronics and E&E components.

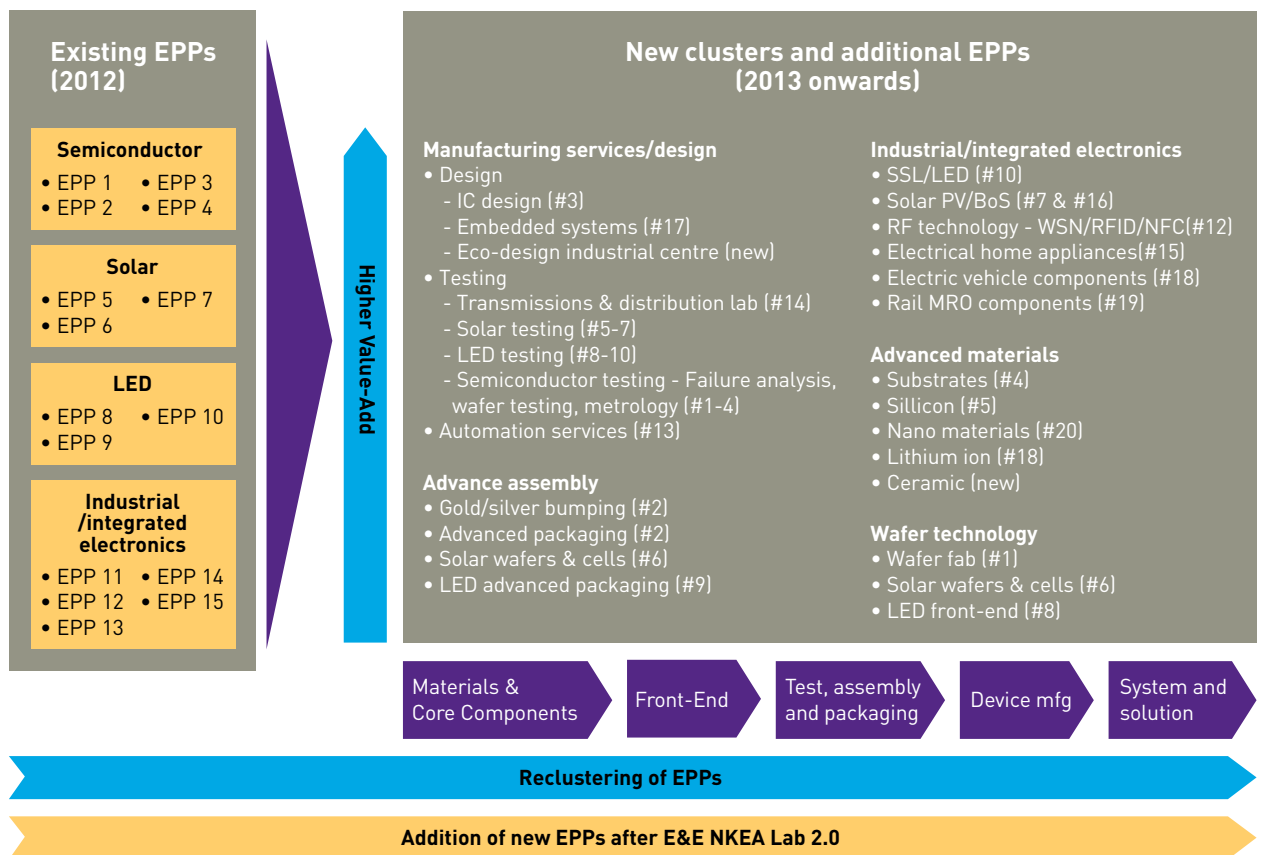


Exhibit 7.1: Reclustering of EPPs and new EPPs

The year 2013 saw an important shift in the implementation of this NKEA with the commencement of E&E 2.0. This new phase has seen the launch of several new EPPs which, together with existing EPPs, have been grouped into five clusters. The clustering of EPPs follows a lab conducted in 2012 to identify solutions to strengthen the implementation of original EPPs and identify solutions to capitalise on new opportunities which have emerged since 2010. The overall goal of E&E 2.0 is to revitalise the industry, to accelerate higher yields and prepare it to respond to external shocks such as any decline in global demand.

The five clusters comprise manufacturing services/design, advanced assembly, industrial/integrated electronics, advanced materials and wafer technology. These clusters were developed with the objective of moving the industry away from manufacturing activities towards higher-value activities such as design, assembly, packaging and the provision of total solutions.

By 2020, the new initiatives are expected to contribute a GNI impact of RM9.7 billion and create 56,800 high-income jobs.

Overall, by 2020, the NKEA is projected to create an incremental GNI impact of RM53.4 billion and 157,000 new jobs.

Catalysing Growth versus Promoting Investment

Essentials of E&E Transformation

It is no secret that almost all the tools in Malaysia's investment promotion arsenal were developed in tandem with the growth of the E&E industry, which has recorded significant progress since the 1970s. Creative fiscal and non-fiscal incentive regimes by Federal and State investment promotion agencies paved the way for massive infusions of mainly foreign capital into manufacturing of components to be repackaged and sold by brand owners all over the world.

These tried and true practices must now be adapted to push the investment promotion culture which has been ingrained in Malaysia to the next level. For example, MIDA now complements its historical focus on "attracting FDI" with programmes to "create investment opportunities" for domestic companies via its strategic Domestic Direct Investment (DDI) fund.

Partner agencies such as the Malaysia Automotive Institute, the Multimedia Development Corporation and NanoMalaysia Bhd are opening the doors to investment in vertical areas downstream from Malaysia's traditional component manufacturing mainstay. These agencies are playing key roles in creating downstream opportunities to keep E&E investments flowing.

Other agencies such as Agensi Inovasi Malaysia, MIMOS Bhd, SIRIM Bhd and CREST (Collaborative Research in Engineering, Science & Technology) are taking the lead in driving the much vaunted triple helix ecosystem through an Industry-Government-Academia collaboration to ensure the R&D, IP commercialisation and human capital development ecosystems provide the necessary support for emerging investors.

Even more partners including SME Corp and MATRADE are following through and bolstering the effort to unlock new business opportunities by driving go-to-market activities. Their efforts in consolidating individual Malaysian strengths into a cohesive force to compete effectively globally will prove crucial to Malaysia's ability to convince players to venture into new territories.

The aforementioned agencies have also benefited from foundational investments made by the Government in the first three years of the ETP by way of various industry-enabling facilities owned by the agencies. The next three years will see them all coming together to capitalise on new and specific investment opportunities in targeted vertical platforms to take the E&E industry transformation to the next level.

2013 Key Performance Indicators

Electrical and Electronics NKEA		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
EPP #1	Usage of Failure Analysis lab Level 2: Number of companies that sign service agreement/collaboration research/MOU	20	28	140	●	100	●	1.0	●
	Setting up Wafer Testing Lab	1	1.0	100	●	100	●	1.0	●
	Setting up Waste Treatment Processing Facility	50%	50%	100	●	100	●	1.0	●
EPP #2	Number of high impact projects approved for Advanced Packaging	3	2.75	92	●	92	●	0.5	●
EPP #3	Number of high impact projects approved on IC Design firms	2	2	100	●	100	●	1.0	●
	IC Design/Green Motion Controller: Commercial agreement to market the prototype (Green Motion Controller)	100%	100%	100	●	100	●	1.0	●
EPP #4	Number of high impact projects approved for manufacturing of substrates	1	1	100	●	100	●	1.0	●
EPP #1-4	Setting up Eco-Industrial Design Centre	1	1	100	●	100	●	1.0	●
	Number of associations that sign MOU to utilise Eco-Industrial Design Centre	5	5	100	●	100	●	1.0	●
EPP #10	Number of high impact projects approved for local Solid State Lighting	2	2	100	●	100	●	1.0	●
	Companies approved as Local Solid State Lighting Champions	2	2	100	●	100	●	1.0	●
EPP #11	Number of high impact projects approved for Test and Measurement	1	1	100	●	100	●	1.0	●
	Setting up Machinery & Equipment Shared Service Facility	1	1	100	●	100	●	1.0	●
	Setting up National Instruments Academy & Innovation Nucleus (NI-AIN)	1	1	100	●	100	●	1.0	●

(more on next page)

(continued from previous page)

Electrical and Electronics NKEA		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
EPP #13	Number of high impact projects approved for manufacturing Automation Equipment	2	1.9	95	●	95	●	0.5	●
EPP #16	Number of high impact projects approved for Balance of Systems for Solar Industry	1	1	100	●	100	●	1.0	●
EPP #17	Number of high impact projects approved for Mobile Devices Companies	2	2	100	●	100	●	1.0	●
	Number of high impact projects approved for Data Storage Device Production	1	0.9	90	●	90	●	0.5	●
EPP #18	Number of companies approved to manufacture batteries for electric vehicles	1	0.9	90	●	90	●	0.5	●
	Total investment for NKEA Electrical and Electronics (RM bil)	4.6	8.3	180	●	100	●	1.0	●
				105%		98%		90%	

Exhibit 7.2

Method 1 Scoring is calculated by a simple comparison against set 2013 targets. The overall NKEA composite scoring is the average of all scores

Method 2 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is less than 100%, score #2 is taken as the actual percentage
- If the scoring is equal or more than 100%, score #2 is taken as 100%. The overall NKEA composite scoring is the average of all scores

Method 3 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is equal and less than 50%, score #3 is indicated as 0
- If the scoring is more than 50% and less than 100%, score #3 is indicated as 0.5
- If the scoring is equal or more than 100%, score #3 is indicated as 1

ENTRY POINT PROJECTS

EPP 1 Executing a Smart Follower Strategy for Mature Technology Fabrication



Launch of SFAM's Talent Development Programme by Datuk Ir. Hj. Hamim Samuri, Deputy Minister of International Trade and Industry

This EPP centres on building a critical mass of semiconductor wafer fabrication capacity and strengthening the sector's human capital to drive the entire semiconductor value chain encompassing design, fabrication, production, assembly, testing, sales and distribution.

To date, the seven wafer fabrication plants in Malaysia namely MIMOS Bhd, X-Fab, Silterra, ON Semiconductor, Osram, Fuji Electric and Infineon, have come together to form the Semiconductor Fabrication Association of Malaysia (SFAM); with the goal of strengthening the E&E ecosystem in Malaysia by focussing on human capital development, supply chain optimisation and environment, health and safety.

SFAM launched the Talent Development Programme in October 24 2013 to overcome the severe shortage of skilled semiconductor engineers locally. The initiative, which was developed in collaboration with MIMOS and TalentCorp, demonstrates public and private sector collaboration for the provision of consolidated training resources in one centre to undertake upskilling and training of new engineers.

Achievements by EPP1 companies include the execution of Silterra's collaboration with US-based Spatial Photonics, through which Silterra has commenced commercial production of its products. Silterra has also announced that it will start production of 0.18-micron embedded flash technology.

To further catalyse the growth of this industry, shared service facilities have been made available in MIMOS. These include upgrading the failure analysis testing facility from level 1 which allowed for detection of physical defects to level 2 which enabled more detailed electrical analysis. 28 companies have signed service agreements to conduct collaborative research. MIMOS has also set up a wafer testing share service to support the semiconductor industry in wafer testing and test development. To this end, MIMOS has signed a memorandum of understanding on wafer testing shared services with the Malaysian IC Design Association (MICDA), the Talent Development Institution at the Selangor Human Resources Development Centre (SHRDC) and universities. This will enable local talent development on advanced wafer testing equipment.

Moving Forward

A failure analysis level 3 shared service lab will be established to enable material level analysis and complete the suite of failure analysis facilities. This will provide a comprehensive infrastructure of failure analysis in Malaysia and act as enabler to support the semiconductor industry (EPP 1-EPP 4), solar industry (EPP 5-EPP 7) and LED industry (EPP 8-EPP 10). This EPP will also ensure the E&E industry in Malaysia remains globally competitive by boosting its research and development, design and development and technology development capabilities.



Dual-beam system, one of the tools available at the MIMOS failure analysis shared facility

EPP 2 Developing Assembly and Test Using Advanced Packaging Technology

Despite Malaysia's large number of semiconductor assembly and test operations, only a few firms offer advanced packaging services like bumping or wafer level packaging. Malaysia is naturally positioned to extend its strong starting point as an assembly-and-test hub to more advanced semiconductor packaging services. Domestic demand for such services already exists. Furthermore, the success of the fab strategy will also drive domestic demand for more advanced packaging services, thus supporting the entire semiconductor value chain.

The objective of this EPP is to attract foreign companies to establish advanced semiconductor packaging services, such as bumping and wafer-level packaging, in Malaysia. The EPP will provide incremental GNI of RM1.3 billion and create 1,300 jobs.

Inari Technology Sdn Bhd has developed fine pitch flip chip assembly technology. Its effort in developing new technology and techniques of assembly through this project has allowed it to develop top-notch telecommunication IC products for US-based semiconductor company Avago Technologies. This will increase Inari Technology's productivity by 33 per cent in terms of assembly time per unit and enable them to produce an additional 27 million units of high value IC per month, equivalent to an increase of 338 per cent in production capacity.

Another company, On Semiconductor Malaysia Sdn Bhd, has acquired Japan's SANYO Semiconductor Co Ltd, in an exercise which will see the transfer of SANYO's wafer fabrication facilities in Gifu and Gunma in Japan to Malaysia. The transfer will raise On Semiconductor's production capacity from 19,500 wafers to 25,500 wafers a week.

The acquisition will also see the establishment of a R&D centre for advanced packaging in Seremban, Negeri Sembilan; and knowledge transfer from SANYO's Technology Assessment Characterisation Lab in Phoenix, Phoenix, to Malaysia. The knowledge transfer will cover areas including advanced die structure technology, advanced interconnect technology and advanced substrate design, modelling and measurement.

Moving Forward

To further develop the semiconductor industry sector in Malaysia, MITI and its agencies will continue to engage with companies to enhance and develop the advanced packaging sector. Several companies have already indicated interest in Malaysia and have commenced preliminary discussions with MIDA.

EPP 3 Developing Integrated Circuit Design Firms

This EPP focusses on enhancing Integrated Circuit (IC) support areas such as talent, IP protection and acquisition, Electronic Design Automation (EDA) and Project Design Kit (design library) with an aim to increase the number of IC design firms to at least 50 local and multinational firms by 2020.

In 2013, two IC design firms were approved for establishment. These comprise Intel Microelectronics (M) Sdn Bhd and Symmid Corporation Sdn Bhd. Intel Microelectronics will design and manufacture advanced integrated circuits such as microcontrollers, embedded microprocessors, chipset and communication and networking integrated circuits. It will also establish a world-class Global Service Centre for R&D on semiconductors and other ancillary activities.

Symmid is collaborating with Silterra to design and develop advanced digital power management products, which will then be marketed globally. This collaboration is expected to generate more than 75 new engineering jobs.

A green motion controller (GMC) chip has been designed and developed in MIMOS in collaboration with two private partners. The chip has a wide variety of applications, such as in hybrid electric vehicles, home appliances, digital media players such as Blu-ray and DVD, industrial sewing machines, printers, heating, ventilation and air conditioning systems and digital SLR cameras.

Electronic Design Automation (EDA) has been made available as a shared tool as part of the shared services centre provided by SHRDC for SMEs. SMEs will be able to make use of the EDA on a “pay-per-use basis” at the SHRDC shared services centre.

Moving Forward

The next phase of this project will focus on commercialisation, i.e. engineering samples to end customers, technical marketing, evaluation board/reference board distribution and sales of the GMC chip. These technology recipients will then be able to embed the GMC chip into their products.

EPP 4 Supporting the Growth of Substrate Manufacturers and Related Industries

Under this EPP, the development of substrate manufacturers and their related supporting industries will be catalysed by drawing at least two more wafer substrate manufacturers into Malaysia and increasing the number of players in the industry.

Among companies which have benefited from this EPP include Rubicon Sapphire Technology (Malaysia) Sdn Bhd, which has been recognised as the only producer of sapphire substrates in Southeast Asia. Sapphire substrates are used as an insulating substrate in high-power, high-frequency integrated circuits.

The company's facilities in Malaysia are also the Rubicon group's only post-crystal growth sapphire processing facility, with the company using proprietary crystal growth technology to produce its sapphire substrate products.

Moving Forward

With substrate manufacturing as a core pillar to the semiconductor industry, MITI and its agencies will continue to engage with companies. Several companies have already indicated interest in Malaysia and have commenced preliminary discussions with MIDA.

EPP 5 Increasing the Number of Silicon Producers



Polycrystalline silicon cell and silicon in nugget form

This EPP targets to establish one multinational corporation (MNC) and develop two domestic silicon players each year until 2020 to increase Malaysia's silicon production from 6,000 tonnes to 170,000 tonnes by that year.

Among companies which have been developed through this EPP include Elpion Silicon Sdn Bhd, which manufactures polysilicon, a key component in the construction of solar panels. The company now supplies its products to the solar and semiconductor industries in Malaysia.

Moving Forward

Japan's Tokuyama Corp, which is investing RM2.98 billion to build its first foreign polycrystalline silicon plant in Sarawak, will invest an additional RM3.72 billion to build a second plant in the state. Tokuyama's second plant located in Samalaju Industrial Park in Bintulu will have an annual production capacity of 13,800 metric tonnes and is expected to be operational by January 2015.

EPP 6 Growing Wafer and Cell Producers

This EPP aspires to increase the production of wafer and cell producers in Malaysia by leveraging the domestic E&E ecosystem to attract multinational solar companies to the country.

Malaysia has to boost its production capacity by tenfold from the current 2.3 gigawatts to 23 gigawatts by 2020 to achieve its objective of becoming the second largest producer of solar cells globally. This will require MIDA to each year bring in one or more selected companies with cumulative capacity of 2 gigawatts for wafers and/or cells.

Moving Forward

TS Solartech which commenced its operations in 2013 investing RM596 million over the next five years, is expected to have eight more production lines for solar photovoltaic cells.

EPP 7 Increasing Solar Module Producers

In order to increase the number of solar module producers in the country and create the required critical mass for the Malaysian market, EPP 7 aims to attract more multinational module producers and facilitate the establishment of five joint ventures. The EPP will provide incremental GNI of RM3.2 billion and create 14,000 jobs.

Moving Forward

To further complement our established manufacturing prowess with higher value-added knowledge-based, services-oriented activities, the next phase of development for the solar industry in Malaysia will focus on downstream maintenance, repair and overhaul (MRO) activities and balance of systems (BOS) businesses.



Glass is required to produce thin film solar modules

Panasonic Energy Malaysia – A case study of EPP integration

Panasonic Energy Malaysia Sdn Bhd's integrated manufacturing process converts wafers to solar cells and modules using its patented heterojunction with intrinsic thin layer technology (HIT). This end-to-end integrated solar manufacturing process spans through two EPPs:

1. EPP 6 : Growing Wafer and Cell Producers
2. EPP 7: Increasing Solar Module Producers

As a technology which provides the highest level of conversion efficiency, HIT offers numerous benefits for the conversion of wafers to solar cells and modules. These include enabling high performance at high temperatures, and producing thin solar cells and bifacial solar cells. HIT solar cells also generate electricity on both sides of the solar cell.

The integrated manufacturing of solar cells to wafers and modules can be divided into two components:

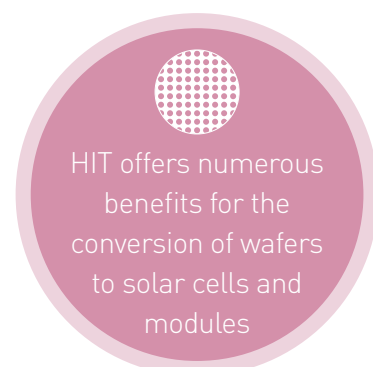
1. EPP 6: The solar wafer and cell manufacturing process involving the preparation of silicon to serve as photosensitive cells
2. EPP 7: Solar module production process involves packaging the solar cells into finished modules

Since operations commenced in August 2013, the Malaysian factory in Kulim Hi-Tech Park enables Panasonic to strengthen cost competitiveness through reduced transportation costs and the use of local materials. At the same time, as a strategic base for production of solar modules for the global market, the factory also allows the company to cope flexibly with changing demand around the world.

The global solar market is expected to grow further with increasing environmental awareness and the introduction of stimulus measures such as feed-in tariffs and subsidies in various countries, including Japan. With the factory now operating in full swing, Panasonic will accelerate its efforts to meet the robust solar demand globally, especially in Japan, while further enhancing cost competitiveness.

References:

ETP ROADMAP & Panasonic - http://panasonic.co.jp/corp/news/official_data/data.dir/2013/08/en130830-2/en130830-2.html



EPP 8 Developing LED Front-End Operations

Recognising the potential of Malaysia's LED sector, MOSTI and other research institutions aim to leverage the availability of domestically-produced and cost-efficient advanced materials to help the market expand into new classes of intermediate products, such as OLEDs, to establish Malaysia as a regional and global player in this market.

Osram Opto Semiconductors (Malaysia) Sdn Bhd, a company under this EPP, has commenced the world's first mass production of six-inch wafer fabrication for Ultra-Brightness LEDs. The project enables higher energy and production efficiency, raising it from 104 lumens per watt for four-inch wafers to 140 lumens per watt for six-inch wafers.

The wafers are then used to produce solid-state LEDs, which form the core component of illumination systems and are used for mobile applications, signage/displays and consumer electronics products, among others.

Moving Forward

MIDA, under the purview of MITI, will continue strengthening this segment by engaging companies to enhance and develop front-end operations. For the next phases of the programme, the focus of the LED EPPs will be expanded beyond the lighting and illumination applications, to burnish the income generating potential of LED players in emerging light-based data transmission applications.

EPP 9 Expanding LED Packaging and Equipment



LED lights

This EPP intends not only to develop local manufacturers but also to attract multinationals to invest and commence operations in Malaysia to stimulate organic growth in the packaging and application design segment.

Phillips Lumileds Lighting Company Sdn Bhd conducts R&D activities in Malaysia to develop the illumination portfolio with new phosphor recipes; new ranges of the flash portfolio; multi-die chipsets; AC LEDs; and phosphor lamination. R&D also covers the areas of matrix and lens development, chip scale packaging and to increase die size.

Moving Forward

To further develop this segment, MITI's agencies are working towards creating the availability of local key core components which will enhance local capabilities and provide economically-priced components.

EPP 10 Creating Local Solid State Lighting Champions

Through this EPP, local companies will be led towards international competitiveness while Malaysia's solid state lighting (SSL) cluster will also be developed further.

This year, SME Corp Malaysia, as the lead agency of this EPP, facilitated the development of two LED companies, namely P-Plus Lighting Sdn Bhd and Han JDQ L (M) Sdn Bhd under the Green LED programme. The Green LED Programme aspires to accelerate the creation of world-class Malaysian companies by strengthening capacity-building of soft and hard skills. This is targeted to expedite the companies commercialisation and internationalisation activities.

Han JDQ L also established in-house designing and manufacturing activities, developing their expertise in designing LED mounting methodology for better thermal management to ensure lower junction temperature and produce higher light output.

Furthermore, a QAV testing facility for LEDs was established in Subang Jaya, Selangor. The facility also provides American National Standards Institute (ANSI) and TUV certification. This, in turn, reduces testing costs and enhances the ability of local companies to adhere to global standards, thereby increasing their global competitiveness.

The year also saw the establishment of the Malaysian LED Consortium (MLC), comprising 10 companies developed under SME Corp's Green LED programme.

SME Corp further supported this EPP by engaging ISIS Innovation Limited (ISIS), a commercialisation arm under the University of Oxford to spur the creation of world-class Malaysian LED/SSL companies under a three-phase programme.

The three phases are:

1. Enhancing companies' capacity-building on both soft and hard skills
2. Building the requisite foundation of these companies to expedite commercialisation
3. Internationalisation activities to shift the companies towards become world-class companies

The first phase of the programme, which commenced in 2013 involves 10 companies and will focus on developing the companies' business strategy to strengthen their abilities and broaden their market reach.

Moving Forward

Phase two of the ISIS programme is expected to be initiated in 2014. The second phase will also see the recruitment of more companies into the programme.

EPP 11 Building a Test and Measurement Hub

This EPP leverages Malaysia's existing test and measurement landscape nurtured by the US' Agilent and National Instruments to position the country as a test and measurement hub offering facilities for design and development; and certification.

The National Instruments Academy & Innovation Nucleus (NI-AIN) was launched in July 2013 at Technology Park Malaysia. The facility, targeted mainly at SMEs, provides shared technology infrastructure in the areas of human capital development (training, certification and talent development), SME incubation (design, system integration, system customisation and engineering services), and SME intellectual property rights creation and commercialisation. Currently, SMEs utilising the facility are Virtual Instrument & System Innovation Sdn Bhd, P&P Tech Sdn Bhd and iRadar Sdn Bhd.

SMEs can also leverage the hub to perform R&D activities they would normally not be able to afford on their own.

A machinery and equipment shared-service facility has already been set up at Agilent Technologies Products (M) Sdn Bhd to create a vibrant testing and measurement ecosystem in Malaysia. Three local companies: CEEDTec Sdn Bhd, Human Architecture Technologies Sdn Bhd (HAT) and Dream Catcher Consulting Sdn Bhd, have successfully completed the vendor development programme at Agilent.



National Instruments Academy & Innovation Nucleus located at Technology Park Malaysia, Kuala Lumpur

CEEDTec represents this EPP's ecosystem partner for power management and has been tasked with developing the first batch of 26 power source instrumentation products for Agilent. It will also develop a LXI-enabled power source system, for which it will own the IP rights following IP sharing with Agilent. Agilent will then help CEEDTec to acquire full IP ownership once it succeeds in developing the power source system.

Meanwhile, HAT has been identified as the ecosystem partner for life sciences, and will develop the protocol for testing of *Halal* products. In doing so, the company has appointed a full scientific team and undertaken R&D activities in areas including raw materials testing (sample and porcine kits), confirmatory testing and final reviews. It has also established the sensitivity of test kits in laboratory blends.

Dream Catcher Consulting is the ecosystem partner for education and will provide training to Agilent measurement instruments users. In this respect, the company will undertake R&D and technical collaboration with Agilent to produce training material for biological and chemical analytical instruments and electronics and measurement instruments. Its responsibilities also include developing 20 university course subjects in renewable energy and an e-learning delivery system and 100 e-learning modules in electronic engineering and communication. It will also develop 100 new courses in SSL, biotechnology, oil and gas, renewable energy and other emerging technologies.

Another five companies, 2nd Tier Ecosystem Partners; Stride; Bi Technologies; Prodelcon; Tekun Asas and Inari Amertron are also being developed at the facility.

Enabling SMEs

A key element of the E&E NKEA is to enhance the global competitiveness of Malaysian SMEs by offering capacity and capability-building initiatives. These initiatives include those undertaken through the Malaysian LED Consortium, which is now made up of 10 high-potential LED/SSL (solid-state lighting) companies.

Under the consortium, participating companies are offered matching grants for the acquisition of machinery and international certification. This is to help boost companies' capacity and productivity to meet domestic and international demand, while speeding up international market access by ensuring products meet global standards for quality.

The consortium also facilitates bank financing for companies and organises trade missions to targeted international markets. It also undertakes Fast Track programmes to support consortium members in internationalising and commercialising their products. In this regard, consultants are appointed to enhance the product development process.

Collectively, these efforts have strengthened the commercial success of the consortium members. In September 2013, the consortium signed a memorandum of understanding with Malaysian Industrial Development Finance Bhd, Malaysia Resources Corporation Bhd, Mydin Mohamed Holdings Bhd and Johor Corporation to jointly develop and implement programmes to encourage the use of LED lighting in Malaysia.

The establishment of the National Instruments Academy & Innovation Nucleus (NI-AIN) plays a further role in enabling the capabilities of E&E SMEs. To date, three SMEs have utilised the NI-AIN facilities, namely Virtual Instrument & System Innovation Sdn Bhd, P&P Tech Sdn Bhd and iRadar Sdn Bhd.

These companies have used the facility to develop the system/prototype for their products, which include in-vehicle data logging and vessel monitoring systems, a semiconductor lead frame inspection system and a real-time landslide monitoring and early warning system. These products are targeted for use by the companies' clients who are involved in industries including automotive/transport and the semiconductor sector.

Among benefits seen by these SMEs in utilising the NI-AIN facility includes cost savings for initial investment and access to technology tools. The facility also serves as a networking hub and business enabling platform for SMEs to meet with potential clients, collaborative partners and Government agencies.

Moving Forward

The NI-AIN will expand to Iskandar Malaysia and Sarawak in the near future. In the short-to-medium-term, the NI-AIN will focus on raising awareness for the facility, working together with SME Corp and the Multimedia Department Corporation (MDeC) to ensure that SMEs utilise the facilities. The success of NI-AIN will be measured based on the number of proof-of-concepts, prototyping designs developed in the facility, the number of SMEs that take part in seminars and training courses, as well as the number of engineers trained and upskilled.

Elsewhere in the country, two new local Test and Measurement design partners are expected to join the Original Design Manufacturer (ODM) development programme led by the Northern Corridor Implementation Authority (NCIA). The NCIA also oversees the Life Sciences Programme, which will support the development of one local design partner.

The semiconductor shared services labs established at MIMOS Bhd is another initiative targeted at enhancing the value of Malaysian E&E SMEs. The labs provide high value-added services and facilities to the E&E ecosystem by offering a comprehensive range of state-of-the-art analytical equipment in one centralised location. The labs, comprising a failure analysis lab and a wafer test lab, also represent a cross-cutting enabler to support the semiconductor, solar and LED industries, which form part of the E&E ecosystem.

As such, the facilities not only facilitate the growth of Malaysian E&E SMEs, but also allow training of the country's E&E engineers on advanced analytical equipment. This, in turn, will enhance their capabilities in R&D, design and development and technology development, strengthening their global competitiveness.

MIMOS' facilities provide SMEs a key advantage by enabling low-cost market entry and shorter time-to-market, as the facilities allow local companies to reduce their dependence on foreign labs and facilities. The MIMOS labs also safeguard the intellectual property of Malaysian engineers and researchers. To date, 28 companies have already taken advantage of services available at the labs.

EPP 12 Expanding Wireless Communications and Radio Frequency Identification (RFID)

The Wireless Sensor Network (WSN) programme began as an initiative to improve the agriculture sector by introducing the Green House Agriculture Programme utilising MIMOS' Sensor technology and Wireless Communication System from KONTRON, a German-based multinational company which designs and manufactures embedded computer modules, boards and systems. This flagship programme was championed by NEST from Universiti Putra Malaysia, where three concept WSN sites in Tuaran, Sabah; Bumbong Lima, Kepala Batas, Penang; and Setiu, Terengganu, were set up.

The collaborative WSN project for the programme was completed at the end of 2011. KONTRON was identified to lead commercialisation efforts under E&E 2.0. A new global initiative under PEMANDU was also established to leverage G2G bilateral agreements to allow this solution to be adopted in Tanzania and Cambodia. Currently, each country is to identify their respective local partners to take up this technology solution.

In 2012, three local companies were involved in the MIMOS Technology Transfer (MTR) programme to take up the full MIMOS Solution deployed at FELDA Tekam, Pahang, for Intelligent Pollination. They have completed two commercial deployments with more sites planned for future phases. Two additional commercial sites in Malaysia were proposed by the MTR programme and are awaiting contractual awards from the operators located at Kundasang, Sabah, and Ara Kuda, Kepala Batas, Penang.

Also in 2012, modernising efforts of the agriculture sector was further intensified with the introduction of new High Technology WSN, developed to support critical infrastructure and high precision monitoring and control for aquaculture industries. MIMOS also developed an end-to-end solution using Wireless Enterprise Sensor technology to support environmental monitoring. This solution is geared toward Internet of Things (IoT) comprising Mi-WARIS (MIMOS – Wireless Atmosphere for Integrated Systems) using Mesh Technology and Mi-SUTRA (MIMOS – Sensor Unified Technology for Agriculture and Aquaculture) using Advanced Photonics-based sensors. This solution with complete MIMOS Patent and Copyright, enables the local Industry to compete at the global market.

To date, the Mi-SUTRA solution has been deployed at various locations through close partnerships with aqua-based industry players, among them Blue Archipelago Bhd at iSHARP facility in Setiu, Terengganu; Aquagrow Corporation for its contracted facility at Fisheries Department in Glami Lemi, Ulu Jelebu, Negeri Sembilan, and Algaetech International for its newly launched facility in Technology Park Malaysia (TPM), Kuala Lumpur.

The Mi-SUTRA solution has been endorsed by the Minister of Agriculture and Agro-Based Industry (MoA) in September 2013. The endorsement was given after rigorous live side-by-side testing performed by the Fisheries Department on the MIMOS system against its current foreign solutions at its Aquaculture R&D centre located at Glami Lemi, Ulu Jelebu, Negeri Sembilan.

Moving Forward

In November 2013, the Pahang State Government endorsed and announced that the state will be adopting the Mi-WARIS and Mi-ALAM solutions in the Pahang Technology One Network, as part of its river-basin monitoring system for the purpose of flood mitigation. Meanwhile, the MIMOS team is in negotiations with various industry partners for Proof of Concept testing for Klang Valley coordinated by the Department of Irrigation and Drainage. In 2014 and in line with Digital Malaysia aspirations, it is expected that these E&E initiatives be integrated into the Agriculture NKEA strategies, to enable local agripreneurs to explore ways to realise increased incomes from greater use of technology.

EPP 13 Growing Automation Equipment Manufacturing

This EPP will leverage automation equipment manufacturer ABB's presence in Malaysia to build local capabilities in this sector while also working to attract two more multinational automation equipment manufacturers into Malaysia by 2015.

Penang-based Aemulus Corporation, which manufactures automated test equipment and test equipment machines for the semiconductor industry, has developed a new semiconductor tester, deemed the fastest radio frequency semiconductor tester in the world, following core R&D activities by the company.

This project will put the local company on par with global giants such as Advantest, LTX and Teradyne. Aemulus is also the only company in Southeast Asia that is capable of producing its own semiconductor tester. Aemulus has been named on the Deloitte Technology Fast 500 Asia-Pacific list as one of the 500 fastest-growing technology companies in the region.

Moving Forward

For 2014, this EPP's main initiative is to continue engagements with identified companies and further develop this EPP, with one company already in preliminary negotiations with MIDA. To gain further leverage from the critical mass of machinery, equipment and automation expertise that have developed via the E&E industry, new initiatives should be launched in 2014 to create collaborative projects with engineering services programmes driven by other NKEAs such as Oil, Gas and Energy, Business Services and Healthcare.

EPP 14 Building Transmission and Distribution Companies

EPP 14 seeks to capture the market for complex high-voltage transmission and distribution equipment by drawing MNCs to set up their transmission and distribution manufacturing operations in Malaysia.

Efforts under this EPP have been successful in attracting Toshiba Transmission and Distribution Systems Asia Sdn Bhd to establish its regional hub in Malaysia. The company's activities are supported by its subsidiaries, Ampston Electric Corporation Sdn Bhd and Ampston Control and Automation Sdn Bhd, which design, prototype, fabricate, assemble, test and package switchgear, transmission and distribution equipment; and design and manufacture industrial and power Supervisory Control and Data Acquisition System (SCADA) control/automation products and systems, respectively.

Moving Forward

In line with the regional transmission and distribution hub that will be established, a high power test lab will also be set up in Malaysia to support companies throughout the region. Technology Park Malaysia (TPM) is in the midst of negotiations with a major multinational company to establish an integrated "T&D City" in Kuala Lumpur. This should establish Malaysia as a major regional centre for the transmission and development industry.

EPP 15 Building an Electrical Home Appliance Manufacturing Hub and International Distribution Network

This EPP leverages the international capacity of local manufacturers and encourages consolidation of small-scale home appliance firms to spearhead the establishment of a manufacturing hub for the electrical home appliance supply chain and to encourage domestic players to expand abroad.

To facilitate growth and investment in the rapidly changing E&E sector, MIDA's National Committee of Investment (NCI) and the Ministry of Finance made an unprecedented decision in approving incentives for a non-traditional financing method. Following this approval, Pensonic Holdings Bhd, which leads this EPP, was the first company to benefit from this arrangement. It was able to raise funds via the issuance of redeemable convertible loan stocks to finance M&A activities. This is in line with establishing the electrical home appliance manufacturing hub and international distribution network.

Furthermore, the construction of Pensonic's new R&D building in Penang has reached 45 per cent completion. The facility will serve as its new operational headquarters housing its R&D department and all other operational departments i.e. service, warehouse, administration, sales, purchasing and finance.

Moving Forward

The R&D building is expected to be fully completed by March 2014 and ready for operation in June 2014.



Pensonic's new R&D building in Penang is being constructed and expected to be operational by June 2014

EPP 16 Development of Balance of Systems for Solar Photovoltaic (PV)

This EPP aims to explore opportunities in the Balance of Systems (BOS) for solar photovoltaic (PV) to capitalise on developments in the market globally. BOS involves all components of a PV system other than the PV panels. This includes wiring, switches, support racks, inverters, and batteries in the case of off-grid systems. In the case of free-standing systems, land is occasionally incorporated as part of the BOS.

As demonstrated by Malaysia's semiconductor/IC experience, the component-level manufacturing focus at the kick-off must be complemented, before it is too late, by an equally strong focus on harvesting additional value from those locally manufactured components through higher levels of integration and downstream activities. The next phase of development of Malaysian solar photovoltaic will be focussed on retail/consumer applications, products and services. These downstream activities will provide the impetus for growth of other opportunities e.g. MRO and Balance of Systems (BOS) businesses.

Under this EPP, Technocom Systems Sdn Bhd has developed a new low power system for 2 kilowatt to 4.4 kilowatt usage. Their isolated solar string inverters are suitable for all PV cell technologies and can provide reliable and steady power for longer periods.

Moving Forward

In 2014, this EPP will continue engagements with identified companies and further develop the midstream and downstream segments of the solar industry, with one company already in preliminary negotiations with MIDA. Relevant agencies such as the Sustainable Energy Development Authority of Malaysia (SEDA Malaysia), Malaysian Green Technology Corporation (MGTC), MIDA and SME Corp will also collaborate to identify additional opportunities to leverage established energy efficiency and energy access programmes for the downstream ecosystem with focus on inter alia off-grid solutions as part of rural basic infrastructure.

EPP 17 Grow the Embedded Systems Industry

Modern devices must be increasingly "intelligent" to fulfil growing customer demand. The intelligence of these devices resides in what are called embedded systems, comprising intelligent solutions with tightly integrated hardware and software designed to perform a dedicated function. Embedded systems are now utilised in various applications. This EPP aims to develop the embedded systems industry as a new source of growth alongside the growing global embedded systems market. This will be achieved by capitalising on Malaysia's established electronics ecosystems and skilled local embedded systems enterprises.

The initiatives identified under this EPP include:

1. To develop embedded systems projects that produce locally developed embedded systems products to compete in the world market or cater to certain niche markets
2. To grow the embedded systems industry ecosystem and develop local industry capabilities via industry collaborations with embedded systems technology leaders and other embedded systems-related ecosystem parties

A total of 11 embedded systems projects have been approved so far, including three projects from 2012.

No	Embedded Focus Segment	Project
1	Embedded Automotive	Electric vehicle charging infrastructure solutions
2		Smart electric bus controller system
3	Vision Inspection	Advanced X-ray inspection system for automotive, telecommunication & medical industries
4	Wireless Sensor Network	Embedded wireless sensor for ubiquitous monitoring for retail
5	Embedded Healthcare	Embedded controller system for dialysis system
6	Embedded Infrastructure System	Embedded systems for remote monitoring of man-made structures and earth environments
7	Digital Set Top Box	Interactive TV set top box for hospitality & homes
8	Digital Signage	Digital signage kiosk for retail, leisure, indoor & outdoor events, transportation & others
9	Fleet Management	Intelligent visual analytic traffic incident detection system for intelligent transportation system
10	Digital Security Surveillance	Digital smart home and security system for homes & community
11	Payment Systems	Payment router for retailers

Exhibit 7.3: The list of approved embedded systems projects in 2013

This EPP is private and public sector-driven, and is helmed by the Multimedia Development Corporation Sdn Bhd (MDeC) with support from leading technology partners namely Intel, National Instruments and Altera, together with other key ecosystem parties including MIDA, MATRADE, NCIA, MIMOS, Penang Skills Development Centre, SIRIM, SME Corp, CREST and TalentCorp.

Opportunities for local embedded systems enterprises to tap into this EPP include technology access and support, training, funding for embedded systems product development, go-to-market assistance and opportunities to work with technology leaders. These are the key elements to develop the local capabilities of the local embedded systems enterprises.

There is a need to create national impact projects by adopting embedded systems technologies in industries with huge global market potential such as healthcare, agriculture and green energy. Hence, Government support and policy is required for the adoption of embedded systems in vertical sectors. These can then be used as pilot projects and serve as a reference point in targeting export markets.

In 2013, activities in this EPP include DMD Mobile Sdn Bhd's R&D efforts, which focussed on its core module of developing key components and software for mobile devices, as well as its development of a touch-and-type model for multi-touch screens and full keypads.

The company also undertook R&D on tablet extenders, which expand the ability of tablets to function as tablet PCs; and in the area of Near Field Communication application equipment for production chain tracking devices. Another company, Top ATC Industries Sdn Bhd, has focussed its efforts in developing a microcomputer with integrated telephony capabilities utilising the True Convergent Device (TCD) concept. TCD represents a new market segment which allows the production of smaller smartphones.

Through this venture, Top ATC Industries has developed three models, including the MAGIC W3, developed with patent pending technology which runs on a full operating system within a small device with no compromise to its features; the MAGIC ZT1, which utilises the full Windows 8 operating system with backward compatibility with Windows 7 software. This provides users with wider compatibility compared with devices using other operating systems. The company also developed the MAGIC W Quad, which utilises the Windows 8 RT operating system, a full operating system that has simultaneous multitasking capabilities and a desktop mode.

In addition, the company undertook in-house R&D activities to design a pocket-sized 4.8-inch computer product with voice telephony features running on the full Windows 7 operating system; and a 10-inch table computer using the full Windows 8 operating system, offering a specially linked and integrated Bluetooth earpiece for voice control. The company's activities also included designing a 4.7-inch slim smartphone which supports Windows 8 software and desktop applications; and developed a software application that interfaces with product hardware and provides access to telephony and voice features of the MAGIC device.

Moving Forward

This EPP calls for capturing a larger portion of the global embedded systems market by developing local capabilities and securing projects both locally and internationally to spur the growth of the local embedded systems industry.

Towards this end, efforts will be continued to catalyse the development of embedded systems to create new markets, introduce new embedded product/solution categories and innovative digital business models that contribute towards wealth creation, productivity gains and an improved standard of living for Malaysians.

At the same time, focus will be placed on continued industry collaborations with existing and new ecosystem partners to develop the capabilities of local embedded systems enterprises by providing them the required technology access and support, training, funding and market access assistance. A study is also underway to identify gaps in competitiveness and to grow Malaysia's embedded systems industry towards becoming a leading player in the global market.

EPP 18 Enabling Electric Vehicle Component Manufacturing

The focus of this EPP is to accelerate the implementation of the Electric Vehicles (EV) policy and regulations for public and private transportation by targeting 2,000 electric buses and 100,000 electric cars to be on the road by 2020. This initiative is spearheaded by implementing agencies MGTC and the Malaysia Automotive Institute (MAI).

MGTC has developed the EV Infrastructure Roadmap enabling pilot tests of EVs and charging infrastructure development. Today, more than 50 EVs are undergoing pilot tests covering a cumulative distance of over 200,000 km, as well as 20 EV charging stations installed and in operation within Greater KL.

Malacca has also started to embrace EV with the introduction of its first charging station at Hatten Square. Furthermore, MGTC has successfully launched Malaysia's first EV bus by coordinating a six-month field test.

Many car manufacturers have plans to launch their EV models in 2014. At present, Mitsubishi i-Miev, Nissan Leaf and Renault Fluence are already in the local market. MGTC is also working with First Energy Networks (FEN), Panasonic Malaysia and DFRAN Research Technologies to encourage private sector participation in the development of a nationwide EV charging station network.

MAI has also formed collaborations with CRC Auto and two Australian universities to undertake R&D on li-ion battery technology. MAI is also facilitating potential investors and technology partners to manufacture li-ion batteries for EV in Malaysia.



First electric bus in Malaysia launched for the field test

Moving Forward

Together with MIDA, both MGTC and MAI will facilitate and assist in attracting global EV players to invest in Malaysia, including in the area of EV component manufacturing. In 2014, it is expected that one EV li-ion battery manufacturing factory will be built and one EV bus manufacturer will receive approval for its manufacturing license. This will ensure Malaysia does not only focus on EV cars but also across the supply chain to become a major EV component manufacturing hub within Southeast Asia.

EPP 19 Supporting Regional Rail MRO Services Via Electrical and Electronics Component Manufacturing

With the strong growth in the ASEAN rail market especially from rolling stock in E&E parts and systems, coupled with local demand for electrical trains moving forward i.e. LRT expansion, MRT development and electric train commuter revitalisation, Malaysia is positioning itself as a regional maintenance, repair and overhaul (MRO) services provider. This EPP will see the establishment of an E&E Rail MRO services provider for the ASEAN region by 2017. In 2013, a taskforce was set up to carry out the National Rail MRO business feasibility study, led by Land Public Transport Commission (SPAD).

The National Rail MRO feasibility study will be conducted in 2014 to determine the viability and development of the following areas:

- Macroeconomics of the rail industry and its maintenance, repair and overhaul
- Benchmarking analysis and best practices
- Financial and economic impact analysis
- Business strategies
- Implementation plan and timeline

This will lay the foundation for the growth of the E&E component industry for rail MRO, allowing the entry of vendors and system integrators to provide repair services and product development for related electrical and electronic components and systems. This will promote local vendors and system integrators to develop and test their own E&E designs, system integration and customisation, and intellectual property rights creation at the MRO shared service centre.

The project has also allowed significant opportunities in human capital development where local engineers will be attached to rail multinationals under the offset programme coordinated by the Malaysian Industry-Government Group for High Technology (MIGHT).

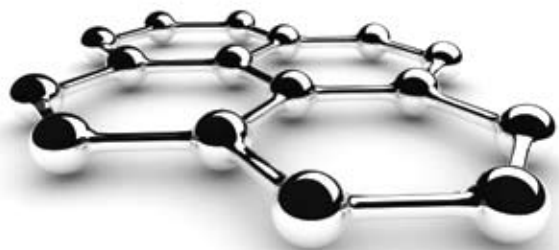
EPP 20 Enabling Industries through Nanotechnology

This EPP will contribute RM3.6 billion in GNI; create 24,000 jobs (direct and indirect) with potential private investment of RM117 million. With the advancements in technology and industry leading the use of nanotechnology, Malaysia's involvement is timely.

For 2014, three projects are identified based on industry strategy, technology readiness, demand and alignment with the national nanotechnology roadmap. The value chain from nanomaterials to nanointermediates and on to nanoproducts is taken into consideration, ensuring Malaysia's leadership in the nanotechnology industry.

With nanotechnology possessing the potential to impact multiple industries through its applications in materials, tools, components, services and end-products across various industries, this EPP focusses on developing ready-to-implement nanotechnology projects under the Nanotechnology Roadmap.

Nano Malaysia Bhd, which was incorporated in August 2011 and entrusted with nanotechnology commercialisation activities, has completed the Malaysia Nanotechnology Roadmap.



Single-layer graphene

Nano Malaysia has identified the LED sector as the first entry point for copper-carbon nanotube (CNT) heat sink technology in which Malaysia has the capability to produce the raw material, carbon nanotubes, for local supply. Heat sink technology is designed primarily for electronics applications to manage the immense heat generated by electronic devices and circuits. There exists an opportunity for LED companies to adopt this technology.

In addition, Nano Malaysia has formed a partnership with a local company to establish a manufacturing platform for dye solar cells technology which is capable of generating electricity in low-light conditions. Dye solar cells generate electricity on a nanotechnology-based platform; and silver nanowires can be used in OLEDs and flat and flexible screens with touch displays. A potential investor has shown interest in building a silver wire manufacturing plant in Malaysia, which will be facilitated by Nano Malaysia in collaboration with MIDA and NCIA.

Platinum Nano-Chemicals has commenced small-scale production of graphene of one tonne annually, providing supply for R&D in the E&E and oil and gas industries.

For this EPP, the pathways from laboratory research to successful commercialisation remain a challenge due to barriers such as funding, market readiness and intellectual property rights.

Moving Forward

In 2014, Agensi Inovasi Malaysia (AIM) will undertake a study on graphene which includes its application in the E&E industry.

From 2014 onwards, this EPP will see the implementation of nanotechnology projects in areas such as copper-CNT heat sink technology, dye solar cells and silver nanowires.

Effective collaboration between research institutes, institutes of higher learning, the Government and industry will be further increased to address gaps and the development of successful commercialisation. This will be undertaken through Nano Malaysia's new collaborative framework, the iNanovation Platform.

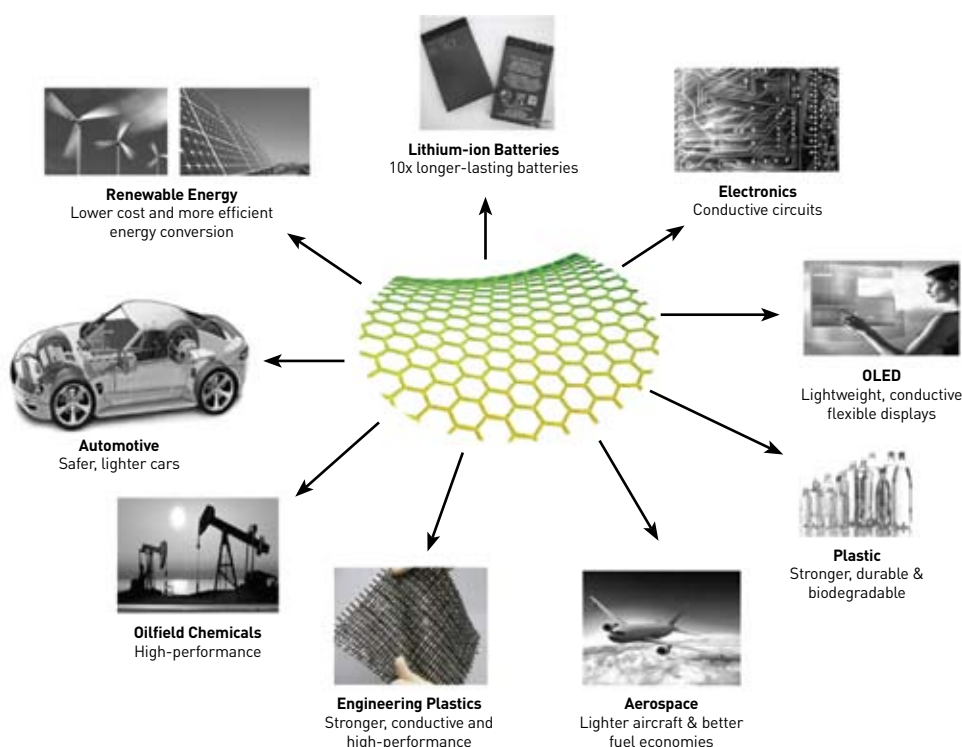


Exhibit 7.4: Possible Graphene applications

Summary of Electrical and Electronics NKEA

	2020 Target
Incremental GNI Impact	RM53.4 billion
Additional Jobs	157,000

Critical targets for 2014

- RM5.1 billion approved investments for NKEA E&E
- 60% realisation of investments approved since 2011
- 18 quality projects to be approved
- Setup failure analysis level Three lab
- 60% utilisation of wafer testing lab
- Consortium of local LED companies to achieve RM80 million annual sales
- Development and rollout of application of nanotechnology in thermal management technology for LED application
- Develop Li-ion battery factory for electric vehicles and approve one new EV bus manufacturer
- Eco-Industrial Design Centre (EIDC) to provide 100 rapid prototyping services, complete eco-industrial design projects and establish collaborative programmes with universities



Enabling Change

ELECTRICAL AND ELECTRONICS

on the ground with the public service



Puan Fadilah Baharin

Director-General of
Standards Malaysia

The LED industry is an important component of an energy-efficient economy and Standards Malaysia plays a part in ensuring that Malaysia's LED manufacturers are able to meet rising competition, especially from China.

Fadilah Baharin, the Director-General of Standards Malaysia, says that her priority in the past few years was shifting the mind set of Malaysian SMEs so that they would stress on meeting quality standards.

She says efforts to get manufacturers to meet stringent LED standards have paid off and can be seen in a decline in product rejection rates.

"I told them that they need to invest," says Fadilah. "The bottomline will come later. I am happy to see that the message is now sticking in their mind. It's the culture that they need to inculcate – quality. So they saw that they need to invest and have a quality culture so that their products do not get rejected. And indeed, today I don't hear of any more rejects."

She says getting manufacturers to meet international standards involved a challenging process including formulating a list of 12 new Malaysian Standards for LED. The short timeframe was partly due to the need to meet the aspirations of the ETP that aims to make the world a marketplace for Malaysian-made LED products.

The formulation process for the 12 LED standards – which cover safety, testing and performance – was comprehensive and involved getting input from a range of stakeholders including manufacturers, civil societies, researchers and the Government itself.

Next came a roadshow in 2012 to convince local LED manufacturers to get themselves certified.

Standards Malaysia also accredited three local testing laboratories which allowed manufacturers to test domestically and save foreign exchange rather than sending their products to be tested abroad.

Fadilah says that under Standard Malaysia's monitoring, the lab test reports have been deemed trustworthy and are accepted in advanced countries such as Australia, China, Japan and the United States.

"This helps save both time and cost, and accreditation can help the local LED companies capture customers not only from Malaysia but also from Asia, the US and Europe," she says.

Pn. Fadilah adds that with three accredited labs, LED testing could be a potential revenue earner for the country if it could draw international clients to test their products in Malaysia.

Standards Malaysia also launched a National Standards Compliance Programme (NSCP) to establish the economic value of standards. The NSCP functions as a hub to consolidate information on standards compliance, which includes an overview on the requirements of standards, the list of accredited Certification Bodies (CBs) for industries to obtain certification and the list of implementing agencies providing technical assistance or funding for certification, such as SME Corporation Malaysia (SME Corp Malaysia) and the Malaysian Investment Development Authority (MIDA).

The NSCP will also focus on providing capacity-building to industries on certification for common standards such as MS ISO 9001 (Quality Management Systems), MS ISO 14001 (Environment Management Systems) and MS ISO/IEC 27001 (Information Security Management Systems) to give the industries the jumpstart they need. The capacity-building activities are also accompanied by business-matching sessions by the implementing agencies and Standards Malaysia's accredited CBs to provide packaged and comprehensive assistance to the industries. It is hoped that the NSCP will raise Malaysian's global competitiveness through the adoption of standards which will help bolster credibility and market access for Malaysia's product and services.

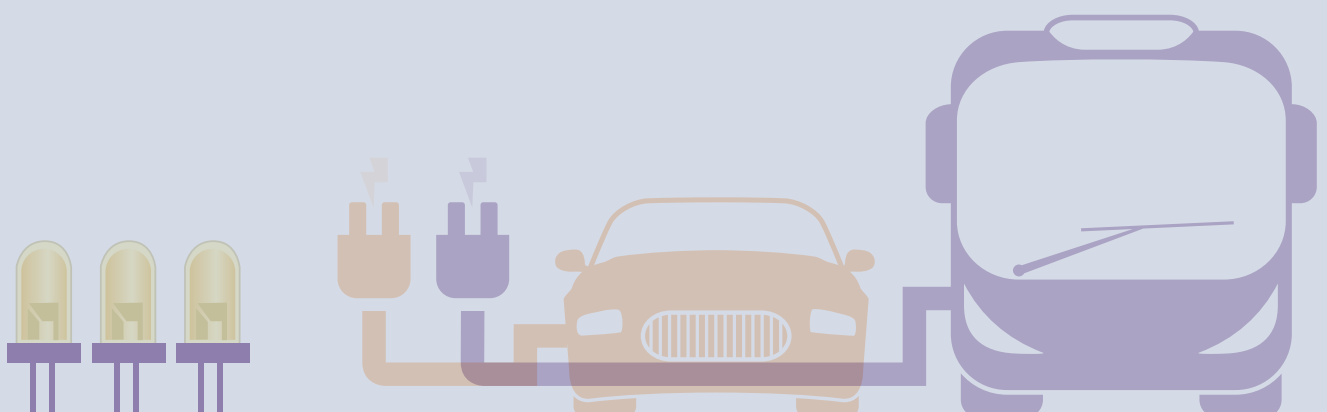
"Through this programme, we hope that the industry will recognise the need for compliance to standards which can potentially mean better or improved access to both domestic and international markets," says Fadilah.

She also says that Standards Malaysia has adopted a two-pronged approach to quality by reaching out to consumers.

"For consumers, we have been organising attractive and interactive outreach programmes in partnership with hypermarkets (*Program Kesedaran Standard*) and schools (*SPEAK-UP Programme*) to educate them about quality consciousness through standards, so that they choose products with standards and certifications."

For the future, Fadilah says that she hopes local LED players could band together as one and work together for the benefit of the industry. She also says that she looks forward to seeing the results of the push for certification in the LED industry.

"We have created the quality culture and I look forward to 2015 and hearing success stories of where our LED manufacturers have exported to."





BUSINESS SERVICES





Datuk Richard Riot Anak Jaem
Minister of Human Resources



This was a year of milestones for the Business Services NKEA as the sector saw significant developments in its ambition to be a global hub for services.

Not only did aerospace giant Airbus select Malaysia to be one of its five global customer service centres, but the sector also expanded into new and coveted areas such as modelling and simulation and aircraft component maintenance.

Swiss-based MRO (Maintenance, Repair and Overhaul) player SR Technics, one of the largest providers of component MRO services in the world, opened its facility this year giving the country a big brand name that it previously lacked in this space. Canadian multinational CAE meanwhile paved the way for Malaysia to play a regional role in modelling and simulation when it committed to invest RM700 million to open a regional Centre of Excellence (CoE) in the country.

This new investment by CAE demonstrates its continued confidence in the capabilities of Malaysians, having operated in the country for some 20 years. The CoE will help Malaysia become a regional leader in simulation and modelling, an exciting technology that cuts across industries and is today being applied in diverse areas such as surgery, construction and even MRT track modelling.

Other areas covered by this NKEA such as Data Centres and Engineering Services also continued to do well this year.

In terms of employment contribution, the NKEA continues to generate the kind of knowledge-intensive jobs that are key to Malaysia's target of becoming a high-income nation. For example, the Airbus Customer Service Centre will create jobs for 140 engineers, SR Technics will create over 200 jobs at its new facility while CAE's new CoE is projected to create 218 jobs. Furthermore, shared services and outsourcing companies such as AIG, Chartis, IBM and AIA have created more than 10,000 new knowledge-intensive jobs in IT, Finance and Accounting, HR and Payroll business services.

These encouraging accomplishments will lay the foundation for greater success moving forward into 2014. It will also help Malaysia consolidate its position as a competitive hub for business services and move it closer to becoming a developed high-income nation by 2020.

BUSINESS SERVICES

The Business Services NKEA taps the growth opportunity in specialised, high-value sectors that will help drive the country's transformation into a high-income nation by 2020. While still a small portion of the Malaysian economy at only 3.9 per cent of its GNI in 2012, the sector was nevertheless the country's second-fastest growing over the past decade, expanding at an average annual rate of 7.9 per cent.

This amounted to a GNI of RM36.4 billion in 2012, which is projected to grow to RM78.7 billion by 2020 through the implementation of six Entry Point Projects under this NKEA. These EPPs cover maintenance, repair and overhaul (MRO) services, shared services and outsourcing, data centres, green technology, pure-play engineering services, and shipbuilding and ship repair.

Malaysia has already established itself in some of these areas, such as in shared services and outsourcing of IT. The country is also recognised as one of the three leading hubs for aircraft MRO services in the Asia-Pacific region. This position was further strengthened by Airbus' establishment of its Customer Services Centre for specialised aerospace engineering services near the Kuala Lumpur International Airport in the 3Q 2013.

The country's data centres are also gaining increasing international recognition, boosting its ambition of becoming a data centre hub. Malaysia is currently ranked 16th, up three positions from 2012 in the Data Centre Risk Index by Cushman & Wakefield. The next 12 months will see exciting growth in Malaysia's data centre landscape as top global players look to expand their cloud offerings in this region.

The Business Services NKEA will build on the sector's past successes to capture a larger market share of these high-value and knowledge intensive areas, in turn creating demand for a skilled workforce.

In line with the ETP's key goal of stimulating private investment, this NKEA will continue to be private sector-driven. This NKEA will also be supported by ongoing efforts by the Government to strengthen the country's human capital base via the Human Capital Development Strategic Reform Initiative.

2013 Key Performance Indicators

NKEA Business Services		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
EPP #1	Revenue from Airframe business (Fleet Technical Management, Airframe MRO, Training Centres) - RM million	2,418	1,361.28	56		56		0.5	
	Revenue from Components MRO - RM million	1,763	1,601	91		91		0.5	
EPP #2	Overseas sales revenue - RM million	1,380	1,592.5	115		100		1.0	
	Domestic revenue - RM million	1,631	1,766.93	108		100		1.0	
	Number of new jobs created	10,500	12,034	115		100		1.0	
	Number of new KPO companies	4	4	100		100		1.0	
	Government Unified Communication (1GovUC) - number of users	100,000	123,669	124		100		1.0	
	Public Sector Data Centre - number of agencies	28	38	136		100		1.0	
EPP #3	Data Centre Organisational Certifications	7	7	100		100		1.0	
	Total DC services revenue - RM million	562	518	92		92		0.5	
EPP #4	Revenue generated from main sources of segmentation e.g. RE/EE/SWM/GTFS - RM million	2,000	2,634	132		100		1.0	
	New investment realised - RM million	2,000	2,027	101		100		1.0	
	Number of green projects approved by banks	45	43	96		96		0.5	

(more on next page)

(continued from previous page)

NKEA Business Services		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
	Number of green certificates issued for new applicants under GTFS	100	71	71	●	71	●	0.5	●
	New loan value approved by financial institutions for GTFS - RM million	350	512.2	146	●	100	●	1.0	●
EPP #5	Number of new Specialist Consultant Engineers for pure play engineering	140	88	63	●	63	●	0.5	●
	Revenue for large pure play engineering services - RM million	54	40.7	75	●	75	●	0.5	●
EPP #6	Number of jobs created	160	187	117	●	100	●	1.0	●
				102%		91%		81%	

Exhibit 8.1

Method 1 Scoring is calculated by a simple comparison against set 2013 targets. The overall NKEA composite scoring is the average of all scores

Method 2 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is less than 100%, score #2 is taken as the actual percentage
- If the scoring is equal or more than 100%, score #2 is taken as 100%. The overall NKEA composite scoring is the average of all scores

Method 3 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is equal and less than 50%, score #3 is indicated as 0
- If the scoring is more than 50% and less than 100%, score #3 is indicated as 0.5
- If the scoring is equal or more than 100%, score #3 is indicated as 1

ENTRY POINT PROJECTS

EPP 1 Growing Aviation Maintenance, Repair & Overhaul Services

The goal of this EPP is to develop Malaysia into a regional Aviation Maintenance, Repair and Overhaul (MRO) services hub and capitalise on a global market projected to see a compound annual growth rate (CAGR) of 3.9 per cent to reach RM213 billion by 2020. Malaysia is well-positioned to be a competitive regional MRO hub due to the procurement of new aircraft by its airlines, increasing number of new MROs and the expansion of Tier-2 and Tier-3 supplier capabilities. Malaysia's established airframe MRO capabilities, its lower cost base and strong technical capabilities bode well for the continued growth of this EPP.

The country has also seen greater development of its airport infrastructure with expanding air traffic, availability of land and the creation of a more conducive operating environment through the addressing of tax and civil aviation regulations. All these efforts continue to make Malaysia a preferred Aviation MRO destination in the region.

Achievements and Challenges

This year saw significant expansion of the country's MRO ecosystem and the geographic coverage of the sector.

Airbus opened a new Customer Services Centre in Malaysia in 2013 which represents a significant milestone not only for the MRO industry but also for Malaysia as a whole. This is the 5th such office in the world after Toulouse, Hamburg, Wichita and Beijing. Launched on 2 October 2013, the new Airbus customer service centre represents an expansion of the manufacturer's global network of offices and provides specialised major aircraft and engineering services for the region.

Airbus' new office is located at Sepang Aircraft Engineering (SAE), KLIA, Sepang. SAE is part of the Airbus Group which specialises in maintenance, repair and overhaul of single-aisle aircraft or the A320 family aircraft. SAE is also the Centre for Airbus Flying Hour Support (FHS) programme where SAE provides logistic and administrative support for component management of A320, A330 and A380 aircraft components for Airbus customers in the region.

The primary role of the Airbus Customer Services Centre is to help customers operate their fleet safely and profitably. A team of 140 engineers will complement the existing workforce of 4,000 to provide support from engineering and maintenance (e.g. aircraft repair, technical data, fleet retrofits), materials and logistics (e.g. spare parts and tools), airline personnel training and flight operations.

Malaysia is already an important industrial partner to Airbus with its suppliers working on various aircraft programmes and its strong customer base. The customer service centre further strengthens Malaysia's relationship with Airbus.

Previously, Malaysia has lacked a strong brand name in components MRO services and as a result a majority of MRO services for aircraft components have been outsourced to external parties outside Malaysia. In 2013 however, this changed with the entry of the Swiss-based MRO player SR Technics.

SR Technics provides technical solutions for airlines worldwide, supporting both Airbus and Boeing aircraft. It is also one of the largest independent providers of these services in the world. Its business model entails adding value to customers by creating tailor-made innovative full-support solutions to provide technical support for aircraft, engines and components.

The company's presence in Malaysia will directly benefit the country's MRO ecosystem and ensure a strong and competitive landscape in the components segment of the market for Malaysia. SR Technics is expected to invest significantly in the country, creating more than 200 jobs. The component Centre of Excellence will complement their existing repair centres around the world. Most importantly, it will help to substantially reduce outsourcing of MRO services for aircraft components outside of Malaysia.

Another crucial aspect of SR Technics' investment is the creation of highly technical and specialised component repair jobs in the MRO arena that will facilitate significant transfer of technology to the domestic market. In addition, the natural spillover that will be created via SR Technics' presence in Malaysia will benefit support-level jobs and other investments that will help shape a highly efficient and effective value chain for components MRO in the country.

In addition to the big-branded MROs in Malaysia, Aerokwai is a welcome addition to the local MRO market. Set up by France's Sunaero, which provides rapid aircraft repair technologies, Aerokwai is a specialist high-technology MRO that is expected to significantly contribute to the Malaysian landscape. It is involved in on-site MRO services for fuel and oxygen leaks as well as for curing and high-technology composite repairs. The company commenced operations after the renovation of its 1,200 square metre facility in Johor, near the Senai Airport, in August 2013.

Moving Forward

The MRO sector had a vibrant year in 2013 and this trend is expected to continue in 2014, with Malaysia now seen as a serious MRO aviation hub for the Asia-Pacific region. Currently, talks are ongoing to secure a renowned original equipment manufacturer (OEM) based MRO in Malaysia.

In addition, a recent exercise to review regulations and legislation by the Department of Civil Aviation Malaysia underscores the Government's commitment to positioning the country as an MRO hub offering high standards which are certified and benchmarked against international standards.



EPP 2 Building Globally Competitive Shared Services and Outsourcers

As a middle-income economy, Malaysia's shared services and outsourcing companies must contend with high-income economies that boast highly-skilled knowledge workers and low-income countries that can offer business services at competitive rates.

These factors could hamper the country's ability to capture a larger share of the Asia-Pacific ex-Japan outsourcing market, which has been growing 12 per cent annually and of which Malaysia has only netted 3.9 per cent.

This EPP therefore aspires to create multiple globally competitive outsourcers while also encouraging a vibrant shared services industry and an environment for smaller companies to flourish. This will be achieved by focussing on business process outsourcing (BPO), IT process outsourcing (ITO) and knowledge process outsourcing (KPO), with the view of creating a globally competitive shared services and outsourcing industry, and establishing Malaysia as an offshoring and outsourcing hub. It will also develop the country's existing competitive advantage in a number of areas in shared services and outsourcing, chiefly financial services, oil and gas, and logistics.

It will also leverage support from shared services and outsourcing industry development agencies Multimedia Development Corporation (MDeC) and Outsourcing Malaysia (OM). These agencies will assist foreign multinationals and Malaysian companies with regional and global ambitions to ensure Malaysia's continued attractiveness as a global outsourcing and offshoring hub.

This EPP has also benefited from efforts under the Human Capital Development SRI to develop upskilling programmes such as MyProCert which ensured that the necessary industry-related competencies are fulfilled.

At the same time, the public sector is assisting the industry through consolidation efforts and outsourcing of the Government's non-core IT processes. The Government Centralised Unified Communication System (1GovUC), awarded last year, is proceeding smoothly with the migration of more than 100,000 users in 2013 from agencies including the Ministry of Education and Ministry of Health. Efforts in reducing the number of server rooms by consolidating the locations of the various Ministries' computing facilities have brought in an additional 38 agencies into the outsourced Government Data Centre (GDC).

Achievements and Challenges

Initiatives under this EPP showed encouraging results in 2013, with various industry-wide programmes held which aim to upskill the outsourcing companies to become global champions as well as grow the shared services industry.

The SCORE+ Acceleration Programme, a six-workshop series for outsourcing companies, attracted a record number of attendees during the year. The programme aims to drive nurturing activities around marketing, business development, market access and growth of outsourcing companies.

The InnoSource programme, a merger and acquisition (M&A)-related initiative, helped companies meet potential financiers. Nine companies were taken to meet funding bodies including venture capitalists (VCs), angel funds, private equity (PE) funds and banks. Key successes include two outsourcing companies receiving significant offers: Cuscap received a loan offer from Malaysia Debt Ventures (MDV) and Brandt International also successfully received funding to grow.

The IAOP Benchmarking Programme aims to provide a third-party benchmarking of companies against the International Association of Outsourcing Professionals' (IAOP) global standards. It serves as a gauge on company health and ranks companies for funneling to other related or appropriate programmes. 23 companies have participated and the funnel system is actively used for InnoSource, Co-Op Marketing Fund, Business Development efforts and internal ranking and tiering.

One challenge for this EPP lies in the marketing capabilities of the companies, where it was determined that the marketing collateral for the companies were not customer-centric. Therefore, some companies need to be educated on the value of marketing collateral emphasising on strong customer testimonials that exhibit value creation beyond just showcasing the companies' capabilities.

In the shared services space, efforts were undertaken to encourage talent growth and retention in the face of human capital challenges in the industry. The shared services industry had gathered in June 2013 to establish a working group to share industry best practices, leading to a formal structure within PIKOM to champion the industry.

Moving Forward

Industry-specific efforts to create a global champion in outsourcing will be intensified moving forward. Efforts through the InnoSource programme to help companies obtain the appropriate funding for growth will be broadened, after taking into account feedback from industry that the funding options and panellist of financiers are limited.

In moving towards a high-income nation, the focus of the EPP in the next wave will be to grow and attract higher-value shared services and outsourcing in the areas of knowledge processes. The achievement of four new Knowledge Process Outsourcing (KPO) companies this year will spur more achievements in this area as we continue to create the talent and environment for higher-value services to grow.

EPP 3 Positioning Malaysia as a World-Class Data Centre Hub



Minister of Communication and Multimedia Dato' Sri Ahmad Shabery Cheek at the launch of the MDCA

This EPP aims to establish a world-class Data Centre (DC) hub in Malaysia in a bid to capture a significant share of the global DC market, which is projected to grow to US\$3.4 billion in 2014. To this end, initiatives under this EPP target to build sufficient capacity of internationally certified DC space and create 9,000 certified DC-related professionals by 2020.

Efforts under this EPP will also take advantage of the country's existing achievements in this sector, such as growing expertise spurred by expansion in the local ITO, BPO and creative multimedia content industry. In 2013 the top 10 local operators in Malaysia had built over 1 million sq ft of DC space. However, with major global players enhancing their cloud offerings, Malaysia stands to double its data centre footprint in the next two to three years.

Achievements and Challenges

The DC industry is projected to record revenue growth of 20 per cent in 2013. This follows the completion of more than 150,000 sq ft of new DC capacity in 2012, also representing a growth of 20 per cent.

A number of DCs were also certified by international data centre certification organisations in 2013. Two commercial DCs in Malaysia have been certified by the Uptime Institute, a consortium of companies involved in education, publications, consulting, certifications, conferences and seminars for the DC industry.

The Malaysian Data Centre Alliance (MDCA), comprising 21 DC providers in Malaysia, was launched on 28 October 2013. Its establishment marks the start of industry collaboration towards building strong local operations and establishing a regional presence with internationally recognised certifications.

The launch of MDCA will ensure the capacity, capability and credibility of local DC service providers are continuously enhanced through structured developmental programmes. It will also assist in attracting local enterprises and multinational clients to locate and host their DC services in Malaysia.

Malaysia's efforts in this sector were also recognised by Cushman & Wakefield, which ranked the country 16th, up three positions from 2012 in its Data Centre Risk Index. It excelled in "Energy Costs and Security" and "Ease of Doing Business" categories with potential future improvements in the "International Bandwidth" ratings.

To draw the interest of key foreign investors to set up DC facilities in Malaysia, a Data Centre Taskforce was set up by MDeC, MIDA and PEMANDU. The taskforce will focus on capturing investment opportunities and presenting a consistent package to investors. Given the need to address various stakeholders on the supply side, facilitation provided includes engaging Malaysia's regional economic corridor authorities (to find suitable locations and landowners), telecommunications providers, utility regulators and local and foreign DC players.

Demand for Malaysian DC services will continue to be enhanced with a more focussed effort from the Malaysian Data Centre Alliance in partnership with MDeC to promote Malaysia as the regional hub of choice for DC services.

Moving Forward

Malaysia is well-suited to cater for the various requirements of this industry. Moving forward, this EPP will focus on promoting higher value DC services, generating greater demand within the domestic market and the promotion and facilitation of foreign direct investments.

To expand the industry's potential capacity, DC park sites around the nation have already been identified including in:

- Cyberjaya, the current hub for Malaysia's data centres
- Sarawak, due to its abundant renewable energy sources which are a key requirement in modern DC certifications
- The East Coast of Peninsular Malaysia due to its direct access to cable landing stations for connectivity
- Iskandar Malaysia to complement existing regional DC players based mainly in Singapore

MyTelehaus – aggressive growth in Data Centre wholesale space

MyTelehaus Sdn Bhd, a developer and wholesaler for data centre (DC) space was founded by a team with in-depth knowledge and experience in the specialised field of Data Centres. The design of their data centre is lead by Ow Yong of C2 Consult, who has more than 30 years of experience in the data centre industry and has designed more than 200 data centres.

MyTelehaus completed their flagship data centre in Cyberjaya in 2012. By the end of 2013, MyTelehaus' second commercial data centre will be ready for service. The data centre, known as PJ3 Centre, will be the largest high quality data centre in Petaling Jaya, Selangor.



PJ3 Centre located in Jaya33 is a modern purpose-built data centre facility in a multi-storey building. This data centre was designed from the ground up with Jaya33 since 2011 to meet TIER-3 data centre infrastructural requirements, with two completely independent electrical systems and dedicated data centre infrastructure to support a mission critical environment.

PJ3 Centre will occupy four floors with a total white space size of 45,000 sq ft.

MyTelehaus is already planning to build more commercial data centres in various strategic locations, including in Iskandar Development Region and Cyberjaya.

EPP 4 Jumpstarting a Vibrant Green Technology Industry



Launch of the GTFS outreach programme in conjunction with the Malaysian Green Technology Corporation (MGTC) and Federation of Malaysian Manufacturers (FMM) in Le Meridien, Kota Kinabalu

The emergence of the global green technology industry presents yet another opportunity for Malaysia to stake a leadership position in an industry that is not only growing rapidly, but is also socially responsible.

This EPP aims to jumpstart the green technology sector in Malaysia by nurturing a vibrant green technology industry. Growth in this sector is projected to be driven by opportunities in renewable energy, while the Ministry of Energy, Green Technology and Water (KeTTHA) will lead efforts to spur the local green technology industry. This will, in turn, help Malaysian companies achieve sustainability and lower the country's carbon footprint.

The Green Technology Financing Scheme (GTFS) was officially launched on 26 January 2010 as an effort to improve the supply and utilisation of Green Technology by the industries sector especially among SMEs. Under this scheme, the Government provides a 2 per cent subsidy of the total interest/profit rate or a guarantee of 30 per cent on the financing amount.

In terms of its achievement towards meeting the various touch points and the aspiration of the *rakyat* at large, GTFS has created a new dimension of businesses and investments for industries in the field of green technology, thus contributing to the national income as well as creating job opportunities in the field of Green Technologies.

Achievements and Challenges

Since its introduction, GTFS has successfully supported 120 projects and has drawn the participation of 22 financial institutions. As of December 2013, the GTFS has secured loans amounting to RM1.58 billion. In addition, the projects helped create over 1,700 green jobs and saved the equivalent of 1.74 million metric tonnes of carbon emissions.

One of the main challenges of companies operating in this space is the lack of funding. To this end, a memorandum of understanding (MoU) between the Malaysian Green Technology Corporation (MGTC) and the Malaysian Industry-Government Group for High Technology (MIGHT) will help provide access to financing through MIGHT's offset programmes.

Malaysian Green Technology Corporation (MGTC) is also working with Bank Negara Malaysia (BNM), financing institutions and banks to help them better understand and evaluate the risks associated with financing and growing companies in green technology ventures. Industry players, especially SMEs, are encouraged to apply for this assistance to finance their Green Technology endeavours, either as producers or users. It will also help increase the transfer of knowledge and technologies in Green Technology that would serve as a form of capacity building for local companies.

Lack of exposure among the applicants due to limited market reference, data and benchmarks to assess green technology, also contributes to low rates of submission to and approval by the banks. Project proposals which lack a track record and proven technology face barriers of unwillingness by financial institutions to undertake the project risk.

Low take-up of the scheme is also caused by the limited financing amount and the green component guarantee as well as the single group-exposure limit on financing which restricts companies with common shareholding to apply beyond maximum limits.

Moving Forward

The efforts and measures to be undertaken to improve the uptake of GTFS include:



MGTC audit team performing "Measure & Verification" at a manufacturing plant under the GTFS

- organising workshops and training programmes for financial institutions to better understand the technologies
- assisting and facilitating project developers on their technical and financial proposals
- conducting forums with green technology business promoters and prospects in collaboration with business and trade associations
- creating more awareness programmes, advertising and promotions on green technology



Exchange of MoU between MGTC and Malaysia Debt Ventures Berhad (MDV) in conjunction with 2013 International Green Tech & Eco Products Exhibition & Conference Malaysia (IGEM)

EPP 5 Nurturing Pure-Play Engineering Services

In 2013, this EPP began focussing on two strategic levers: To enhance existing capability and improve market presence while being versatile capabilities other engineering verticals. This is as manufacturers and OEMs are increasingly outsourcing more engineering work to drive down costs as well as to refocus on their core strengths.

Two of the industry's key players, Strand Aerospace Malaysia (SAM) and DreamEDGE Sdn Bhd (DESB), have grown from less than 10 engineers to nearly 200 each by the end of 2013. Both companies are now considered Tier-2 companies for design engineering with successful market presence in Europe and Japan respectively.

Achievements and Challenges

Following on from last year's impressive performance, in 2013 SAM continued to pursue high-level contracts with companies such as Airbus and other big name French companies in the hope of moving up to Tier-2 of the value chain.

SAM is now embarking on a significant collaboration with MARA to establish a design engineering cluster in Subang to be called the Subang Aerospace City. The project will represent a milestone for the industry, with the aerospace city set to create over 3,000 jobs in the next five years for students from MARA's engineering faculty.

The city will also include an MRO base complete with a hangar for aircraft technicians and engineers. This will help spur the development of the aerospace cluster that has been envisaged for pure-play engineering services under this EPP. The park is currently under development and is expected to generate a GNI of over RM1 billion come 2020.



The ZET is DreamEDGE's solution to an efficient and green people mover for our fast-growing cities

Altran Malaysia will open a Regional Office and Innovation Centre that will serve as a regional high-technology consulting and innovation centre in Kuala Lumpur to support the Southeast Asia market. The centre will be supported by its subsidiary, Cambridge Consultants, which will provide innovative product development services to accelerate the growth of blue-chip and ambitious startup companies in Malaysia. This venture is strongly supported by the Government and local authorities; and is expected to attract the best talents in the market.

This project will contribute a GNI impact of RM37.25 million by 2020 involving an investment of RM24.58 million and create 206 highly technical jobs.

DESB has developed into a consistently high-performing company with revenues of over RM24 million in just two years. In recognition of its performance, NISSAN Japan has reinforced its strategic partnership with the company by continuing its existing research and development contracts. NISSAN Techno in Vietnam has also agreed to offshore more of its design engineering work to DESB.

At a special event, DESB showcased two units of Formula 4 cars and two units of Zero Emission Transporters (ZET) - a fully operational green vehicle. The ZET demonstrates DESB's capabilities as an innovative solutions provider on a large scale which has moved on to design and development projects with the first ever ZET prototype. Additionally, DESB has also been highly innovative with its own Electric Vehicle (EV).

DESB is currently exploring opportunities to distribute Green Lord Motors Japan (GLM) vehicles in Malaysia. DESB could also take over body design work for GLM. The body is made from composite materials and considering GLM's limited production capacity, one possibility is for them to manufacture the body in Malaysia and export to Japan.

DESB will need to ensure that its outsourcing business model is sustainable, particularly as design work will now be focused on energy efficient vehicles that have different dynamics and components.

The possibility of new entrants in the area of automotive design engineering may shift the current focus of DESB onto other verticals which need to be managed effectively. This is because the transition taking place could be rapid with competition at an all-time high from other Tier-2 companies.

Moving Forward

As they expand, SAM and DESB will need to cope with aircraft manufacturers' offloading of peak demand activity whilst ensuring that their overall pricing strategy is competitive. SAM will also need to be proactive in securing market stability with value differentiators such as capability and premium services. Since outsourced work is primarily from European markets, SAM will need to ensure that its business model is dynamic and flexible to cope with negative sentiments and bottomline shocks.

For the past 30 years, Altran has been providing services to key players in the aerospace, automotive, energy, railway, finance, healthcare and telecoms sectors. Covering every stage of project development from strategic planning to manufacturing, Altran's offerings capitalise on the Group's technological know-how in four key areas: Product Lifecycle Management, Mechanical Engineering, Intelligent Systems and Information Systems.

altran

EPP 6 Developing Malaysia as a Shipbuilding & Repair Hub



Fabrication work in new shipbuilding

This EPP was introduced in 2012 to take advantage of the rapid growth in Malaysia's shipbuilding and repair industry. The industry generated turnover of about RM7.34 billion and attracted investments worth RM0.42 billion in the same year. In terms of human capital, the industry presently provides around 33,000 jobs of which more than 80 per cent are related to production and engineering activities.

This EPP aims to expand Malaysia's 1.1 per cent share of the global market for new shipbuilding to 2 per cent by fostering competitive pricing, enhanced facilities and increased capabilities for the shipbuilding and ship repair market.

To this end, Malaysian Industry-Government Group for High Technology (MIGHT) which jointly developed the Malaysian Shipbuilding/Ship Repair Industry Strategic Plan 2020 with the Association of Marine Industries of Malaysia (AMIM) has outlined seven key strategies to boost the local shipbuilding and ship repair industry. They include:

- Establish business-friendly policies that support the growth of the industry
- Strengthen the institutional framework
- Reinforce the regulatory framework

- Attract and prepare an adequate and capable workforce
- Apply local design and adopt new shipbuilding/ship repair technologies
- Improve financial and incentive packages and promote inward investment
- Upgrade competency and level of sophistication of the industry

Under the SBSR 2020, the industry is targeted to generate RM6.35 billion of GNI and provide 55,500 jobs for Malaysians by 2020 through industry growth that is both sustainable and inclusive.

One project that has been initiated under this EPP is the development of in-country design capabilities for Offshore Support Vessels (OSV), led by Boustead Heavy Industries Corporation Bhd (BHIC).

Achievements and Challenges

BHIC surpassed its target of producing 160 technical personnel, training a total of 187 technical personnel, which has brought them closer to the goal of producing competent and skilled manpower for the industry.

Moving Forward

MIGHT will continue its effort to raise awareness of the SBSR 2020 to stakeholders and produce strategic proposals to align the industry's development with national aspirations.

Amongst the proposals include providing incentive packages for the shipbuilding/ship repair industry and establishing the Malaysian Maritime Council (MMC) to oversee all areas within the maritime industry supply chain in a holistic manner.



Docking of naval ship at Grade One Marine

MIGHT together with industry players is also embarking on certification requirements for the industry by proposing the Certificate of Recognition (COR). This will be introduced to all shipbuilders, ship repairers and marine equipment manufacturers. The objective of the proposal is to upgrade the sophistication of shipyards and marine manufacturers to meet international standards; thus increasing the marketability of their products and allowing them to penetrate foreign markets.

The industry now needs more direct interaction between industry players and the Government. Additionally, more projects that can contribute to GNI and employment will be included through this EPP moving forward with the ultimate aim of spurring the industry's development.



Marine engineers undergoing training at Boustead Naval Shipyard

BUSINESS OPPORTUNITIES

1

Multi-Disciplinary Practice Construction

HSS Engineering, a prominent MDP Construction firm, is involved in the MRT project as an independent consulting engineer and has realised this business opportunity.

2

Accounting Sector

This business opportunity is now under the purview of the Competition, Standards and Liberalisation SRI for smoother execution.

Summary of Business Services NKEA

	2020 Target
Incremental GNI Impact	RM78.7 billion
Additional Jobs	245,000
Critical targets for 2014 <ul style="list-style-type: none"> • 15% revenue growth on overseas sales for Shared Services & Outsourcing • 25% revenue growth on Data Centre services • RM2 billion investment realised for Green Technology initiatives • RM400 million approved in loan value under Green Technology Financing Scheme (GTFS) • 224 new specialist consultant engineers in Pure-Play Engineering Services 	



Enabling Change

BUSINESS SERVICES

*on the ground with
the public service*



**Dato' Dr. Nor Aliah
Mohd Zahri**

Deputy Director-General
(ICT) of MAMPU

As the agency entrusted to lead the ICT initiatives under the Business Services NKEA (EPP 2: Building Globally Competitive Outsourcers), MAMPU has taken great strides to enable the digital transformation of the public sector.

“The implementation of ICT initiatives under this EPP will assist the civil service in delivering ubiquitous, effective, efficient, transparent and value for money services to the *rakyat* and Malaysia as a whole,” says Dato' Dr. Nor Aliah Mohd Zahri, Deputy Director-General (ICT) of MAMPU.

MAMPU's other roles and responsibilities within EPP 2 include running pilot projects to consolidate the Government's data centres into a unified Government Data Centre (GDC) and streamlining the Government's messaging services, including e-mail and voicemail, across key Ministries and agencies under the 1GovUC platform. The agency has also commissioned a Government-wide study to identify duplication across non-core business processes, with the aim of establishing a Government-shared services centre.

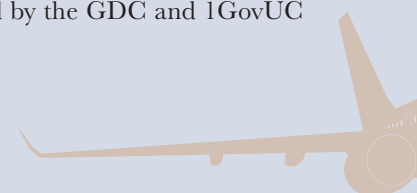
During the year, key highlights achieved by MAMPU include the participation of 37 Government agencies in its GDC initiative. “This is a good indication as the targeted KPI under this initiative in 2013 was 28 agencies,” notes Dato' Dr. Nor Aliah, with GDC-1 now serving a total of 45 Government agencies, covering 250 applications and 224 physical services. The GDC service, which is in compliance with Tier 3 standards, has also moved beyond physical infrastructure to providing cloud services through 1GovCloud.

“Another key achievement for our GDC initiative is Government savings. For the first 20 agencies on board in 2012 under our GDC-1, we have reduced the cost of ICT procurement/sourcing by RM4 million, electricity consumption by RM275,852 and achieved savings on maintenance costs amounting to RM2.26 million per annum,” says Dato' Dr. Nor Aliah. MAMPU has also succeeded in reducing the duration of procurement and acquisition of ICT processes from up to six months to just 30 minutes via 1GovCloud.

Additionally, as at December 2013, GDC-2 off-premise has provided data centre and data resource centre services for 37 agencies, while the implementation of virtualisation and cloud computing facilities has reduced the utilisation of data centre floor space.

As for the 1GovUC service, 122,654 users from 45 agencies have come on board as at December 2013, with existing e-mail systems at the agencies having been migrated to 1GovUC. “With this migration and adoption of 1GovUC, the operational cost of the e-mail system including licensing and maintenance at the agencies level are no longer required,” highlights Dato' Dr. Nor Aliah. The 1GovUC platform has also benefited users by providing high availability and disaster recovery services.

Dato' Dr. Nor Aliah notes, however, that some challenges faced by MAMPU in undertaking its tasks include inter-agency connectivity for both the GDC and 1GovUC initiatives, agency readiness and a shortage of technical experts in unified communication (UC) and cloud computing faced by the GDC and 1GovUC service provider.



To overcome these challenges, MAMPU has undertaken efforts such as working closely with the Government's network provider, Government Integrated Telecommunication Network to diagnose network problems such as slow connection speeds. MAMPU has also initiated a Reskill, Redeploy and Replace (3R) Programme to address the shortage of technical experts.

"The 3R Programme provides appropriate certifications and training to selected participants so that they can further enhance their knowledge, competencies and expertise in the respective areas. This programme consists of internationally-recognised certification to increase personnel competency whilst ensuring that we are up-to-date on the evolving technology trends and advancement. 22 courses are offered under the 3R Programme, which has attracted 194 participants," says Dato' Dr. Nor Aliah.

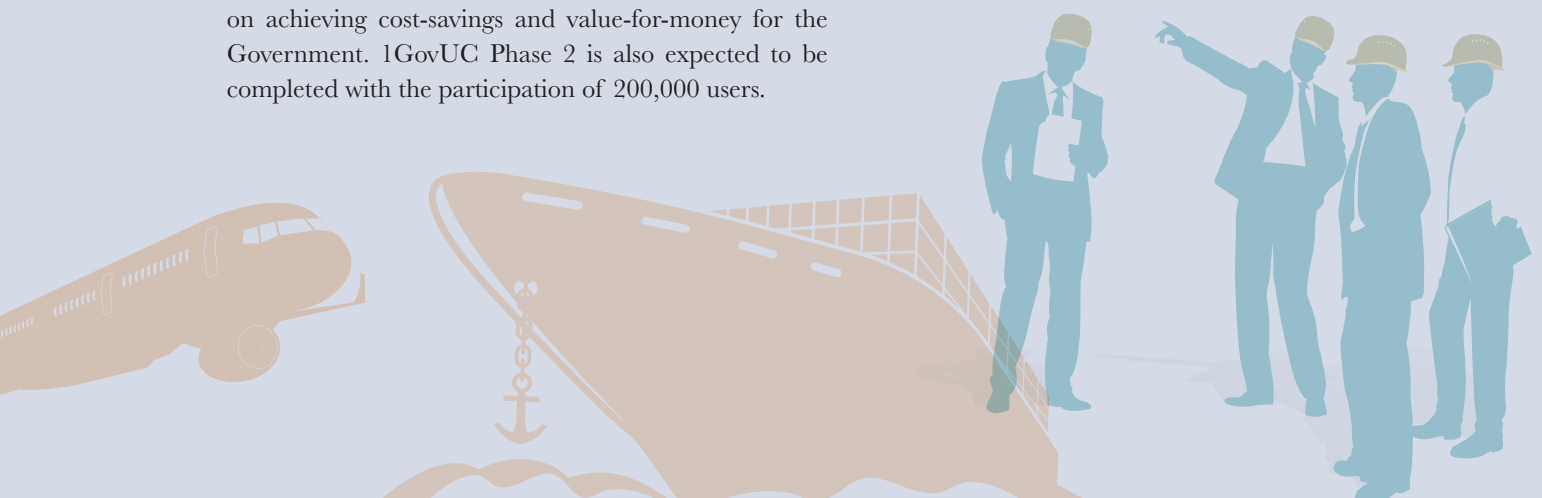
In the near-term, among initiatives MAMPU will undertake under EPP 2 include upgrading GDC-1 facilities to comply with relevant international standards, provide new offerings through GDC-1 and extend GDC services to more agencies, while promoting better collaboration.

Additionally, MAMPU will also focus on evaluating other UC solutions, services and offerings whilst focussing on achieving cost-savings and value-for-money for the Government. 1GovUC Phase 2 is also expected to be completed with the participation of 200,000 users.

MAMPU's other plans going forward include executing a pilot project to standardise ICT services through a central and standard operating environment for ICT hardware and end-point devices for the public sector. The agency is also moving towards adopting and aligning the Government Shared Services framework with a blueprint on public-private partnership for Government shared services. Additionally, MAMPU will initiate the 3R Programme for Government shared services personnel and continue with its ongoing communication plan to promote performance excellence and better service delivery.

With its future plans already in place and rapid achievement of its objectives, Dato' Dr. Nor Aliah believes MAMPU is on track to achieve its targets under the Business Services NKEA.

"We believe this initiative will highly benefit the agencies and play an important role in the public sector transformation agenda. With strong commitment and cooperation from all parties, MAMPU is confident that we will be able to achieve the NKEA's target to reduce Government spending on non-core IT and business processes by up to 20 per cent for the year of 2020," she says.





COMMUNICATIONS CONTENT & INFRASTRUCTURE



Dato' Sri Ahmad Shabery Cheek
Minister of Communication and Multimedia



I am pleased to report that the Communications Content & Infrastructure (CCI) National Key Economic Area (NKEA) has achieved commendable progress since its inception three years ago.

Up to the 3Q 2013, broadband household penetration has reached 67 per cent and cellular telephony penetration is at 146.1 per cent. High speed broadband is available at 1.4 million premises and 3G coverage reached 84 per cent of populated areas, making the Internet highly available at home, at work and on-the-go.

More and more government services have now been made available online. From tax filing, road tax renewal and getting information on exam results to applying for company registration as well as registration for the handicapped. In 2013, more than 90 per cent of all Government primary and secondary schools have been connected with broadband via the 1BestariNet project. Similarly via the 1Gov*Net initiative all major hospitals, clinics and health institutions are now connected with high-speed Internet.

In the area of content development, I am happy to report that the Malaysian creative industry, to date, has brought in over RM430 million in export revenue (forecasted to be close to RM600 million for 2013), with films such as *War of the Worlds: Goliath*, *Vikings* and *Life of Pi* making waves overseas. 2013 also saw the launch of the Film in Malaysia incentive which makes Malaysia an attractive destination for filming, thereof creating investment and jobs.

Notwithstanding our previous achievements, I look forward to 2014 and beyond, when the industry will take another leap to stay ahead of the expectations of the people. An ASEAN study forecasts that Malaysia will require an average Internet speed of about 50 Mbps by 2018. We will push the industry towards further upgrading and fiberisation of the nation's telecommunication infrastructure to cater to this demand.

As a first step, about 130,000 homes in the inner Klang Valley will be equipped with a capacity of 100 Mbps broadband in 2014. The HSBB network will be expanded to more urban areas in the next three years, allowing more Malaysians to enjoy speeds beyond 10 Mbps. Suburban areas will similarly get access to faster Internet than before. 1BestariNet will be significantly enhanced, as we believe the learning environment has the most to gain from faster broadband.

These broadband speed upgrades are important because it is the enabler for other EPPs to flourish. Fast broadband will help stimulate the creation and distribution of creative content. It will accelerate the adoption of e-Government programmes, and it will encourage e-Learning.

In fact, I would argue that broadband and ICT today is THE catalyst to leapfrog all sectors and areas under the Economic Transformation Programme (ETP), and even the Government Transformation Programme (GTP). We will work together with the respective Ministries to explore ways on how ICT may further support Government service delivery and private sector efficiency, towards achieving the nation's 2020 aspirations.



COMMUNICATIONS CONTENT AND INFRASTRUCTURE

The Communications Content & Infrastructure NKEA is crucial to Malaysia's development into a high-income nation as it is both a growth industry and an enabler for accelerated expansion of the country's economy.

It also represents the key infrastructure for the 21st century, with global studies suggesting a direct correlation between the penetration of communication services and GDP growth.

From retail to education to business services, the industry is the fundamental platform upon which e-commerce, e-learning and business process outsourcing can take place. However, there is a need for the local industry to shift from the provision of infrastructure to providing applications and content, in line with the development of a knowledge-based economy.

Fortunately, Malaysian content players are well-placed to take advantage of this shift, thanks to early investments in promoting digital content and applications in the country, such as MSC Malaysia. This NKEA therefore focusses on continuing this drive towards the industry's further growth, targeting a RM57.7 billion contribution to GNI and the creation of 43,162 new jobs by 2020.

This will be achieved through the implementation of 10 EPPs which aim to provide new and compelling content and services to drive demand and enable other sectors. This will be supported by investments in application and content development, and enhancements in infrastructure focussed on improving quality and speed.

Specific targets under this NKEA include increasing the penetration of high-quality and affordable broadband to 95 per cent of the population by 2020, while urban areas are targeted to access broadband at speeds of at least 100 Mbps.

2013 Key Performance Indicators

Communications Content and Infrastructure NKEA		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
EPP #1	Number of hours of digitised content (Hour)	28,000	26,154	93	●	93	●	0.5	●
	Revenue of export from creative content (RM mil)	600	433.967 Complete 2013 information not available at time of print	72	●	72	●	0.5	●
	Number of uploaded titles for market access (Unit)	10,000	10,066	101	●	100	●	1.0	●
EPP #3	Get Malaysia Business Online (GMBOnline): Number of new businesses online (Unit)	50,000	34,040	68	●	68	●	0.5	●
EPP #4	Percentage of schools connected up to 10Mbps (4-10 Mbps range) (%)	90%	87.69%	97	●	97	●	0.5	●
	Percentage of schools connected up to 4Mbps (2-4 Mbps range) (%)	100%	100%	100	●	100	●	1.0	●
EPP #5	Health facilities connected with broadband - Accumulative (minimum of 2 Mbps) (Unit)	3,000	2,850	95	●	95	●	0.5	●
	Health facilities using ICT system (Unit) - cumulative	2,500	2,547	102	●	100	●	1.0	●
EPP #6	Online services (%)	70	70.34	100	●	100	●	1.0	●
	Agencies adopting Digital Document Management System (Unit)	1	1	100	●	100	●	1.0	●

(more on next page)

(continued from previous page)

Communications Content and Infrastructure NKEA		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
EPP #7	Access to broadband for populated areas in Greater Klang Valley (GKL) at a minimum speed of 2Mbps - supply (%)	90	88	98	●	98	●	0.5	●
	Access to broadband for populated areas in all States' capital city at a minimum speed of 2Mbps - supply (%)	50	57	114	●	100	●	1.0	●
EPP #8	Number of new programme sites commissioned (Unit)	1,187	1,250	105	●	100	●	1.0	●
EPP #10	Percentage of bandwidth wholesale price reduction (%)	20	33	165	●	100	●	1.0	●
				101%		95%		79%	

Exhibit 9.1

Method 1 Scoring is calculated by a simple comparison against set 2013 targets. The overall NKEA composite scoring is the average of all scores

Method 2 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is less than 100%, score #2 is taken as the actual percentage
- If the scoring is equal or more than 100%, score #2 is taken as 100%. The overall NKEA composite scoring is the average of all scores

Method 3 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is equal and less than 50%, score #3 is indicated as 0
- If the scoring is more than 50% and less than 100%, score #3 is indicated as 0.5
- If the scoring is equal or more than 100%, score #3 is indicated as 1

ENTRY POINT PROJECTS

EPP 1 Nurturing Malaysia's Creative Content

Creative content is a form of intellectual property that Malaysia is well-positioned to produce and benefit from. This EPP aims to enhance the capacity and competency of Malaysia's creative industry to world-class standard and ultimately become a regional hub for digital content.

It has been observed that the industry has been over-reliant on grants and subsidies, creating unsustainable business models. To address these issues, measures were introduced to strengthen the business capacity through new models of grant disbursement such as matching grants and performance-based tracking. Furthermore, loan facilities were tightened in accordance with stronger business models.

This EPP initially covered only films, documentaries, mini-series and animation. In 2012, it was expanded to cover performing arts, visual arts, music and craft in line with the national creative industry policy.

With the restructuring of the Ministries following the 2013 General Election, the focus for EPP 1 is yet again confined to films, documentaries, mini-series, animation and music, and spearheaded by the Ministry of Communications and Multimedia. Performing arts, visual arts and craft is now under the purview of the Ministry of Tourism and Culture.

Achievements and Challenges

To attract more productions into Malaysia (both domestic and foreign) which would in turn create more jobs, the Film In Malaysia Incentive (FIMI) was implemented on 19 February 2013. This new policy will build upon previous initiatives such as the MSC Malaysia Creative Multimedia Content Initiative and enhance their returns while focussing on increasing exports of creative content. In this regard, the Creative Content Association Malaysia (CCAM) established in 2012, plays a key role in pioneering new markets for exports of Malaysian content.

FIMI has seen 10 productions, both foreign and local, creating production investment potentially worth up to RM148.40 million.

The exports of creative content as at 3Q 2013 showed almost consistent performance as 3Q 2012 with total exports of RM331 million. 2013 however, is a very challenging year for the industry to achieve similar export revenues as last year. Exports of creative content are impacted by a few factors; amongst others, the cyclical nature of animation content where a two-year gestation period is required.



Dato' Sri Ahmad Shabery Cheek and His Excellency Minister of Communication and Information Singapore Dr. Yaacob Ibrahim at Malaysia Pavilion MIPCOM Cannes 2013



Strategic partnership between Malaysia and foreign companies materialised during Creative Malaysia Networking Reception officiated by Dato' Sri Ahmad Shabery Cheek

2011	2012	2013
333	547	434*

*Complete 2013 information not available at time of print

Exhibit 9.2: Revenue of export from creative content (RM mil)

As proof of the high quality of Malaysian creative content, animated series such as *Upin and Ipin* and *Boboiboy* were successfully exported. Apart from producing its own content, the local industry further demonstrated its ability to provide facilities for world-class animation production work. One such example is the Hollywood blockbuster *Life of Pi*.

The Computer-Generated Imagery (CGI) grant was started in late 2011 with the purpose of enhancing the CGI content of local productions and developing the CGI industry in Malaysia. In 2013, some recipients of the CGI grant such as *Vikings* and *War of the Worlds: Goliath* made it to the international market.

Total revenue generated by the creative sector in 2012 and 2013 rose 16 per cent from RM12.7 billion in 2012 to RM15 billion in 2013.

Spotlight on the Private Sector: Creative Content Association of Malaysia

The Creative Content Association Malaysia (CCAM) is an industry-led Government-funded association of the leading content creators in Malaysia. CCAM was formed in 2012 for the purpose of promoting and exporting local content and creative services to overseas markets and international broadcasters, through utilisation of the latest digital technology and creativity, as well as by leveraging on the unique culture of Malaysia.

CCAM also plays a key role in supporting the Government's efforts to market Malaysian creative content internationally. The Association conducts discussions and disseminates information about the potential market opportunities and current news on the creative content industry. CCAM represents the views of the industry, helps to implement procedures and conducts policy recommendations, all of which will be used as inputs by the Malaysian Government to assist creative content producers to export local content abroad. Additionally, CCAM develops short and long-term strategies to increase content quality of members and market them regionally and internationally.

CCAM has collaborated with developmental agencies, such as FINAS, MDEC, MCMC and Matrade, in the following areas:

- Research and penetration of international creative content markets
- Increasing the skill and abilities of Malaysians in producing local creative content
- Optimising the commercialisation and management of intellectual property rights of the local creative content industry
- Participation in content market activities abroad
- Co-organising an annual event for the creative content industry with the aim of promoting Malaysia as a hub for content development

Since 2012, CCAM has collaborated with FINAS, MDEC and other agencies participating in various sales missions such as MIPCOM and DISCOP. Participation in these sales missions resulted in export revenue for local creative content worth RM180 million and RM171.3 million in 2012 and 2013 respectively.

For more information on CCAM please visit <http://creativecontent.my/>



Export revenue worth
RM180 million and
RM171.3 million in
2012 and 2013

	Sector	2013 Total (RM mil)
1	Film	256
2	TV	53
3	Radio	384
4	Animation, games & mobile application	628
5	Music	334
6	Performing Arts	11
7	Handicrafts	409
8	Visual Arts	40
9	Advertising	9,607
10	Printing	3,114
	Total	14,836

Exhibit 9.3: Data compiled by Ministry of Communication and Multimedia, and Ministry of Tourism and Culture. Animation, games and mobile application information as at 3Q 2013



Minister of Communication and Multimedia Dato' Sri Ahmad Shabery Cheek with Paul Zik CEO of Reed Midem, the official organiser of MIPCOM Cannes

Another genre of creative industry for animation is games development. The Integrated Content Development Programme (ICON) which started in 2010, managed by the Multimedia Development Corporation (MDEC) has disbursed grants to 448 recipients (as at Nov 2013). One of the success stories from ICON is the *Chinese Zombie War* mobile game application which has become one of the Top 20 most downloaded apps in China.

Other projects within the EPP which are now operational include the Digital Live Transit TV by Asia Media and Hospitality IPTV by Select-TV.

The challenges for this EPP remain largely internal within the industry as players have yet to shift towards becoming more business-centric. There is also the urgent need to create a validated talent directory, which is crucial for the success of FIMI.

Moving Forward

FIMI is expected to continue its track record of attracting international film production to Malaysia, with a potential increase of total production spend of up to RM200 million in 2014.

Building on efforts from 2012, newly digitised content as well as new or existing digital content will be uploaded to an online portal known as MyCC4dWorld. MyCC4dWorld serves as a means to monetise the digitised content and will allow respective agencies which contributed its content to earn revenue.

This EPP will continue to facilitate the transformation of local creative content players to be more business savvy and for application developers to break into the international market.

EPP 3 Connecting 1Malaysia



Promoting Get Malaysia Business Online (GMB0) to entrepreneurs in Malacca

This EPP aims to help Malaysian businesses, consumers and Government services move towards hyper-connectedness. It will fast-track the adoption of new value-added communication services for business, household and Government by encouraging more companies to get an online presence and by enhancing telecommunication infrastructure.

The key initiative that has been undertaken is the Get Malaysian Business Online (GMB0) drive. In Budget 2013, GMB0 included an incentive grant of RM1,000 per successful applicant. GMB0 will assist the minority (15 per cent) of Malaysia's 700,000 active small and medium-sized enterprises (SMEs) which do not have an online presence. Spearheaded by MCMC, this is done in collaboration with agencies such as Amanah Ikhtiar Malaysia (AIM), .my Domain Registry (MYNIC) and Commerce Access.

Achievements and Challenges

The challenge of this EPP lies in raising the acceptance rate among SME entrepreneurs, as they were reluctant to sign up for this initiative. Among reasons were an inclination for anonymity online, a preference for international platforms such as Facebook and international URLs (.com as opposed to .com.my), and the lack of capacity to upload relevant business and product descriptions.

Moving Forward

Various strategies, such as partnerships with the private sector, will be employed to ensure that the initiatives under EPP Connecting 1Malaysia reaches a wider base of potential users. Continued interaction with the industry will potentially generate new projects within this EPP.

EPP 4 Establishing e-Learning for Students and Workers

This EPP plays a key role in encouraging Malaysians to utilise e-learning technologies. This will be achieved by establishing a common knowledge platform for students and professionals to enhance teaching methods and help the general population enter a knowledge-based economy.

The EPP has aimed for all six million students in 9,889 Government primary and secondary schools to have high-speed Internet access through the 1BestariNet programme. The programme provides schools with 4G connectivity and access to Frog's Virtual Learning Environment (VLE).

Through the VLE, teachers, students and parents can connect with each other, extending the classroom into the digital sphere which can be accessed through laptops and other Internet-enabled devices.

To take advantage of high-speed Internet access through 1BestariNet programme, schools are being equipped with suitable devices. Instead of constructing a computer lab, which is usually costlier, the Ministry of Education has embarked on a mobile computer lab concept.

All these efforts are included in the Malaysian Education Blueprint 2013.

Achievements and Challenges

Under the 1BestariNet programme, 90 per cent of targeted schools have been connected with high speed broadband. The remaining schools will be connected by early 2014 due to technical difficulties faced in very remote areas. To date, a total of 6,347 schools have been connected with Internet connection speeds of 4-10Mbps and 2,651 schools with Internet connection speeds of 2-4Mbps.

In addition, the Ministry of Education this year deployed more than 100,000 laptops (more than 2,400 mobile computer labs) to schools as part of its plan to ensure schools are equipped with the necessary ICT devices. Every student, teacher and parent is given login access to the VLE. The laptops used here — the Google Chromebook with 4G — are the first in the world to be developed by Google and Samsung.

While the rollout of Internet connectivity and VLE has been successful, the challenge remains in ensuring high-quality connectivity and optimal utilisation of the VLE facilities by students, teachers and parents. In addition, there is a lack of the right educational content created by the end-users themselves.

Moving Forward

Following the rollout of high speed Internet connections, the focus in 2014 for this EPP will be to ensure quality delivery of Internet connections to schools, and increased education content in the VLE. This will be supplemented by virtual training of teachers across all connected schools.

EPP 5 Launching e-Healthcare

The e-Healthcare EPP plans to provide all healthcare providers, patients and insurance companies a single platform for expedient information-sharing, to help improve the quality of healthcare in the country. Under this EPP, the Internet connectivity at more than 4,000 health facilities will be upgraded as part of the 1Gov*Net project managed by MAMPU and Government Integrated Telecommunications Network (GiTN).

The 1Gov*Net platform for healthcare will allow healthcare providers to access applications that will increase their productivity while lowering costs and errors. The 1Gov*Net platform for healthcare will also give patients online access to healthcare services and information.

Launched in 2011, MedikTV, the Ministry of Health's (MoH) official broadcast channel carries content on major healthcare issues and is screened in medical institutions nationwide, as well as on IPTV and online channels.

Achievements and Challenges

In 2013, this EPP continued to provide Internet connection to all health facilities nationwide with a target of connecting up to 3,000 health facilities. In order to effectively utilise the resources provided for connectivity, priority has been given to health facilities that will fully utilise this connection. As such, only 2,850 health facilities met the criteria and were connected. The remaining facilities consist of either new or rural clinics with limited or no ICT equipment. These will be connected in a phased approach based on their potential utilisation rates.

Internet connectivity at some of these health facilities however, was not able to deliver the subscribed speed due to the inability of Local Area Network (LAN) infrastructure within the health facilities to cope with the increased bandwidth.



Hospital Sultanah Aminah connected with 1Gov*Net

Another challenge is minimal progress in enhancing existing applications for rollout to the public health facilities such as the Tele-Primary Care, the Oral Care Health Information System and the Hospital Information System. This has been due to budget constraints.

Moving Forward

This EPP will focus on ensuring the quality of external connections leading to the facilities, as well as the upgrading of internal LAN networks in targeted facilities to support high bandwidth. This will ensure the quality of experience for end-users in the facilities.

Exploration of new models adopting technologies for a lower cost of rollout will be undertaken, to commensurate with the planned transformation within the MoH.

EPP 6 Deepening e-Government

The e-Government initiative improves delivery of public services and offers the potential for the public sector to reap significant gains in efficiency and accountability. This EPP will migrate all public-facing government services online with the goal of “zero face-to-face” interactions by 2020.

This will result in significant time-saving for the public, as 90 per cent of government counter services will be made available online with the remaining 10 per cent to be completed via e-forms by 2020. This builds upon a solid foundation laid in earlier years where the Government implemented a single destination for Government services via the myGovernment portal. E-Government further enhances public accountability by publishing tenders and winning bids on the myProcurement website.

Beyond public-facing services, this EPP targets a paperless Government by replacing paper archives with digital archives.

Achievements and Challenges

This EPP has made 70.3 per cent of Government services available online. Developments in 2013 include the expansion of the E-Halal system allowing online application for Malaysian *Halal* certification by global users instead of merely providing a *Halal* directory service, and the Islamic Marriage Management System (SIMPI) that reduces processing time from seven days to one working day.

To make Putrajaya a reference model for government connectivity, the Putra WiFi project was undertaken to ensure ubiquitous WiFi connectivity. Each Government employee has been provided a unique ID which can now be used at 13 premises within Putrajaya.



Jejak Online Mudah roadshow held in Malacca



Deputy Director-General MAMPU Dato' Dr Nor Aliah explaining eGovernment services at the Jejak Online event in Jelebu, Negeri Sembilan

The Digital Document Management System (DDMS) saw an additional agency coming online in 2013 — the Ministry of Human Resources — bringing the total number of agencies on DDMS to three.

While this EPP has improved front-end systems, the challenge remains that back-end processes have not kept up with improvements at the front-end. Another area posing a challenge is the process of re-classification for the purpose of DDMS adoption. In order to address this, the National Archive Department will need to revisit its requirements.

The awareness of the citizens of these services is still low and will require continued efforts to reach them. Improving back-end processes will make it much more attractive for users to connect via online channels.

Moving Forward

In 2014 this EPP will continue to aim for 80 per cent of Government services to be made available online and encourage utilisation of online Government services such as the myGovernment Portal (<http://www.malaysia.gov.my/>).

To address back-end improvements, this EPP will work closely with the Public Service Delivery Strategic Reform Initiative.

An additional ministry — the Ministry of Youth and Sports — will be adopting the DDMS, bringing the total number of agencies using it to four.

In strengthening the foundation for greater digital adoption, this EPP will address new issues and trends around cloud computing, big data analytics and digital security. This will allow Malaysia to realise its e-Government aspirations.

EPP 7 Ensuring Broadband for All



This EPP aims to increase broadband accessibility by designating broadband service as an essential utility for consumers, just like water and electricity. It follows the example of countries like Finland which have legally mandated universal broadband access.

Key initiatives that have been implemented under the EPP include the push to gazette the amended Uniform Building By-laws (UBBL) 1984 Act. The Act requires all developers to provide communication infrastructure such as internal and external ducting for all new housing/commercial developments.

This EPP had pushed for the gazetting of landed and rooftop sites for wireless broadband infrastructure during the planning stage, to ensure better planning by the service providers.

Achievements and Challenges

As at 3Q 2013, broadband household penetration stood at 67.2 per cent.

To increase the ease of accessibility to the Internet, 2013 saw the continuation of the Connected@City programme, which aims to make WiFi highly available in areas such as food and beverage outlets, waiting areas and lobbies and other places where people congregate. Business premise owners are encouraged to provide the WiFi as either a free or paid service.

All states have implemented their version of Connected@Cities programmes, creating 34,372 connections up to 2Q 2013. This represents a 104 per cent increase in the number of hotspot locations since the launch of Connected@Cities in 2Q 2011.

During the year, this EPP continued to undertake efforts to improve compliance to the One-Stop Centre (OSC) processes introduced by the Ministry of Housing and Local Government. The process governs telecommunications providers and developers who wish to build telecommunication infrastructure.

To date, seven states have gazetted the amended UBBL. This means that any new development in these states will now have to be broadband ready. Five states (Kedah, Penang, Pahang, Negeri Sembilan and the Federal Territories) however, are still in the process of gazetting the amended UBBL even though the respective state's Executive Committees have approved the amendment.

The process is now pending execution by the legal department in the respective five states. The slow adoption at the states has been a key hurdle and continued engagement was critical to make this a priority. The remaining states still require continued engagement to expedite the process; even though many developers have begun adopting the amended UBBL requirements.



A telecommunication transmission tower built as part of the BBGP project to ensure nationwide high-speed Internet availability

For Sabah and Sarawak, more work needs to be done as building by-laws in those states differ.

To facilitate the approval processes required to build Internet infrastructure, all states have agreed to either fully implement the OSC or maintain their current One Stop Agency (OSA) process.

The MCMC has also developed a Network Database which centralises fibre link locations nationwide in a single repository to facilitate future infrastructure-sharing among operators.

Moving Forward

To ensure quality of user experience, this EPP will continue to monitor the minimum broadband capacity in the country, beginning with those in major towns. The minimum broadband capacity targeted is 4Mbps from the present 2Mbps. Plans are underway for residents in urban areas to enjoy broadband capacity of up to 100Mbps.

Complementing this effort, there will be two key projects: the Broadband for General Population (BBGP) project and the High-Speed Broadband 2 (HSBB 2) as announced in Budget 2014.

For wireless services, the implementation progress of the Long Term Evolution (LTE) rollout will be monitored as it will contribute to the improved minimum broadband capacity in major towns.

EPP 8 Extending Reach

This EPP aims to close the digital divide between urban and rural areas through greater industry and public-private collaboration and targets to increase broadband subscription rates in non-urban areas to as much as 90 per cent of households by 2020.

It also aims to address challenges faced in providing broadband access to sub-urban and rural areas due to the mismatch between investment and expected revenue. Among major initiatives in this respect is the utilisation of the Malaysian Communications and Multimedia Commission's (MCMC) Universal Service Provision (USP) Fund.



Children enjoying the benefits of P11M



PI1M facilities are accessible to all

The fund will be made available to the private sector to build backhaul and last mile infrastructure to underserved areas, focussing particularly on wireless solutions for the short and medium-term. Projects which have benefited from the fund include the *Kampung Tanpa Wayar* initiative, which provides affordable wireless access to selected villages across the country, and the establishment of *Pusat Internet 1Malaysia* (PI1M), offering broadband Internet at speeds of at least 4Mbps. Each centre is also equipped with desktop computers, printers and scanners, and offers training programmes.

Achievements and Challenges

To date, 835 *Kampung Tanpa Wayar*, 137 PI1M and 278 Time3 Telecommunication Towers have been built. Currently, the *Kampung Tanpa Wayar* initiative is offered free of charge to all villagers within its coverage area. This resulted in a positive response to the services provided (bandwidth was increased from 2Mbps to 4Mbps) thus stretching the capacity of the backhaul required.

The challenge here is the sustainability of the model whereby improved customer demand has put pressure on infrastructure deployed. This required the increased cost of delivery to be addressed.

Moving Forward

In line with the 2014 Budget, this EPP will continue to ensure expansion of Internet coverage in rural areas with another 1,000 telecommunication towers to be built by 2016. Combined with this, the MCMC will continue to build new *Kampung Tanpa Wayar* and PI1M sites nationwide.

In addressing the cost structure for *Kampung Tanpa Wayar*, the MCMC is exploring a model that combines both limited free usage time and pay-for-service. In previous years, the focus had been largely rural while neglecting the urban poor. To address this, selected sites in urban areas will be provided with affordable Internet access.

EPP 9 Offering a Smart Network

The quality and affordability of Malaysia's broadband offerings lag behind its regional counterparts like South Korea and Japan. The Smart Network initiative thus addresses the affordability and quality issues of Malaysia's Internet services by creating tiered broadband price plans based on priority of service and usage caps.

This EPP will encourage service operators to develop differentiated packages that cater to a wide variety of users, from the high-end segment which is willing to pay for faster speeds to the more price-conscious users who desire lower barriers to entry and functionally sufficient services. This is expected to provide both service operators and the public with a fair pricing plan based on usage patterns.

The Smart Network EPP was also expanded in scope to include Smart Applications whereby service providers are encouraged to collaborate and provide applications which will not only be useful to the public, but also attract investment.

Achievements and Challenges

This EPP has successfully convinced the industry to provide smart packages to the consumers. Such packages cater to specific consumer needs. A complete list of packages is now available online for comparison prior to the purchase of any packages.

The Malaysian Public Transportation System (MYPUTRAS), a smart portal and mobile application designed to assist public transport commuters by providing information on bus routes, bus stop locations, fares, transit schedules and other useful travel information, was announced in 2012. However, this project has stalled due to reluctance of the investor to pursue this project.

Moving Forward

The MCMC will continue to engage with the industry to pursue this opportunity. To date, MCMC is in discussions with Land Public Transport Commission (SPAD) to jointly develop a myJourney ecosystem which will promote digital lifestyle amongst commuters in Klang Valley.

EPP 10 Extending the Regional Network



On board view of special vessel used to lay submarine cables

This EPP addresses Malaysia's issues with congestion and quality of its Internet bandwidth, aiming to build up its international bandwidth capacity to cater for demand. These shortcomings have arisen due to the higher IP transit costs in Malaysia compared to other markets, which had built capacity more aggressively. Quality has also suffered due to congestion on the international network, with Malaysia's Internet speeds slower than many other countries.

To extend the regional network, this EPP aims to increase the country's international bandwidth to 7 Tbps (terabits per second) by 2020, with broadband use currently amounting to 200Gbps. Regional network initiatives include the construction of the Batam-Dumai-Malacca Cable System, a high bandwidth optical fibre submarine cable system that connects Malaysia and Indonesia. The link is a joint venture between Telekom Malaysia (TM), its Indonesian subsidiary and Indonesian telco PT Mora Telematika.

TM also built Cahaya Malaysia, which provides a 5Tbps submarine cable link between Malaysia, Japan and Hong Kong. TIME dotCom (TdC), another licensee, has built another cable linking Malaysia to Japan and onwards to the US.

A consortium comprising 24 telecommunications companies — Konsortium Rangkaian Serantau Sdn Bhd (KRS) — was also formed to address bandwidth capacity and cost issues. The consortium will look to reduce the cost of the bulk purchase of bandwidth as well as collaborate on building an undersea cable network.

Achievements and Challenges

The establishment of KRS has resulted in a 33 per cent reduction in bandwidth cost through the strategy of bulk purchase. However, negotiations among consortium members for construction of the undersea cable remain inconclusive. The main challenge is the inability of KRS to obtain a consensus among the 24 telecommunications companies who have been shareholders since 2011.

The industry however has responded positively, whereby TM and TdC together with its partners have built submarine cables connecting Malaysia to strategic locations such as Hong Kong, Japan and the US.

The outlook is challenging as demand for bandwidth increases at a rapid rate and for Malaysia to be ranked highly in the Connectivity Index, the international capacity must increase.

Moving Forward

Moving forward, 2014 will see the construction of a number of submarine cables, such as the Asia-Pacific Gateway (APG) cable by TdC and Asia Submarine Cable Express (ASE) by TM. Going forward, KRS, as an organisation representing the telecommunications industry, will focus on pursuing bandwidth cost reduction by continuing the current wholesale purchase of bandwidth. Should KRS decide to undertake undersea cable development, it will do so through its own financial resources.

A review of the international capacity plan will be undertaken by the regulator MCMC that will include new financial models to support the industry.

On the intra-Malaysia frontier, this EPP will see improvement in Sabah, Sarawak and Peninsular Malaysia's connectivity by way of the new undersea cable as announced in Budget 2014.

EPP 11 Track and Trace

This EPP focuses on the use of Radio Frequency Identification (RFID) technology to track the location of goods in real-time.

There are two main projects within this EPP. The first is the deployment of RFID within security and trade to facilitate a more effective and secure clearing process at domestic ports and selected high volume routes. The project is led by Smartag Solutions Sdn Bhd (Smartag) in collaboration with the Royal Malaysian Customs Department (*Jabatan Kastam DiRaja Malaysia* – JKDM) and the MCMC.



Bird's nest sealed with special box to enable RFID tracking

The second project is the Swiftlet Nest tracking and traceability system led jointly by the MCMC and the Department of Veterinary Services. In this project, RFID technology is used to track and trace high-quality and sustainable swiftlet nest production from Malaysia to high-value markets in China, Japan and Taiwan.

Achievements and Challenges

The Swiftlet Nest tracking and traceability system project is operational. However, due to the ban on swiftlet nest imports from Malaysia imposed by China, there was a limited amount of exports utilising the tracking mechanism. Despite the lifting of the ban by China, the use of RFID in this industry is not compulsory. Hence the use of RFID for food traceability is no longer pursued actively by this EPP.

The deployment of RFID within security and trade for effective and secure clearing process at domestic ports and selected high volume routes has been operationalised. As of 31 Dec 2013, 18,058 containers have used the RFID seal to transport goods. While initial buy-in by the industry for the project was slow, negotiations and consensus have allowed the industry to recognise that the benefits of implementing the system outweigh the cost.

Moving Forward

This EPP's projects, especially for security and trade for effective and secure clearing process, no longer require facilitation following their operationalisation.

BUSINESS OPPORTUNITIES

1

Fixed Services

The projected growth of sophisticated, data-heavy Internet applications and content will create a corresponding increase in demand for high-speed broadband which is largely delivered over fixed-line services.

It is projected that fixed broadband subscribers will increase at a compound annual growth rate (CAGR) of 10.5 per cent with services such as IPTV, online gaming and music driving much of this increased uptake. Fixed data lines meanwhile are projected to grow by 2.6 per cent CAGR as more companies require their own internal networks.

While incumbent telco TM had the first mover advantage by rolling out the High Speed Broadband (HSBB) network, other new players have emerged, including ABNXcess and Time, introducing more competition to the benefit of consumers.

TM has also opened its HSBB network to other service providers on a wholesale basis which allows them to ride on TM's infrastructure, reducing the need for duplication. Among telcos that have wholesale agreements with TM include Maxis, YTL, P1 and Celcom, while Maxis and DiGi have also invested in fibre infrastructure.

The advent of more fibre availability has also seen new players emerging such as Astro B.Yond IPTV in 3Q 2013.

With HSBB 2 announced in Budget 2014, the nationwide fibre network will continue to be expanded and shared among service providers to further benefit consumers.

2

Mobile Services

As the popularity and usage of smartphones surge and become the primary tool for accessing the Internet, mobile services are expected to boom with mobile broadband subscription projected to record up to 10.5 per cent CAGR.

Voice line subscribers are also expected to grow, although at a slower pace of 2.7 per cent CAGR.

The biggest opportunity for mobile service providers lies in deployment of LTE which would allow them to offer new services that can result in an increased average revenue per user (ARPU). This trend will have a spillover effect for tower-related work, integration work and application development.

The new trend of mobile providers aggregating tower operations provides a new opportunity for network players. This opportunity lies in the economies of scale gained from aggregated tower operations.

Smartphone penetration will continue to grow as consumers become more sophisticated, opening up opportunities for more mobile applications in a digital lifestyle world. As at 3Q 2013, there were 17.4 million 3G subscribers out of a total of 43.6 million mobile service subscribers, representing a 3G population penetration rate of 58.5 per cent.

3

Courier, Post and Broadcast

The growing acceptance of e-commerce in the country is expected to spur growth in the post and courier sector which provide logistical support to the increasing number of online merchants. These services include transaction fulfilment, warehousing, inventory management, demand planning for manufacturers and assembly services.

IPTV or television over the Internet is also a new frontier with incumbents as well as new entrants rushing to stake a claim. Broadcasting will see new technology being adopted by providers and broadcasters with the incoming implementation of Digital Terrestrial Television Broadcasting (DTTB).

This will intensify competition in an industry which has seen incumbents upgrading their broadcasting facilities from analogue to digital as well as offering High-Definition (HD) channels.

Together, contributions from courier, post and broadcast are expected to grow by 5.2 per cent annually over the next 10 years.

4

Regional Operations

Malaysia is strategically located in the world's fastest growing region and Malaysian telecommunications companies continue to seek opportunities to grow their business in regional markets.

The liberalisation of the Malaysian telecommunication sector has removed what was formerly a major stumbling block for regional expansion and companies can now negotiate on equal terms with their counterparts in other countries.

The footprint created by the likes of Axiata opens up opportunities for the industry to tap into regional markets. For example, mobile applications can be deployed over the Axiata network to serve different customers in different geographies.

ENABLERS

As a knowledge and skills intensive industry, a key enabler for the Communications Content and Infrastructure NKEA is human capital, with the industry requiring a workforce of 43,162 by 2020.

Of these, 25,899 employees will be required to support the EPPs while existing Business Opportunities require an additional 17,263 employees. Most of these new jobs will be considered to be in the high-income bracket, with 67 per cent located in the over RM4,000 per month salary bracket requiring high-level qualifications.

Initiatives have therefore been put in place to ensure a supply of talent for the continued growth of the industry. For the telecommunications sector, a consolidated approach between PEMANDU, TalentCorp and the Ministry of Education was initiated to ensure that the number of graduates in relevant telecommunications and engineering fields will be met by 2020.

To support the creative content and multimedia sector, the Ministry of Science, Technology and Innovation (MOSTI) has implemented the Creative Industry Lifelong Learning Programme (CILL) in collaboration with several key stakeholders such as the MDeC, the Ministry of Communication and Multimedia and the Public Services Department. With the recent changes in portfolio among ministries, MDeC is now part of the Ministry of Communication and Multimedia.

The programme assists students to pursue tertiary studies in creative content at local or foreign universities or educational centres. It also provides financial assistance for professionals in the creative content sector to pursue master classes taught by the industry's best.

The Creative Content Industry Guild (CCIG) will introduce accreditation of creative talents to foster a higher standard of professionalism within the industry. The efforts are aimed at shifting jobs in the sector into a higher income bracket level and encouraging more Malaysians to consider a career in creative content.

Summary of Communications Content and Infrastructure NKEA

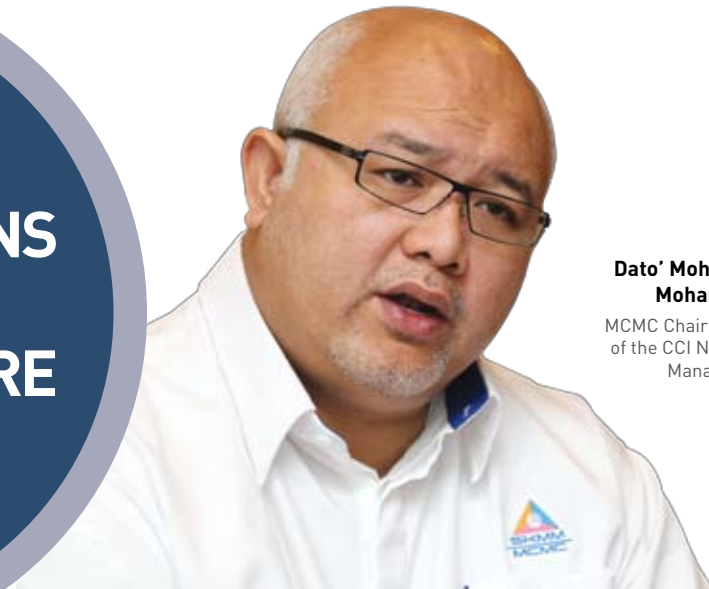
	2020 Target
Incremental GNI Impact	RM35.7 billion
Additional Jobs	43,163
Critical targets for 2014 <ul style="list-style-type: none"> To record RM600 million of revenue from the export of creative content To attract RM200 million total production spent under Film in Malaysia Incentive To ensure 100% of schools with Internet connectivity achieve a minimum of 4Mbps and adhere to the service level agreement To ensure one additional agency adopts the Digital Document Management System To ensure utilisation of My Government Portal through 150,000 logins To provide access to broadband for populated areas (Greater KL and major towns) up to a maximum speed of 100Mbps by setting up 130,000 new HSBB ports To ensure 20% population coverage for LTE wireless broadband service To commission 1,250 new programme sites i.e. <i>Kampung Tanpa Wayar</i>, <i>Pusat Internet 1Malaysia</i> and Time3 Tower To reduce an additional 20% of wholesale bandwidth price To ensure 25% of project implementation of submarine cables (linking Sabah, Sarawak and Peninsular Malaysia) To agree upon a blueprint for rollout of international cable 	



Enabling Change

COMMUNICATIONS CONTENT AND INFRASTRUCTURE

*on the ground with
the public service*



**Dato' Mohamed Sharil
Mohamed Tarmizi**

MCMC Chairman and Head
of the CCI NKEA's Delivery
Management Office

The Communications Content and Infrastructure (CCI) sector is one of the most dynamic with rapid advances in technologies and trends constantly reshaping the landscape. The pace of change continuously presents new challenges and opportunities which the Malaysian Communications and Multimedia Commission (MCMC) helps the Government to tackle.

MCMC Chairman and Head of the CCI NKEA's Delivery Management Office Dato' Mohamed Sharil Mohamed Tarmizi says the agency's role in the CCI NKEA involves putting in place governance mechanisms and making sure targets and timelines are met.

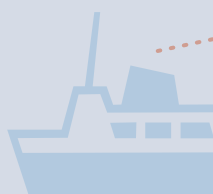
"The private sector is the primary driver and we are the shepherds or the guide," he explains. "We go through the nitty-gritty details, smooth out bumps, overcome roadblocks and coordinate project owners and stakeholders. We also scan for new projects and opportunities and bring them to the attention of the steering committee."

Dato' Mohamed Sharil highlights that achievements including successfully putting Malaysia on the global map for Creative Content, which is one of the EPPs in the NKEA. He also says delivery of Government services via the Internet and mobile platforms had been expanded significantly through initiatives under the Deepening e-Government EPP.

"This allows the Government to be more efficient and connect directly with the stakeholders, with the *rakyat*, so that more focussed assistance can be given," he says.

He also notes that rural communities have not been forgotten with the provision of almost RM6 billion for smart partnerships to boost broadband services in rural areas through the Extending Reach EPP.

The MCMC chairman says there is now a healthy level of both competition and cooperation in the CCI industry, compared with before the implementation of the CCI NKEA. He points out that prepaid starter kits used to cost as much as RM198 as compared with as little as RM5 today. Similarly for broadband, a 1Mbps subscription used to cost as much as RM188; compared with a 10Mbps subscription today which costs about RM150.



“This is the *only* sector where services have grown and the contribution to GDP has increased, and yet prices have come down — which helps narrow the digital divide,” says Dato’ Mohamed Sharil.

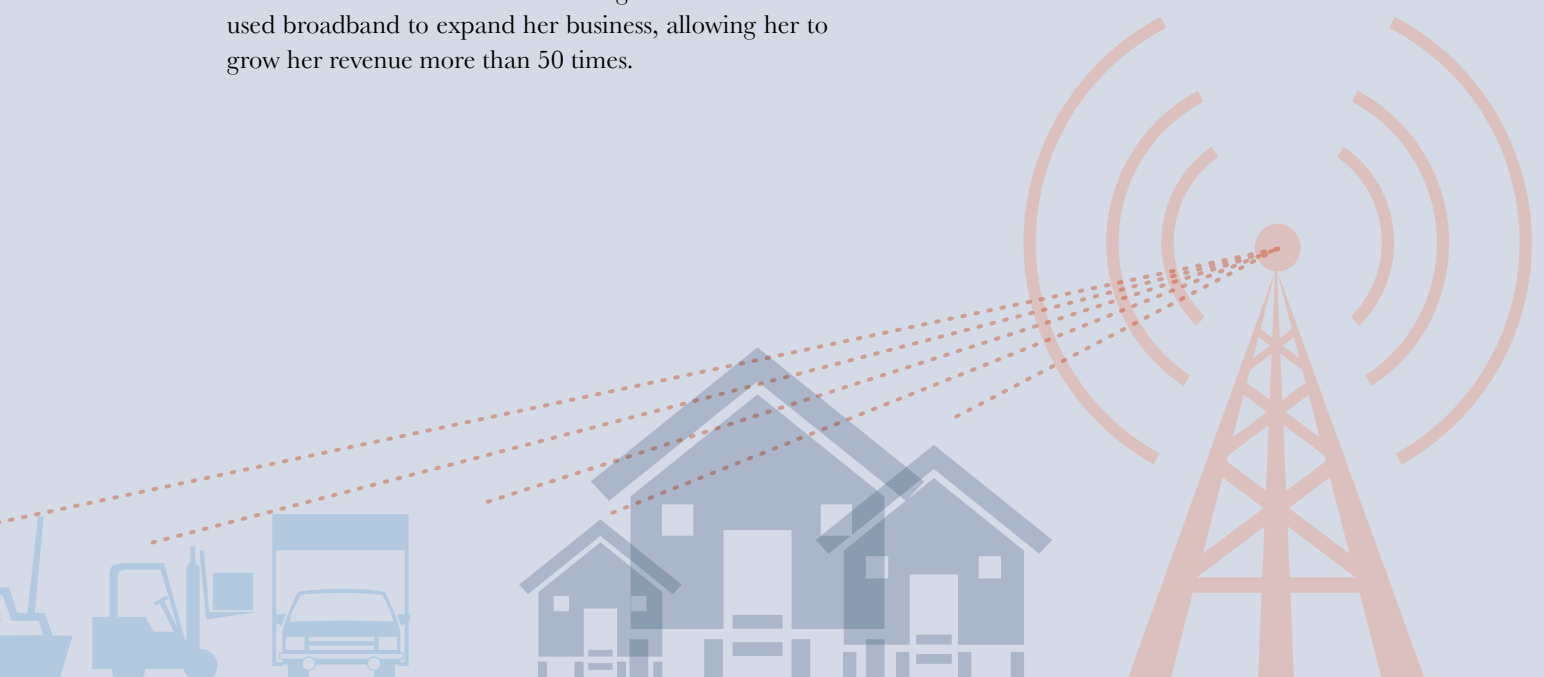
Nonetheless, developments in the industry have not come without challenges. These include in pioneering new areas without precedents to steer by. “Some of the things we’re doing are very transformational and nobody has written any books or how-to guides on it,” notes Dato’ Mohamed Sharil. To overcome this, the Government employs a feedback loop to assess what works and what can be improved. “In today’s world, you *do* in order to learn and not just *learn* in order to do,” he says.

Moving forward the Government’s goal will be on improving the quality of communication infrastructure to generate economic gains. Dato’ Mohamed Sharil cites the example of seaweed farmer Kabilah Hassan from Sabah who was recognised in 2013 by the International Telecommunication Union as a Digital Icon after she used broadband to expand her business, allowing her to grow her revenue more than 50 times.

“That’s the kind of multiplier effect we are looking for with broadband,” he says. “I’m excited to see what else we can do.”

In terms of the creative industry, Dato’ Mohamed Sharil says that the Government will help improve access to capital via several initiatives. This, in turn, could prompt more youths to consider a career in creative content.

“Maybe it’s time for parents to start thinking of their children becoming the next Steven Spielberg!” he says.



EDUCATION





Tan Sri Dato' Hj. Muhyiddin Mohd Yassin
Minister of Education



The Education NKEA continued to grow by leaps and bounds in 2013. In the last 12 months, we have noted significant progress in areas such as early childhood education, technical and vocational education, EduCity@ Iskandar and games development.

It is important that we continue on this path for Malaysia to become a premier education hub in Southeast Asia.

One key focus moving forward lies with strengthening the country's educators. Malaysia is spending more resources to develop the right teachers, trainers and lecturers in the education ecosystem. Without teachers, we would struggle to nurture the future generation to become leaders in key industries.

The Government, hand-in-hand with the private sector, stands ready to make a strong impact in 2014 with this NKEA. As we embark on the fourth year of the ETP, this NKEA is expected to reach new milestones, with some EPPs to be reviewed to address emerging issues and reflect changing realities. We remain committed to ensuring that Malaysia does all it can for the biggest and most dynamic resource it possesses: Its people.



Dato' Seri Idris Jusoh
Minister of Education II



I am pleased to report that the Ministry of Education (MoE), on top of achieving various successes as part of the Education NKEA, continues to contribute in making initiatives under the ETP a success.

In 2013, the Education NKEA made great strides with the kicking-off of EPP 17: Transforming Malaysia into a Leading Accountancy Hub which saw the enrolment of 90 students and which aims to produce 5,500 professional accountants by 2020. This EPP comes at a time when Southeast Asia is growing at a pace faster than the rest of the world, with companies looking to adopt international accounting standards, and hire top-notch accountants.

Commendable progress has also been made in existing EPPs. Among them, nine top universities from the United Kingdom and Australia have opened branch campuses in our country thanks to efforts by Government agencies to market Malaysia as the preferred destination for education. God-willing, this goes a long way in turning the country into an education hub.

To raise the standards of local education institutions, proponents of this NKEA have pushed to upgrade the skills of existing and new teachers, allocated funds to high-performing vocational centres and set up an International Council of Islamic Financial Educators (ICIFE) to grow the sector in a sustainable and targeted manner.

I look forward to seeing further achievements in the higher education segment, the most crucial part of any individual's training and a building block to Malaysia's ambition to achieve developed status by 2020.

EDUCATION

The Education NKEA is a key component in the future growth of Malaysia's most important resource: Its people. The industry therefore aims to develop its entire value chain, from early childcare and education (ECCE), basic primary and secondary education, technical education and vocational training (TEVT), to tertiary education for both domestic and international students.

Initiatives under this NKEA seek not only to develop a highly-skilled workforce, but to establish Malaysia as a global education hub. As an education hub, Malaysia aims to attract international students not only at the primary and tertiary level, but also, to cater for children of expatriate workers the country seeks to attract, while increasing foreign investment.

Additionally, the opportunities provided by this NKEA in areas, such as in TEVT, seek to enhance the competency and skills of Malaysians in various sectors and industries. This will bolster the development of the local workforce with high-value and specialised skills which are key to Malaysia's transformation into a high-income nation by 2020.

In 2013, a new EPP (EPP 17) was included in this NKEA. EPP 17: Transforming Malaysia into a Leading Accountancy Hub aims to establish the country as a regional leader in this segment, with Sunway TES leading the charge.

Some standouts during the year include the development of the games development cluster, which has gained significant headway in creating awareness among students and parents on the education and career opportunities in the industry, valued at billions of dollars globally. In addition, EduCity@Iskandar has seen student enrolments more than quadruple as more universities set up campuses.

However, there are other areas where progress has been slow. The target to develop high-quality teachers has some way to go with the first batch of 200 pre-service teachers still trying to improve their English proficiency and succeed in international tests.

For online and distance learning (EPP 6), there is an existing initiative by the MoE to get universities to globally expand distance learning. A decision was finally made to merge this EPP with this existing initiative under the National Higher Education Strategic Plan, which will be driven by the Ministry's Programme Management Office. This is to limit duplication of resources and boost effectiveness.

There is a delay in developing the health science education discipline cluster as USCI University, the Champion of this EPP, has slowed down the construction of a teaching hospital in Bandar Springhill, Negeri Sembilan. At the same time, applications from several foreign universities to set up campuses in Malaysia have been put on hold due to the need to fill up existing excess capacity that has arisen from growing interest in the country as an education hub.

The mixed report for the Education NKEA is nothing unusual as it is part of a natural transformative process that has been seen in other NKEAs. Constantly reviewing the progress of these EPPs has allowed the stakeholders to address issues as they crop up, bringing the NKEA a solid step closer to achieving its stated objectives.

2013 Key Performance Indicators

Education NKEA		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
EPP #1	Student enrolment for private (including NGO) pre-school (4+ and 5+ only)	400,000	386,936	97	●	97	●	0.5	●
	Student enrolment in private childcare (0-3+)	112,550	128,599	114	●	100	●	1.0	●
EPP #2	Number of pre-school teachers receiving diploma study vouchers	1,000	333	33	●	33	●	0	●
EPP #5	Number of SKM qualified private students (including successful PTPK funding)	31,700	42,482	134	●	100	●	1.0	●
	Percentage of skills programmes accredited which are compliant to using Code of Practice Skill Programme Accreditation (COPSPA)	100%	162%	162	●	100	●	1.0	●
	Number of foreign TVET students studying in Malaysia	300	378	126	●	100	●	1.0	●
EPP #7	Number of students enrolled at HEIs in the Islamic Finance and Business programme	8,200	10,527	128	●	100	●	1.0	●
	Working status of graduates during convocation	80%	64.5%	81	●	81	●	0.5	●
EPP #9	Number of projects reviewed and selected by Agensi Inovasi Malaysia and Cradle Fund for panel evaluation under the Lab2Market Commercialisation Programme	30	11	37	●	37	●	0	●
EPP #10	Number of students enrolled at IPTS in the hospitality and tourism programme	16,600	12,063	73	●	73	●	0.5	●

(more on next page)

(continued from previous page)

Education NKEA		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
EPP #11	Number of students enrolled in EduCity Iskandar Malaysia	1,300	1,701	131	●	100	●	1.0	●
EPP #12	Number of international students enrolled	110,000	102,735	93	●	93	●	0.5	●
EPP #13	Number of students enrolled under the buying places from established schools/operators	225	452	201	●	100	●	1.0	●
EPP #14	Number of students enrolled in IPTS with cluster contact	80	96	120	●	100	●	1.0	●
EPP #15	Establishment of foreign branch campuses	1	0	0	●	0	●	0	●
				102%		81%		67%	

Exhibit 10.1

Method 1 Scoring is calculated by a simple comparison against set 2013 targets. The overall NKEA composite scoring is the average of all scores

Method 2 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is less than 100%, score #2 is taken as the actual percentage
- If the scoring is equal or more than 100%, score #2 is taken as 100%. The overall NKEA composite scoring is the average of all scores

Method 3 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is equal and less than 50%, score #3 is indicated as 0
- If the scoring is more than 50% and less than 100%, score #3 is indicated as 0.5
- If the scoring is equal or more than 100%, score #3 is indicated as 1

ENTRY POINT PROJECTS

EPP 1 Scaling Up Private Early Childcare and Education (ECCE) Centres

Early education is a crucial first step towards lifelong learning. This EPP aims to boost pre-school enrolment and early childcare participation levels to that of developed nations and draw in more participation and investment from the private sector.

Efforts under this EPP also support initiatives under the Government Transformation Programme (GTP), which has seen the Ministry of Education (MoE) collaborate with the private sector to increase pre-school (4+ and 5+ years in age) enrolment to 97 per cent by 2020.

The Ministry of Women, Family and Community Development (MoWFC) is also working in partnership with the private sector to increase childcare enrolment (0-4 years) to 25 per cent in 2020.

Achievements and Challenges

To increase pre-school enrolment, 5,825 new pre-schools have been established over the four-year period ending 2013 under the Education NKRA, of which approximately 41 per cent were set up by private sector operators. In the same period, 2,525 new childcare centres were established and registered with the MoWFC under the Education NKRA.

In 2013, 34,552 pre-school students from low-income households received fee assistance from the Government, totalling RM29.33 million. Additionally, a total of 296 private pre-school operators received RM4.99 million worth of grants to launch operations. This included 38 centres that enrol children with special education needs, which received RM0.76 million in grants.

The launching grant and fee assistance schemes have been extended to childcare centres to increase the number of registered childcare centres and provide support to low and middle-income families with children aged between 0-4 years to obtain quality childcare. In 2013, 1,909 children from low-income households received fee assistance for childcare from the Government, totalling RM4.37 million. In the same year, 948 childcare centre operators received a total of RM12.43 million worth of grants to launch operations. The Government has also given tax benefits to private childcare operators who establish their facilities at workplaces.

In Budget 2013, the Government announced further tax incentives for employers and ECCE operators to boost enrolment. The ECCE Council, together with the Government held seminars and workshops in the Klang Valley, Kuala Terengganu, Kota Kinabalu and Kuching to explain the tax benefits and industrial building allowances available to registered private pre-school and childcare operators to encourage the establishment of pre-schools and childcare centres.

The SKPK (*Standard Kualiti Pra-sekolah Kebangsaan* or National Pre-school Quality Standards) self-assessment online system was made available to Government and private-owned pre-schools to gauge their standing in terms of quality and plan for improvement measures. To date, 99.2 per cent of public pre-schools and 44.31 per cent of (3,003 out of 6,773) private pre-schools have completed the assessment. The MoE has also verified a total of 500 public and 75 private pre-schools.

To raise awareness on the importance of professionalism in ECCE and the opportunities available, an ECCE Week Forum was held in October 2013, with the theme of "Stop, Think & Change! Moving Towards Professionalism in ECCE". The Forum was officiated by Datin Paduka Seri Rosmah Mansor, wife of the Prime Minister and Patron of PERMATA Negara, who also delivered the keynote address.



Datin Paduka Seri Rosmah Mansor delivering the keynote address at the ECCE Week Forum

One of the key challenges seen by this EPP is that the many private ECCE operators in the country that are operating an “integrated” model, providing childcare services and pre-school education in the same premise, are not registered with the Government.

To this end, private operators and local authorities attended a workshop in October 2013 to identify the issues surrounding an “integrated” model. In 2014, the Government will establish clear guidelines that operators need to comply, in order to obtain the licence to run such centres.

In addition, as the MoE continues to oversee the pre-school segment and MoWFCDO oversees early childcare, there needs to be better alignment and collaboration between the two Ministries to ensure successful delivery of this EPP.

Moving Forward

Under GTP 2.0, fee assistance will continue to be given to children and pre-school students enrolled in registered facilities operated by private and non-governmental organisations (NGOs). Similarly, grants will be given to ECCE operators. Special needs children will also receive an allocation from the fee assistance initiative.

Moving forward, the *Sistem Maklumat Prasekolah Kebangsaan* (SMPK) will be extended to public and private childcare centres to capture more data. The MoE also targets to improve the quality of information entered into SKPK self-assessment online system by developing an online tutorial; and aims to verify 500 public and 500 private pre-schools.

EPP 2 Improving Early Childcare and Education (ECCE) Training

Teaching standards in ECCE depend on the quality of its educators. At present, nine out of 10 private teachers in this segment do not possess formal training, compared to all teachers in public pre-schools who possess degrees and the majority of teachers in Government agency-operated pre-schools who hold diplomas.

This has created an opportunity for the private sector to offer diploma programmes that will enhance the skills of existing educators and provide pre-service training. In this respect, a consortium, comprising SEGi University, Kolej Perkembangan Awal Kanak-Kanak, DiKa College, CECE Institute, Alfa International College, Kirkby International College and Taj International College, are currently working with the MoE to develop a diploma programme that can be offered part-time and online, providing flexibility to pre-school teachers.

The Government is also partially subsidising living allowances of private ECCE teachers who wish to study for diplomas in efforts to raise the overall professionalism in the industry. To this end, the Government has allocated RM1 million under the GTP 2.0 to provide living allowance to teachers wishing to enrol in the diploma programme.

Achievements and Challenges

The MoE started to provide subsidised living allowance of RM1,000 per year to a target of 1,000 teachers. However, only 485 applications were received, and only 333 qualified for the allowance.

The slow take-up rate was partly due to lack of awareness on the scheme among the teachers. This EPP will have to reinforce the importance of obtaining ECCE qualifications, as the teachers still have to bear the tuition fee themselves. Additionally, unlike the public sector, there are no present requirements for ECCE teachers in the private sector to obtain formal qualifications to be able to teach.

SEGi University has launched a distance learning platform to offer greater access and opportunities for in-service or aspiring teachers to pursue studies and obtain qualifications in ECCE. The platform can be leveraged by other institutions offering Diploma in Early Childhood Education that has the necessary approvals from MoE, to further widen the access to early childhood education.

In addition, SEGi University Group pledged RM398 million to develop an integrated ECCE hub under a Public-Private Partnership (PPP). As part of the PPP initiative, SEGi University Group has received approval from the Public Private Partnership Unit (*Unit Kerjasama Awam Swasta* - UKAS) in the Prime Minister's Department for the development of a school building in Kota Kemuning, Selangor, and District Education Office in Kota Damansara, Selangor. These shall be developed in tandem with the integrated ECCE hub. SEGi is now awaiting a Letter of Intent from UKAS.

Meanwhile, SEGi has made further investments to the expansion of existing facilities to offer early childhood training programmes to support this EPP's objective. The Diploma in Early Childhood Education programme is now being offered in all SEGi campuses in Subang Jaya, Kota Damansara, Kuala Lumpur, Penang and Sarawak. The Subang Jaya campus launched its ECCE Centre of Excellence on 1 October 2013 has a range of ECCE resources and labs.

A research study was conducted by several researchers from SEGi University to explore the current work conditions of the ECCE workforce in the private sector in relation to their qualifications, working conditions and their readiness for professional development. A sample comprising 4,500 teachers representing approximately 20 per cent of the private sector workforce was drawn using stratified sampling procedures to answer the research questions posed in the study.

A total of 3,087 participants, or 13.7 per cent, of the total private sector ECCE workforce in Malaysia responded to the survey. Key findings of the survey provided insights into key challenges and will assist in increasing professionalism in the ECCE workforce.

Moving Forward

The MoE will increase efforts to work with the EPP 2 consortium to upgrade the skills of in-service private pre-school teachers through the following approach:

- Create a minimum qualification standard for all pre-school teachers with the support of the Teachers' Training Division under the MoE
- Continue to provide subsidised living allowance to in-service teachers who undertake a minimum of a diploma in ECCE, targeting to reach 1,000 teachers in 2014
- Carry out roadshows targeted at private pre-schools nationwide. The roadshows will provide information on Government support, courses and modes of learning available for these in-service teachers; reinforce the importance of formal education and highlight the career opportunities available in the ECCE industry
- Increase access to ECCE education and engage the Malaysia Qualifications Agency on the quality of blended diploma programmes with distance learning modules

EPP 3 Scaling Up International Schools

With the ETP projects attracting more expatriates into Greater Kuala Lumpur and the country's growth corridors such as Iskandar in Johor, Malaysia needs to cater to their children's education by expanding its international school offerings.

Initiatives under this EPP also go beyond expatriate-driven demand. International schools can cater to the school-aged children of Malaysians heading back home from overseas under Talent Corporation's Returning Experts Programme. It will also meet the needs of Malaysians looking to send their children abroad for education and parents from around Asia who are increasingly viewing Malaysia as a destination to send their children for basic education.

It is estimated that every international school student generates 20 to 30 times more foreign exchange income compared with a tourist.

Achievements and Challenges

There are currently 97 international schools operating in Malaysia. This has already surpassed the 87 schools targeted by 2020 and represents a nearly 19 per cent growth in the past five years. Additionally, another 25 schools are in the pipeline while the MoE has received four new applications.

The total international school student population amounts to 38,971, comprising 19,869 locals and 19,102 foreigners. For the first time, Malaysian enrolment exceeded foreign enrolment.

With Korean, Indian and the UK students making up most of the foreign enrolment, the National Association of Private Educational Institutions (NAPEI), together with the MoE's Private Education Division and PEMANDU, have conducted marketing initiatives overseas to attract students from other markets. These have included visits to China, Vietnam, South Korea and Indonesia.

Moving Forward

In 2014, the Government, PEMANDU and NAPEI will continue to collaborate in marketing and promoting international schools to Malaysia's key markets. However, marketing initiatives will be more comprehensive and targeted in order to turn Malaysia into a hub for basic education. At the same time, the Government will be more stringent in approving international school licences to ensure quality of offerings and there is no oversupply of capacity in existing schools. This includes approving applications from investors committed to invest in full-fledged campuses and halting the issuance of temporary campus permits.

EPP 4 Expanding Private Teacher Training

Short supply of high-quality teachers globally hampers any country's development efforts, including Malaysia's. EPP 4 aims to remedy this by encouraging the development of high-quality teachers in critical subjects such as Bahasa Malaysia, English, Mathematics and Science in Malaysia.

Among efforts proposed to achieve this is by implementing the "Open System" as presented in the 10th Malaysia Plan, which calls upon private institutions to offer pre-service training for public and private school teachers via the Internet and classrooms.

Achievements and Challenges

The MoE has begun intensive efforts in training new teachers and upskilling existing teachers, particularly in subjects such as English where there are shortages in quantity and quality. Currently, there are 200 pre-service English teachers receiving training from four private higher education institutions.

In 2012, the 200 pre-service teachers took the Cambridge Placement Test (CPT), an online adaptive English test, but only 30 per cent met the grade requirement of C1 based on the Common European Framework of Reference for Language (CEFR). MoE has instituted C1 as the minimum proficiency requirement for English teachers. Subsequently, in 2013, they were provided extensive training to improve their proficiency.

By the end of 2013 all of them were tested using the International English Language Testing System (IELTS). The results will be out in early 2014 and will be used as a baseline to gauge their improvements over the course of the programme. The 200 pre-service teachers will be required to achieve a minimum score of 6.5 under IELTS, equivalent to a CEFR grade of C1 before they graduate.

Moving Forward

The key focus for this EPP is to monitor the achievements of the 200 pre-service teachers undergoing training. Stakeholders of this EPP are also considering different opportunities to train teachers for the international or private school segment where demand has been growing strongly. With international schools and private schools increasingly targeting the middle-income market, there is strong demand for local teachers who are familiar with international school curriculums and this provides an opportunity for private training institutes to expand their business.

EPP 5 Scaling Up Private Skills Training Provision

This EPP aims to reduce the percentage of low-skilled and semi-skilled workers to 50 per cent of the workforce in 2020 by providing *Sijil Peperiksaan Malaysia* (SPM) students or school-leavers opportunities to pursue vocational education.

To this end, the Government has allocated more than RM632 million from 2011 and 2013 to the Skills Development Fund (*Perbadanan Tabung Pembangunan Kemahiran* or PTPK). These funds, in turn, are channelled to private accredited centres that have achieved a rating of three stars and above in Peninsular Malaysia and two stars and above for Sabah and Sarawak for their programmes. The rating exercise is undertaken by the Department of Skills Development (*Jabatan Pembangunan Kemahiran* or JPK) under the Ministry of Human Resources (MoHR).

Achievements and Challenges

In 2013, the EPP focussed on strengthening the promotion of SkillsMalaysia and SkillsMalaysia INVITE.

Overseen by the JPK, SkillsMalaysia was established to create awareness on the opportunities in skills training and jobs related to TEVT, while SkillsMalaysia INVITE is focussed on attracting international students to enrol in TEVT courses in Malaysia.

During the year, the following activities were carried out by SkillsMalaysia and SkillsMalaysia INVITE:

SkillsMalaysia

In July 2013, Malaysia participated in the 2013 World Skills Competition in Germany, competing in 14 skill segments and winning nine Medallions for Excellence.

No	Skill Segment	Achievement
1	Cooking	Medallion for Excellence (Best Of Nation)
2	Fashion Technology	Medallion for Excellence
3	Restaurant Service	Medallion for Excellence
4	Electrical Installations	Medallion for Excellence
5	Refrigeration and Conditioning	Medallion for Excellence
6	IT Network System Administration	Medallion for Excellence
7	Hairdressing	Medallion for Excellence
8	Plumbing and Heating	Medallion for Excellence
9	Welding	Medallion for Excellence
10	Mechanical Engineering Design-CAD	Certificate of participation
11	Automobile Technology	Certificate of participation
12	Electronics	Certificate of participation
13	Wall and Floor Tiling	Certificate of participation
14	Cabinet-making	Certificate of participation

Exhibit 10.2: Malaysia's achievements at the 2013 World Skills Competition

In March 2013, stakeholders of this EPP launched www.iwant2b.my, an integrated TEVT portal that enables school-leavers to explore the vocational training opportunities on offer.

SkillsMalaysia INVITE

During the year, JPK embarked on SkillsMalaysia INVITE roadshows to Sri Lanka, Myanmar, India and Indonesia. Since January 2013, 378 international students have enrolled under SkillsMalaysia INVITE. However, further results may take time to be seen as the SkillsMalaysia INVITE campaign remains relatively new.

National Skills Carnival and Expo 2013 (*Karnival dan Ekspo Kemahiran Kebangsaan — KEKK*)

In September, the MoHR and seven other Ministries jointly organised the three-day National Skills Carnival and Expo, which attracted over 100,000 visitors. Among highlights of KEKK 2013 was the Malaysia Skills Competition and other competitions for trainers, exhibitions and seminars.

Star Rating Exercise

The JPK deployed 100 officers to conduct the 2013 Star Rating exercise on 810 accredited centres from June to November. For this year, JPK changed the weightings for the Star Rating with output and input accounting for 30 per cent respectively and process accounting for 40 per cent.

Moving Forward

For 2014, this EPP will focus more on developing quality training for TEVT educators and preparing National Occupational Skills Standards to meet the labour needs of the various industries in Malaysia.



Datuk Sri Richard Riot during the launch of the National Skills Carnival and Expo (KEKK)

EPP 6 International Expansion of Distance Learning

With tremendous growth expected from the online and distance learning sector, the Government has initiated projects to get Malaysian universities to participate in this segment as part of its National Higher Education Strategic Plan (*Pelan Strategik Pendidikan Tinggi Negara* – PSPTN).

However, due to an overlap between the Ministry's initiatives and this EPP's efforts, a decision was taken to merge both under PSPTN to minimise duplication of resources. As a result, KPIs for this initiative will no longer be tracked under the Education NKEA, instead it will remain under the Ministry's purview.

EPP 7 Building an Islamic Finance and Business Education Discipline Cluster



The Islamic Finance and Business Education discipline cluster at the visit to the Prince of Songkhla University

Malaysia has made great strides in providing Islamic finance and business education. This has been supported by efforts of the EPP 7 Taskforce, led by the International Islamic University Malaysia (IIUM) and Bank Negara Malaysia (BNM), which established a consortium comprising higher education institutions and industry representatives to set benchmarks and standards in Islamic banking and finance education. The consortium launched a curriculum and training division to help Malaysian institutes of higher learning develop globally recognised Islamic finance and business programmes, as a first step towards gaining access to the global market.

In tandem with transforming Malaysia into a hub for Islamic finance and business education, the EPP also aims to boost the number of students enrolled in Islamic finance education institutes in the country from 6,000 currently to 54,000 students by 2020. It also seeks to ensure that 80 per cent of its graduates are employable by 2015.

Achievements and Challenges

In parallel with the development of an international standard curriculum for Islamic finance, for which the first draft was completed in December, the EPP 7 Taskforce has also commenced building a talent database.

The EPP also collaborates with Islamic banks such as Maybank Islamic and HSBC Amanah, which have been actively reviewing the development of the curriculum, alongside BNM. In addition, stakeholders have sought to create an international profile for this EPP by participating in the World Islamic Economic Forum (WIEF) in London in October 2013.

A key challenge for this EPP has been the lack of budget for its initiatives. This resulted in a slowdown in momentum in the first half of 2013. However, the EPP has gained traction after receiving funding from PEMANDU under Education NKEA funds.

Additionally, unlike other EPPs which are championed by the private sector, this EPP is overseen by the public sector representatives such as BNM and public institutions of higher learning (*Institusi Pengajian Tinggi Awam – IPTA*). In view of this, the EPP 7 Taskforce has set up an International Council of Islamic Finance Educators (ICIFE) to ensure the sustainability of EPP 7 as well as increase the professionalism of Islamic finance educators.

Moving Forward

The ICIFE will be spearheaded by the Islamic Finance and Business Education Cluster, which will lead efforts to make Malaysia a globally recognised hub for Islamic Finance and Business Education. The cluster will also ensure the quality, industry relevance and global recognition of Islamic finance education and its related areas.

In turn, the ICIFE will be tasked with:

1. Providing training for Islamic Finance educators
2. Publishing training manuals for talent development
3. Building a database of talents in Islamic Finance education
4. Promoting Islamic finance education globally
5. Protecting intellectual property of EPP 7
6. Issuing periodical reviews and updating the curriculum
7. Publishing scholarly journals and professional magazines
8. Organising international conferences and seminars
9. Generating revenue to ensure sustainability



A closed-door discussion between the Ministry of Education and UK universities and educationists chaired by KSU II of Ministry of Education, Professor Dato' Seri IR Dr Zaini Ujang

The main focus is to expand ICIFE with a target of 100 registered, qualified members by the end of 2014. Additionally, the curriculum developed by EPP 7 will be challenged at an international roundtable of scholars from the world's top universities, representatives from the Islamic Research and Training Institute (IRTI) and International Shari'ah Research Academy for Islamic Finance (ISRA) as well as industry players under the ICIFE.

At the same time, ICIFE and the cluster will market Malaysia as a centre of Islamic finance education through Education Malaysia and participate in international Islamic finance or Islamic education conferences.

EPP 8 Building a Health Science Education Discipline Cluster

This EPP aims to encourage private institutions to provide teaching places in their hospitals, which will alleviate congestion in public hospitals and provide greater quality of teaching and hands-on experience to medical students.

To meet this demand, the UCSI Premium Health Cluster will include the development of a teaching hospital to its list of initiatives with the expectation of providing practicum for health sciences students.

As a result, the cluster will undergo four stages of development: Teaching hospital, international school, medical faculty and convention centre. In 2012, the international school opened its doors and offers International Baccalaureate programmes.

Achievements and Challenges

As part of UCSI's plans for Phase 1 of the Premium Health Cluster, the UCSI International School has been doing well with 21 new students and 19 new jobs created as at the beginning of December 2013.

However, the construction of the teaching hospital – which was due to be completed in 2015 – has been delayed as UCSI reviews the developmental plans of the integrated premium health cluster.

EPP 9 Building an Advanced Engineering, Science and Innovation Discipline Cluster

For two years, a taskforce for this EPP – made up of The Indus Entrepreneurs (TIE) Malaysia, Cradle Fund, the Malaysian Innovation Agency (*Agensi Inovasi Malaysia* – AIM) and Technology Park Malaysia – ran a Lab2Market (L2M) Commercialisation programme where researchers were given the opportunity to present their projects to the industry and potential investors.

Out of 11 projects that were evaluated by a panel of private and private sector representatives, three were finally selected to receive seed grants for further commercialisation in 2013 and 2014. These projects are High Flux Rejection Membranes (HFHR Membranes), Retrofit Fuel Injection Kit and Diagnostics for Typhoid. However, the taskforce found that many researchers were interested in commercialisation of their research only if funding was guaranteed. The elements of coaching and potential for investor participation were often viewed by these researchers as secondary to the commercialisation of their inventions.

This presents both a cause for concern and an opportunity, as this EPP was set up to coach researchers to present their best inventions to potential investors who may be interested in bringing the products to the marketplace.

Achievements and Challenges

Since the inception of this EPP, a number of research projects that display high commercialisation potential have been given further support. These projects include:

1. Waste Cooking Oil Biodiesel Programme

A collaboration between Universiti Tenaga Nasional (UNITEN) and UNI10 Energy Sdn Bhd, the programme studies the sustainable development and product commercialisation of biodiesel as part of the nation's effort to develop a low carbon-emitting economy.



Biodiesel processing unit at UNITEN



The waste cooking oil biodiesel plant at UNITEN

By 2013, the team finished constructing a plant that could produce biofuel from waste cooking oil. UNI10 Energy also secured supply for waste cooking oil from IKEA on a trial basis, a positive step towards future commercialisation of this project.

2. Face Biometric Attendance Recording System (FaceBARS™)

During the first cycle of L2M in 2012, USM received a grant to develop FaceBARS™, a device that records attendance or entrance access using face recognition technology. The device helps to solve issues where fingerprint recognition fails or is not available. Furthermore, the invention can replace identity cards as a security measure.

Following this, the project has developed and tested 100 units of FaceBARS™ for commercialisation in December 2013, with the launch of the product in the same month. To date, more than 10 companies have shown interest in either using or distributing this product with one company keen to set up a joint venture to commercialise FaceBARS™.

3. High Throughput Device for Determining of Antioxidant (OxiCount)

Universiti Kebangsaan Malaysia received a seed grant under the second cycle of L2M in 2013 to develop 1,500 prototype units or end products of OxiCount. OxiCount allows for proper labelling of antioxidant content and UKM is aiming to be the first in the world to launch a series of antioxidant testing kits to the global market in order to provide a solution for the health, pharmaceutical and food industries in antioxidant testing of samples.

The agreed timeline is from June 2013 until May 2014 with three milestones. The first milestone was completed in August 2013 where UKM procured all equipment and machines required for production. In Malaysia currently, there are around 300 agencies and universities routinely analysing AntiOxidant activity, which provides a potential market of 360,000 testing kits annually. Although the project is still at its early stages, two pharmaceutical companies have shown interest in joining the commercialisation team or becoming distributors.

4. Rehabilitation Robot for Stroke Patients

Universiti Teknologi Mara received a seed grant under the second cycle of L2M to develop a rehabilitation robot for stroke patients. The agreed timeline is from May 2013 until April 2014.

Conventional rehabilitation methods for stroke patients are labour intensive, subjective, costly and inconsistent. This project aims to develop locally-made and affordable rehabilitation robots that provide adaptive therapy, where stroke patients can be provided with different types of training modes according to their performance.

Therapists and stroke patients from the National Stroke Association of Malaysia (NASAM) and general hospitals have expressed interest in the product to improve their current rehabilitation training. A paper on one element of the robot, the upper limb motion, was published in the *Journal of Medical Imaging and Health Informatics* in 2013.

Moving Forward

Efforts by this EPP to provide commercialisation opportunities and attract investors over the past two years will be continued, with measures to strengthen collaboration between researchers, industries and investors enhanced.

To this end, AIM, which was formed in 2010 to encourage an innovation ecosystem in Malaysia, will champion this EPP from 2014 onwards to ensure there is no duplication of efforts by AIM and EPP 9, as both share the same objectives and end goal.

EPP 10 Building a Hospitality and Tourism Cluster

Malaysia needs to double the number of its hospitality workers to 50,000 by 2020 to cater for the strong growth in the tourism sector. With this, the share of graduates with diplomas and degrees needs to be lifted to 50 per cent from 13 per cent over the same period.

The Malaysia Centre for Tourism and Hospitality Education (MyCenTHE) is championing this EPP and has aggressively expanded its work-based learning programme. To date, it has established four clusters in Sarawak, Penang, Sabah and Negeri Sembilan with USCI University, KDU Penang, Inti College and East West International College, respectively.

The clusters currently offer diploma in hotel management and culinary arts. MyCenTHE also plans to expand its work-based learning programme by offering additional curriculums in tourism, retail and event management through partnerships with vocational and community education institutions.

Achievements and Challenges

The agreement with East West International College, the fourth cluster member heading activities in Negeri Sembilan, was signed during the year. The launch of the latest cluster member was witnessed by Minister of Education II, Dato' Seri Idris Jusoh on 10 September 2013.

MyCenTHE members also organised a Corporate Social Responsibility (CSR) programme at Felda Palong 2, Negeri Sembilan, on 21 August 2013. The programme aimed to create awareness on jobs in the hospitality and tourism industries for approximately 300 students from surrounding schools. All four cluster members participated in the CSR programme, staging cooking demonstrations and holding career consultations with the students.

12,063 students enrolled for hospitality and tourism programmes offered by private higher education institutions nationwide in 2013. MyCenTHE and its members face some challenges in implementing its programmes, with total enrolment of approximately 500 students.

For example, many in the industry would not accept the changes in internship structures to implement the WBL praxis model that includes longer work assignments and multiple placements. In this respect, it was an uphill challenge to convince Malaysian hoteliers to partner with MyCenTHE members to train students.

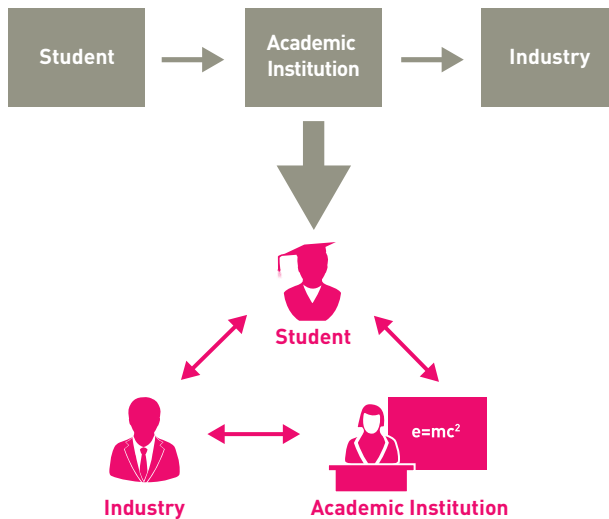


Exhibit 10.3: The shift from conventional process of graduate output to the WBL praxis model

As such, MyCenTHE, together with PEMANDU and the MoE, will appoint cluster leaders in every state to address the challenge of implementing the WBL programme. Some of the issues include:

1. Low wages or no allowance. Many hotels are reluctant to pay a minimum allowance of RM500 per month as proposed by MyCenTHE
2. Hotels do not see the benefit of taking in interns except for saving costs on hiring. Interns could often be abused as “cheap labour”
3. Lukewarm response from hotel managers, who would rather spend their human resources development funds on internal training programmes. However, the WBL programme enables existing hotel staff to join the course and upgrade their skills
4. Lack of public awareness about career prospects in hospitality and tourism

MyCenTHE also conducted a short survey among members in October 2013 to gauge the amount of allowances paid to employees. The survey yielded data from 65 hotel and event companies (throughout all regions except the East Coast) on the allowance rate.

The survey showed that 53 out of the 65 were local firms. From these 53 firms, only 18 per cent paid the minimum rate of RM500 proposed by MyCenTHE.

Moving Forward

Keeping the challenges faced and survey results in mind, MyCenTHE will continue to recruit members from other regions with a focus on Langkawi and the East Coast. This will bring the EPP a step closer to hitting a target of 10 cluster leaders by 2015.

Additionally, MyCenTHE will focus on raising students and parents' awareness on hospitality and tourism education and career prospects across Malaysia. There will also be a push to establish working committees with the MoHR to now develop National Occupational Skills Standards (NOSS) for the sub-disciplines of hospitality and tourism, including events, retail, theme parks and wildlife management.



The launch of Negeri Sembilan MyCenTHE Cluster Leader on 10 September 2013

EPP 11 Launching EduCity@Iskandar

EduCity@Iskandar represents a significant investment driven by Khazanah Nasional Bhd to transform Iskandar Malaysia into a global education hub. A major target of this initiative is to make world-class education more accessible to Malaysians and other Asians within a six-hour flight radius of Johor. This will also support the Government's agenda of targeting 200,000 international students by 2020.

A short distance from Medini Iskandar, the central business district of Nusajaya, EduCity has drawn renowned institutions offering primary, secondary and tertiary education. These include Newcastle University Medicine Malaysia (NUMed), University of Southampton Malaysia Campus (USMC), University of Reading Malaysia (URM), Marlborough College Malaysia (MCM) and Raffles American School.

EduCity has enhanced the education experience with first-class infrastructure, including:

1. International Students' Village, which is situated on a five-acre site and provides student accommodation
2. Stadium and Sports Complex, which is a first-class sports complex with a football pitch, indoor arena, aquatic centre, 400-metre running track and a 12,000-seat stadium
3. Multi-Varsity Enterprise Complex, which will house several institutions of higher learning that are taking in students, as well as a creative multimedia school and hospitality learning institution in the future

Achievements and Challenges

EduCity continues to perform well with student enrolment more than quadrupling to 1,701 students in 2013 from 370 in 2012. Most notably, flagship institutions MCM, which officially opened its campus in 2013, and Netherlands Maritime Institute of Technology (NMIT) have enrolled 602 students and 562 students, respectively.

Some institutions, such as URM held their groundbreaking ceremony this year, underscoring EduCity's further growth potential. USMC also officially opened its doors in 2013.

The establishment of EduCity has seen its share of challenges, as expected with the setting up of any new education park. Some of these challenges included marketing and promotion of Educity to international students and enhancing the student experience amid infrastructure and lifestyle limitations at the newly established education park. A lab facilitated by PEMANDU was held in March 2013 to address these challenges and other issues, leading to the development of new initiatives to address these shortcomings.

Secondly, as EduCity is based on a concept that each university operates from a shared campus, it has been a challenge to gain commitments and buy-ins from stakeholders to develop shared infrastructure. Nevertheless, the EduCity management is taking steps to create a healthier student ecosystem with an enhanced student environment.

Moving Forward

It is crucial for EduCity to continue to grow and support Johor and Malaysia's ambitions of becoming an education hub for Asia. The Iskandar Regional Development Authority (IRDA) will work together with Education Malaysia Global Services (EMGS) and the MoE to position and market Iskandar Malaysia both domestically as well as regionally.

There will be a continuous drive to enhance collaborations with Malaysia-based education institutions with international counterparts.

EPP 12 Championing Malaysia's International Education Brand

Through the setting up of Education Malaysia Global Services (EMGS) last year, the country has established a one-stop centre to market the education sector to the world and manage key student services like visa processing, health screening and welfare. This is in support of this EPP's goal to transform a foreign student's experience in Malaysia into one that is comparable to that in Australia, the United Kingdom and the United States.

Efforts under this EPP also seek to ensure Malaysia becomes a regional education hub at a time when student mobility across the globe is expected to triple to nearly six million by 2020 from 2.1 million in 2003. Other targets include doubling foreign student enrolment to at least 200,000 by 2020, with international school fees rising by 50 per cent in tandem with high demand for Malaysian education.

Achievements and Challenges

EMGS officially launched its Student Application and Registration System (STARS) in February 2013 to improve the management of visa processing for international students who intend to pursue their education at private higher education institutions (PHEI) in Malaysia.

In 2013, EMGS received a total of 32,679 applications for international student visas, comprising students from 144 countries, from a total of 256 PHEIs. In 2011 and 2012, the numbers of visa applications from PHEIs were 39,548 and 43,410 respectively. The quality of applications has increased in 2013, as demonstrated by the decreased rejection rate of 3 per cent compared to 31 per cent in 2011 and 38 per cent in 2012.

Nevertheless, since its establishment, EMGS has not been able to deliver its objective as a one-stop centre in a satisfactory manner, frustrating many international students, PHEIs and foreign embassies.

The key issue has been processing new student visas and visa renewals, which has contributed to a drop in the number of international tertiary students in PHEIs, who are required to use EMGS services. Additionally, EMGS has not been able to progress far with another core function in 2013, which is to ramp up marketing activities to promote Malaysia as an education hub. This is because it had focussed its resources on improving the process of international student visa application. In 2013, EMGS has largely relied on Education Malaysia in MoE and its officers to undertake international student promotion and marketing but hopes it can start focussing on this area in 2014, as the process of international visa application improves and the pressure eases.

Moving Forward

While progress has been made in the reduction of visa processing time, the Government is concerned about the issues related to EMGS and has started a review on EMGS and its handling of student visa applications. MoE, EMGS, the Ministry of Home Affairs, including the Department of Immigration will work together to implement several enhancements to the current process of international student visa applications in 2014, such as introducing a green-lane for fast-tracked applications based on a risk-profile mechanism, increasing the number of approved clinics for medical screening and opening up the options for medical insurance.

The streamlined process for international student visa applications will be closely monitored to ensure the intent of increasing the number of genuine international students in Malaysia is achieved.

EPP 13 Introducing Public-Private Partnerships in Basic Education

Technical Education and Vocational Training (TEVT) remains an underinvested segment of Malaysia's education system. This is despite the sector's potential to equip post-secondary students with the skills to land highly technical and specialised jobs.

To this end, the MoE has undertaken initiatives such as purchasing seats in private technical and vocational schools for programmes in aircraft maintenance, mechatronics, animation and marine and collaborating with industry-led bodies to strengthen the curriculum in Government-owned schools.

Achievements and Challenges

Under an agreement between the Malaysian Aviation Training Academy (MATA) and the MoE, another 100 students enrolled in diploma in aircraft maintenance in 2013, adding to the existing 100 students who commenced the course in 2012. Furthermore, through the Malaysian Institute of Technology Academy (MITA), 102 students are pursuing their studies in mechatronics, bringing the total to 174 students.

Also during the year, the Ministry inked agreements with another two institutions where 150 students are now studying marine-related courses at RANACO Education & Training Institute and another 100 are taking 2D animation and visual effects courses at KRU Academy.

This year, the public-private partnership (PPP) focussed on purchasing seats in vocational institutions for students with Special Education Needs (SEN). The objective of this initiative is to enable young adults with special needs to be gainfully employed and live independently in an inclusive community with the necessary skills and knowledge as well as industry-recognised certification.

The institutions were selected based on the infrastructure available for SEN students and their ability to provide industry placements and internships upon graduation.

In July 2013, 16 students were enrolled in a course leading to a certificate in food and beverage with Berjaya University College of Hospitality, while 20 students took a course in information and communications technology with Sunway International Business & Management.

In addition, the MoE has purchased a further 220 seats across five states, offering various vocational courses, such as culinary arts and computer systems. The first intake commenced in November 2013 and amongst the institutions selected are Suria College of Hospitality in Johor and International College of Yayasan Melaka.

Moving Forward

The Government has set aside a budget to purchase more seats in private TEVT institutions in 2014. The purchasing of seats for SEN students will also continue into 2014, with more courses to be offered and a focus on students outside the Klang Valley.

As a continuation of purchasing of seats under the PPP initiative in 2014, an additional 71 seats have been bought from Berjaya College of Hospitality, offering the Diploma in Patisserie and the Certificate in Food and Beverage. Of these, 53 are in Klang Valley and 18 are in Penang. The programme has also been extended to Sabah and Sarawak, where a total of 42 SEN students will be undertaking the Diploma in Pastry Making at ATI College Sabah.

EPP 14 Building a Games Development Cluster

The video games industry is one of the fastest growing industries in the world. In September 2013, Take-Two Interactive *Grand Theft Auto 5* crossed US\$1 billion in sales in just three days, making it the fastest-selling product across all forms of entertainment. In comparison, the global music industry makes less than US\$1.4 billion in record sales each month. Therefore, Malaysia sees the potential to grow its footprint in the US\$72 billion video game market share.

Encouraging a critical mass of game developer talent is crucial to ensuring knowledge transfer and building a suitable ecosystem. Without this, it will be difficult to get support, retain talent and attract international recognition.

In this respect, the MyGameDev2020 initiative, led by KDU University College, represents a strategic collaboration between educational institutions, industry players and regulators that will increase the country's talent pool and turn Malaysia into a leading game development centre in Southeast Asia.



A visit by secondary school counsellors to the Codemasters Studios

Other initiatives undertaken through this EPP include implementing campaigns among public schools to educate students and parents about potential jobs in this sector and establishing Memoranda of Understanding (MoU) to create an industry-recognised curriculum for game development.



A screenshot of a game developed by a KDU University College student

This EPP has also implemented training programmes for lecturers in public and private educational institutions and initiated accelerator programmes to train industry-ready talents who can join the games development sector.

Achievements and Challenges

In order to maintain a constant flow of talent into the game development industry, there must be a concerted effort to explore beyond tertiary education talent pools and into public secondary schools.

As such, the Secondary School Counsellors Industry Awareness Event (*Program Kesedaran Industri "Game Development"*) was organised in 2013 to educate and create awareness among 106 secondary school counsellors in Greater Kuala Lumpur. This included a visit to Codemasters Studios KL, one of the oldest British video game developers and considered Europe's largest independent games company with nearly 700 employees worldwide.

Tabletop2013, a two-day competition, was also organised to introduce the concept of game development via board game design to Malaysian secondary school students aged 15 to 18. Participants were given a theme on Malaysian food for creation of their tabletop games. They later presented their creations to a panel of judges who then tested the board games to evaluate for re-playability, fun-factor and ease-of-learning.

Moving Forward

The MyGameDev2020 Cluster will continue efforts to raise the level of awareness amongst Malaysians on this 21st century career opportunity. Initiatives such as the Industry-Academia Expo will give opportunities for Malaysian game developers to showcase their products and talents to a wider audience and inspire those to consider a career in this industry.

The game development cluster is also working closely with the relevant Ministry agencies to bring in international game developers to Malaysia in order to:

1. Develop the value chain in the game development industry
2. Foster strong connections and synergies between local and global companies

Other planned activities in 2014 include:

1. Standalone competitions like tabletop board games and industry awareness competitions for school counsellors in Klang Valley, Penang and Kedah
2. Organise the MyGameDev2020 48-Hour Game Development Marathon with a focus on educating Malaysians on game development
3. Attract the ANIMEX International Festival of Animation and Computer Games to Malaysia, which presents high-profile professionals who provide the latest insights into ongoing projects
4. Run a train-the-trainers programme for lecturers in universities, polytechnics and community colleges to strengthen capability in these public institutions as well as to enhance the existing course materials based on industry needs. The train-the-trainers programme is a three-week intensive course conducted jointly by experts from Unity and i-Train using industry-recognised software; the programme will award participants with two industry-recognised certificates

EPP 15 Establishment of Branch Campuses for Foreign Universities

Malaysia has made great progress in transforming into one of Asia's leading education hubs, with more foreign universities showing interest in setting up branch campuses in the country. Thanks to efforts by public sector agencies to market Malaysia as the preferred destination for education with access to Southeast Asian markets, nine renowned foreign universities from the United Kingdom and Australia have so far opened branch campuses in Malaysia.

Achievements and Challenges

In September 2013, Heriot-Watt University started operations in their temporary campus in Putrajaya by offering the Edinburgh Business School MBA programme. The campus is the institution's second international campus.

Next year, Heriot-Watt will offer additional programmes such as Masters in Science in business psychology, construction project management and energy, to name a few, in their full-fledged campus which is expected to be completed by the end of 2014.

Reading University Malaysia also commenced operations in a temporary campus this year with a Foundation in Business programme. The university will include a more extensive programme when its full campus is ready.

Furthermore, the Government has approved the establishment of a branch campus by Cairo's Al-Azhar University. In order to be recognised as one of the EPP projects, Gerbang Al-Azhar will have to undergo an Agreed Upon Procedure (AUP) performed by PricewaterhouseCoopers (PWC) which has not been done due to incomplete documentation. However, applications from other institutions, such as from the United Kingdom and the Middle East, were put on hold from February 2013 after the Minister imposed a two-year moratorium for licences for private higher education institutions and branch campuses. The moratorium was imposed to enable excess capacity to be filled first.

Moving Forward

In view of the two-year moratorium, the Government is not likely to approve new licences for branch campuses unless the applications were submitted to the MoE prior to the moratorium announcement. The Ministry however will continue to consider applications from universities that are among the top 100 of QS World University or Times Higher Global University Rankings, as these institutions will not be subject to the moratorium.

EPP 16 Establishment of Not-For-Profit Education Institutions

Malaysia is seeing strong demand to set up non-profit education institutions. The most prominent proposal in this respect comprises a plan to set up a liberal arts institution offering scholarships to talented women from conflict-ridden countries in Asia and the Middle East through a partnership with Smith College, one of the "Seven Sisters" in the United States.

Achievements and Challenges

In evaluating the Asian Women Leadership University (AWLU) project, the Government has requested the promoters to demonstrate the following:

1. Funding sources for the university in view that the university will rely on public donations and endowments to finance its campus set up and early operations

2. To demonstrate a sustainable operating model for operations in view that in the early years of operations, the university will continue to rely on donations/endowments
3. To propose alternative sites for the campus which can tap into developed infrastructure

In November 2013, AWLU submitted a comprehensive application to address MoE's concerns including documentation on amounts raised and committed as well as the new campus site in Batu Kawan, Penang. AWLU has met the RM20 million paid-up capital requirement by having RM21.6 million in committed funds. As of December 31 2013, AWLU's university application is still being evaluated by the MoE Panel of Accessors.

EPP 17 Transforming Malaysia into a Leading Accountancy Hub

EPP 17 seeks to transform Malaysia into an accountancy hub with Sunway TES Sdn Bhd taking the lead in this initiative. The first step was to establish the Sunway TES Centre for Accountancy Excellence, launched on 14 November 2013.

With the advantage of experienced and dedicated staff, both academic and administrative, Sunway TES intends to increase the provision of skilled human capital in the accountancy sector through collaboration with 15 leading private and public institutions of higher education in Malaysia.



The launch of Sunway TES Centre for Accountancy Excellence (CAE)

Achievements and Challenges

In 2013, Sunway TES signed up 90 students with the aspiration of producing 5,500 professionally qualified accountants by 2020. This will be achieved by incorporating professional accounting qualifications into existing accounting degree programmes offered by various public and private institutions of higher learning.

The collaboration will also go beyond embedding professional accounting programmes by providing industry linkages with the Big Five accounting firms, mid-tier professional services firms and big corporations (e.g. Sunway Group, Felda, PETRONAS and CIMB) through internships, employment upon graduation and sponsorship for professional programmes from employers.

To date, Sunway TES has signed memorandums of agreement to collaborate with Universiti Sains Malaysia (USM), Universiti Malaya (UM) and International Islamic University Malaysia (IIUM).

Moving Forward

Sunway TES aims to increase its student intake to 261 by 2014 through its collaborations with public and private institutions of higher learning. These collaborations will then help create hubs around the country to support the Centre for Accountancy Excellence.

Sunway TES Centre for Accountancy Excellence

With a total investment of RM28 million, the Sunway TES Centre for Accountancy Excellence is expected to contribute a GNI impact of RM14 million and create 234 jobs by 2020.

The centre offers internationally renowned professional accounting programmes such as the Association of Chartered Certified Accountants (ACCA); Certified Accounting Technician (CAT); Institute of Chartered Accountants in England and Wales (ICAEW); Certificate in Finance, Accounting and Business (CFAB); Malaysia Institute of Certified Public Accountants (MICPA)/Institute of Chartered Accountants Australia (ICAA), Certified Internal Auditors (CIA) and Chartered Financial Analyst (CFA).

Sunway TES is currently the ICAEW Regional Centre of Accountancy Training Excellence for ASEAN and China endorsed by TalentCorp. It has also been awarded the prestigious ACCA Platinum Award for 10 consecutive years.



Expected to contribute a GNI impact of RM14 million and create 234 jobs by 2020

BUSINESS OPPORTUNITIES

1

Discipline Clusters to Support NKEAs

The Education NKEA is driven by the various discipline clusters that help shape the ETP according to global industry requirements and trends. These include Islamic finance, health sciences, advanced engineering, hospitality and tourism, game technology and accounting. There also remain opportunities to provide education services in areas such as oil and gas and entrepreneurship to support industry demand in these critical sectors.

2

Centre for Excellence in Language Learning

The Education NKEA has long centred on developing new opportunities in the existing EPPs. However, there exists a gap in developing quality language centres specialising in the English language, in which there is large growth potential given that Malaysia is a multicultural, multilingual nation in Southeast Asia that is also located close to the fast-growing economies of China and India.

ENABLERS

Raise Quality through Regulatory Reforms

The aim is to amend policy frameworks that will encourage all private sector colleges and institutions to enhance their programmes. A key initiative involves implementing the Malaysia Quality Evaluation System for Private Colleges (known as MyQuest), which is an instrument to evaluate the current performance of private colleges in Malaysia. The evaluation of private colleges is aimed at driving improvements towards quality education through developmental approaches, ratings and self-assessments. The results are also used as a reference to assess requests by these institutions to be upgraded to university college status.

In the latest evaluation round in 2013 which audited 211 private colleges based on the criteria set by the MoE, 23.7 per cent of these institutions were rated as excellent with a score of five stars and above. This compares to 10.9 per cent in 2011.

The results of MyQuest, which was released on 10 December 2013, could provide important feedback to improve the quality of these colleges. MyQuest will be able to help the colleges determine areas of improvements by providing clear indicators and benchmarks. This provides them with the opportunity for continuous self-assessment and improvement. Those rated three stars and below will be required to implement capacity-building programmes with the assistance of the Ministry.

The Education Ministry also uses the Rating System for Higher Education Institutions in Malaysia (SETARA) to assess universities and university colleges. SETARA measures quality of teaching and learning under the Malaysian Qualifications Framework. In the third SETARA survey released in 2011, the results showed that 67.3 per cent of private universities and university colleges were also rated as Excellent as compared to 38.2 per cent in the second SETARA survey.

Shift to Demand-Side and Performance-Based Financing

This enabler encourages demand-driven and performance-based financing of educational institutions, which include a fee assistance scheme for pre-schools and childcare centres and additional funding for TEVT institutions based on the Star Rating Exercise.

Remove Barriers to Entry for International Students

This enabler assists Malaysia in increasing its intake of international students in the private higher education sector. It will also help identify high-performing post-graduate students for jobs in strategic industries in the country and streamline visa passes for foreign students including those pursuing TEVT. The issue concerning EMGS has to be addressed and resolved if Malaysia is to succeed in easing the entry of international students into the country.

Improve Ease of Doing Business

The focus of this enabler is to liberalise the way private sector educational institutions set up businesses in Malaysia. Foreign entities are now allowed to operate businesses in Malaysia without the requirement to have a certain percentage of Malaysian ownership.

Summary of Education NKEA

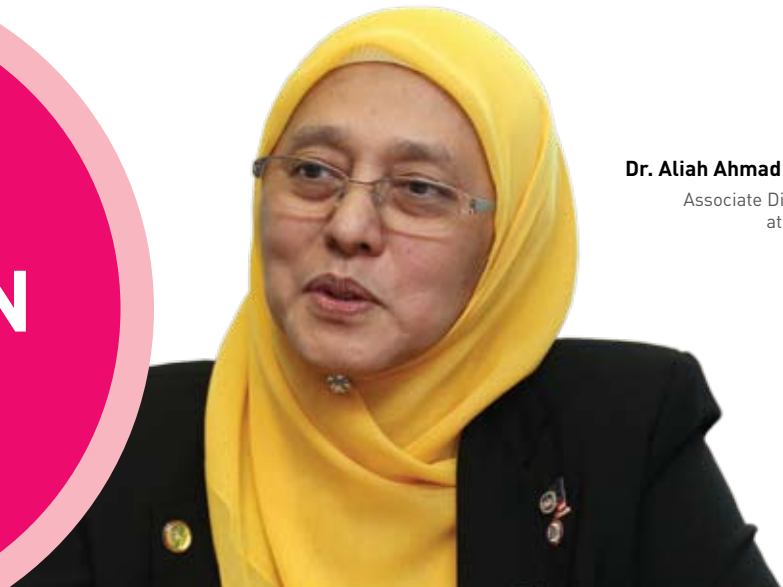
	2020 Target
Incremental GNI Impact	RM33.6 billion
Additional Jobs	535,000
Critical targets for 2014 <ul style="list-style-type: none"> • Continue to focus on increasing percentage of students enrolled in early childcare and pre-schools through providing fee assistance • Enhance quality of teacher training by private higher education institutions • Facilitate improved international student experience through collaborations with EMGS, Immigration Department and other relevant agencies • Continue to partner with private sector institutions and work with relevant Government agencies to raise attractiveness of Malaysia as a global education hub • Continue to promote TEVT as an alternative pathway to students in schools and for school-leavers • Enhance partnership and collaboration between industry as well as private skills training centers and institutes 	



Enabling Change

EDUCATION

*on the ground with
the civil service*



Dr. Aliah Ahmad Shah

Associate Director
at PADU

The implementation of the Education NKEA is no easy feat. In tandem with the transformation of the Malaysian economy, the country's education sector is also undergoing a programme of reform. This is to ensure the development of human capital keeps pace with the needs of a high-income nation.

Among those involved in coordinating and overseeing this reform include PADU (the Education Performance and Delivery Unit), which was established in March 2013. PADU's main role is to monitor the implementation of the Malaysia Education Blueprint 2013-2025. Launched in September 2013, some of its initiatives form a continuation of efforts under both the ETP and the GTP.

"We in the Ministry of Education (MoE), especially PADU (the Education Performance and Delivery Unit), aim to facilitate problem-solving and assist the stakeholders of the Education NKEA, be it in the public or private sector, for us to merge our goals and move forward together," says Dr. Aliah Ahmad Shah, Associate Director at PADU.

Among initiatives of the Education NKEA overseen by PADU include EPP 1: Scaling Up Early Childcare and Education (ECCE) centres, which aims to raise enrolment in private sector pre-schools to 97 per cent by 2020.

"The challenge is so much more on convincing private sector players to be serious about the initiatives," notes Dr. Aliah. Unwillingness of some privately owned pre-schools to register with the Ministry and update enrolment data on the National Pre-School Information System is an example of a challenge faced by PADU.

These unregistered schools then miss out on Government support, such as fee assistance for students from low-income households, or launching grants for newly established pre-schools.

"In 2013, we provided 34,552 students with RM29.33 million in fee assistance, while RM4.23 million in launching grants was channelled to new pre-schools. The Government also spent RM760,000 in launching grants for special needs centres. The amount may not be a lot, but it carries these schools a long way," says Dr. Aliah.

Dr. Norhayati Mohamed

Associate Professor and
Director at the Project
Management Office



“On the other hand, for unregistered schools, we only have raw data collected by Department of Education officers in each district. The challenge is that we don’t have enough people to go around the bigger districts. These officers have to work around-the-clock,” she adds.

On a more positive note she is excited about other important achievements in the implementation of the NKEA. These include in EPP 13: Introducing Public-Private Partnerships in Basic Education, which has seen the MoE team up with four private sector academies to provide technical education and vocational training courses in the areas of aviation, marine, mechatronics and animation. In 2012, 172 students were enrolled in two private academies while in 2013, 452 students were enrolled in these courses. Up till end of 2013, 624 students were enrolled in total. For 2014, another 1,000 students are targeted to be enrolled in various other vocational courses.

“Hopefully, in four years, we will see more skilled and semi-skilled workers in these fields,” says Dr. Aliah, noting that students can enrol after completing PMR (Form 3), allowing students to increase their employability in a shorter period.

Initiatives under the Education NKEA cover all levels of education, which include the higher education sector. The emphasis is to catalyse and enhance the contribution of the private sector in the higher education ecosystem. This is overseen by the MoE’s Project Management Office (PMO), which facilitates efforts between the Ministry and the private sector.

“Being the go-between, so to speak, takes a lot of patience, negotiation and people skills in order to get the two parties to meet. To me, these skills are not something to be looked at very lightly,” notes Dr. Norhayati Mohamed, Associate Professor and Director at the PMO.

These skills are especially valued in ensuring the operationalisation of EPPs and that private sector players remain committed to their plans.

Dr. Norhayati notes, however, that she has seen the EPPs pick up pace over the last year, signalling positive progress since the launch of the ETP three years ago. “For example, in EPP 7: Building an Islamic Finance and Business Education Discipline Cluster.



When we talk about Islamic finance, there are courses that give professional qualifications, but we need to have enough qualified talents, academic and non-academic, to teach at our universities. Only then would our universities be able to produce enough experts in Islamic finance to fulfil the need of the nation. So, I see the importance of that EPP in producing this talent, and I am very glad that I can be a small part of that, developing that talent,” she says.

Nonetheless, there remains a lot more to be done for Malaysia to achieve its high-income goals. Key to doing so is maintaining support and commitment from both the public and private sectors in following through with the EPPs. “Perhaps we need to make the EPPs more visible. We don’t want them to lose steam,” notes Dr. Norhayati.



AGRICULTURE





Dato' Sri Ismail Sabri Yaakob

Minister of Agriculture and Agro-based Industry



The Agriculture NKEA maintained positive momentum in achieving its vision for the agriculture industry, that is, to create a globally competitive agri-business industry.

In this respect, the NKEA has also made important contributions in enhancing the capabilities of agriculture companies and encouraging their involvement within the entire value chain.

In 2013, this NKEA saw RM367 million in investments and achieved 98 per cent of its KPIs. More importantly, this NKEA has contributed to Malaysia's development as a high-income economy by raising the income of farmers. This has been achieved through initiatives such as establishing dairy clusters to increase milk production and raising paddy production at the Muda Agricultural Development Authority (MADA).

The achievements recorded by this NKEA have, nonetheless, been coupled with its share of challenges. These challenges include combating low interest in employment opportunities in the agriculture industry to ensure a steady supply of human capital for the industry. To address this, the Ministry of Agriculture and Agro-Based Industry has established a Young Agripreneur unit to facilitate the entry of new agripreneurs.

Going forward, I remain hopeful that initiatives undertaken through the Agriculture NKEA will continue to benefit more people, contribute to the nation's growth and improve the *rakyat's* quality of



AGRICULTURE

The Agriculture NKEA seeks to transform the industry from one which has traditionally been production-based and operated on a small scale to a large-scale agribusiness industry generating sustainable economic growth.

This transformation is anchored on an integrated and market-centric model which focusses on economies of scale and value chain integration. This strategy has been clustered according to four key themes comprising capitalising on competitive advantages; tapping premium markets; aligning food security objectives with growing GNI; and participation in the regional agriculture value chain.

The development of this strategy has resulted in the implementation of 16 EPPs which aim to create RM28.9 billion in incremental GNI and 109,335 new employment opportunities by 2020.

Over the longer-term, efforts will focus on expanding existing markets and penetrating into new markets for companies under this NKEA. It will also intensify the use of new technology to elevate the industry higher up the value chain. Furthermore, in targeting the creation of new jobs, the Agriculture NKEA also aims to attract more new entrants into the industry which will maintain a steady pipeline of demand for human capital.

2013 Key Performance Indicators

NKEA Agriculture		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
EPP #1	Total number of new pre-clinical trials started for herbal products (nutraceuticals, cosmeceuticals and botanical drugs)	5	5	100	●	100	●	1.0	●
	Total revenue generated from sales of herbs from 7 herbal clusters in Penang, Perak, Selangor, Negeri Sembilan, Malacca and Johor set up in 2011 (RM)	2,000,000	2,311,210.4	116	●	100	●	1.0	●
	Total number of prototypes ready for commercialisation	3	10	333	●	100	●	1.0	●
	Total number of monographs published	10	9	90	●	90	●	0.5	●

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NKEA Agriculture		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
EPP #2	Total production of Edible Bird's Nest (EBN) (metric tonnes)	150	237.5	158	●	100	●	1.0	●
	Total number of newly registered premises	3,000	1,763	59	●	59	●	0.5	●
	Total number of newly certified EBN premises (SALT)	2,500	1,542	62	●	62	●	0.5	●
EPP #3	Total production of dried seaweed (metric tonnes)	26,000	22,837.47 (Nov)	88	●	88	●	0.5	●
	Total land areas gazetted for seaweed farming	3,000	817	27	●	27	●	0	●
	Total seaweed products commercialised from R&D activities	8	12	150	●	100	●	1.0	●
	Total production of ATC and SRC (metric tonnes)	8,640	5	0	●	0	●	0	●
EPP #4	Total production of farmed fish (metric tonnes)	37,000	34,290.15 (Nov)	93	●	93	●	0.5	●
EPP #5	Total number of cows inseminated	5,400	253	5	●	5	●	0	●
	Total overall conception (AI) & pregnancy rate (NM)	70%	52%	74	●	74	●	0.5	●
	Total population of cattle integrated into palm oil plantation	17,300	15,198	88	●	88	●	0.5	●
	Total production for complete feed (metric tonnes)	35,500	6,972	20	●	20	●	0	●
EPP #6	Total production from anchor companies (metric tonnes)	23,000	23,528.55	102	●	100	●	1.0	●
EPP #7	Total export value for premium fruits and vegetables (RM million)	400	469.29 (Nov)	117	●	100	●	1.0	●
	Establishment of new area for planting of premium fruits (ha)	1,000	980.8	98	●	98	●	0.5	●
	Total investment by private companies (RM million)	50	51.53	103	●	100	●	1.0	●
	Total production from TKPM and anchor companies (RM million)	40	70.8	177	●	100	●	1.0	●

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NKEA Agriculture		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
EPP #8	Total investment by anchor companies (RM million)	70	68.7	98	●	98	●	0.5	●
	Total revenue generated by anchor companies (RM million)	70	76.4	109	●	100	●	1.0	●
EPP #9	Total tonnage of fragrant rice produced (metric tonnes)	2,500	1,230	49	●	49	●	0	●
	Total area planted (ha)	750	788	105	●	100	●	1.0	●
	R&D activity conducted for production of new Jasmine and Basmati-type varieties and agronomic packages for both types by 2013	60%	60%	100	●	100	●	1.0	●
EPP #10	Total new land area amalgamated (ha)	5,000	5,080	102	●	100	●	1.0	●
	Percentage increase in income for farmers under the MADA amalgamation project	5	11	220	●	100	●	1.0	●
	Completion of tender works for construction of tertiary irrigation infrastructure	5	2	40	●	40	●	0	●
EPP #11	Total land area amalgamated (ha)	5,400	4,879.73	90	●	90	●	0.5	●
	R&D conducted to improve local seed variety to be planted in Batang Lupa	40%	30%	75	●	75	●	0.5	●
EPP #12	Total number of cattle feedlots in satellite farms	20,000	7,241	36	●	36	●	0	●
EPP #13	Total production of milk from cluster (million litres)	15	17.23	115	●	100	●	1.0	●
	Average production of milk per cow per lactation from clusters under NKEA (litres per day)	15	12.24	82	●	82	●	0.5	●

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NKEA Agriculture		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
EPP #14	Formation of Seed Act	40%	39%	98	●	98	●	0.5	●
	Development of markers for CMDV	40%	38%	95	●	95	●	0.5	●
EPP #16	Total revenue generated from project (RM million)	60	79.6	133	●	100	●	1.0	●
EPP #17	Number of new Pasar Komuniti (PAKAR) operationalised	7	7	100	●	100	●	1.0	●
	Total revenue generated from operational PAKAR (RM million)	59	64.55	109	●	100	●	1.0	●
				98%		81%		64%	

Exhibit 11.1

Method 1 Scoring is calculated by a simple comparison against set 2013 targets. The overall NKEA composite scoring is the average of all scores

Method 2 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is less than 100%, score #2 is taken as the actual percentage
- If the scoring is equal or more than 100%, score #2 is taken as 100%. The overall NKEA composite scoring is the average of all scores

Method 3 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is equal and less than 50%, score #3 is indicated as 0
- If the scoring is more than 50% and less than 100%, score #3 is indicated as 0.5
- If the scoring is equal or more than 100%, score #3 is indicated as 1

ENTRY POINT PROJECTS

EPP 1 High-Value Herbal Products

This EPP capitalises on the potential for Malaysia to become a supplier of world-class, high-quality nutraceutical products by leveraging the country's natural biodiversity, with the Ministry of Agriculture and Agro-based Industry (MoA) tasked with establishing the strategic direction, policies and regulations to drive growth of this industry.

Efforts will therefore focus on improving product quality and marketing efforts, especially in the area of dietary and herbal supplements and botanical medicine. Measures will also be taken to enhance the supply chain by ensuring sufficient supply of raw materials for research and development (R&D) and clinical trials. This will be achieved through the establishment of Herbal Cultivation Parks and the implementation of contract farming and the creation of model farms.

Five main herbs were identified as areas of initial focus, comprising *Tongkat Ali*, *Misai Kucing*, *Hempedu Bumi*, *Dukung Anak* and *Kacip Fatimah*. This later expanded to another five herbs, namely *Pegaga*, *Mengkudu*, *Halia*, *Belalai Gajah* and *Mas Cotek*.

Further efforts to support this EPP include the formation of five specialised R&D clusters aimed at improving coordination between research institutions and research universities. The clusters focus on discovery, crop production and agronomy, standardisation and product development, toxicology/pre-clinical and clinical studies, and processing technology.

Anchor companies meanwhile will continue to be appointed to lead the marketing and branding of scientifically-backed nutraceuticals and botanical drugs.

The Monograph Committee

The Monograph Committee is headed by an agency under the Ministry of Health and includes representatives from the MoA, universities and research institutions. The monographs on herbs document the scientific characteristics and uses of the herbs, with the purpose of ensuring that scientific identification can be made by users and assuring users of the safety aspects and scientific evidence.



A high-value herbal product known as Hepar-P

Achievements and Challenges

Five pre-clinical trials have commenced as at the end of 2013, paving the way for clinical trials in the coming years. To further strengthen the prototype flow for more pre-clinical trials, seven research projects under the NKEA Research Grant Scheme were completed, preparing 10 prototypes for commercialisation.

As part of R&D in herbs, the Monograph Committee launched Monograph Volume III, completing the monograph for the top 10 focus to date, with one monograph published in 2012. With regard to the Herbal Cultivation Parks, the herbal cultivation cluster was expanded into other areas of Pahang and Perlis. This was to make up for a delay in operationalising parks in Pasir Raja, Terengganu, and Chegar Perah, Pahang.

Meanwhile, the Herbal Development Office commissioned a study on the Traditional Knowledge for Malay Medicines, spearheaded by FRIM. The study aims to collate and document all practices and applications of traditional herbs, which will enable the use of herbs to be scientifically substantiated.

Moving Forward

Building on the pre-clinical trials completed in 2013, 2014 will see the commencement of six clinical trials. To complement this initiative, the EPP will further encourage industry-Government research collaborations in which scientific evidence will be used to prove the safety and efficacy of existing herbal products.

Meanwhile, the Herbal Cultivation Parks in Pasir Raja and Chegar Perah, will commence in early 2014 to ensure a sufficient supply of herbs to meet demand.

EPP 2 Edible Bird's Nest Swiftlet Farming

While Malaysia has emerged as a leading producer and exporter of edible bird's nests (EBN), the global expansion of the local industry has been hindered by limited regulation, depleting wildlife population and lack of research in improving productivity.

This EPP therefore aims to increase upstream production of EBN by building 2,000 new farms and six collection centres annually. Led by the Department of Veterinary Services (DVS), efforts under this EPP also focus on developing the industry's downstream capabilities towards value-added products.

Other measures overseen by this EPP include improving regulations in the industry and the traceability of its products by registering EBN premises and adopting standards such as Good Animal Husbandry Practices (GAHP) and Good Manufacturing Practices.

Achievements and Challenges

After much negotiation, China lifted its ban of EBN imports from Malaysia in 2013, on the condition that processing facilities are inspected by the Certification and Accreditation Administration of the People's Republic of China (CNCA). The CNCA also requires processing facilities to procure bird's nests from birdhouses registered with the DVS.

Following the lifting of the ban, EBN processing facilities were inspected for standards compliance by the CNCA, out of which only eight were approved. Upon passing the inspection, these processing facilities were allowed to export its EBN products to China.

Another batch of 15 companies are currently undergoing the inspection which is expected to be finalised in 1Q 2014.

The main challenge of this EPP is that a majority of birdhouses are not registered with the DVS. There are an estimated 60,000 birdhouses operating in the country, but to-date, less than 20 per cent have voluntarily registered. This year alone, only 1,763 premises have registered out of the targeted 3,000 mainly due to the slowdown in the market caused by the China ban. Similarly, only 1,542 premises were certified under the DVS *Skim Amalan Ladangan Ternakan* (SALT) out of 2,500 targeted.

Moving Forward

Despite the limited number of premises registered in 2013, the DVS expects to see interest to register bird houses premises pick up in 2014 after export resumes. The DVS plans to intensify its programme of registering another 3,000 birdhouses by emphasising the importance of registration and to help increase supply to processing facilities. This will allow more of the facilities to export their products to achieve 170 metric tonnes of EBN exports targeted for 2014.

EPP 3 Mini-Estate Farming for Seaweed



Seaweed cultivation at Kluster Silingun, Sabah

Led by the Department of Fisheries (DoF), this EPP aims to enhance yields and commercialisation of the Malaysian seaweed farming industry.

This will be achieved by clustering farms into mini-estates, which is expected to increase yields and total production of seaweed to 150,000 metric tonnes by 2020. Efforts will also be taken to strengthen downstream infrastructure and R&D in processing dry seaweed into high-value products such as carrageenan and alkaline-treated chips, while exploring more uses for seaweed.



Tying of seaweed seedlings using the 'Casino Table' innovation by UMS

Achievements and Challenges

This year saw the highly successful commercialisation of R&D activities of 12 products from a set target of eight. However, the supply side of this EPP was highly affected by the Sulu incursion in 1Q 2013.

The incursion occurred in Semporna, Sabah, where most of the country's seaweed cultivation area is located, including the mini-estates. As a result, seaweed production in the area saw a decline of more than 50 per cent, achieving 22,837.47 metric tonnes (data as at Nov 2013) out of the original target of 50,000 metric tonnes, with production improving only after the end of the incursion in 2Q 2013.

Moving Forward

The Government will strengthen the Eastern Sabah Security Zone (ESSZone) established in 2013 following the Sulu incursion, where army and police bases will be located in 10 districts in Sabah, including Semporna. The security effort will ensure the safety of economic operations within the area and secure seaweed production in Semporna.

Mini-estates will also be re-established and are expected for completion in 2014, allowing for a 30 per cent increase in productivity.

EPP 4 Integrated Cage Farming

Integrated cage farming aims to increase the production of high-value fish species such as seabass, grouper, tilapia and lobster to account for 28 per cent of total aquaculture production by 2020.

Initiatives under this EPP, led by the DoF, will see anchor companies managing the operations of their farms while providing support such as training and establishing standard operating procedures for their contract farmers. This is expected to create an integrated approach for large-scale production encompassing the entire production chain from farming to processing.

2012 saw the establishment of an anchor company, Lobster Aqua Technologies Sdn Bhd, to undertake the Integrated Lobster Aquaculture Park (iLAP) project. The project forms part of Darden Inc's investment in the integrated cage farming sector in Sabah, where it has also invested in an international procurement centre, franchise restaurants and lobster aquaculture.

Achievements and Challenges

The iLAP grow-out project in Semporna has produced 500kg of lobsters thus far, which was a part of the milestone to move into large-scale production.

In terms of aquaculture output, the five anchor companies appointed in 2011 and 2012 have already started producing 34,290.15 metric tonnes (data as at Nov 2013) of products, expecting to surpass the target of 37,000 metric tonnes for 2013.



A production line at the Trapia factory

Further, a new approach for aquaculture data collection utilising SMS was implemented, ensuring more up-to-date data by reducing data lag from two months to seven days.

Moving Forward

2014 will focus on ensuring the establishment and expansion of anchor companies' projects to achieve the production of 6,500 metric tonnes of farmed fish. Apart from Lobster Aqua Technologies, the anchor companies are Y.S. Inno Fisheries Sdn Bhd, Trapia Malaysia Sdn Bhd, Plentiful Harvest Sdn Bhd, Prima Bumisetia Sdn Bhd, Darvel Bay Hybrid Aquaculture Sdn Bhd and Organic Aquaculture Sdn Bhd.



Tilapia from Tasik Temenggor being transferred to Trapia's factory in Parit Buntar



A new method of feeding the fish ensures that caged fish are properly fed

EPP 5 Cattle Integration in Oil Palm Estates

This EPP focuses on integrating and rearing an additional 300,000 heads of cattle in large oil palm plantations by 2020 through initiatives led by the DVS. This will be achieved by encouraging estate owners to implement cattle breeding and rotational grazing in compliance with GAHP.

To further support cattle integration, this EPP has also undertaken a feed programme to raise supplies of locally developed feed to combat the rising cost of production; and a breeding programme which conducts artificial insemination (AI) to accelerate the breeding of good quality cattle. The breeding programme is being conducted at 25 pilot sites.

Efforts under this EPP have also been extended to integrate upstream production, comprising cattle-rearing, with the downstream segment which covers the production of beef-based products. This resulted in the establishment of a model to incentivise downstream players to move upstream and vice versa by collaborating with players under EPP 12 and EPP 16. This has since led to the development of an EPP Livestock: Full Value Chain.

Achievements and Challenges

In 2013, three anchor companies under this EPP, FELCRA, Espek Livestock Sdn Bhd and Ihsan Permata Sdn Bhd commenced the cattle integration project under the Full Livestock Value Chain programme. To date, 15,198 cattle have been integrated into the plantation, and this is expected to bear results in 2014.

The development of this EPP is however hindered by limited interest from large plantations to participate, as they are not willing to integrate cattle farming into their core business. Other ancillary activities also face challenges such as in the implementation of privatised AI services and supply of raw materials for feed production. Only 253 cattle successfully went through the AI programme out of the 5,400 programmes due to resistance from industry players.

Moving Forward

This EPP will be re-focused towards the implementation of Full Value Chain in 2014, through which existing companies will be monitored to ensure their success and more eligible companies will be invited to participate. In addition, the 25 pilot sites will be monitored to achieve a 15.8 per cent growth in the calving rate in the effort to increase the national cattle population. Where necessary, the DVS will provide extension services covering AI services and feed advisory to ensure that the calving rate will reach the target of 15.8 per cent.

EPP 6 Replicating Integrated Zone for Aquaculture Model to tap Market for Premium Shrimp

This EPP seeks to enhance the quality of Malaysian shrimp exports by establishing an Integrated Zone for Aquaculture Models (IZAQs). This will allow for the organised production of high-quality, fully-certified shrimp targeted for the premium market, with 10,000 hectares of IZAQs to be set up by 2020.

The zones comprise networks of industrial-scale and land-based aquaculture zones. Led by an anchor company, each IZAQ will house hatcheries, grow-out areas, a processing plant and feed-mills. This initiative also encourages the participation of smallholders and SMEs through contract farming or profit-sharing with the anchor companies.



A worker at the Blue Archipelago shrimp farm

Achievements and Challenges

During the year, the production of shrimps in Peninsular Malaysia was affected by an outbreak of the Early Mortality Syndrome (EMS) disease. However, the anchor companies managed to mitigate the spread of disease and control the situation, thus still achieving total production of 23,528.55 metric tonnes against the target of 23,000 metric tonnes.



Boiled headless shrimp by Hannan

Moving Forward

The DOF, through its Fisheries Research Institute (FRI), is conducting joint research on shrimps with private research firms to determine the cause of the EMS outbreak and to formulate a mitigation programme for prevention and management of future outbreaks.

The target production for 2014 is expected to reach 29,000 metric tonnes as a result of various efforts undertaken by the DoF and anchor companies.

EPP 7 Premium Fruits and Vegetables



The collection centre at TKPM Besut

Efforts under this EPP are aimed at increasing the sales of Malaysian premium fruits and vegetables in the Middle East and Europe, which import more than 50 per cent of the world's tropical fruits. This will be achieved by raising the production of higher quality local fruits and vegetables which comply with international food safety standards.

In this regard, up to 3,000 farmers will be identified and placed under anchor companies, who will, in turn, manage an integrated supply chain and oversee exporting. Rock melon, starfruit, papaya, banana, pineapple, jackfruit, lettuce, tomato and capsicum have been identified as fruits and vegetables to be focussed on under this EPP.

Initiatives under this EPP will also leverage existing Permanent Food Production Zones (*Taman Kekal Pengeluaran Makanan* - TKPM) to raise production of these fruits and vegetables.

Achievements and Challenges

This year, the Department of Agriculture (DoA) successfully secured RM51.53 million in investments from private companies and prepared 980.8 hectares of new land in TKPM for planting. This ongoing initiative has already translated into RM70.8 million worth of total production from TKPM and anchor companies and is set to increase the country's total exports of premium fruits and vegetables to RM469.29 million, over the target of RM400 million.

The establishment of new TKPMs has been hindered by growing scarcity of land in Peninsular Malaysia. However, the programme is being expanded to Sabah and Sarawak.

Moving Forward

2014 will see the commencement of production by anchor companies in their newly established areas as well as the completion of Consolidated Processing and Packaging Centres, which will enable the processing of more quality fruits and more value-added products. The DoA is also exploring increasing market access for Malaysian companies for more categories of fruits (e.g. fresh/chilled/frozen). This initiative is expected to encourage production from TKPM, bringing total production from TKPM and anchor companies to 40,000 metric tonnes from the current 36,000 metric tonnes.

TKPM provides opportunity for farmers to raise incomes

The TKPM project has played a key role in raising the income of agricultural entrepreneurs, currently housing 453 participants who are planting fruits and vegetables for the domestic and export market.

Up to now, 171 (40 people achieved income of RM3,500 - RM4,500, 71 people achieved income of RM4,500 to RM9,900, 60 above RM10,000) of the participants have succeeded in increasing their income to over RM3,000/month with 60 of the more successful ones earning more than RM10,000/month.

As at October 2013, a total of 6,105.89 hectares of TKPM have been established, encompassing 39 TKPM projects. Between January and October 2013, agriculture production at the TKPM reached 27,951 metric tonnes, valued at RM37.6 million.

171
participants increased
their income to over
RM3,000/month

60
of these earned
RM10,000/month

EPP 8 Food Park

In view of growing demand for ready-to-eat meals and packaged food, this EPP will address the fragmentation of the local processed food industry by spearheading the establishment of integrated food park facilities. The facility will be used to produce ready-to-eat packed food by SMEs which will then be marketed and distributed by anchor companies.

Anchor companies will, in turn, obtain product certification, package, brand and market the products while managing suppliers. This initiative will then enable the creation of a network of food providers supplying raw materials, ingredients or end products within the food park. Anchor companies will also lead consolidation in the industry and provide apprenticeship training to smaller players.

Achievements and Challenges

MoA, together with Agrobank, has launched a soft loan scheme that offers an attractive package to SMEs in the food processing industry looking to expand their current business. The EPP has identified key anchor companies and secured RM68.7 million of new investment while generating RM76.4 million of revenue from existing companies. The companies are then expected to anchor and nurture existing SMEs to enhance their business capabilities.

Moving Forward

The MoA, via its Agro-based Industry Division, will assist anchor companies in developing at least 25 SMEs working with the anchor companies, which is targeted to increase the income of these SMEs by 10 per cent (from their 2013 income).

To further strengthen this effort, the MoA is enabling access to financial facilities for these SMEs such as microcredit through its efforts with development financial institutions.

In expanding the involvement of more anchor companies, soft loans are being provided for via Agrobank. The addition of new anchor companies will then allow for more SMEs to be developed in tandem.



Preparation of satay by PPNJ

EPP 9 Fragrant Rice Varieties in Non-Irrigated Areas

While Malaysia has developed expertise in rice production, the country must still reduce its dependence on imported rice and gain wider access into the premium organic rice market.

To this end, anchor companies under this EPP will be appointed to plant and commercialise fragrant rice varieties which have been developed by the Malaysia Agriculture Research and Development Institute (MARDI). MARDI has thus far developed the MRQ76 and MRQ74 rice varieties, and will continue its efforts of developing and producing new rice varieties. This EPP will also focus on planting fragrant Jasmine and Basmati-type rice on rain-fed areas to increase the country's average paddy yield.

Achievements and Challenges

As at the end of 2013, another anchor company, Shahrez Amani Sdn Bhd, was appointed to this EPP. In total, the anchor companies appointed under the EPP have planted over 788 hectares and harvested 1,230 metric tonnes of fragrant rice.

However, most of the planting was deferred due to factors such as a lack of abandoned, contiguous land for planting and uncertain demand for fragrant rice varieties, while companies are still identifying the best method for large-scale planting of the rice. Furthermore, new companies have shown limited interest in planting on land which has been identified for this EPP. This is as surrounding areas of some of these lands have not been equipped with adequate infrastructure.

Moving Forward

A total of 1,000 hectares of land is targeted to be planted in 2014 which is expected to produce 2,500 metric tonnes of fragrant rice. In addition, two factories specifically designed for the milling of fragrant rice will be completed in June 2014, with the factory owners to build up their marketing network and infrastructure to penetrate the local fragrant rice market. This EPP will also be reviewed in light of the economic dynamics.

EPP 10 Strengthening Productivity of Paddy Farming in MADA



Paddy ready for transplanting

The Muda Agricultural Development Authority (MADA) leads this EPP's efforts to strengthen Malaysia's long-term food security and increase the income of paddy farmers. MADA is responsible for supporting social and economic growth in Muda, Kedah, as well as to help develop the agriculture industry in Kedah and Perlis.

To achieve targets under this EPP, MADA will promote the adoption of estate farming under a single management in Muda. This will involve the amalgamation of 50,000 hectares of paddy fields by 2020, representing 51 per cent of the country's total 96,558 hectares of paddy fields. The amalgamation scheme will offer traditional farmers incentives to exit their individual farming operations.

This EPP will also lead the adoption of technologies across the paddy and rice production chain and the use of nano fertilisers. Additionally, it will promote the use of larger-scale farm mechanisation and improve irrigation. These are aimed at raising paddy yields to 8 metric tonnes per hectare by 2020.



Preparation of paddy seeds for transplanting

Furthermore, MADA and Padiberas Nasional Bhd (BERNAS), the rice industry regulator and distributor, plans to establish a special purpose vehicle to manage the industry's entire value chain, from seed production to rice sales.

Achievements and Challenges

MADA has secured an additional 5,080 hectares of land for this EPP. Through the *Pertubuhan Peladang Kawasan* (PPK)'s farm operations, MADA has also improved the uniformity of operations through the introduction of standard operating procedures (SOPs) for acceptable farming methods and new technologies.

This has allowed some PPK to negotiate for a higher paddy selling price and to lower their cost of inputs through bulk purchase, resulting in a 11 per cent increase in participants' income.

However, not all PPK enjoyed these benefits as they did not implement the SOPs. Furthermore, the construction of irrigation infrastructure was delayed due to problems encountered in land acquisition. In addition, the establishment of the SPV was paused, as the state of operational readiness is yet to be stabilised. As this could hinder fruitful collaboration, MADA will undertake the centralised management initiative on its own for now.



Construction of irrigation infrastructure for paddy farming

Moving Forward

Among initiatives to be undertaken through this EPP in 2014 include improving the compliance of SOPs to improve the central management of all 27 PPKs and extend the initiatives to increase income through negotiation with millers and input suppliers. This is expected to increase the income of the participants by another 5 per cent. In addition, the construction of irrigation infrastructure will continue for seven irrigation blocks. Further, a parallel effort in resolving land processes is being undertaken under the Public Service Delivery initiative within the Strategic Reform Initiatives (SRI).

EPP 11 Strengthening Productivity of Paddy Farming in Other Granaries

This EPP will build on the estate farming approach applied in the Muda district to seven other granaries around the country. This is aimed at increasing the national productivity of paddy farmers while ensuring steady income for ageing farmers who plan to retire from the industry.

Among initiatives to be undertaken through this project include the implementation of flood mitigation and water management systems up to the tertiary level. The scheme will also be implemented on 5,100 hectares of land in Batang Lupa, Sarawak, and 5,000 hectares of land in Kota Belud, Sabah.

Further supporting the goals of this EPP is the establishment of an R&D programme to study the drought tolerance and pest/disease resistance of rice crops to improve the yield of Sarawak's traditional rice varieties.

The project leads for this EPP are the Kemubu Agriculture Development Authority (KADA) and six Integrated Agriculture Development Authorities (IADAs) comprising IADA Barat Laut, IADA Seberang Perak, IADA Kemasin-Semarak, IADA Kerian Sg Manik, IADA Penang and IADA KETARA.



Transplanting of paddy seedlings to a field in Bario

Achievements and Challenges

In 2013, the seven development authorities identified 4,879.73 hectares of land to be amalgamated under this EPP. The breakdown is as follows:

No	IADA	Project Implementers	Target (ha)	Achieved (ha)
1	IADA KETARA	KOPETA PPK Gerai PPK Kerandang Syarikat 10 Tan Teamwork (M) Sdn Bhd	300	808.6
2	IADA Seberang Perak	PPK Seberang Perak PPK Sg Manik/Labu Kubong FELCRA Berhad	1,600	1,869.1
3	Ministry of Agriculture and Food Industries (MAFI) Sabah	PPK Kota Belud	800	432.57
4	IADA Kemasin Semarak	PPK 3 Daerah	200	174.65
5	IADA Kerian Sg Manik	PPK Gunung Semanggol/Selinsing PPK Tanjong Piandang PPK Bagan Tiang/Parit Buntar PPK Bagan Serai PPK Kuala Kurau	600	548.9
6	IADA Penang	Koperasi Kerjaya Permatang Nibong Bhd PPK Pokok Sena	300	296.47

(more on next page)

(continued from previous page)

No	IADA	Project Implementers	Target (ha)	Achieved (ha)
7	IADA Barat Laut Selangor	PPK Pasir Panjang Koperasi Wawasan Tani Simpang 5 Bhd Koperasi Pengurusan Berpusat Padi Parit 5 Sg Besar Bhd PPK Tanjung Karang	500	435.23
8	Ministry for Modernisation of Agriculture (MOMA) Sarawak	BERNAS	800	145
9	Kemubu Agriculture Development Authority	PPK Bunga Raya PPK Sri Gunong PPK Cherang Rotan	300	169.21
			5,400	4,879.73

Exhibit 11.2

Over in Sarawak, Bario Ceria Sdn Bhd has planted 140 hectares of land in Bario, achieving their milestone for 2013. MOMA Sarawak however faced implementation issues in Batang Lupar due to a delay in the completion of its flood mitigation project. The project is a prerequisite for the construction of the site's irrigation infrastructure. The ground and operational delays have thus affected the participation of farmers in the project, although both MoA and MOMA are now coordinating the construction to ensure smooth farming operations.

Moving Forward

In 2014, the MoA through its Paddy and Rice Division targets to increase productivity of paddy farming by amalgamating another 6,200 hectares of land. This will increase yield to 32,000 metric tonnes. Where suitable, MADA's SOP will also be introduced to the appointed PPKs in the IADAs.

EPP 12 Expansion of Cattle in Feedlots

Efforts under this EPP address the country's need to improve the national self-sufficiency level for beef by setting up 300 satellite farms to support anchor companies involved in feedlot operations. This EPP is also integrated with EPP 5 and EPP 16 to make up the livestock EPPs and create a fully integrated livestock value chain (EPP Livestock: Full Value Chain).

Anchor companies involved in this EPP will be responsible for overseeing the feedlot value chain while also managing the integration and consolidation of downstream processes. Additionally, this EPP will ensure improvements in the downstream segment through abattoir certification, cold-chain delivery of chilled cuts, promoting market awareness on imported buffalo meat versus beef and the development of other beef by-products.

Achievements and Challenges

The total number of cattle feedlotted amounted to 7,241 in 2013, accounting for 36.2 per cent of the target for the year. Among challenges faced by the EPP during the year include Australia's implementation of the Export Supply Chain Assurance System (ESCAS) on Malaysia, under which all abattoirs under the DVS initially did not meet the minimum requirement for a conducive environment for cattle slaughtering, causing imports of live cattle from Australia to decline significantly. However, 10 abattoirs across the country have recently been upgraded to meet ESCAS requirement.

Moving Forward

Moving forward, this EPP will be incorporated into EPP 5 for the implementation of the Full Value Chain approach in 2014.

EPP 13 Dairy Clusters

Malaysia's imports of fresh milk account for around 32 per cent of total fresh milk in the market. The country's reliance on fresh milk imports must therefore be reduced, especially as it is expected to grow at a compound annual growth rate (CAGR) of 13 per cent until 2020.

In order to reduce the country's dependency on imported fresh milk, this EPP will oversee the establishment of dairy clusters to produce milk on a large-scale basis. These clusters will be managed by anchor companies, which will be responsible for the clusters' entire operations from production to marketing.

Individual farms will also be given an opportunity to participate in this initiative by selling their production of fresh milk at a pre-determined price. Measures will also be implemented to enhance existing cold-chain milk facilities to ensure the quality of milk shipped from farms to the marketplace.



A Farm Fresh Dairy Products display at a major retailer in Malaysia

Achievements and Challenges

This EPP has achieved the production of 17.23 million litres of milk with an average of 12.24 litres per cattle per lactation for the year.

Farmers under this EPP have benefited through the provision of a better breed of dairy cattle and a more efficient milk collection system. Another anchor company, Golden Difference, commenced operations in 4Q 2013 with a total of 110 farmers throughout Peninsular Malaysia.

However, existing collection infrastructure capacity needs to be expanded to support the higher output.

Moving Forward

In 2014, this EPP will focus on expanding the capacity of existing anchor companies. The companies will expand their farmer network which, in turn, will help achieve the targeted increase in the nation's milk supply to 17 million litres. Additionally, the DVS will procure additional tankers to support the anticipated increase in supply.

Cashing in on Cows

In 2011, the MoA appointed Allied Dairy Sdn Bhd as an anchor company to produce fresh milk/dairy products based in Kota Tinggi, Johor. Allied Dairy sells its products under the Farm Fresh brand.

35 dairy farmers were placed in Allied Dairy's cluster, benefiting from its extension services and buy-back guarantee to the farmers.

The company has also supported the dairy farmers by building a factory in 2012 to produce downstream dairy products e.g yoghurt. The facility also provided better certainty to the farmers by extending the shelf-life of the fresh milk produced.

To date, the 35 farmers enjoy better income as they can sell their fresh milk to Allied Dairy at RM2.45 per litre against RM1.80 per litre to the Milk Collection Centre under DVS.

The programme has also attracted farmers from outside the clusters to sell to Allied Dairy, with one farmer leaving his job as a technical engineer in a well-known multinational technology company to become a full-time dairy farmer. Others, meanwhile, have increased their production from 80-100 litres to 180-300 litres per day due to extension services provided by Allied Dairy; which includes improved technology, investment in better equipment, and certainty of buy-back.



Production increased from 80-100 litres to 180-300 litres per day due to technology and extension services provided by Allied Dairy

EPP 14 Seed Industry Development



Seed selection is done for capsicum breeding

With the local agriculture industry still reliant on imported seeds due to the underdevelopment of the local seed industry, the MoA's Industry Support Division will lead this EPP's efforts to produce high-quality seeds and genetic material. Seed production under this initiative will also focus on utilising Marker-Assisted Selection (MAS) technology.

The MAS technology was introduced in MARDI's Centre for Market Discovery and Validation (CMDV) in 2011 and helps identify seeds with desired traits. This significantly reduces the number of breeding years and uncertainty in developing high-quality seeds.

In aid of this EPP, the National Seed Council has also been established to oversee the development of the local seed industry and to seek alternatives to Malaysia's dependence on imported seeds and breeding material. Additionally, anchor companies will be selected to expand production of seeds for local and foreign markets.

Achievements and Challenges

The DOA has completed consultations with stakeholders including private sector representatives, state departments and federal agencies to formulate the Seed Act, which aims to regulate the local seed industry. The draft Act is now being finalised for the MoA and Attorney General's Chambers' review.

In terms of R&D, the CMDV is conducting ongoing research collaborations with seed-producing entities to develop markers for high-quality breeding materials.

Among challenges faced under this EPP include a high barrier of entry for private companies due to high-technology and technical expertise requirements and the local seed industry being at a nascent stage.

Moving Forward

2014 will see the MoA expanding the outgrowers' network with a target of 50 new participants who can further strengthen the local seed industry. The CMDV will also drive the production of more quality breeding materials by consulting and collaborating directly with breeders, with the target to secure another five projects to develop high-quality breeding material.



Generations of corn are bred to obtain corn seeds for a pure line

EPP 15 Participation of MNCs

This EPP has been transferred to the Ministry of Science, Technology and Innovation where it now forms the core of the Bioeconomy Transformation Programme spearheaded by the Malaysian Biotechnology Corporation (Biotechcorp) (<http://www.biotechcorp.com.my/bioeconomy/>).

EPP 16 Joint Venture of Cattle Farms

This EPP linked EPP 5 and EPP 12 to make up the livestock EPPs which aim to enhance sustainability of the local beef industry. In this regard, EPP 16 focusses on securing a consistent and affordable source of live animals required for breeding, feedlotting and dairy operations up until 2020.

The scope of this EPP also now includes exploring new areas in agriculture which can raise the country's income.

Under this EPP, anchor companies will be awarded first rights in supplying live cattle to companies under the livestock EPPs. For example, cattle required for companies under EPP 5 will be sourced first from companies under this EPP.

Achievements and Challenges

The companies under this EPP have surpassed the target revenue of RM60 million, achieving RM79.6 million combined. However, they faced challenges in operations due to the implementation of the Exporter Supply Chain Assurance System (ESCAS) by the Australian government, in which all exporters of live animals must comply with procedures for slaughtering to ensure humane treatment of the animals. Many of these companies which are operating in Australia face difficulty in complying with the system due to the costly upgrading necessary to meet the standards set.

Moving Forward

Moving forward, this EPP will be incorporated into EPP 5 for the implementation of the Full Value Chain approach in 2014.

EPP 17 Pasar Komuniti — PAKAR

Initiatives under this EPP seek to transform and modernise Malaysia's various markets while integrating local markets such as *Pasar Tani*, *Pasar Malam*, *Pasar Minggu* and *Pasar Tamu* into a much larger market known as *Pasar Komuniti* (PAKAR).

These PAKARs will be equipped with amenities which ensure cleanliness of the premises while helping traders to increase their revenue. The Federal Agriculture Marketing Authority (FAMA) leads this initiative, together with relevant Government agencies, to monitor and identify suitable locations for the markets. The Authority will also engage with market traders to participate in the markets.

Achievements and Challenges

While the earlier nine PAKARs that were originally planned to begin construction were put on hold to first substantiate the impact of PAKAR on the community, an additional six PAKAR that were earlier delayed in operationalisation were successfully launched in 2013. The PAKAR sites are located in Jengka, Mersing, Kota Belud, Bera, Kuching, Paroi and Pekan. In total, the six sites and PAKAR Manjung, which commenced operations in 2012, have recorded revenue of RM64.55 million to date, translating into an increase in income of 15 per cent for participants, according to a study conducted by FAMA.

Among challenges faced by this EPP during the year include securing timely approval from local authorities to commence operations of the PAKAR. This was however resolved through improved coordination of the project. Relocating existing participants into the new sites also remains a challenge faced by both the Federal and State departments. Nonetheless, this is partially being resolved by offering the sites to new entrants to the business.

Moving Forward

In 2014, this EPP will focus on expanding the operations of existing sites to seven days a week and three sessions per day. More PAKAR will be considered on the basis of a good economic model.

BUSINESS OPPORTUNITIES

This NKEA currently oversees the following Business Opportunities, following the integration of three other Business Opportunities into EPPs previously:

3

Ornamental Fish Farming

Establishing Malaysian branding and marketing channels for ornamental fish exports to reduce reliance on other countries

7

Free-range chicken farming

Tapping into the potential of high-value free-range chicken market

4

Aquaculture Feed Mill

Setting up aquaculture feed mill

8

Button Mushroom Farming

Expanding the production of button mushrooms for local and export market

5

Aquaculture Export Centre

Developing aquaculture export centres

10

Foreign Direct Investment in Herbal Products

Attracting foreign companies to conduct research on Malaysian herbs and set up manufacturing facilities in Malaysia

6

Snacks Industry

Increasing domestic production of fruit and dried fruit snacks

11

Snack Food Industry/ Country Food Facilities

Relocating the facilities for frozen food and convenience meals processing from Singapore to Malaysia

ENABLERS

The following enablers have been identified to support this NKEA's EPPs and Business Opportunities:

- Incentives for anchor companies, implemented through the introduction of the Agriculture NKEA's procedure in 2011
- Strengthen the adoption of GAP and GMP to enhance market access. All anchor companies are encouraged to do so as part of their agreements, enforced in 2012
- Upgrade regulations and policies, such as developing the Seed Act under EPP 14
- Strengthen logistics infrastructure, which will be the focus of this NKEA's next phase
- Ensure sufficient pipeline of human capital, which has commenced with programmes to raise awareness on opportunities in Agribusiness and the establishment of the Young Entrepreneurs Unit in the MoA

Summary of Agriculture NKEA

	2020 Target
Incremental GNI Impact	RM28.9 billion
Additional Jobs	109,335

Critical targets for 2014

- EPP 1 (High Value Herbal Products)
 - Six clinical trials started for herbal products (nutraceutical/cosmeceutical/botanical drugs)
- EPP 2 (EBN Swiftlet)
 - Total export of EBN product – 170 metric tonnes
- EPP 3 (Mini-Estate for Seaweed)
 - Percentage increase in productivity per hectare per year – 30%
- EPP 4 (Integrated Cage Farming)
 - Total production of farmed fish by anchor companies (metric tonnes) – 6,500
- EPP 6 (Replication of IZAQ)
 - Total production of shrimps (metric tonnes) – 29,000
- EPP 7 (Premium Fruits & Vegetables)
 - Total production from TKPM and anchor companies (metric tonnes) – 40,000
- EPP 8 (Food Park)
 - Percentage increase of income for SMEs under anchor companies – 10%
- EPP 10 (Paddy Farming in MADA)
 - Percentage increase of income for participants under the project – 5%
- EPP 11 (Paddy Farming in Other Granaries)
 - Total tonnage of rice produced (metric tonnes) – 32,000
- EPP 13 (Dairy Clusters)
 - Total fresh milk produced from cluster under NKEA (million litres) – 17



Enabling Change

AGRICULTURE

*on the ground with
the public service*

A note from

**Malaysian Agriculture
Development Authority (MADA)**



While Malaysia has built up its expertise as a rice-growing nation, efforts under the Agriculture NKEA seek to transform national rice production to increase productivity and farmers' incomes. Under EPP 10: Scaling Up and Strengthening of Paddy Farming in the Muda Area, the Muda Agricultural Development Authority (MADA) oversees the enhancement of rice cultivation in the area, which accounts for 35 per cent of national rice production.

Despite its importance to Malaysia's rice production, the Muda granary faces several obstacles impeding productivity. These include low fertility soil in around 40 per cent of the area, low irrigation density, small farm size holdings and an elderly farming community.

As the owner of EPP 10, MADA is tasked with overcoming these challenges to combat stagnant rice production in Muda. This involves activities such as increasing irrigation density in the area through the use of RM2.2 billion from the Government to develop tertiary irrigation infrastructure up until 2020.

MADA is also responsible for establishing 50,000 hectares of a centrally-managed paddy estate by 2020, an initiative that will see farmers benefit from RM480 million in cash incentives from the Government. The Authority also facilitates involvement of farmers in the upstream and downstream segments of the paddy and rice value chain, and ensures accelerated uptake of new farming technologies to increase the net average rice production yield.

To ensure successful implementation of this project, MADA plans and coordinates tasks with the relevant departments and agencies under the Ministry of Agriculture and Agro-based Industry. It also works with other Ministries and agencies such as PEMANDU, the Department of Irrigation and Drainage (*Jabatan Pengairan dan Saliran* – JPS), the Department of the Director General of Land and Mines, the District Land and Mines offices and Malaysian Agricultural Research and Development Institute (MARDI).

A crucial element in MADA's work is its placement of personnel on the ground, with its agriculture and irrigation staff acting as the frontliners for EPP 10. These key personnel do not only convey Government policies for implementation, but also engage closely with farmers to ensure their commitment and participation in the Muda project.

These efforts, in close cooperation with farmers, aim to achieve the Government's goal of empowering farmers with ownership over their rice production activities under the banner of "*Tuan Padi, Tuan Beras*".

It is this relationship with farmers which is perhaps among the most crucial aspects of MADA's role. As the custodian of the Muda granary, MADA is responsible for the well-being of farmers in the area, while acting as a "bridge" between the Government and the farmers, enabling downstream implementation of national policies.

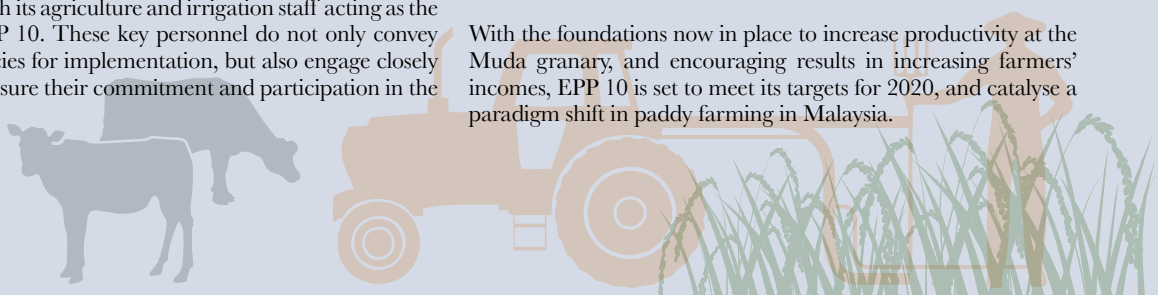
These efforts have contributed to positive results in the implementation of EPP 10, with three tenders awarded to contractors for irrigation infrastructure development on three blocks of land. MADA has also successfully set up 15,034 hectares of a centrally-managed paddy estate, benefiting 8,810 farmers involved in the programme, while more than RM90 million in cash incentives has been distributed to farmers.

A heartening development as a result of this project is the increase in farmers' income, which has risen to RM2,660 per hectare in season 2/2012, from RM2,400 per hectare prior to the implementation of the programme, representing a growth of 11 per cent.

In implementing the programme, the two main challenges faced by MADA are ensuring the development of tertiary infrastructure remains on track, and obtaining stakeholders' acceptance of the transformation towards the centralised farming system from the individual farming system.

These, in turn, have been overcome through realigning land acquisition for the development of tertiary infrastructure and coordinating between departments and agencies involved in the land acquisition process. To obtain stakeholders' acceptance of the centralised large-scale farming system, MADA, through its personnel on the ground, has worked hard to win the confidence of farmers and encourage their participation in the project. It has also sought to create a win-win situation for all stakeholders involved in EPP 10 and encourage youth involvement in the project, especially those trained at the MADA Rice Training Centre.

With the foundations now in place to increase productivity at the Muda granary, and encouraging results in increasing farmers' incomes, EPP 10 is set to meet its targets for 2020, and catalyse a paradigm shift in paddy farming in Malaysia.



HEALTHCARE





Dato' Seri Dr S Subramaniam
Minister of Health



I am pleased to report that the Healthcare NKEA has shown encouraging progress, with several initiatives demonstrating positive results. We remain steadfastly committed to achieving the goal of this NKEA, which is to deliver high quality healthcare in a sustainable manner.

To this end, several EPPs have been reviewed and new ones introduced to better meet industry needs. From 13 EPPs last year, the number of projects has now increased to a total of 17 EPPs.

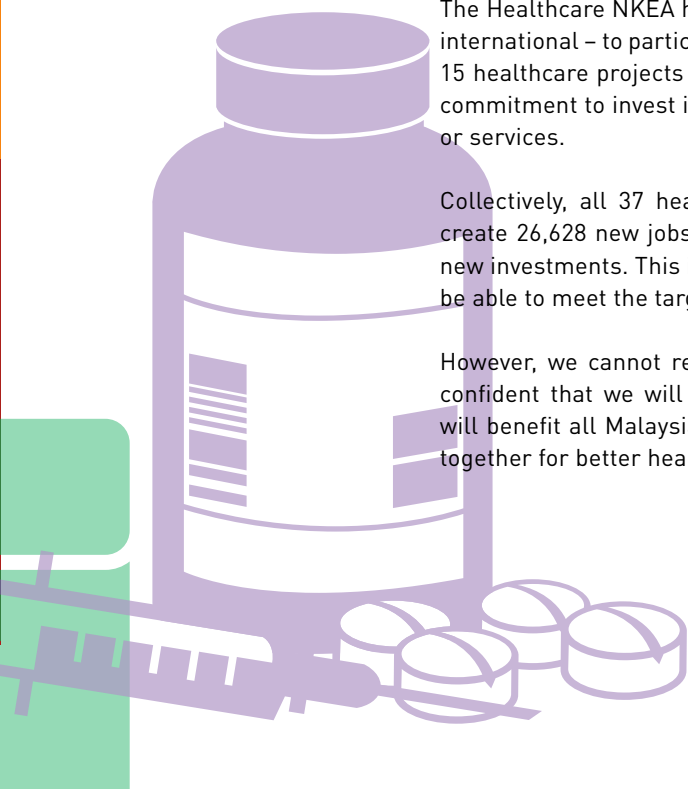
A new EPP focussing on Renal Products was added to the Medical Devices segment, increasing its original seven EPPs to eight. Through lab engagement sessions, we identified a gap in serving patients suffering from End-Stage Renal Disease (ESRD), through services as well as products.

In addition to this, Seniors Living, which was formerly a Business Opportunity, has now been expanded into three separate EPPs. This segment is therefore empowered to meet the needs of this important and growing target market.

The Healthcare NKEA has also made great efforts to attract various companies – both local and international – to participate as lead organisations in its various EPPs. I am pleased to report that 15 healthcare projects have been awarded EPP status this year. Each organisation has made a commitment to invest in the healthcare sector in Malaysia, either through product development or services.

Collectively, all 37 healthcare projects announced under Healthcare NKEA are projected to create 26,628 new jobs and generate an income of RM6.66 billion as well as RM4.86 billion in new investments. This is indeed an encouraging achievement and I sincerely believe that we will be able to meet the targets that have been set in Malaysia's 2020 roadmap.

However, we cannot rest on our laurels and become complacent. By working together, I am confident that we will be able to deliver an effective and responsive healthcare system that will benefit all Malaysians. Indeed, I am confident that we can truly become "a nation working together for better health"!



HEALTHCARE

Malaysia's healthcare industry has recorded strong growth over the last decade, driven primarily by local consumption of healthcare products and services.

This NKEA, led by the Ministry of Health (MOH), is focussed on growing private investments in areas such as manufacturing of pharmaceutical products and medical devices, clinical research activities and aged-care services. It seeks to grow the healthcare industry and encourage collaboration between healthcare providers in the public and private sectors.

The Government will also continue to provide healthcare to all Malaysians through subsidies at public hospitals and clinics. The private sector, on the other hand, has been tasked with improving access to healthcare to those who can afford to pay to help lessen the Government's burden. By working together, the public and private sectors will be able to offer a comprehensive range of health services and products to all in Malaysia.

A total of 17 Entry Point Projects (EPPs) were identified to help meet the goals of the Healthcare NKEA. To date, 37 project owners are expected to create 26,628 new jobs and generate an income of RM6.66 billion as well as RM4.86 billion worth of new investments. Of the 37 projects, 12 have already been completed and the rest in various stages of development, to bring the progress of Healthcare NKEA at 14.7 per cent against 181,000 jobs, 18.9 per cent against its target of 35.3 billion GNI, and 28.2 per cent against 17.2 billion investments according to the 2020 roadmap.

Some of the existing EPPs were reviewed to better meet industry needs. For example, a mini-lab co-sponsored by the Ministry of Health, The Malaysian Organisation of Pharmaceutical Industries (MOPI) and Pharmaceutical Association of Malaysia (PhAMA) was held to revisit and revise the goal and scope of EPP 3, which focusses on the pharmaceutical sector in Malaysia. After meeting for three days, the scope of this EPP was narrowed to three streams: Generics, Bio-Pharma (Biologics and Vaccines) and Over-the-Counter (OTC) drugs. In addition, a paper was also presented to the Cabinet in November 2013 on an outcome of the study by the International Centre of Law and Legal Studies (I-CeLLs) on Patent Law and Regime in Malaysia. The Government has agreed to review some of the recommendations of the study and make the necessary adjustments by August 2014.

Meanwhile, a total of 15 projects were accorded EPP status by the NKEA Healthcare Steering Committee in 2013 through two NKEA Progress Update events, on 1 August 2013 and on 12 December 2013. The project owners are Karl Mueller Scientific, Sima Medical, Abio, Kotra Pharma (for two separate projects), RB Lifescience, BioCare, Impian Eksekutif, Chemical Company of Malaysia Bhd, AFT Pharmaceuticals, AJ Biologics, Servier, Fresenius Medical Care, Lucenxia and Pahang Medical Devices. Each new project will play an important role in meeting the overall goals for the Healthcare NKEA.

A new EPP was added to Medical Devices (EPP 7 – 13), thus increasing the total number of EPPs under this sector from seven to eight. This new EPP designated EPP 14 will focus on Renal Products.

Following the introduction of the Seniors Living Business Opportunity in 2012, it was expanded into three EPPs in 2013 based on recommendations made through a lab session. The three EPPs under Seniors Living are Mobile Home Care Services (EPP 15), Institutionalised Aged Care (EPP 16) and Retirement Villages (EPP 17).

A paper was also presented to the cabinet in December by Dato' Sri Idris Jala on the outcome of the lab on Seniors Living. This includes a proposed new Aged Healthcare Act, the transformation of old folks' and nursing homes, new planning guidelines for aged healthcare facilities, development of a new curriculum for caregivers, proposal for insurance coverage providers for home care and long-term care and reverse mortgage products.

The revisions made to these EPPs will help strengthen and transform the healthcare industry in Malaysia into a holistic and dynamic one. This is to ensure the highest quality of care is delivered to a large number of people in a sustainable way.

2013 Key Performance Indicators

Healthcare NKEA		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
EPP #1	Percentage of foreign workers with health insurance (excluding domestic maids and plantation workers)	100%	156%	156	●	100	●	1.0	●
EPP #2	Number of clinical research conducted (Ongoing & New)	460	467	102	●	100	●	1.0	●
EPP #3	Export growth of pharmaceutical products (RM mil)	549	561.02	102	●	100	●	1.0	●
EPP #4	Revenue generated from healthcare travel (RM mil)	630	683.92 (as of mid-December 2013)	109	●	100	●	1.0	●
EPP #5	New number of non-MOH hospitals that subscribe to this service	5	1	20	●	20	●	0	●
	Case studies of target countries (include go-to-market strategy) for international insourcing of DSN	3	4	133	●	100	●	1.0	●
EPP #6	Percentage of completion of the work progress for UM Health Metropolis	Targets not set due to delays in getting Planning Approval from MBPJ		N/A	●	N/A	●	N/A	●
EPP #7 – 14	Ready for Product Registration for Class A, B, C and D	100%	100%	100	●	100	●	1.0	●
	Ready for registration of Conformity Assessment Body (CAB)	100%	101%	101	●	100	●	1.0	●

(more on next page)

(continued from previous page)

Healthcare NKEA		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
EPP #15 – 17.1	Complete processes for the purpose to begin registration of Integrated Residential Care Centre (IRCC) include ammendment of related regulations	25% first draft of the Act to be completed and sent to AG	100% AGC has produced the bare draft for the Act	100	●	100	●	1.0	●
				103%		91%		89%	

Exhibit 12.1

Method 1 Scoring is calculated by a simple comparison against set 2013 targets. The overall NKEA composite scoring is the average of all scores

Method 2 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is less than 100%, score #2 is taken as the actual percentage
- If the scoring is equal or more than 100%, score #2 is taken as 100%. The overall NKEA composite scoring is the average of all scores

Method 3 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is equal and less than 50%, score #3 is indicated as 0
- If the scoring is more than 50% and less than 100%, score #3 is indicated as 0.5
- If the scoring is equal or more than 100%, score #3 is indicated as 1

ENTRY POINT PROJECTS

EPP 1 Mandating Private Health Insurance for Foreign Workers

Most of the country's 3.1 million foreign workers, employed primarily in low-technology, labour-intensive jobs, are uninsured or under-insured. This has resulted in a large amount of unpaid bills at Government hospitals. Through this EPP, private medical insurance has been made mandatory for all foreign workers (except domestic maids and plantation workers) to help relieve the strain on Malaysia's healthcare system while providing better healthcare access for the foreign workers.

To this end, the foreign Hospitalisation and Surgical Scheme for Foreign Workers (SPIKPA) was introduced in January 2011 as a mandatory medical scheme for all foreign workers. For an annual premium of RM120, SPIKPA provides hospitalisation and medical coverage of up to RM10,000 per annum for all illnesses and injuries requiring admission into MOH hospitals.

Achievements and Challenges

Since its launch, over 1.6 million foreign workers have been insured under SPIKPA, surpassing the initial target of 1.2 million workers. Twenty-five insurance companies and two Third Party Claims Administrators (TPCA) also registered as participants of the scheme.

To date, three major states – Selangor, Johor and Penang – as well as Kuala Lumpur have recorded the highest number of foreign workers insured. Following the expansion of the scheme to Sabah last year, SPIKPA was extended to Sarawak in February 2013, thereby providing coverage throughout Malaysia.

Moving Forward

After three years of implementing SPIKPA, the programme will be reviewed in 2014 to determine its impact and benefits to MOH hospitals. Among the improvements mooted for SPIKPA include the possibility of extending coverage to private hospitals and improving other benefits that come with the scheme.

EPP 2 Creating Supportive Ecosystem to Grow Clinical Research

In 2009, the contract research industry for new drug development grew at an annual rate of 15 per cent to exceed US\$20 billion, with growth in Asia outpacing the market at an annual rate of 30 per cent.

Malaysia has, however, lagged behind its regional peers in this sector. This EPP therefore, has taken measures to develop a supportive clinical research ecosystem to encourage more efficient and higher quality trials, targeting to conduct a minimum of 1,000 clinical trials by 2020. It also aims to establish Malaysia as a preferred destination for clinical contract research.

Achievements and Challenges

Clinical Research Malaysia (CRM) has targeted 460 clinical trials in 2013. These comprise 184 new and 276 ongoing trials.

CRM was also able to attract and convert feasibility studies to clinical trials. Supported by the establishment of a Feasibility Team, CRM recorded 195 new trials, which exceeds its annual KPI target of 184 new clinical trials in December 2013.

Management of clinical trials is also strengthened with the establishment of investigator databases for different therapeutic areas. In addition, CRM has established an effective and transparent fund management system for trial budgets and streamlined the payment mechanism to investigators and sites.

In undertaking these initiatives, CRM has received Clinical Trial Agreements (CTAs) from a growing number of sponsors/Clinical Research Organisations (CROs) for its review. From 1 January 2013 to 31 December 2013, CRM endorsed 174 CTAs for a total of 85 trials, with work in progress for another nine trials.



Hospital beds for research participants

CRM is also developing a network of seven prime sites in Malaysia together with Clinical Research Centre (CRC) and Quintiles. These sites will possess improved research capabilities to enable them to conduct more Industry-Sponsored Research (ISR) and attract higher-value ISR to Malaysia. Furthermore, study coordinators have been placed at 17 MOH sites to assist investigators to conduct trials. Most of these coordinators possess medical or nursing backgrounds, which will enable these sites to conduct more ISR.

To raise the skill sets of study coordinators and investigators, CRM has implemented training programmes, including organising subsidised Good Clinical Practice (GCP) courses in various locations nationwide. To improve the management and conduct of ISR, CRM is developing a "CRMx" system, in addition to developing a matrix and analytic tool to boost the productivity of clinical trials.

In addition, CRM implemented its first Mentor-Mentee programme, comprising a six-and-a-half day workshop held in different regions to develop human capacity, particularly investigators. To date, the programme has been completed in the Central Region (Kuala Lumpur) with 14 Mentors and 41 Mentees. It was also extended to the Northern Region (Penang) with 10 Mentors and 28 Mentees. The next destinations will be in the East Coast and Southern regions, along with Sabah and Sarawak.

Some challenges seen in this EPP include in increasing the number of potential investors and improving the quality of investigators. This is as specialists are mainly focussed on conducting their clinical work, which is time-consuming, while many of them also lack expertise to conduct ISR.

CRM is working with Medical Research Ethics Committee (MREC) to improve the latter's turnaround time and responsiveness to better suit the industry's needs.

Other challenges are present in coordinating the development of a comprehensive training programme for clinical research associates (CRA). Generally, sponsors/CROs conduct in-house training. The challenges include getting a suitable training institution, development of an internationally recognised certification, attracting industry support and a sufficient number of students.

Moving Forward

To date, 20 per cent of all clinical trials in Malaysia are conducted by the MOH. As CRM approaches its third year of operations, it aims to improve the ratio of clinical studies in the MOH and universities. More efforts will also be made to grow the number of investigators in the MOH. Meanwhile, CRM will review the timing for "first patient in" studies and improve on this in 2014. It will also expand the number of its prime sites.

CRM also aims to strengthen its cooperation with the Drug Information Association (DIA) and its involvement in the East Asia ISR Cooperation initiative. Furthermore, it will collaborate with organisations in the region across therapeutic areas, clinical study sites, training and development in ISR. Engagement with investigators will also be increased, while CRM will also continue collaborating with CRC on a broad range of activities and initiatives.

In addition, it will enhance its public outreach programmes to raise public awareness of ISR and intensify its Mentor-Mentee programme to increase the number of investigators. The frequency and scope of its training programmes will also be intensified to increase the number of skilled research staff and study coordinators.

With regard to the CTAs, CRM hopes to introduce a tripartite CTA template and develop it into the industry standard in Malaysia. Furthermore, it aims to facilitate the patient recruitment process and outcomes to allow for more ISR.

EPP 3 Malaysian Pharmaceuticals

Malaysia is taking major steps to enhance its generic drug manufacturing capacity to capitalise the impending patent expiry of major drugs, which will bring about an estimated value of US\$132 billion for the industry. To maximise this opportunity, the industry in Malaysia must take the following measures:

- Leverage Malaysia's membership in the Pharmaceutical Inspection Convention and Pharmaceutical Inspection Cooperation Scheme (PIC/S) to export to developing nations and member countries of the Organisation of Islamic Cooperation (OIC), of which Malaysia is also a member
- Push for manufacturing plants to be localised and upgraded to produce en masse
- Facilitate strong partnerships between multinational corporations (MNCs) and local manufacturers to build capacity thereby developing strong Malaysian growth in this sector

A mini lab co-sponsored by the MOH, MOPI and PhAMA was conducted in June 2013 to review the goals and scope of EPP 3. Attended by 120 participants from the pharmaceutical industry and relevant Government agencies, the three-day lab concluded with the decision to expand the scope of this EPP to include other pharmaceuticals product categories such as OTC drugs, supplements, biosimilars and vaccines.

Achievements and Challenges

On 28 June 2013, MOH signed a memorandum of understanding (MoU) with IMS Health Malaysia. This MoU enables MOH to share the pharmaceutical database for the public sector, while enabling MOH to tap into IMS's pharmaceutical database on the private sector. This has given the Ministry access to a comprehensive national pharmaceutical market database.

Meanwhile, a paper on pharmaceutical patent issues was presented to the Cabinet on 1 November 2013. The paper recommended amendments to the Patent Act related to the pharmaceutical industry based on a study by the International Centre of Law and Legal Studies (I-CeLLs) on Patent Law and regime in Malaysia. The Government agreed to review the recommendations and subsequent amendments to the Patent Act are targeted for completion by August 2014.

This year, several multinational corporations (MNCs) have expressed interest in manufacturing their products either by their own or through local partners in Malaysia. On the other hand, the local industry is responding to the positive outlook of the industry, with more new companies foraying into pharmaceutical manufacturing, while the existing companies have started to invest to expand and increase their manufacturing capabilities and capacities.

To date 12 projects have been accorded the EPP status under EPP 3. These include projects announced by Hovid Bhd, Biocon Ltd, CCM, Kotra Pharma AJ Biologics, Impian Eksekutif Sdn Bhd, RB Lifesciences Sdn Bhd, Servier, Ranbaxy, AFT Pharmaceuticals and BioCare.

Positive growth has been observed by the companies participating in EPP 3 in 2013.

Hovid has seen its business grow more than 40 per cent in the last three years, despite the weakening US dollar, translating into a CAGR of 12 per cent. It currently possesses a product portfolio of more than 400 and currently exports to more than 50 countries, recording revenue of more than RM172 million, with a market potential of more than one billion customers including the Malaysian population. In addition to increasing its staple of products, Hovid will also continue widening and deepening its reach in export markets.

Among challenges faced by Hovid include the need to meet rising demand for generic products as the patent on numerous products expire in the next five years. Nonetheless, Hovid will position itself to take advantage of these changes by expanding its production facility.

The company also contends with a shortage of pharmacists with production experience, limited engineers with knowledge of pharmaceutical machines and lack of sales personnel that are familiar with the industry. Nevertheless, Hovid has, over the last 30 years, recruited and trained thousands of personnel on the job. It also works closely with various higher learning institutions in Malaysia, especially Universiti Sains Malaysia, to train and develop pharmaceutical product researchers.



Kotra Pharma's manufacturing facility in Cheng Industrial Estate, Malacca

Another company participating in this EPP, Biocon, has also recorded good progress in 2013. The construction of its biopharmaceutical manufacturing facility continued to progress as planned, and the company has hired more than 100 employees who are now being trained in biopharmaceutical manufacturing.

Among challenges faced by Biocon include increasing awareness on its biopharmaceutical manufacturing operations and attracting highly-skilled talent to Nusajaya, Johor, where it operates. The shortage of talent has also been compounded by the rising cost of living in Nusajaya.

In August, Ranbaxy Malaysia was allocated a six hectare site in Kulim, Kedah, to set up its US\$35 million (RM114 million) Greenfield manufacturing facility. The new facility will be used to manufacture multiple dosage forms, including tablets and capsules, primarily in the cardiovascular, anti-diabetic, anti-infective and gastrointestinal segments. This will be Ranbaxy's second manufacturing plant in Malaysia in addition to its first in Sungai Petani that was commissioned in 1987.

RB Lifescience Sdn Bhd's (RBL) plan to manufacture respiratory and oncology drugs was endorsed as an EPP 3 project on 5 March 2013 and will focus on manufacturing generic versions of oncology medications and inhalers, with two separate manufacturing facilities built for this endeavour. In July, the company signed a distribution and technology transfer agreement on oncology generic medicines with India's Emcure Pharmaceuticals Ltd. The distribution agreement also awarded RBL the rights to sell and export medicine produced from its plant to ASEAN countries.

Kotra Pharma (M) Sdn Bhd's first initiative under the ETP was announced on 1 August 2013 with the intention to manufacture Sterile Injectable products. Since then, the company has completed the manufacturing of 50,000 vials of one of the products, Vaxcel Cefobactam 1g Injectable, with the intention to supply to the Government through an Off-take Agreement (OTA) with MOH. The company has also acquired sufficient raw materials to manufacture another 60,000 vials.

This year, this EPP saw strong interest from private sector players in the field of respiratory medicine. Four project owners have come forward with plans to manufacture respiratory products such as metered dose inhalers and dry powdered inhalers. These four projects were announced by Minister of Health Dato' Seri Dr S Subramaniam at the NKEA Healthcare Progress Update on 12 December 2013. The project owners and projects comprise:

- Biocare, a local company planning to set up a manufacturing plant Metered Dose Inhalers with 3M technology from the United States
- A joint venture effort between the Chemical Company of Malaysia Bhd (CCM) and Cipla of India to set up a new facility to manufacture respiratory products
- Impian Eksekutif Sdn Bhd, which will set up a facility in Perak to manufacture a complete range of respiratory products such as Metered Dose Inhalers and Nasal Sprays for both domestic and overseas markets. Neutec of Turkey will be Impian Eksekutif's technology partner in this endeavour
- Kotra Pharma will invest in an additional line to produce MDI in its current facility in Cheng, Malacca

In addition, three more projects were announced on 12 December 2013 under a plan to manufacture different classes of pharmaceutical products. These projects are:

- Servier Malaysia, through its contract manufacturing partner, Kotra Pharma – to manufacture Servier's patented products, Diamicron MR 60mg and Vastarel MR 35mg, for supply in Malaysia and the regional markets
- AFT Pharmaceuticals SEA – to produce orphan drugs (for treatment of rare diseases) through its partner, Hovid
- AJ Biologics – to set up a vaccine formulations facility with the fill and finish capabilities to manufacture a range of vaccines for supply to local, regional and global markets

Overall, in addition to encouraging new investments in the pharmaceutical industry, this EPP also aspires to continue facilitating partnerships between MNCs and local pharmaceutical companies to achieve the goals of EPP 3.

Moving Forward

Hovid plans to commence construction of a new plant in early 2014 to expand its tablet and capsule production capacity. This will allow Hovid to target the development and production of new Off-Patent drugs for supply to the MOH and its export markets. To further enhance the quality of Hovid's products, the new plant is designed to meet the pharmaceutical production standards – Good Manufacturing Practice (GMP) of Australia, Europe and the United States Food and Drug Administration.

Biocon is expected to commence commercial operations of its biopharmaceutical manufacturing facility in 2014. It will also focus on developing the ecosystem to support its operations and nurture human capital by partnering with the academia.

With technology partners secured and all other project components such as land and building construction in place, RBL will continue to seek the finalisation of its OTA with the MOH.

EPP 4 Reinigorating Healthcare Travel

The healthcare travel industry in Malaysia has grown at an average rate of 22 per cent per annum, contributing US\$100 million to Malaysia's economy in 2010. This has the potential to grow even more as ASEAN nations contributed at least US\$3 billion to the US\$75 billion in revenue generated by the global health travel market in that same year.

However, Malaysia's regional neighbours, Singapore and Thailand, have demonstrated stronger growth and are currently perceived as leaders of this segment. To overcome this, Malaysia needs to broaden its patient base. This growth will take place in two phases:

- Phase one: Expand patient volume through extensive marketing, cross-border alliances and improved customer experience
- Phase two: Upgrade infrastructure and capacity in niche specialisations to move towards more profitable in-patient care

To these ends, the Malaysia Healthcare Travel Council (MHTC) was established to help develop and promote the country's health travel industry. It also functions as a one-stop centre for all matters related to this sector.

Achievements and Challenges

To date, the number of MHTC-registered hospitals and other healthcare facilities has risen to 72.

The MHTC also launched its first MHTC Concierge and Lounge at the Kuala Lumpur International Airport's international arrival hall on 29 April 2013. The facility will be used to disseminate information on private healthcare provisions in Malaysia. This initiative also acts as a platform to promote hospital services and medical packages to tourists.

Following the establishment of three offices in Jakarta and Dhaka in 2012, the MHTC has also identified Hong Kong as a good base to reach other countries in the region, such as China, Japan, Korea, Mongolia and Taiwan. The offices will be used to raise Malaysia's profile as a leading healthcare destination in Asia.

Similar to last year, MHTC has also organised the Malaysian International Healthcare Travel Expo (MIHTE) for the second time on 20-22 October 2013 at Sunway Pyramid Convention Centre Malaysia. The Second MIHTE 2013 continued to promote business-to-business ventures between key industry stakeholders within the local and international healthcare travel value chain. The expo provided a unique platform for leading healthcare facilities, Government agencies, insurance companies, financial institutions, the wellness industry, hoteliers, travel and tour agencies and retirement village planners under one roof; providing an ideal stage to share new developments and explore business potential and strategic partnerships.

The expo comprised an exhibition, conference and mega familiarisation programme and applied a different approach this year for its conference programme with multilingual breakout sessions in English, Mandarin, Indonesia, Japanese and Arabic. Forty-four sessions were held during the conference, with international speakers and moderators from 12 countries, namely Australia, China, Hungary, Indonesia, Japan, the Kingdom of Saudi Arabia, Malaysia, Netherlands, Singapore, the United Arab Emirates, the United Kingdom and the United States. 1,300 delegates from 40 countries attended the conference.

Under this EPP, participating hospitals such as six KPJ Healthcare hospitals (Pasir Gudang Specialist Hospital, Klang Specialist Hospital, Kuantan Specialist Hospital, Perlis Specialist Hospital, Sabah Medical Centre and Bandar Dato Onn International Specialist Hospital), two Ramsay Sime Darby Health Care hospitals (ParkCity and Ara Damansara Medical Centre) and finally Amanjaya Specialist Centre recorded good progress over the year.



Second MIHTE Opening ceremony



KPJ Pasir Gudang Specialist Hospital

Among the notable progress recorded for this EPP include:

- Pasir Gudang Specialist Hospital (PGSH)**
 PGSH was launched in April 2013 in Pasir Gudang, Johor. The hospital is equipped with state-of-the-art operating theatres, modern equipment, the latest technology and an excellent team of specialists and healthcare professionals. Aside from catering to the needs of patients in and around Pasir Gudang, PGSH is also tapping the Indonesian market, particularly Batam and Tanjung Pinang
- Klang Specialist Hospital**
 This hospital demonstrated good traction in 2013. As part of its effort to promote Malaysian healthcare globally, KPJ Klang continues to penetrate the Myanmar market through its collaboration with a local hospital, Pun Hlaing International Hospital Co Ltd (Pun Hlaing), which has major market share in Myanmar. KPJ Klang has been appointed by Pun Hlaing to provide highly trained healthcare professionals to perform the most advanced, minimally invasive surgical techniques in order to provide patients with much quicker recovery times and better outcomes through exceptional care



Sime Darby Medical Centre Ara Damansara VIP Suite

- ParkCity Medical Centre (PMC)**

PMC, which opened its doors to the public on 12 December 2013, aims to be the regional centre of excellence for women and children's health as well as elderly health. PMC is equipped with advanced medical technology to perform procedures such as mammograms with tomosynthesis and low dose CT scans, which are safe for children. Today, PMC is well known for delivering and managing premature babies after successfully delivering and managing a 25-week-old neonate weighing less than one kg in March 2013; three months after it commenced business

PMC is the first hospital launched under the Ramsay Sime Darby Health Care (RSDHC) group, a joint venture between two prominent healthcare providers, Sime Darby and Ramsay Healthcare. To date, just 10 months into operation, PMC has treated approximately 1,800 foreigners/expatriates and the numbers are growing as PMC is strategically located within the Mont Kiara, Desa ParkCity and Hartamas communities

- Ara Damansara Medical Centre**

Formerly known as Sime Darby Medical Centre Ara Damansara, Ara Damansara Medical Centre, which is situated along Jalan Lapangan Terbang Subang in Selangor, is a 220-bed hospital that offers a range of comprehensive medical services from a 24-hour primary and emergency care to interventional, diagnostics, curative and rehabilitative services. Ara Damansara Medical Centre is also equipped with centres of excellence dedicated to the diagnosis and treatment of heart, brain, spine and joints diseases

In 2013, Ara Damansara Medical Centre expanded to include a comprehensive facility for the care and management of stroke patients through a partnership with the National Stroke Association of Malaysia (NASAM), and a private-public partnership with Hospital Kuala Lumpur (HKL) in the management and treatment of epilepsy, especially among children. This partnership has come about in view of the increasing number of epileptic cases in Malaysia, especially amongst its paediatric patients. The hospital also holds joint activities with the Royal Children's Hospital Melbourne to evaluate medical staff who are capable of identifying patients suitable to be considered for epileptic surgery

Despite the good progress in 2013, EPP 4 projects face a number of challenges which require proper mitigation to ensure this EPP will be able to contribute more in the effort to achieve the Healthcare NKEA's targets for 2020. The private sector is currently facing a competitive landscape to secure human resources such as doctors, clinicians, allied health staff and nurses in order to continue to expand the operations. In addition, all new and expansion projects require high investment as healthcare assets are highly capital intensive, which contribute to slow positive cash flow especially in the first few years of operation.

Moving Forward

The majority of visitors seeking treatment in Malaysia are still from Indonesia. Therefore, the MHTC intends to attract visitors from other regions, such as the Middle East. Efforts will also increase to explore new markets such as Russia, Ukraine, Kazakhstan, Maldives, Nepal, Bhutan and Uzbekistan.

To ensure sustainable growth and to cater for increasing patient needs, particularly tourist patients, hospitals will increase their number of beds, new wards and specialists. The hospitals and medical centres are also looking into expanding the service portfolio to include other specialty clinical services including haemodialysis services and orthopaedics traumatology, among others. In addition, aggressive marketing and penetration into new areas are essential keys to capture bigger market segments.

EPP 5 Creating a Diagnostic Services Nexus

A shortage of radiologists and uneven distribution of radiology workloads have created major challenges for all hospitals, especially in smaller towns. The Diagnostic Services Nexus (DSN) aims to reduce waiting times by coordinating and distributing the workload through a teleradiology system that connects both public and private hospitals. The DSN is also projected to help the domestic radiology sector increase in scale and scope, which can then be extended internationally.

To implement this project, Diagnostic Services Nexus Sdn Bhd, a private consortium comprising strategic technology, telecommunications and operations partners including General Electric Healthcare, was established. The consortium will continue to improve upon the DSN technology, link radiologists nationwide and build capacity to grow the talent pool and ensure its systems are sustainable.

Achievements and Challenges

DSN has conducted a case study to evaluate its long-term plan of insourcing teleradiology reporting services into Malaysia. This case study involved a market analysis, feasibility and recommendations on countries such as Singapore, Hong Kong, the United States, the United Kingdom, Indonesia and Myanmar. Following this, Singapore and the UK were identified as markets where the DSN possesses natural advantages, such as Commonwealth membership and precedence of outsourcing abroad.

However, the DSN is faced with a shortage of local radiologists and longer tenure full-time radiologists to come on board as reporting radiologists. It has also yet to receive longer-term commitments from its clients with enough volume to build economies of scale.

Moving Forward

Moving forward, DSN and GE Healthcare will collaborate to consider extending to new markets such as foreign students and workers, and General Practitioners (GP).

Additionally, plans are also underway to build a Malaysian-owned and controlled teleradiology platform that meets international regulatory standards as well as technological and commercial requirements (e.g. cost performance).

The DSN will also design a long-term business model and system aimed at:

- Achieving significant improvements in efficiency and radiologist productivity (lower unit costs/report) to ensure cost-competitiveness internationally
- Establishing Malaysia's reputation for high quality radiology services locally and in international peer circles (peer reviewed journals, conferences)
- Increasing the local pool of highly qualified internationally recognised radiologists
- Providing an avenue for universities/medical schools to train radiologists more efficiently
- Competing with established providers in lucrative markets
- Creating new jobs for radiologists, 3D reconstruction, radiographers and support crew

EPP 6 Developing a Health Metropolis: A World-Class Campus for Healthcare and Bioscience



UMHM Street View Perspective #2 Jalan Universiti

University of Malaya's wholly-owned company, UM Holdings Sdn Bhd, has been tasked to develop and position the University of Malaya Health Metropolis (UMHM) as the country's premier medical hub.

The metropolis will combine urban renewal efforts with expertise from the UM Specialist Centre and UM Medical Centre's Faculty of Medicine to become Malaysia's largest cluster for quality medical education, healthcare, medical and bioscience research.

UMHM will house a 320-bed hospital, a 338-room healthcare hotel, a medical research centre, convention and exhibition facilities, and other supporting retail facilities. The metropolis is expected to be fully operational in 2017 and will cater to both local and regional needs.

Achievements and Challenges

The construction of UMHM continued to face obstacles this year, which caused a delay to the project. The Petaling Jaya City Council (MBPJ) was not able to issue the Development Order for this project as the piece of land on which the project is situated was gazetted as "residential/limited commercial". Therefore, a public hearing is needed to amend the local city plan before the development of UMHM can be approved.

Throughout the year, UM Holdings engaged MBPJ in numerous discussions and briefings on the detailed projects plans as well as plans to ensure proper traffic management around the development. Subsequently, with the assistance of the Menteri Besar's Office, a public hearing was held on 7 September at MBPJ headquarters.

The affected residents from Section 11 and 12 of Petaling Jaya, strongly opposed the project citing traffic congestion concerns. MBPJ then advised UM Holdings to brief the Selangor Economic Action Council (MTES) and seek direction therefrom.

The MTES meeting on 26 September 2013 chaired by Tan Sri Abdul Khalid Ibrahim expressed support on the development, taking into account the social benefit from the project. However, the meeting requested for a Social Impact Survey to be conducted as well as a confirmation by the Federal Government on the MRT Circle Line serving the locality.

On 23 October 2013, the Land Public Transport Commission issued a letter to UM Holdings Sdn Bhd confirming the alignment of the MRT Circle Line as well as the location of the two proposed stations near the UMHM development.

A Social Impact Survey was conducted and its findings were submitted to MBPJ and the Selangor State Government on 6 November 2013. UM Holdings Sdn Bhd is taking further action to pursue Planning Approval for UMHM.

Moving Forward

The final decision on the construction of UMHM now rests with MTES and MBPJ.

MEDICAL DEVICES EPPs (EPP 7 – 14)



Medical Devices Industry Workshop by SME Corp in October 2013

On 1 July 2013, the MeDC@St (Medical Device Centralised Online Application System) was launched by the Medical Devices Authority (MDA) as an online-based tool to support MDA's licensing and registration activities. This system was created in line with the gazettment of the Medical Device Act (Act 737) in 2012, which came into effect on 30 June 2013.

MeDC@St is divided into three modules:

- Establishing Licensing Applications
- Registration of Medical Devices (Class A, B, C, and D)
- Registration of Conformity Assessment Body (CAB) to enable export activities

This tool will enable faster and more effective approvals for licensing and implementation of activities pertaining to the medical devices regulations.

The EPPs for the medical devices sector have grown rapidly and gained much interest from MNCs and local manufacturing companies. Some EPPs have been refined to better meet industry needs. EPP 12, for example, was revised from creating a medical equipment refurbishment hub to the creation of a manufacturing hub for high-value medical devices. Additionally, a new EPP (EPP 14: Renal Products) was introduced to cater to the growing need for renal care products and services in Malaysia.

One of the major issues faced by local medical device manufacturers is local market access. The preference for imported products and the lack of awareness about the availability of quality local products needs to be addressed. Local manufacturers need to demonstrate that their products meet quality and safety standards and more efforts need to be put in place to promote quality locally-made medical devices. In view of this, SME Corp has in 2013 started an initiative to further develop the capacity of local medical device SMEs as well as to include the industry in their promotional programmes.

At the same, being the major supplier of health services in the country, the MOH has agreed on an Off-take Agreement (OTA) programme for local manufacturers under the ETP. The mechanism for the programme is still being designed by the Ministry. In addition, the existing policy favouring locally-made products in Government procurement exercises needs to be enforced strictly to ensure good local manufacturers can use this as a platform to grow before they start exporting overseas.

While not entirely true, Malaysian-Made medical devices and products are still regarded as of lower quality in some foreign markets. Hence, the support from the Government, especially MOH, in the form of OTAs or by strictly enforcing the locally-made products policy described above will be beneficial to demonstrate the quality of the medical devices and products are at par with international standards to the point that they are used in Malaysia. Furthermore, in most cases, foreign regulatory authorities have imposed the criterion that supply to the government of the country of origin is required for registration of products in overseas markets.

EPP 7 Upscale Malaysia's IVD Industry

This EPP is driven by Medical Innovation Ventures Sdn Bhd (Mediven), a medical diagnostics company which will help upgrade Malaysia's in-vitro diagnostic (IVD) industry through its IVD project.

With an investment of RM8.92 million, Mediven's IVD project will focus on commercialising local technologies to prevent tropical infectious diseases. It is also responsible for elevating the country's IVD profile globally, beginning with developing countries.

In 2013, Mediven signed an MoU with Apex Pharmaceuticals to collaborate in the area of molecular diagnostics. It also signed an MoU with National Institutes of Biotechnology Malaysia (NIBM) to establish collaborations in the area of molecular biological R&D, with emphasis on diagnostics of infectious diseases.

In undertaking this EPP, Mediven will have to ensure the timely completion of evaluation by MOH and finalise the set-up of the pilot plant for its IVD project.

Mediven's future plans include entering collaborations with international biotech and analytical organisations, specifically in molecular diagnostics. It will also expand its development activities and the pipeline of products; and perform pilot testing at user sites to test and build its credentials. In tandem with the growing relevance of IUD in the developing world, the company will also sign an MoU for the development of rapid-test IUD kits for the African region.



Mediven Diagnostic Test kit

EPP 8 Build Malaysian Showcase on Next Generation of Core Single Use Device (SUD) Products

In November 2012, the Prime Minister announced Vigilenz Medical Devices Sdn Bhd as one of the leading local medical devices manufacturers to position the country as a preferred supplier for high-quality contract manufacturing of SUDs.

Vigilenz intends to invest RM25.8 million under Project EXDEV to conduct R&D to expand its current product line, which includes the entire line of sutures (along with cardiovascular and ophthalmic) and hernia range of sutures with composite or bio-resorbable materials. It also plans to launch cardiovascular products and develop new wound management material and bio-material for tissue reconstruction. The target is to export 65 per cent of its products by 2017.

Vigilenz has spent RM300,000 in the last year to upgrade infrastructure at its existing plant. It has invested RM2.4 million to procure approximately 70,000 square feet of factory space for its new plant at Science Park Penang. The construction of the building will commence by July 2014 with completion expected in 1Q 2015.

The state-of-the-art facility will be built employing green technologies. In addition, the company has undertaken R&D in wound wash, requiring RM860,000 in investments in human capital, machinery, material and accreditation. It is also undertaking initiatives to develop wound gel and high-end critical dressing (based on stem cell technology).



Hydrocyn™ Wound Wash and Irrigation Solution product line by Vigilenz

Vigilenz has also designed new products to assist another EPP company, Karl Mueller Scientific Sdn Bhd (KMS), in order to commence its production of SUD. In addition, Vigilenz is working with MDC, another EPP company, to use their solution bags to pack wound wash for the international market.

Other initiatives under this EPP include plans by KMS to invest RM1.4 million to produce single or disposable medical devices and accessories. These generic items with niche optimisation potential can be easily produced by local talent and resources. With a projected GNI of RM7.4 million, the project is expected to create up to 146 new jobs by 2020.

The company has relocated its production from Taiwan, Pakistan and India to Malaysia. Its localised production includes OEM suppliers and factories in Bukit Minyak, Penang and Sungai Petani, Kedah. Its product list includes single use electro-surgical pencils, reusable electro-surgical pencils, diathermy pads, cannula fixation accessories and potentially, the spinal needle.

Similar to other EPP companies, KMS requires further support from MOH to ensure market penetration. KMS is working hand in hand with Vigilenz with the goal to emulate the latter's success in obtaining accreditations and entering the export market.



Karl Mueller Single Use Device CVC

EPP 9 Become the Hub for High-Value Medical Devices Contract Manufacturing

Efforts under this EPP aim to grow Malaysia's capabilities in high-value medical devices contract manufacturing while increasing entrepreneurial participation in the medical devices industry in the country.

Prior to the project announcement in 2012, Medical Devices Corporation Sdn Bhd (MDC) announced its plan to establish a Contract Manufacturing Hub for medical devices and pharmaceuticals. The company has commenced its activities since the announcement as an EPP and has acquired a manufacturing site in the state of Perak. In addition, the company has started its R&D activities and is in the process of setting up a regional contract manufacturing hub for medical devices and pharmaceutical products. The company will be starting stability studies on the peritoneal dialysis solution and is preparing to submit for license application in 3Q 2014.



MDC bags



ABio Orthopaedics facility



Implants manufactured by Straits Orthopaedics

Straits Orthopaedics (Mfg) Sdn Bhd, a contract manufacturing company that specialises in manufacturing, cleaning and packaging orthopaedic devices and accessories, announced its intention to include spinal implants and joint replacement products in its offerings. The new products require medical-grade forgings, castings and Titanium Type-2 coatings.

The company recorded promising progress in 2013 with the expansion of its product portfolio with existing customers and also new customers from the United States, Japan and China with estimated realised sales of US\$10 million per year. It is also considering venturing into Arthroplasty products in addition to its existing product line for Trauma and Spine.

The combination of Straits Orthopaedics' machining, forging, casting and all other surface finishing capabilities will make Malaysia a centralised hub for a comprehensive range of orthopaedic devices to meet the needs of multinational corporations in this sector. Straits Orthopaedics plans to invest RM76.38 million in this area by 2020.

ABio Orthopaedics will invest RM224.5 million to expand its facility for the contract manufacturing of orthopaedic devices in Penang. Through the company's ability to offer manufacturing solutions at internationally competitive prices, Malaysia is poised to become an attractive outsourcing location for orthopaedic OEMs from other markets, such as the US, Europe, Japan and China. The facility is expected to be completed by 2015 in four phases, and is projected to create 1,102 new jobs with a GNI of RM161.1 million by 2020.

Moving forward, with the consolidated efforts to bring orthopaedic manufacturing activities to Malaysia, more companies and joint venture companies will be enticed to come forward and realise the vision to make Malaysia an orthopaedic hub.

EPP 10 Malaysian Clinical Device Champions



Sima Medical instrument

New industry player Sima Medical will be developing orthopaedic clinical devices in Malaysia through its research and development division in Petaling Jaya, Selangor. Sima Medical is a joint venture company between the Naton Medical Group of China (Naton) and its Malaysian partners, OSA Niaga Sdn Bhd (OSA) and Portal Capacity Sdn Bhd. The introduction of its activities in Malaysia is expected to draw an investment of RM7.7 million with a projected GNI of RM131.81 million by 2020.

EPP 11 Medical Equipment Supply Chain Orchestration



Range of products by UWC

The two existing medical equipment manufacturing facilities of UWC Holdings in Bukit Minyak, Penang, are currently manufacturing medical equipment including hospital beds, trolleys, stretchers, immobilisers and prefilled humidifiers. UWC is also planning to buy a new 16 acre land in Batu Kawan Penang, which is estimated to begin construction by 2Q 2014.

The facility, which will be UWC's fourth, has been planned as a medical devices and pharmaceutical products assembly site. By 2020, UWC is expected to invest RM40.14 million in this project.

EPP 12 High-Value Medical Devices Manufacturing

The scope of this revised EPP has been expanded to explore the manufacture of high-value medical equipment, such as Ultrasound Machines, CT Scanners, MRI equipment and other complex medical devices. There has been a strong interest from the private sector to participate in this EPP especially from MNCs.

EPP 13 Build Medical Hardware and Furniture Cluster



LKL beds in a hospital facility

LKL Advance Metaltech Sdn Bhd, a medical furniture manufacturer of hospital beds, patient transport trolleys, birthcare tables, medical treatment carts, peripheral support equipment and the fabrication of steel or wooden products, recently completed the construction of a new industrial building in line with the company's expansion plan.

In the last year, LKL has met the majority of its goals and objectives including to secure projects and sizeable orders to equip hospitals and medical facilities within Malaysia as well as in Vietnam, Sri Lanka and the Middle East. It has also received positive response from previously untapped African and European countries as well as Asian neighbours including Singapore.

LKL is facing competition in marketing its product line, especially from countries that can produce the same product at much cheaper prices. However, end-users and customers are more than satisfied with the quality, pricing and durability of LKL's products, as evidenced by repeat orders observed by LKL.

Moving forward, LKL is seeking market penetration in other countries, especially in emerging markets that will require more hospitals. LKL will now consider tapping into the home care market which has a lot of potential in Malaysia and other countries in the region.

EPP 14 Renal Products

End-state renal disease (ESRD) is a growing public health problem worldwide, including in Malaysia. As of 31 December 2012, the number of treated ESRD patients is 30,484, with the number of patients growing at an average rate of 15.1 per cent annually since 1993 and expected to double by 2020.

However, the treatment of ESRD remains costly regardless of the modality, either haemodialysis (HD), peritoneal dialysis (PD) or kidney transplant. On average, HD or PD costs at least RM4,000 a month. Although there is no accurate estimate for the total cost of ESRD treatment in Malaysia, the total expenditure incurred for HD treatment was estimated at around RM1 billion in 2012.

EPP 14 – Renal Products therefore covers both the provision of services as well as the manufacturing of medical products involved in the treatment of ESRD. These services include innovative treatment methods such as home treatment modality with integrated telemedicine systems. Products to be manufactured include items such as Automated PD cyclers, HD machines, dialysis solutions, as well as bags and filters for HD machines.

Objectives of EPP 14:

- to make Malaysia a regional base for renal therapy solutions
- to lower the cost of treatment and improve accessibility of renal treatments in Malaysia via import substitution as well as the provision of innovative homegrown treatment solutions

Fresenius Medical Care, a global supplier of renal solutions and a major player in both HD and PD products, is looking into establishing a manufacturing facility to produce quality HD and PD fluids in Bandar Enstek, Nilai, Negeri Sembilan. This project is estimated to generate RM60.8 million of GNI, create 439 jobs and investments of RM174.5 million up to 2020.

Lucenxia (M) Sdn Bhd, a homegrown company, plans to manufacture INTELLIS; an Intelligent Automated Peritoneal Dialysis (APD) cycler designed for Chronic Kidney Disease (CKD) patients, which will be packaged together with the accompanying subscription service as a home treatment programme. This programme adopts the APD home treatment modality whereby patients are treated during their sleep. Lucenxia is estimated to generate RM197.5 million of GNI, create 113 jobs and invest RM494.4 million up to 2020.

Proligen Sdn Bhd together with Pahang Technology Resources Sdn Bhd, will invest in a manufacturing facility in Kuantan, Pahang, to produce dialysis filters with a long-term plan to expand into manufacturing dialysers. With their technology partner Suisse Med Technologies, the new setup will be known as Pahang Medical Devices, and is estimated to generate RM84.7 million of GNI, create 174 jobs and investments of RM130 million up to 2020.

The promising potential of this sector bodes well for attracting companies to Malaysia to make the country their renal products manufacturing hub. It is also hoped that more companies will come forward to participate in EPP 14 in 2014 to realise the potential it has to contribute to the healthcare industry.

SENIORS LIVING EPPs (EPP 15 – 17)

By 2020, 10 per cent of Malaysia's population will be above the age of 60 and by 2030, 15 per cent will be above 60, which will put Malaysia as an ageing population. This shift in demographics will undoubtedly raise new concerns for the healthcare sector, including issues such as capacity and access, funding for long-term care and the provision of adequate facilities and services for the aged.

The Healthcare NKEA has identified potential projects to grow and transform the industry into a recognised part of the healthcare sector.

A paper on recommendations from the Seniors Living lab for this sector was presented to Cabinet members on December 2013 and one of the recommendations includes the drafting of the Aged Healthcare Act as a guideline for the provisions of services and facilities for the aged care industry.

EPP 15 Mobile Healthcare Services

Love On Wheels Healthcare Services Sdn Bhd (LOWHS) was the first company to be announced as an EPP project owner to provide mobile services to senior citizens above the age of 60 in Malaysia. Through its K.A.S.I.H. (*Kasih Atas Sumbangan Ikhlas dan Hemat*) project, the elderly are able to recover in the comfort of their own homes and now have access to nursing and rehabilitation services. LOWHS is expected to expand its services nationwide in 2014.

Achievements and Challenges

LOWHS achieved significant progress in 2013, receiving interest from a United Kingdom-based group to explore collaboration with the company in mobile dental care. LOWHS was also featured on the BBC's *Asia Business Report* on 15 October 2013.

Additionally, on 17 September 2013, the company was appointed by University Malaya Specialist Centre (USMC) to run an in-house rehabilitation clinic, working closely with the hospital's orthopaedics and neurology departments. The company has introduced transition care in USMC to ensure coordination and continuity of healthcare as patients transfer between different locations and different levels of care requirements.

LOWHS has also extended its services to Bank Negara Malaysia (BNM), the Iskandar Regional Development Authority (IRDA) as a strategic partner to develop a Smart Healthy Living City, and also to Maybank.

Due to a lack of awareness on mobile healthcare, LOWHS is facing challenges from insurance companies in introducing home healthcare-related products and services. The industry, in general, will require the Government's active role in creating public awareness among the general public on the mobile healthcare industry.

For example, the K.A.S.I.H. Project, which aims to include mobile healthcare services to JPA pensioners, is still pending due to lack of understanding on the need for the services, particularly post-hospitalisation care. A further challenge seen in the mobile healthcare service industry is a lack of regulation in terms of standard of care and enforcement to eliminate dubious operators.

Moving Forward

LOWHS plans to roll out its services to major cities in Malaysia, specifically Johor Baru and Penang under the first phase and also expand its provision of services to include dental care. The company will continue with its aggressive recruitment efforts and continue working with the MOH to provide its non-acute clinical care services to MOH hospitals and retrain employable nursing graduates. This effort is also to overcome the shortage of nurses and senior physiotherapists, and at the same time, educate and create awareness among the public on the availability and benefits of mobile healthcare services.

EPP 16 Institutional Aged Care

With the rise in the number of aged population in Malaysia, the provision of healthcare services for the aged must encompass every spectrum of ageing, from those requiring minimal care (independent/assisted care) to aged population requiring permanent care.

In order to ensure the quality and standards of care for the aged is consistent and sufficient across all spectrum of ageing, a new law, the Aged Healthcare Act, has been proposed to transform elderly and nursing homes as well as upgrade skills requirements for caregivers under Integrated Residential Care Centres (IRCCs). The new standard will be regulated by the MOH to provide varying levels of care across the different segments of ageing.

Achievements and Challenges

Business communities, including both local and foreign companies, have expressed their interest in establishing IRCCs in Malaysia. The strong showing of interest is due to the realisation of the potential of Institutional Aged Care in tandem with the changing demographics of the Malaysian population.

To ensure the quality and standards of the Institutional Aged Care is at par with the best practice currently observed by contemporaries in other countries such as Australia, Japan and the UK, MOH has engaged all related stakeholders who are or will be involved in the provision of facilities and services for the aged. These discussions will then form the foundation for the draft of the Aged Healthcare Act in December 2013.

Moving Forward

The Aged Healthcare Act is targeted to be passed by Parliament by end of 2014.

EPP 17 Retirement Villages

This EPP will see the development of communities for seniors based on the concept of active ageing in custom-built venues. Opportunities include the development of retirement villages, high-density residences and even retirement resorts. Properties that integrate age-friendly designs and support services will help senior citizens to maintain their quality of life in their own homes with only minimal aid.

Achievements and Challenges

The private sector has demonstrated strong interest in the provision of Retirement Villages, and a few companies have officially applied to partake in EPP 17. The Healthcare Steering Committee is currently evaluating the applications for this EPP.

Moving Forward

With high participation from the private sector gauged this year, the Healthcare Steering Committee is expecting more companies to come forward in 2014 with projects for EPP 17.



Summary of Healthcare NKEA

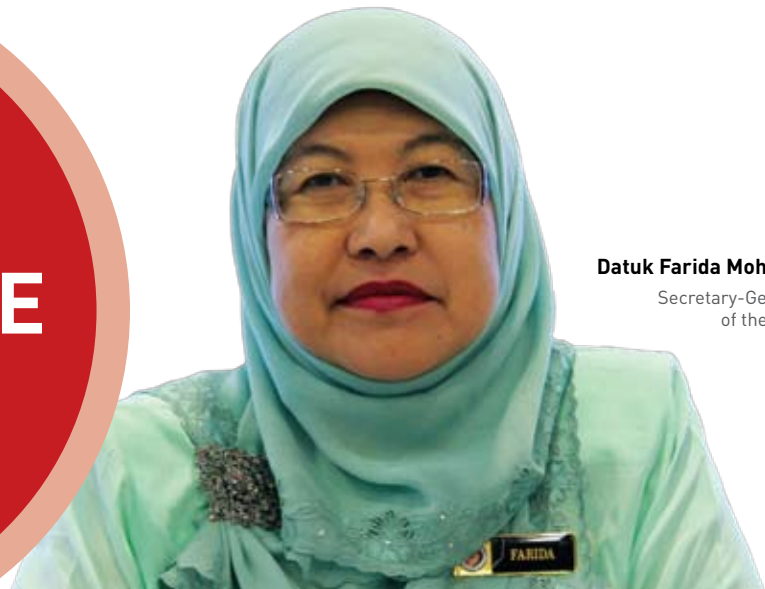
	2020 Target
Incremental GNI Impact	RM35 billion
Additional Jobs	181,000
Critical targets for 2014 <ul style="list-style-type: none"> • The Aged Healthcare Act passed in Parliament by end-2014 • Off-take Agreement Incentive of Medical Devices to be ready for implementation by mid-2014 • Hovid's new plant to start construction in 1Q 2014 • Biocon to be operational by end-2014 • Vigilenz's construction of a new manufacturing plant in July 2014 • UWC's construction of a new manufacturing plant in Batu Kawan in 2Q 2014 • Love on Wheels to start providing services nationwide by end-2014 	



Enabling Change

HEALTHCARE

*on the ground with
the civil service*



Datuk Farida Mohd Ali

Secretary-General
of the MoH

As the lead Ministry implementing the Healthcare NKEA, the Ministry of Health (MoH) works closely with relevant agencies to address coordination and implementation issues, while engaging with private sector stakeholders to better understand their needs.

“In facilitating the implementation of the various initiatives under the NKEA, the civil service provides support to the private sector by providing relevant information on policy and regulatory matters required by the industries and expediting the registration and licencing processes.

“Efforts are also being taken to review the adequacy of current policies in supporting the initiatives under the NKEA. However, the Ministry has to ensure that it is in line with existing Government policies,” says Datuk Farida Mohd Ali, Secretary-General of the MoH.

Through the NKEA, the Ministry has also been instrumental in strengthening Malaysia’s healthcare ecosystem.

This includes providing foreign workers with access to insurance through the Private Health Insurance for Foreign Workers scheme, with health insurance made compulsory for all foreign workers in the country, except plantation workers and domestic helpers, in 2013. Since its launch in 2011, the scheme has provided insurance to over 1.6 million foreign workers in Malaysia.

The Ministry has also achieved great strides in promoting Malaysia’s healthcare offerings to the rest of the world, with revenue generated from healthcare travel growing to RM683 million in 2013 from RM557 million in 2012.

“The healthcare travel market has now extended far beyond patients from Indonesia and nearby countries. We also receive substantial numbers of patients from the UK, Australia, Japan and China as well as the Indian sub-continent. This is due to the vigorous marketing and promotion efforts by Malaysia Healthcare Travel Council. This year, the Chief Secretary to the Government also officiated the opening of MHTC Lounge and Concierge established at the Kuala Lumpur International Airport. This is one of the many measures taken to facilitate the entry of medical tourists into the country,” says Datuk Farida.

Much headway has also been made in developing clinical research in the country, with Clinical Research Malaysia established as a unit under the MoH's Clinical Research Centre in 2011. The unit aims to develop a supportive clinical research ecosystem that will allow for more efficient, higher quality clinical trials. In 2013, it saw 195 new clinical trials registered, surpassing the target of 184 trials set for the year.

Datuk Farida notes, however, that some projects under the NKEA face technical challenges. "However, nothing is insurmountable and with hard work and commitment as well as closer coordination and collaboration with relevant agencies, these issues were able to be resolved.

"Proposals do look good on paper but execution needs to be well planned," she says, adding that proposals must be studied thoroughly. "This is to avoid unnecessary delay and hassle that may not reflect well in the project's overall performance," she adds.

On the overall implementation of the Healthcare NKEA, she notes that to ensure future success, there must be strong and continued commitment from all parties involved. The state of the world economy is another important factor as the growth and export performance of the healthcare industry is also very much dependent on external demand.

"Meanwhile the MoH will continue to facilitate the various stakeholders to improve the implementation of the NKEA and we will make sure that things are not done in the 'business as usual' manner," says Datuk Farida.

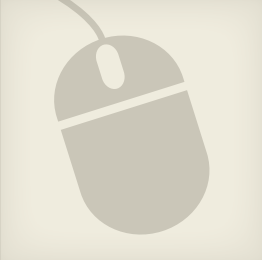


STRATEGIC REFORM INITIATIVES

STANDARDS



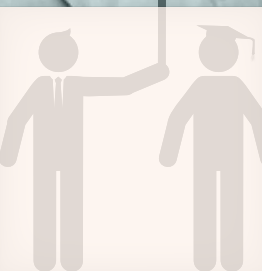
Boosting the Nation's Competitiveness




On 5 July 2011, the Malaysian Government announced six Strategic Reform Initiatives (SRIs), the second critical component of the Economic Transformation Programme (ETP) in addition to the 12 National Key Economic Areas (NKEAs), to boost Malaysia's global competitiveness. The ETP was conceptualised with two key thrusts, to boost GNI, jobs and investment through the 12 NKEAs and strengthen Malaysia's competitiveness, to be delivered by the SRIs.



The six SRIs comprise Public Finance Reform; Reducing Government's Role in Business; Human Capital Development; Public Service Delivery; Competition, Standards and Liberalisation; and Narrowing Disparity.



These six SRIs are based on 37 policy measures recommended by the National Economic Advisory Council (NEAC) from a total of 51 policy suggestions. The remaining measures are now part of the NKEAs and National Key Result Areas (NKRAs) under the Government Transformation Programme.



The SRIs are the result of six weeks of consultation held within six labs in 2011 that involved 500 public and private sectors representatives.



COMPETITION, STANDARDS AND LIBERALISATION



PUBLIC FINANCE REFORM



PUBLIC SERVICE DELIVERY



NARROWING DISPARITY



REDUCING GOVERNMENT'S ROLE IN BUSINESS



HUMAN CAPITAL DEVELOPMENT

COMPETITION, STANDARDS & LIBERALISATION





Dato' Sri Mustapa Mohamed
Minister of International Trade
and Industry



As the main engine of future growth for the country, it is important that the services sector remains competitive and resilient, more so with the challenging global economy.

Malaysia has embarked on a second package of autonomous liberalisation of its service sector involving 18 sub-sectors, of which 15 sub-sectors are now opened for greater foreign participation. These liberalisation measures are expected to enhance foreign direct investment and promote a more conducive and competitive environment for the services sector. To complement the liberalisation initiatives, efforts to streamline regulations and reduce bureaucratic impediments are being undertaken to further facilitate and promote a business-friendly environment. Among others, the measures include reducing the costs of starting a business and establishment of one-stop centres to facilitate processing of documents and simplifying administrative procedures. These initiatives have indeed contributed to improving the business environment in the country, such that Malaysia was recently ranked 6th position in the World Bank's "Doing Business Report 2014", a significant improvement from 8th position the previous year. Additionally, outreach and promotional efforts are being planned to encourage more targeted investments in knowledge-intensive, technology-driven and innovative sectors while exploring opportunities for services providers to venture into potential markets. These efforts will continue to contribute towards the Government's Economic Transformation Programme, and build on the activities and programmes outlined under various initiatives in the development of the services sector.



Datuk Dr Ewon Ebin
Minister of Science, Technology
and Innovation



Standards assume an important role in enhancing Malaysia's competitiveness in the global marketplace.

Compliance of standards will assist Malaysian businesses to meet international regulatory requirements and to broaden market access. Standards, such as ISO 9001 Quality Management Systems, are based on quality management principles that include a strong customer focus, the motivation of top management and continuous improvement. Standards will enable SMEs to be competitive and to tap into the global supply chain. In 2013, our emphasis has been on the development of standards and to strengthen the governance and the use of standards. In 2014, we will focus on increasing the use of standards and the creation of strong domestic and international demand for Malaysian products and services with standards. The National Standards Compliance Programme (NSCP), managed by Standards Malaysia in collaboration with relevant agencies, will provide technical expertise on standards compliance to Malaysian businesses and establish a one-stop centre that provides multiple services including sale of standards.



Dato' Hasan Malek
Minister of Domestic Trade,
Co-operatives and Consumerism



The much-anticipated Competition Act 2010, which was enforced on 1 January 2012, has begun to gain more visibility and traction.

The Act is expected to be a catalyst for economic development and propel Malaysia in reaching its goal of becoming a high-income nation by 2020, through the assurance of a competitive and conducive business environment.

Continued emphasis on promoting public and industry advocacy is still actively undertaken to ensure awareness and understanding of the Act. Understanding and knowledge of the goal of the Competition Act is seen to be crucial for businesses and industry in order to equip them for the full benefits of a competitive marketplace.

COMPETITION, STANDARDS & LIBERALISATION

2013 Ministerial Key Performance Indicators

Competition, Standards and Liberalisation SRI		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
1	Number of conformity assessment bodies accredited	50	61	122	●	100	●	1.0	●
	Operationalise National Standards Compliance Programme	Programme operationalised	Soft launch of OSC on 12 Nov 2013	100	●	100	●	1.0	●
	Number of products certified based on Common Criteria standards	5	5	100	●	100	●	1.0	●
	Number of new Standards Development Agencies appointed	2	2	100	●	100	●	1.0	●
2	Food Production Establishments Certified for food safety assurance system (MeSTI)	400	436	109	●	100	●	1.0	●
	Improved Business Process/ Procedures for private hospitals/ medical specialist clinics	Processes completed and uploaded onto Ministry's website	Processes uploaded on the website	100	●	100	●	1.0	●
	Number of hospitals accredited i) Government Hospitals	20	25	125	●	100	●	1.0	●
	ii) Private Hospitals	10	15	150	●	100	●	1.0	●

(more on next page)

(continued from previous page)

Competition, Standards and Liberalisation SRI		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
3	Development of criteria documents for eco products/services	5	5	100	●	100	●	1.0	●
	Number of products with MyHijau label	50	76	152	●	100	●	1.0	●
	Number of agreements between scheme owners/ Certification Bodies and MGTC placed under the MyHijau label programme	2	3	150	●	100	●	1.0	●
4	Number of new farms certified under MyGAP (Formerly known as SALM)	150	313	209	●	100	●	1.0	●
	Number of new farms certified under MyGAP - Aquaculture (Formerly known as SPLAM)	20	32	160	●	100	●	1.0	●
5	Development of the implementation schedule for regulatory improvement	Dec13	Implementation schedule has been drawn up by all Ministries and Agencies	100	●	100	●	1.0	●
6	Business Process/Procedures for incineration services	Processes completed and uploaded onto Ministry's website	Processes uploaded on the website	100	●	100	●	1.0	●
7	Business Process/Procedures for International/Vocational/Technical Schools	Processes completed and uploaded onto Ministry's website	Processes uploaded on the website	100	●	100	●	1.0	●
8	Reviewing of market conditions to ensure consistency with Competition Law	To conduct at least 1 market review	1 market review completed	100	●	100	●	1.0	●
				122%		100%		100%	

Exhibit 13.1

2013 Non-Ministerial Key Performance Indicators

Competition, Standards and Liberalisation SRI		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
1	Percentage of Standards Developed within new Timeline (Max of 18 months)	80% of standards developed within new timeline	11 out of 12 indigeneous standards developed within timeline	115	●	100	●	1.0	●
2	Number of CNIIs certified to ISMS (cumulative)	150	121	81	●	81	●	0.5	●
3	Completion of Cyber Security Safety Standards Regulations Study	100% Final Report Endorsed	Study is at the interim stage	55	●	55	●	0.5	●
4	MS development on <i>Halal</i> Gelatin Free and Modified Capsules	100% (Completion of Public Comment stage)	Public Comment stage completed	100	●	100	●	1.0	●
5	MS development on <i>Halal</i> Palm-Oil Based Emulsifiers	100% (Completion of Public Comment stage)	Public Comment stage completed	100	●	100	●	1.0	●
6	Amendment of the Architects Act 1967 for further liberalisation of equity conditions and removal of citizenship requirements	100% Amendments gazetted	Draft amendments being finalised for Cabinet approval	30	●	30	●	0	●
7	Amendment of the Engineers Act 1967 for further liberalisation of equity conditions and removal of citizenship requirements	100% Amendments gazetted	Draft amendments being finalised for Cabinet approval	30	●	30	●	0	●
8	To allow the validity period to teach to be up to 5 years (through an insertion in the regulations on Education Act 1996)	100% Validity period of teaching permit up to 5 years operationalised	Extension of validity period operationalised	100	●	100	●	1.0	●

Exhibit 13.2

Method 1 Scoring is calculated by a simple comparison against set 2013 targets. The overall SRI composite scoring is the average of all scores

Method 2 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is less than 100%, score #2 is taken as the actual percentage
- If the scoring is equal or more than 100%, score #2 is taken as 100%. The overall SRI composite scoring is the average of all scores

Method 3 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is equal and less than 50%, score #3 is indicated as 0
- If the scoring is more than 50% and less than 100%, score #3 is indicated as 0.5
- If the scoring is equal or more than 100%, score #3 is indicated as 1



Tan Sri Dato' Hj. Muhyiddin Mohd Yassin officiating the first MyCC Competition Law Conference at KL Convention Centre

Competition

Innovation thrives in a culture in which competition exists, and this will benefit the consumer greatly in terms of efficient production of goods and services.

The Competition Act 2010 was launched by the Government and is a clear commitment by the authorities in enforcing this new law. The implementation of the act is overseen by the Malaysia Competition Commission (MyCC).

Malaysia Competition Commission

The MyCC continues to play an important role in focussing advocacy programmes to the public and enhancing the industry's understanding of the Competition Act 2010. The Commission has received a number of complaints and is undertaking investigations into some of them. These investigations take into account whether the complaints fall within the jurisdiction of the Act and if there is adequate information for an investigation to proceed.

Competition Appeal Tribunal

Representing another component of the competition process, the Competition Appeal Tribunal possesses exclusive jurisdiction to review any decision by the MyCC. Its role is similar to a subordinate court under the Subordinate Courts Act 1948 and it has been empowered to summon parties to its proceedings, and to procure and receive evidence. The Tribunal is composed of a President and seven Members who are experts from the legal, business and economic fields. Its decisions are final and binding.

Achievements and Challenges

In the second year of implementation of the Competition Act, the MyCC continued to gain traction with the business community and the public through its multi-pronged approach.

The Commission's ongoing advocacy efforts included education and awareness programmes, development of its advocacy tool kit that includes literature and educational videos, and a Research Grant Programme (RGP) to encourage research on competition issues. It also organised and hosted the country's first Competition Law Conference on 25-26 September 2013. The conference focussed on new standards for businesses in Malaysia and served as a forum to create awareness on the Competition Act 2010, its purpose and the consequences of non-compliance. The conference was well attended with participants from both the private and public sector, including the legal fraternity.

During the year, the Commission also announced several sectors under investigation and these involved the logistics, transportation and steel industries, with notable big players and also some SMEs. The MyCC also conducted a nationwide public consultation on its Proposed Block Exemption Order for shipping liner agreements to ensure stakeholders' interests were taken into account.

In addition, the Commission conducted a study on one of its priority areas: Issues involving the fixing of prices or fees by professional bodies and how it relates to the Competition Act 2010. The research covered the definition and scope of professional bodies, practices of price fixing by professional bodies in Malaysia, and relevant Malaysian legislation related to price-fixing and professional bodies. It also raised possible considerations for allowing exemptions to professional bodies as well as policy considerations and justifications regarding price-fixing by professional bodies under other competition jurisdictions.

While the MyCC has issued a few Decisions (final and proposed) in the past couple of years, public expectations for the Commission to continuously demonstrate quick results will be challenging. Investigations conducted by the MyCC are time-consuming due to the involvement of substantial research and review, and will require careful study on the impact to the consumers.

Moving Forward

The market must be made more cognisant of the implications of the Competition Act. Industry players need to equip themselves with a better understanding of anti-competitive practices under the Act.

Instilling a culture of competition amongst industry players will take time. Furthermore, acquainting industry and the public with competition law requirements are not necessarily straightforward.

The MyCC will continue to pursue action on complaints received, and focus on advocacy and enforcement activities. The MyCC will also endeavour to complete more market reviews in the future.



Tan Sri Datuk Mustafa Mansur, Chairman of Malaysian Standards & Accreditation Council, making his speech at the soft launch of NSCP

Standards

The Standards component focusses on the development, usage and enforcement of standards for Malaysian goods and services. The Department of Standards Malaysia (Standards Malaysia), an agency under the Ministry of Science, Technology and Innovation (MOSTI), is the national standards and accreditation body, responsible for developing and promoting Malaysian Standards (MS) as stipulated under the Standards of Malaysia Act 1996 (Act 549).

Standards Malaysia is currently focussing on developing standards for 24 sectors. The development of standards for each sector is overseen by an Industry Standards Committee, which ensures that standards developed are aligned with international practices and meet the specific needs of the industry.

Standards Malaysia appoints credible and competent organisations as Standards Development Agencies (SDAs) to develop MS. Previously, only one SDA was appointed to develop standards for all 24 sectors. In 2012, Act 549 was amended to allow the appointment of more SDAs, especially industry and trade associations and professional organisations. Malaysia has taken this approach to encourage the industry to drive the development of standards as practised by developed economies such as Japan, South Korea, Germany, Canada and the US.

The usage of standards, meanwhile, is promoted by various agencies including the Ministry of International Trade and Industry (MITI), the Ministry of Agriculture and Agro-Based Industry, the Ministry of Health, the Ministry of Domestic Trade, Co-operatives and Consumerism, MOSTI and the Energy Commission. The enforcement of mandatory standards is governed by the respective regulatory bodies.

Under this SRI, the development and adoption of standards are undertaken through cross-cutting initiatives and sectoral initiatives.

Cross-cutting initiatives seek to strengthen the ecosystem for the development and usage of standards in Malaysia.

The implementation of standards across sectoral initiatives is presently focussed on the Agriculture, Healthcare and Business Services NKEAs.

Achievements and Challenges

Cross-cutting Initiatives

During the year, Standards Malaysia initiated the National Standards Compliance Programme (NSCP) to increase the awareness, buy-in and usage of standards by industries. As a pilot project of the NSCP, a One-Stop-Centre (OSC) was established on 12 November 2013 in collaboration with SME Corporation Malaysia to act as a coordinating unit to provide information, not only to implementing agencies and trade associations and industries, but also to the public at large who have interest in standards compliance.

The NSCP aims to promote a quality culture amongst industries, especially SMEs, hence enhancing the competitiveness of Malaysian products and services and their marketability in domestic and international markets.

Cross-cutting initiatives, which were initiated in 2012, continued to show positive results in 2013. These include the acceleration of timelines for standards development, where 11 out of 12 indigenous standards were developed within the new timeline.

With regard to SDAs, two new agencies were appointed in 2013, namely the Malaysian Timber Industry Board (MTIB) on 21 August 2013 for timber and timber products, and the Malaysian Institute of Chemistry (Institut Kimia Malaysia - IKM) on 3 December 2013 for chemicals and materials.

Standards Malaysia has also accredited 61 new Conformity Assessment Bodies (CABs). The accreditation of these CABs ensures that they are competent and internationally recognised in multiple relevant fields.

Following the development of a three-year strategic communication plan for Standards Malaysia in 2012, a communication platform to regularise information on the Department and its ongoing efforts was established. Standards Malaysia also endorsed a study that had been commissioned on standards governance processes to establish a more efficient standards mechanism for more effective standards development, usage and enforcement.

Sectoral Initiatives

Agriculture NKEA

Due to the increasingly stringent standards requirements being imposed by importing countries, emphasis was placed towards driving the usage of standards by farmers. Standards in agriculture not only garner market access but also ensure that farming practices are carried out in an environmentally conscious and sustainable manner. Essentially, the focus of agriculture standards was three-fold, namely to achieve competitiveness in production, ensure sustainable farming/food security and to support the initiatives under the Agriculture NKEA.



The new MyGAP certification consolidates SALM, SPLAM and SALT

During the year, the Ministry of Agriculture and Agro-based Industry consolidated three programmes under a single brand, the Malaysia Good Agriculture Practice (MyGAP). These programmes comprised the Department of Agriculture's *Skim Amalan Ladang Baik* (SALM), the Department of Fisheries' *Skim Pensijilan Ladang Akuakultur Malaysia* (SPLAM) and the Department of Veterinary Sciences' *Skim Amalan Ladang Ternakan* (SALT).



Grinding machine for semi-refined carrageenan (SRC) production at MARDI's mini-plant



Dato' Sri Ismail Sabri Yaakob, Ministry of Agriculture and Agro-based Industry at the MyGAP launch

The consolidation of programmes under MyGAP not only ensures Malaysian produce is benchmarked against other Good Agriculture Practices but also the usage of MyGAP allows Malaysia's agriculture produce to gain better recognition and acceptance both domestically and internationally. MyGAP is also a key component in downstream food processing standards, ensuring compliance to global quality assurance standards such as Good Manufacturing Practices (GMP) and Hazard Analysis and Critical Control Points (HACCP), where traceability for the source of raw materials is essential. In 2013, 2,400 farms in Malaysia were certified under MyGAP.

Efforts also continued in the usage of standards for the seaweed industry, following the development of an indigenous standard for seaweed cultivation (MS2467: 2012) and the Seaweed Cultivation Manual in 2012. In 2013, emphasis was placed by the Department of Fisheries on promoting the usage of this standard. 32 farms in Lok Butun, Sabah, have since been the first to adopt the new standard.

Furthermore, the MS2528:2013 standard was developed on dried seaweed from Carrageenophyte, which was approved on 11 March 2013. This standard was initiated by the Department of Fisheries in collaboration with the private sector to determine the minimum acceptable standard such as moisture content, impurities and compliance to food hygiene that is required to achieve industry-grade dried seaweed for carrageenan processing.

Other initiatives undertaken for the seaweed industry include Malaysian Agricultural Research and Development Institute's (MARDI) development of standards for semi-refined carrageenan (SRC). This standard will prescribe the quality specifications, grade, safety requirements and methods of analysis and sampling for dried seaweed from Carrageenophytes, mainly from the *Kappaphycus* and *Eucheuma*.

MARDI has also developed a test-bed (mini-plant) as a reference centre for SRC production. The test-bed has a capacity to process 100 kg of dried seaweed, producing 30 kg of SRC in a day. The facility is aimed at acting as a reference site for standards compliance for farmers and other entrepreneurs who wish to venture downstream to produce high-value products derived from seaweed such as SRC.

In addition, MARDI carried out research and development on the product quality of *durian* for the Australian market. Towards this end, an export trial of chilled minimally processed (MP) *durian* to Sydney, Australia, was conducted in August 2013. MP *durian* refers to *durian* pulp which has been packed for convenience while maintaining its freshness and flavour.

Healthcare NKEA

For 2013, the emphasis on standards in healthcare was to increase the attractiveness of healthcare travel to Malaysia by promoting excellence in services in the healthcare sector. The Ministry of Health carried out several capacity-building programmes to encourage accreditation of private hospitals by the Malaysian Society for Quality in Health (MSQH). 15 private hospitals were accredited under MSQH in 2013, bringing the total number of accredited private hospitals to 42.

The Ministry was also able to accredit 25 public hospitals in 2013, bringing the total number of accredited public hospitals to 112. The MSQH accreditation ensures the provision of quality healthcare facilities and services in the Malaysian healthcare industry.

The Ministry of Health continued with the certification of food processing establishments to ensure compliance to Food and Hygiene Regulations 2009 under the *Makanan Selamat Tanggungjawab Industri* programme (MeSTI). In 2013, 436 premises were certified under the MeSTI programme. This programme also acts as a stepping stone for companies to obtain certification under GMP and HACCP.

Business Services NKEA

The Business Services NKEA includes several industries and professions. However, the focus of standards within this NKEA is on establishing the governance framework for green labelling and the certification of cyber security facilities and products.

Green Labelling

Malaysia's initiatives in green labelling are in tandem with the growth of the green industry globally, which has been driven by growing consumer awareness and demand for sustainably produced products. The labelling system will increase the global competitiveness of local manufacturers while providing consumers with the relevant information to make the right decision when purchasing green products and services.



Product produced from a MeSTI certified premise

A mini-lab on green labelling conducted in 2012 recommended strengthening the governance of green label standards in Malaysia. This is necessary for the standards to be developed in line with international standards, as well as to increase the number of green product standards and the availability of the products in the market.

Towards this end, the Ministry of Energy, Green Technology and Water, together with its agency Malaysian Green Technology Corporation (MGTC), has introduced the MyHijau Programme, under which the MyHijau Labelling sub-programme will coordinate, promote and facilitate the use of certification, ratings and standards for green products and services to Malaysian manufacturers and consumers.



MeSTI certification which shows compliance to the Food and Hygiene Regulations

Three agreements have been signed by MGTC with SIRIM Bhd, the Energy Commission and the National Water Services Commission (*Suruhanjaya Perkhidmatan Air Negara* – SPAN), bringing these three Certification Bodies under the MyHijau programme. This allows collaboration between MGTC and the Certification Bodies in growing the green industry. In 2013, 76 products were endorsed under the MyHijau Programme. MGTC has also developed five green product criteria documents, providing the industry with five criteria that conform to sustainable green standards.

Cyber Security

Amid the current robust ICT development, global digital communities remain exposed to various online threats and cybercrimes. This has created a demand for cyber security in many countries around the world.

For Malaysia, in 2013 there were 10,636 cyber security incidents reported to CyberSecurity Malaysia's Cyber999 Help Centre, which increased by 6.5 per cent from a total of 9,986 incidents in 2012. The high number of incidents call for concerted efforts by various Government agencies and for more effective enforcement to be carried out by the country's cyber security law enforcement agencies.

The Malaysian Government has initiated several control measures to protect the valuable information and services within the Critical National Information Infrastructure (CNII). In this regard, the focus remained on the development of cyber security standards.

Among the initiatives being embarked upon is the compliance to ISO/IEC 27001:2007 Information Security Management System (ISMS) by CNII sectors in Malaysia. This initiative is led by the National Security Council supported by MAMPU and CyberSecurity Malaysia. In 2013, 121 CNIIs were ISMS-certified by CyberSecurity Malaysia and SIRIM.

Apart from ISMS, since 2008, the Government has also approved the appointment of CyberSecurity Malaysia as the sole Certification Body for Common Criteria or ISO/IEC 15408 under the Malaysia Common Criteria Certification and Evaluation Scheme.

Common Criteria standards are useful as a guide for the development, evaluation and/or procurement of ICT products with security functionality. In addition, Common Criteria is also used as the basis for Government-driven certification schemes. The evaluation process establishes a level of confidence that the security functionality of these ICT products and the assurance measures applied to these ICT products meet Common Criteria requirements. The evaluation results may help consumers determine whether these ICT products fulfil their security needs. As of December 2013, a total of 39 products have been Common Criteria-certified under the Malaysia Common Criteria Certification and Evaluation Scheme.

Moving Forward

The focus for 2014 will be on standards usage. Outreach programmes to promote standards and focus group discussions will be given priority to increase the awareness and utilisation of standards, especially amongst SMEs.

Standards Malaysia will collaborate with a number of Government agencies and trade associations for more targeted promotion and to provide customised standards solutions for specific industries.

The Ministry of Agriculture and Agro-based Industry will step up efforts to certify more farms under MyGAP. The recommendations proposed during a crop and aquaculture mini-lab will be implemented in 2014. These recommendations include enhancing MyGAP certification and conducting capacity building programmes for farmers to comply to standards. For aquaculture, steps need to be taken to incorporate certification for the whole value chain to ensure a constant supply of quality fry and to establish partnership programmes between anchor companies and smaller farms to encourage participation for certification.

The Ministry of Health will continue with the MeSTI certification for food manufacturing establishments in 2014. Aside from certifying food manufacturing establishments under MeSTI, the Ministry will also promote and help existing MeSTI-certified establishments graduate to higher standards such as GMP and HACCP. The Ministry will also begin working with supermarkets to ensure that products sold have the minimum MeSTI standards, which in turn will encourage food establishments to certify their products.

On the cyber security front, CyberSecurity Malaysia will target more products for compliance to Common Criteria (ISO/IEC 15408) standards in 2014. In addition, steps will be taken to develop local expertise to train companies for Common Criteria certification.

Liberalisation

The Liberalisation component of this SRI seeks to enhance the capacity and capabilities of local companies through foreign investment and technology transfer. The Government remains mindful, however, that liberalisation must be implemented in a progressive manner. The liberalisation of services is coordinated and monitored by the Malaysian Services Development Council (MSDC) which is chaired by the Minister of International Trade and Industry.

While all the sub-sectors announced by the Prime Minister in previous years have been liberalised, three remaining sub-sectors (architecture, engineering and quantity surveying) are pending amendments to their respective Acts.

In a move to further enhance the role of MSDC, four Working Groups have been established to focus on:

1. **Liberalisation:** To address liberalisation of additional sub-sectors or increase the depth of liberalisation within existing sub-sectors. The Working Group will also attempt to resolve specific issues that impede investment in the liberalised sub-sectors and monitor the implementation and impact of liberalisation of the services sector
2. **Institutional and legislative framework:** To review and propose improvements to regulations or guidelines, including reviewing the restrictiveness of regulations as well as establish/improve processes and procedures to facilitate investment through the Business Enabling Framework (BEF) and promote the implementation of regulatory framework through Good Regulatory Practice
3. **Export promotion and investment:** To coordinate and promote exports of and investment in the prioritised and liberalised sub-sectors with the respective Ministries and Agencies and to address implementation issues on promotion activities. The Working Group will also review and propose incentives for the services sector and monitor the impact and effectiveness of promotional activities
4. **Domestic capacity and human capital development:** To ensure capacity building and human capital development programmes for SMEs, particularly in the liberalised sub-sectors, are competitive and sustainable

Achievements and Challenges

The Government is looking at streamlining and reviewing domestic regulations in the liberalised sectors. In this respect, a study was carried out to evaluate Malaysia's business competitiveness and ease of doing business vis-à-vis the existing domestic regulations currently governing the healthcare travel, technical and vocational education and training, private higher education and renewable energy sub-sectors. Implementation plans are being drawn up by respective Ministries and Agencies to address regulatory concerns identified in the Study.

To deliver the full benefits of liberalisation, improvements were made to the processes and procedures of setting up businesses in the liberalised services sub-sectors. The Malaysia Productivity Corporation (MPC), an agency under MITI, was tasked by the MSDC to map out the regulatory framework for the autonomously liberalised service sub-sectors. The objective was to capture government formalities in setting up and operating businesses in the liberalised services sub-sectors.

To date, the business enabling frameworks (BEF) for all 15 autonomously liberalised services sub-sectors announced in Budget 2012 as well as the 27 sub-sectors that were autonomously liberalised in 2009 have been completed. For transparency, these BEFs, which document policy instruments such as permits, licenses, registrations, approvals and assessments required to be complied by businesses, both local and foreign, have been uploaded on the respective websites of sectoral Ministries as well as on the services webpage of MITI's web portal (<http://myservices.miti.gov.my/>).

While liberalisation of sub-sectors alone may not assure increase in FDI, Good Regulatory Practices (GRP) need to be imposed for a more conducive and competitive business environment. To this end, a National Policy on the Development and Implementation of Regulations was launched by the Chief Secretary to the Government on 15 July 2013.

Under the National Policy on the Development and Implementation of Regulations, all Federal Government regulators must undertake the Regulatory Impact Analysis (RIA) and present the Regulatory Impact Statement (RIS) in the creation of all new regulations or review of regulations that relate to or impact businesses, investments and trade upon assessment by MPC. This will allow for sound analysis, informed decision-making, and ensure transparency in all new and amended regulations.

Moving Forward

The focus in 2014 will be on enhancing the ecosystem for the liberalisation of services. The Government will also continue with capacity-building programmes for domestic service suppliers.



National Policy on the Development and Implementation of Regulations Handbook



Enabling Change

COMPETITION, STANDARDS AND LIBERALISATION

*on the ground with
the civil service*



Dato' Saripuddin Kasim

Secretary-General
of MDTCC

A component of the Competition, Standards and Liberalisation (CSL) SRI; the Competition Act 2010 enforced on 1 January 2012, is still a new law in Malaysia that requires much awareness, education and advocacy before it can achieve its full potential of cementing a culture of competition in the country.

"It took almost a decade before Malaysia had her own regulation or an Act that guided the economy to behave in accordance with the new established law; the Competition Act 2010. For the Ministry of Domestic Trade, Co-operatives and Consumerism (MDTCC), its role is to introduce, promote and enforce the Competition Act 2010 by assisting in the establishment of an effective, competent competition authority.

"The Ministry was responsible for the passage of the competition bill through Parliament and the setting up of the Malaysia Competition Commission (MyCC), which is an independent agency under the umbrella of the Ministry. I served as a Member of the Commission and thus am actively involved in the policy direction and decisions on cases made by MyCC. The civil service is vital because they are instrumental in ensuring that there is sufficient budget, manpower and compliance to the provision of the Competition Act," explains Dato' Saripuddin Kasim, Secretary-General of the Ministry.

Following the establishment of MyCC in April 2011 and subsequently the Competition Appeal Tribunal, Dato' Saripuddin says the most important step now is to advocate that policy-makers, Government bodies and agencies understand the importance of ensuring that a holistic and consistent implementation of competition policy and law is always in place.

"Being a new organisation in the system, MyCC has done its level best to educate the economic community as well as the general public on what the competition policy and law is all about. The biggest hurdle was the limited knowledge on competition policy and law across the entire public services sector. Furthermore, it is also quite difficult to advocate a 'market-driven approach' and the importance of the competition policy and law ecosystem in formulating and implementing policies for the general economy.

"Today however, after numerous advocacy efforts by MyCC, Government agencies are more receptive to our requests as they have a better understanding of our ultimate goal, which is economic development through competition," says Dato' Saripuddin.

He says going forward, further efforts will be undertaken to ensure the effective implementation of the competition policy and law ecosystem, while more measures are also needed to increase the technical capacity of policy makers and the civil service in general, with regard to competition policy and law.

"I believe that a change in the current thinking and culture is required, as competition law is a completely new concept. The civil service has to come to terms with this new doctrine and take it into consideration when formulating and implementing laws and policies. We need to ensure that the civil service understands the importance of competition and how it benefits the Malaysian economy as a whole.

"Only when they understand the bigger picture will they be inclined to adopt a culture of competition. This can only be done through continuous engagement with the civil service on competition issues. In the course of our engagement with other Government agencies and the public, issues with potential anti-competitive elements are sometimes raised. Ministry personnel are being trained to recognise potential competition infringements and then refer them to MyCC for their action," he says.

To this end, the Ministry is also working hard to ensure that those involved receive the proper training so that they are able to discharge their responsibilities in the best possible manner. Dato' Saripuddin says, this is as the civil service must take the lead in ensuring that all policies and practices implemented are in line with the Competition Act 2010. "They should also do whatever is in their power and purview to fully support the implementation of this SRI," he notes.

Overall, Dato' Saripuddin believes that the country is making steady progress in using competition as a tool to achieve Vision 2020. "In demonstrating that MyCC is serious in enforcing the law and are impartial in who they investigate, I think by 2020 we will definitely see an environment with more healthy competition and this will assist in the desired economic development," he says.



Dato' Dr. Rosli Mohamed

Secretary-General of MOSTI

Nurturing a culture of quality forms an important part of raising the country's global competitiveness. The Ministry of Science, Technology and Innovation leads the standards component under the Competition, Standards and Liberalisation (CSL) SRI to achieve this.

"In order to penetrate the international market and thus generate more economic impact, Malaysian products and services should adhere to globally-accepted quality. Even though there are initial compliance costs, in the long-run, standards protect us from the adverse effects of sub-standard goods and/or services," says Dato' Dr. Rosli Mohamed, the Secretary-General of MOSTI.

In view of this, the Department of Standards Malaysia (Standards Malaysia), an agency under MOSTI, has been entrusted with developing and promoting Malaysian Standards (MS). Efforts taken by Standards Malaysia include constant engagement with the private sector to encourage companies to meet the relevant standards. This supports an innovation-led economy as well as the adoption of best practices in quality and sustainability. Subsequently, global market access for products and services will be enhanced, raising the profile of our own Malaysian brand.

"The dynamic changes in the world economy require us to constantly improve our products. Similarly, we need to review our MS regularly to fit in with current trends. At the end of the day, it is not the number of MS that matters, but the relevancy within which the context of MS is practised; i.e in our economy and societal well-being," says Dato' Dr. Rosli.

In 2013, Standards Malaysia put much of its focus on operationalising the initiatives put in place in the previous year. This followed amendments to the Standards of Malaysia Act 1996, with the legislation essentially updated to reflect changes in the standards landscape since 1996.

"Prime Minister Dato' Sri Mohd Najib Tun Hj. Abdul Razak has said that our last mile towards the year 2020 will have to be a sprint. Thus, Standards Malaysia proposed that the Act be amended to inculcate a shift in the standards culture from being Government-driven to being industry-driven.

Another area the Department put much effort in during the course of 2013 was in the compliance of standards, hand-holding industry associations through this process. With assistance from PEMANDU, Standards Malaysia aggressively organised workshops and seminars on how businesses can use standards to improve the quality of their products and become more competitive.

"Sometimes, the adoption of standards is seen by companies as a cost rather than an investment. Hence, we have to guide the industry and assure them that if they adopt standards, they will become more competitive. We've also put a lot of energy into addressing companies' concerns on standards adoption," says Pn. Fadilah Baharin, the Director-General of Standards Malaysia.

She adds that among the next steps for the Department is to become a one-stop centre for companies to seek information on standards as, "With tariffs being zero [in ASEAN], the only platform you can sell your products on is quality. That's the only weapon for companies who want to compete on the global stage."



Datuk Dr. Rebecca Sta Maria

Secretary-General of MITI

As the Ministry leading the liberalisation component of the Competition, Standards and Liberalisation (CSL) SRI, the Ministry of International Trade and Industry (MITI) has been tasked with overseeing the autonomous liberalisation of the services sector, which has been ongoing since 2009. The sub-sectors of 45 services have been announced for liberalisation since then, of which the first package of 27 sub-sectors announced in 2009 have been fully liberalised. Meanwhile, 15 out of 18 sub-sectors announced under the second package have been liberalised to-date.

“What is important now is ensuring that there is implementation and we get the necessary investments into those sectors. The reason we implemented autonomous liberalisation is to support the New Economic Model’s target for the services sector to provide the next phase of growth for Malaysia,” says Datuk Dr. Rebecca Sta Maria, the Secretary-General of MITI.

She adds that the crucial step forward in liberalising the services sector is to ensure domestic regulations support the opening up of the market. “The services sector is complex. Some sub-sectors are regulated while others are not; and there may also be many regulators in one sector. Therefore, the Malaysian Productivity Corporation (MPC) is mapping out the number of regulators and regulations in the sub-sectors, to evaluate which are really necessary. If some are a barrier to businesses, those may be taken out.

“MPC is also identifying measures that need to be undertaken by the different regulators to make it easier to do business [in Malaysia] and encourage investments. That’s a work-in-progress, and that’s the bigger part of liberalisation,” says Datuk Dr. Rebecca.

She also notes that as with the process of liberalisation implemented in any country, Malaysia, too, has had its fair share of challenges in opening up its markets. These include anxiety from industry players and regulators alike on the changes that accompany liberalisation.

However, the Government has been able to extract lessons from its liberalisation of the manufacturing sector. The sector, now fully liberalised, first underwent liberalisation in 1997, at a time when the Malaysian economy was in the midst of the 1997/1998 Asian Financial Crisis. Nonetheless, the downturn provided the Government with an opportunity to institute important reforms to the economy, with the manufacturing sector liberalisation helping to restore the local economy.

“We try and tell companies who have anxiety around liberalisation, ‘This is what we did for the manufacturing sector, and here are the results.’ Some will have to make adjustments [to their operations], but that’s expected with competition.

“You should also look at the opportunities that can come from opening up the sector. For example, we do not have the full range of legal expertise in Malaysia. Therefore, we are specifically targeting those areas in which we can build our capabilities, for example through joint ventures which can bring that expertise into the country.

“It’s not really about competing with you, but adding value to what you have on the ground. That’s what we’re trying to do in service liberalisation, finding the expertise gaps and bringing investment in those areas,” says Datuk Dr. Rebecca.



PUBLIC FINANCE REFORM





Dato' Seri Ahmad Husni Mohamad Hanadzlah
Minister of Finance II



The Government's initiatives to reduce the fiscal deficit continued to pick up pace in 2013, creating positive momentum going forward.

This has been supported by initiatives under the Public Finance Reform SRI which aim to increase the Government's revenue while prudently managing expenditure.

In view of this, the fiscal deficit is expected to decline to 3.5 per cent of GDP in 2014 from four per cent in 2013, with federal debt projected to come in at 54.7 per cent of GDP. This will continue to be below the Government's debt ceiling of 55 per cent of GDP.

Following this trajectory, and with the Government remaining steadfast in administering its finance in a responsible manner, I am confident that Malaysia is in good stead to achieve a balanced budget by 2020.



PUBLIC FINANCE REFORM

The Public Finance Reform SRI is targeted at supporting the Government's goal of reducing its budget deficit to around three per cent by 2015 and achieving near budget neutral by 2020.

This is in line with recommendations from the New Economic Model (NEM), which were then used to develop a list of initiatives to achieve these fiscal policy targets. These initiatives will be carried out through to 2015 and have been implemented since 2011.

2013 Key Performance Indicators

Public Finance Reform SRI		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
1	Enhancement of tax administration and compliance - Direct Tax (RM mil)	1,727	1,795	104	●	100	●	1.0	●
2	Enhancement of tax administration and compliance - Indirect Tax (Royal Malaysian Customs Department) (RM mil)	100	125.02	125	●	100	●	1.0	●
3	Implementation of Accrual Accounting Activities in 2015: Self Accounting Department's (SAD's) setup completed	100%	100%	100	●	100	●	1.0	●
4	Widening e-Bidding Scope - Reducing threshold value from RM200k to RM50k for procurement of goods & services (savings from e-Bidding activities in RM million)	20	20.99	105	●	100	●	1.0	●

(more on next page)

(continued from previous page)

Public Finance Reform SRI		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
5	Eliminate Incompetent Suppliers/Service Providers (number of taskforce and panel meetings held to resolve issues and penalise suppliers depending on complaints received - in percentage form)	100%	100%	100	●	100	●	1.0	●
6	Implementation of GST activities for year 2013	100%	92.5%	93	●	93	●	0.5	●
				104%		99%		93%	

Exhibit 13.3

Method 1 Scoring is calculated by a simple comparison against set 2013 targets. The overall SRI composite scoring is the average of all scores

Method 2 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is less than 100%, score #2 is taken as the actual percentage
- If the scoring is equal or more than 100%, score #2 is taken as 100%. The overall SRI composite scoring is the average of all scores

Method 3 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is equal and less than 50%, score #3 is indicated as 0
- If the scoring is more than 50% and less than 100%, score #3 is indicated as 0.5
- If the scoring is equal or more than 100%, score #3 is indicated as 1

Achievements and Challenges

Transparent Procurement

Savings Through E-Bidding

The Widening e-bidding initiative has been implemented since April 2011 whereby the threshold for e-bidding has been reduced from RM200,000 to RM50,000. With this reduction in threshold, e-bidding can be implemented for procurement valued between RM50,000 and less than RM500,000. RM500,000 is the minimum threshold for tender.

The procurement for the following products is carried out through the online bidding method:

- Generic goods with a standard set of specifications which do not require technical evaluation
- Goods and services which are managed under the panel system
- Generic types of services with a common set of scope and specifications

For 2013, a total of RM20.99 million was saved, hence the total transaction is valued at RM135.7 million. The methodology used to calculate the savings is the difference between the lowest offered price prior to the bidding process and the final price offered by the successful bidder.

Capacity Building Programme For Procurement Officers

The National Institute of Public Administration (INTAN)/ Public Service Department (JPA) in collaboration with the Ministry of Finance (MoF) and Auditor General's Department rolled out the *Sijil Pentausahaan Perolehan Kerajaan* (SPPK) course, a programme designed to further enhance the capability of the procurement officers. The course was launched by the Chief Secretary to the Government of Malaysia, Tan Sri Dr Ali Hamsa on 29 April 2013. The programme aims to equip procurement officers with better tools, such as value management for operating expenditure, procurement planning, spend analysis as well as expertise to manage procurement.

The SPPK course is divided into two modules, comprising a basic module and an advanced module. Each module is taught over a period of two full weeks. Officers are assessed at the end of the training module and only those who pass the test are accredited as "full-fledged" procurement officers. Whilst the training module is developed for both officers in the Management and Professional group as well as the supporting staff, it commenced with training for the officers as they are the main personnel in charge of Government procurement.

Since its inception, a total of 66 officers have been trained and passed the basic module. Of these, 49 officers have attended the advanced module and all of them passed and have been accredited. Both modules are made up of assessments and assignments.

The officers who have been trained are now better equipped with the required knowledge and tools, and are expected to perform better at work. For 2014, INTAN plans to train another 60 officers for the basic module and 50 officers for the advanced module, including those who did not attend training for the advanced module in 2013. In addition, an on-the-job evaluation is currently being developed to measure the effectiveness of the SPPK course.

Improving Tax Compliance and Administration

Inland Revenue Board of Malaysia

The Inland Revenue Board of Malaysia (IRBM) continued implementing the initiatives which were developed together with representatives from the tax consultancy industry during the Public Finance Reform SRI lab in 2011.

Since its implementation, the IRBM identified approximately 70,000 companies registered as new taxpayers. This was completed by acquiring data from the Companies Commission of Malaysia and conducting a matching process with the IRBM database through the newly developed Centralised Monitoring System (CMS). In addition, IRBM's intensified survey activities resulted in higher compliance and awareness amongst the public and taxpayers on the Board's tax collection activities.

To improve efficiency in tax submission and collection, the IRBM has increased the number of banks available for tax payments. Furthermore, the introduction of mobile filing (m-filing) created another avenue for taxpayers to submit their tax returns, increasing tax compliance. The IRBM also successfully implemented the "pre-fill" initiatives with public and private sectors employers. In addition, auto-reminders and phone calls were made to taxpayers with a large amount of outstanding tax, enhancing tax collection compliance. The implementation of these initiatives resulted in an additional revenue collection of RM1.8 billion in 2013.

The IRBM will exhaust its resources to ensure that the collection of direct taxes continues to rise. At the same time, GDP growth must be healthy enough to complement IRBM's activities to ensure higher collection of revenue.

Royal Malaysian Customs Department

Like the IRBM, the Royal Malaysian Customs Department (RMCD) has also been tasked with improving tax compliance and administration. In this respect, the RMCD will continue to implement the following initiatives to improve indirect tax collection:

- i. Audit-based control on exporters and importers of liquor and cigarettes in duty-free islands and Free Commercial Zones
- ii. Enhanced customs enforcement/audit

In 2013, RMCD surpassed its actual collection target of RM100 million with a total collection of RM125.02 million. However, the Department faces legislative issues in implementing audit-based control on exporters and importers of liquor and cigarettes in duty-free islands and Free Commercial Zones. As such, the RMCD has decided to focus on enhancing customs enforcement/audit.

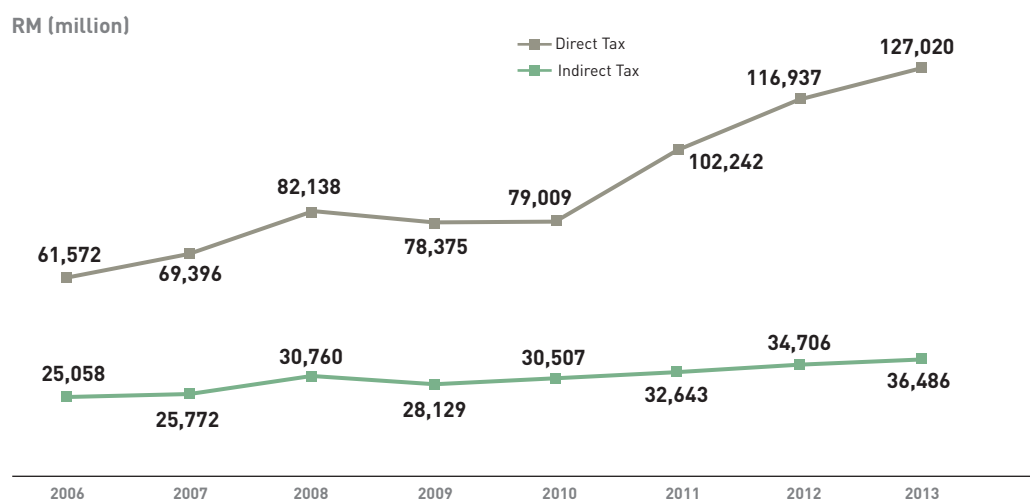
The enhanced enforcements include:

- i. Informing businesses of new audit requirements for special audits (joint operation) and periodic audits
- ii. Increasing audit coverage on registered licensees and importers by reviewing audit targets and enhancing the competency of audit officers through capacity-building and
- iii. Improving audit mechanisms by:
 - Increasing the number of licences of Computer Assisted Audit Techniques (CAAT) software
 - Revising standard auditing procedures
 - Issuing internal guidelines on auditing

- Enhancing e-Audit for audit reports and risk assessments
- Enhancing risk management systems
- Developing a networked system for information sharing
- Enhancing tax compliance
- Developing a systematic and efficient debt management system

The spillover effects of the initiatives under the Improving Tax Compliance and Administration programme remains encouraging and helps to contribute to the increase in revenue collection. Tax collection for direct tax shows continued growth since its implementation in 2011. In 2013, total direct taxes collected rose to RM127.02 billion against RM116.94 billion in 2012. For indirect tax, the total collection has increased to RM36.49 billion in 2013 from RM34.71 billion in 2012.

Direct and Indirect Tax Collection



* Figure for 2013 is latest revised estimate, subject to final changes in 3Q/4Q 2014

Exhibit 13.4

Source: Ministry of Finance, Malaysia

Broad-based Tax

During the tabling of Budget 2014 on 25 October 2013, the Prime Minister proposed the introduction of a Goods and Services Tax (GST) to replace the current Sales Tax and Service Tax (SST). The implementation of the GST, targeted for 1 April 2015, has been proposed at a rate of six per cent. Unlike the SST, which is only imposed on certain stages in the procurement of goods and services at a normal rate of 10 per cent and six per cent respectively, GST is a broad-based tax which is imposed at each value-adding stage of the supply chain, from production of raw input to the sale of the end product.

The implementation of the GST is expected to improve the efficiency, effectiveness and transparency of Malaysia's taxation regime as compared with the current SST which has more loopholes and weaknesses while continuing to serve as one of the main contributing sources of revenue for the Government. It is also a business-friendly taxation system as it enables businesses to reduce their costs by allowing claims for GST incurred on their business inputs as opposed to the SST which is deemed as a cost component by businesses. Meanwhile, consumers will benefit as some basic essential goods such as rice, vegetables, cooking oil and fish will not be subject to GST.

However, the introduction of the GST, which has already been deferred since it was first announced in Budget 2005, is expected to see some hurdles. The main issue is public acceptance of the tax, as there remain concerns from the *rakyat* that prices will rise upon its implementation.

In order to address this and increase the *rakyat's* understanding of the GST, the Government will undertake measures including:

- Organising continuous awareness programmes such as public consultations, forums and seminars with consumers
- Increasing publicity on the GST through mainstream and new media
- Uploading information for consumers on the GST portal
- Collaborating with consumer associations and non-Governmental organisations to educate consumers
- Conducting roadshows at public places such as shopping complexes, schools and community centres

Accrual-based Accounting

Preparations for the implementation of accrual-based accounting, scheduled for 2015, continued to progress well in 2013. In March, the Treasury issued Circular No. 4 Year 2013 to explain the roles and responsibilities of financial controlling officers in implementing accrual-based accounting.

Furthermore, to ensure the smooth implementation of the new accounting system, the Accountant General was appointed as a "Change Ambassador" to drive the conversion towards accrual-based accounting. Towards this end, a Change Management Plan was released in May 2013 to ensure the parties involved understand the new system and fully commit to its implementation.

In addition to the preparation of its implementation, data collection of the opening balances of assets and liabilities began in April 2013 in all Ministries and agencies. Data collection will remain ongoing until December 2014.

In September 2013, the Public Service Department (JPA) approved the establishment of the Self-Accounting Department at 15 Ministries, creating 300 new positions. The establishment of the Department will improve the Ministries' preparations for accrual-based accounting, especially with regard to data collection and change management.

The development of a blueprint for accrual-based accounting (1GFMAS) is ongoing, with the design of the functional system approved in October 2013. The design for the functional support and technical systems was finalised in December 2013. Testing and development of the systems will be carried out in 2014.

Up until December 2013, 20 Malaysia Public Sector Accounting Standards (MPSAS) have been prepared and approved by the Government Accounting Standards Advisory Committee, where 11 MPSAS were approved by the Accrual Accounting Steering Committee.

Goods and Services Tax (GST)

The Government's decision to introduce the GST is driven by efforts to plug in loopholes and weaknesses in the current Sales Tax and Service Tax (SST). This taxation mechanism also helps to correct the imbalance created by Malaysia's growing dependence on direct tax revenue compared with indirect tax revenue as well as the dependency on oil revenue.

The GST will replace the SST as opposed to the common belief as being an additional tax to SST. The GST will overcome weaknesses of the SST which include tax cascading and tax compounding – SST is used as cost to businesses as they are not claimable as opposed to GST, transfer pricing and value shifting; and incomplete tax relief on exported goods. The SST regime has also shown to discourage vertical integration while increasing bureaucracy.

By implementing the GST, Malaysia will follow in the footsteps of 160 countries which have introduced the new regime, some as far back as 1954. At the rate of six per cent, Malaysia's proposed GST will be among the lowest in the world and less than in the seven ASEAN countries which have implemented the tax system.

No.	Country	GDP Per Capita (World Bank, 2011, USD)	Year of Implementation	Initial Rate (%)	Current Rate (%)
1	Indonesia	3,495	1984	10	10
2	Thailand	4,972	1992	7	7
3	Singapore	46,241	1993	3	7
4	Philippines	2,370	1998	10	12
5	Cambodia	897	1999	10	10
6	Vietnam	1,407	1999	10	10
7	Laos	1,320	2009	10	10

Exhibit 13.5

The GST will be charged on the supply of both Malaysian-made and imported goods and services. While the new system may result in a slightly higher tax burden on consumers, this will depend on the consumers' consumption patterns. Additionally, the Government is considering offering tax and non-tax packages to ease any possible increases in the tax burden.

More importantly, the implementation of the GST takes into account the needs of low- and middle-income households, as basic items such as rice, poultry, meat, vegetables, flour, cooking oil, sugar, residential and agriculture properties, education and health services will not be subjected to the GST through the zero-rated and exemption mechanism.

The Government will also enforce strict measures to ensure traders do not use the GST to raise prices unnecessarily. In this regard, the Government will enforce the Price Control and Anti-Profiteering Act 2011. The Government will publish the Shopper's Guide and make supermarkets the point of benchmark pricing. Prices will be monitored by The National Price Council. Traders that do not comply with the regulations will be imposed heavy fines and penalties.

PUBLIC SERVICE DELIVERY





Tan Sri Dr Ali Hamsa
Chief Secretary to the Government



The Public Service Delivery SRI has played a key role in meeting the needs of both the *rakyat* and the business community.

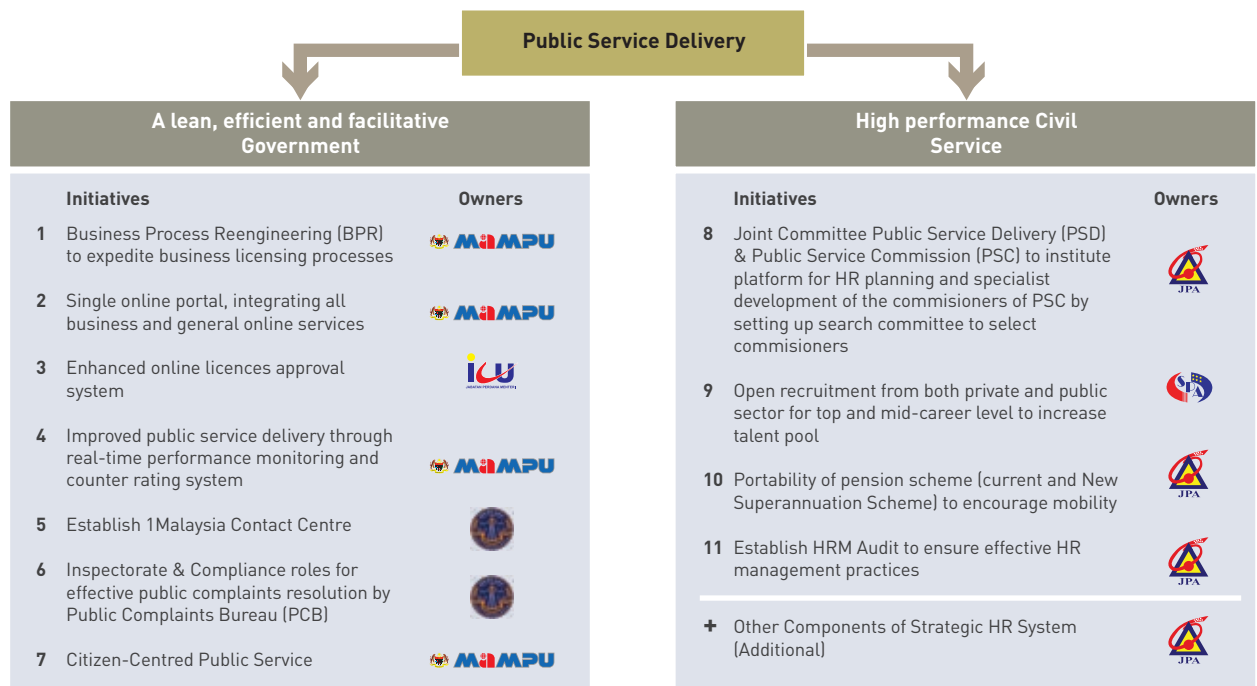
In further recognising the importance of its services, and to enhance the quality of those services, the Government has moved to undertake the Public Service Delivery Transformation programme. As we embark on this new journey, I am pleased to present the successes recorded by this SRI since its inception up to 2013.



PUBLIC SERVICE DELIVERY

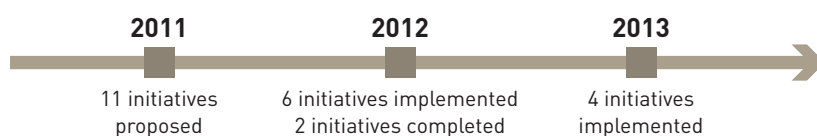
The Public Service Delivery SRI has sought to enhance the Government's efficiency in business and public-related services and shift the country's civil servants towards a high-performance culture.

Towards this end, this SRI identified 11 initiatives:



The Journey To Date

While the majority of the initiatives under this SRI have progressed well, some did not commence. This was due to reasons such as overlaps with existing projects and a lack of support from stakeholders. The progress of the 11 initiatives from 2011 to 2013 is as follows:



2013 Key Performance Indicators

Public Service Delivery SRI		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
1	Percentage progress of Single Sign-On projects: Complete development and implemented in 20 Agencies	50%	50%	100	●	100	●	1.0	●
2	Roll out of real-time monitoring to Ministries/Agencies	17	17	100	●	100	●	1.0	●
3	BLESS implementation	100%	100%	100	●	100	●	1.0	●
4	Number of licences abolished	19	0	0	●	0	●	0	●
				75%		75%		75%	

Exhibit 13.6

Method 1 Scoring is calculated by a simple comparison against set 2013 targets. The overall SRI composite scoring is the average of all scores

Method 2 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is less than 100%, score #2 is taken as the actual percentage
- If the scoring is equal or more than 100%, score #2 is taken as 100%. The overall SRI composite scoring is the average of all scores

Method 3 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is equal and less than 50%, score #3 is indicated as 0
- If the scoring is more than 50% and less than 100%, score #3 is indicated as 0.5
- If the scoring is equal or more than 100%, score #3 is indicated as 1

Achievements and Challenges

Single Sign-On (SSO) System

The SSO system is being put in place to achieve further efficiency and integration within the Government's processes, enabling a secure single access identity gateway for users to access all Government agencies' online services through the myGovernment Portal.

As at December 2013, 100 per cent of the project had been completed. 20 Ministries and agencies are now using the system under Phase 1 and Phase 2. Phase 3, also involving 10 agencies, is expected to commence in May 2014 with completion due in June 2014.

Schedule 1 shows the Ministries and agencies which have implemented the SSO system.

Ministry/Agency	System
National Higher Education Fund (<i>Perbadanan Tabung Pendidikan Tinggi Nasional</i> /PTPTN)	Education Funding Application System
Department of Environment	eConsignment Note (Solid Waste Management System)
Royal Malaysian Police	PDRM Online Verification System
Minister of Foreign Affairs	eKonsular
Ministry of Agriculture	Agro-Tourism Information System
Department of Fisheries	Fisheries Information Network
Ministry of Education	Scholarship Verification System
National Registration Department	myKad Replacement Application System
National Population and Family Development Board	HPV Vaccination System
Ministry of Youth and Sports	E-Belia
Ministry of Plantation Industries and Commodities	K-Commodities
Ministry of Finance	Integrated Housing Loan System (SPPB)
Ministry of Domestic Trade, Cooperatives and Consumerism	E-Tribunal System
Road Transport Department	<i>MYSIKAP</i>
Department of Statistics	E-Services
Farmers' Organisation Authority	<i>EPELADANG</i>
Intellectual Property Corporation of Malaysia	IP Online System
The Registry of Societies of Malaysia	<i>EROSSES</i>
Fire and Rescue Department	EFEIS (Fire Extinguisher Inspection System)
National Library	<i>UPUSTAKA</i>

Exhibit 13.7: Schedule 1

Due to strong cooperation from participating Ministries and agencies, the implementation of the SSO initiative has been on track and is expected to be completed on schedule.

Real-Time Performance Monitoring System

The real-time performance monitoring system focusses on rating the performance of the civil service and evaluating the efficiency of the delivery system at an individual level. Monitoring is performed by employees' internal stakeholders via an online system. This allows management to respond quickly to reports of errant officers and execute immediate remedial actions as well as identify well-performing officers.

As at December 2013, development of the system for 17 agencies was 100 per cent completed, including a user acceptance test.

Business Licensing Electronic Support System (BLESS)

Phase I of BLESS was completed in 2009. Phase II and III of BLESS commenced in 2010, following the completion of the Business Process Re-engineering (BPR) initiative. BLESS Phase II and III aims to incorporate the revised business licenses applications and approval processes to further improve ease of doing business in Malaysia.

The implementation of BLESS has improved various elements of the business license application and approval process, including:

- The establishment of a One-Stop Centre and Online Application for licenses/approvals/permits
- Sharing of Information between Companies' Commission of Malaysia (CCM) and BLESS has allowed companies to enclose hard copies of Forms 9, 24, 44 and 49 when submitting an application for business licences/approvals/permits
- Online communication between an applicant, license issuing agency and technical agencies to enable faster, simpler and more efficient decision-making on applications
- Online payment via credit card and FPX (direct debit)
- Online tracking of application status and improvement on time

In the development of BLESS Phase II and III, 498 licenses underwent a User Requirement Study (URS). To date, 103 licences have gone live while 151 licences involving 11 Ministries are being developed or integrated into BLESS. Since its inception in 2008, the number of applications received through BLESS has risen from 1,204 in 2012 to 15,471 in 2013. The increase in the utilisation of the system is attributed to awareness programmes which have been conducted.

Annual Application Statistics

until 20 Dec 2013 @ 06.00PM

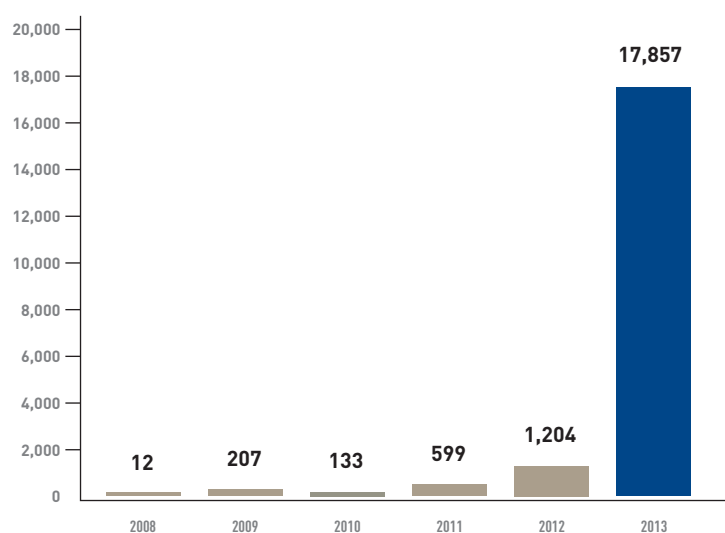


Exhibit 13.8

Despite positive progress in the implementation of BLESS, users in Government agencies took some time to adjust and adapt to the new process in its initial stage. At the same time, some members of the business community were sceptical of the security of the online system while others were unwilling or uncomfortable to use the system. Inadequate network infrastructure and inconsistency of bandwidth also presented impediments to the smooth implementation of the system.

Abolishing Licenses

Under this initiative, all business licenses were assessed to reduce redundancies and overlaps.

Following the abolishment of nine licenses in 2012, further licenses underwent various stages of the abolishment process in 2013. These include eight licenses which are under review by the Attorney General's Chambers and one license which is scheduled to be tabled at the next Parliament sitting. Another license is scheduled to be tabled at the next Cabinet sitting. Furthermore, the amendments to one license are being finalised to ensure it is more stakeholder-inclusive, while three licenses remain under review due to overlapping policies with another Ministry. It has also been decided that five licenses will no longer be abolished.

The abolishment of licenses requires comprehensive reviews of its corresponding Acts and regulations in its entirety. The completion of draft regulations may also take time as it is subject to review and approval of the Attorney General's Chambers. In addition, overlapping issues such as policy must be resolved before new licensing laws are tabled to Parliament. Furthermore, amendments to licensing regulations require consultations with stakeholders to ensure comprehensive review.

Moving Forward

Thus far, the implementation of the Public Service Delivery SRI has been business-centric. While this has helped to strengthen the environment for conducting business and attract investment, more focus is now required to ensure that the public's needs are also met.

In view of this, this SRI will be transferred to a higher platform with the introduction of the Public Service Delivery Transformation (PSDT) programme. While business-friendly efforts will continue, the PSDT will also strengthen the delivery of services to the *rakyat*, addressing emerging needs in tandem with Malaysia's transformation into a high-income economy.

These needs are related to factors such as the country's shifting demographics (i.e. an ageing population and a larger female population) and growing urbanisation, which has raised considerations for housing, education and the crime rate. The PSDT will therefore be more focussed on improving the processes and raising the efficiency of public service delivery.

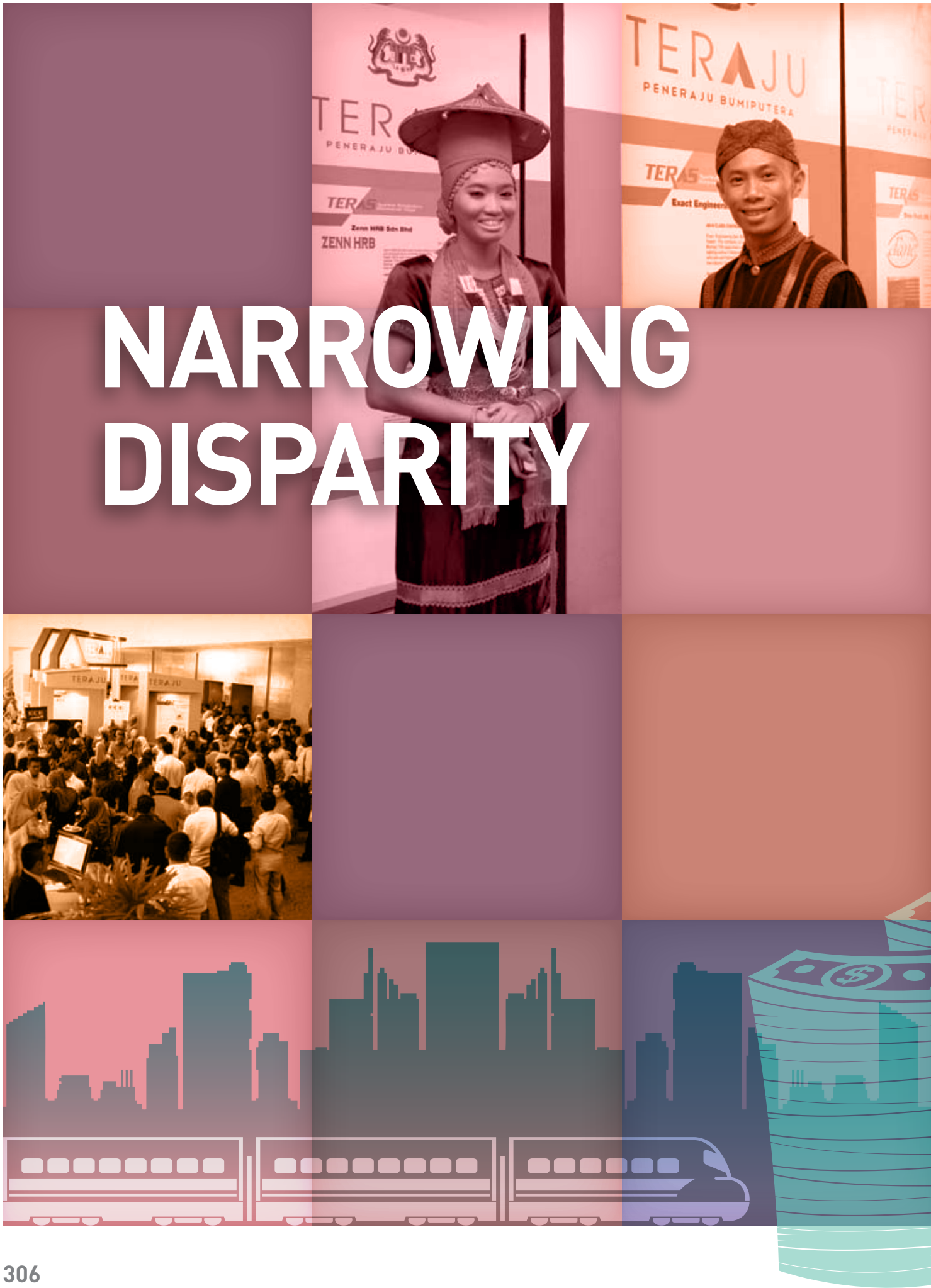
Additionally, the PSDT will focus on narrowing the gap between public perception on the availability and quality of public services, and public expectations for these services. The PSDT has also been born out of a need to increase and improve the supply of public services to meet demand. Projections indicate that the Government will require additional expenditure to meet these emerging needs of the *rakyat*.

In spite of this cost, the Government recognises that the PSDT will create efficiency improvements which will help reduce Government expenditure in the long-run. For example, a 2012 study by Oxford Economics showed that an improvement in the efficiency of public service delivery by one per cent per year in Singapore would save the country around US\$7 billion annually. Using the same methodology adapted from Oxford Economics, a one per cent annual increase in efficiency in Malaysia would similarly allow the Government to save around RM30 billion annually.

To improve public service delivery to the *rakyat*, the PSDT will focus on three areas, namely:

- Raising awareness on the availability of public services
- Improving the accessibility of services to the *rakyat*
- Enhancing the quality of public service delivery

NARROWING DISPARITY





Dato' Sri Abdul Wahid Omar
Minister in the Prime Minister's Department



Ensuring inclusiveness remains one of the key considerations in implementing the ETP. By helping Bumiputera businesses become more capable and competitive, economic opportunities can be of benefit to everyone in the country, thus leading to equitable and therefore sustainable growth.

Several changes were made this year which will alter the course of Bumiputera economic development. The Prime Minister announced several initiatives at the launch of the Bumiputera Economic Empowerment Programme that together with the Narrowing Disparity SRI will enhance and boost their participation in the economy. Among others, these include:

1. An RM100 million allocation for the Bumiputera New Entrepreneurs Start-Up Scheme, or SUPERB, to help the Bumiputera start-ups
2. The revamp of the National Institute of Entrepreneurship (*Institut Keusahawanan Negara* – INSKEN) which will now be managed directly by TERAJU
3. A Bumiputera Economic Empowerment Unit (*Unit Pemerkasaan Ekonomi Bumiputera* also known as UPEB) will be established in all Ministries with the aim of creating more merit-based opportunities for capable Bumiputera companies. Furthermore, the UPEB will ensure that Ministries facilitate Bumiputera economic development

Since its inception in February 2011, TERAJU has created RM17.2 billion worth of business opportunities through funding and human capital development and as many as 688 Bumiputera companies have benefited from these initiatives.

In spearheading Bumiputera capacity building, TERAJU has also helped to set up a foundation called the *Yayasan Peneraju Pendidikan Bumiputera*. This initiative is meant to enhance the quality, quantity and relevance of Bumiputera talents in line with the Government's effort to lead Malaysia towards its high-income aspirations and ensure – in the spirit of inclusivity, an increase of Bumiputera talents in high-income employment.

Under the *Yayasan Peneraju Pendidikan Bumiputera*, scholarships have been awarded to 919 deserving students. These scholarships are given to performing students coming from challenged environments. The aid provided by the foundation is channelled throughout four core thrusts i.e. *Peneraju Tunas* (intervention in primary and secondary schools), *Peneraju Skil* (skills nurturing and management), *Peneraju Professional* (professional certifications and development) and *Peneraju Pemimpin* (leadership development).

Looking forward to 2014, I am confident this SRI will continue to help keep the Bumiputera SME community on track to achieve the target of contributing 20 per cent to GDP by 2020.

NARROWING DISPARITY

The Narrowing Disparity SRI embodies the ETP's agenda of inclusiveness and aims to narrow the economic disparity between the country's different communities.

Its main focus is to address the gap between the achievements of the Bumiputera and non-Bumiputera business communities.

Based on recommendations of the National Economic Advisory Council (NEAC) as stated in the New Economic Model, the twin thrusts of SRI are to develop Bumiputera SMEs and build Bumiputera Corporate Champions.

2013 Key Performance Indicators

Narrowing Disparity SRI		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
1	Number of new companies in the High-Performing Bumiputera SMEs (HPBS)	300	231	77	●	77	●	0.5	●
	Percentage of year 2013 growth in overall revenues of the TeraS companies (i) Batch 1 (Year 2012) (ii) Batch 2 (Year 2013)	12%	7%	58	●	58	●	0.5	●
	Number of new TeraS companies venturing overseas	50	50	100	●	100	●	1.0	●
2	Number of new potential Bumiputera Corporate Champions (BCC) implementing vendor programmes	10	10	100	●	100	●	1.0	●
	Number of companies to participate under equity financing programme	10	13	130	●	100	●	1.0	●
	Number of companies identified and assisted/groomed under <i>Skim Jejak Jaya Bumiputera</i> (SJJB) programme	4	4	100	●	100	●	1.0	●
3	Amount of additional funds being raised from banks and non-banks (RM mil)	1.0	0.8	80	●	80	●	0.5	●
	Amount of funds approved by participating banks and non-banks (RM mil)	500	272.89	55	●	55	●	0.5	●
	Number of companies receiving financial assistance from participating banks and non-banks	100	101	101	●	100	●	1.0	●
	Amount of facilitation fund approved (RM mil)	500	374.4	75	●	75	●	0.5	●
4	Number of projects funded and facilitated through Economic Corridors and Central Region	70	70	100	●	100	●	1.0	●

(more on next page)

(continued from previous page)

Narrowing Disparity SRI		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
5	Number of Mega Projects carved out for Bumiputeras	3	4	133	●	100	●	1.0	●
				92%		87%		79%	

Exhibit 13.9

Method 1 Scoring is calculated by a simple comparison against set 2013 targets. The overall SRI composite scoring is the average of all scores

Method 2 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is less than 100%, score #2 is taken as the actual percentage
- If the scoring is equal or more than 100%, score #2 is taken as 100%. The overall SRI composite scoring is the average of all scores

Method 3 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is equal and less than 50%, score #3 is indicated as 0
- If the scoring is more than 50% and less than 100%, score #3 is indicated as 0.5
- If the scoring is equal or more than 100%, score #3 is indicated as 1

TeraS Programme

The TeraS programme is tailored towards helping high-performance companies achieve their full potential. Companies chosen for the programme are selected based on their financial standing and growth potential. To be eligible for TeraS, companies are assessed using SME Corp's SCORE rating system, taking into account their growth rate and financial track record.

Launched in July 2011, the TeraS programme aims to identify a total of 1,100 high-performing Bumiputera companies with potential for growth and to help them expand beyond the Malaysian market. As at end December 2013, there were 520 TeraS companies in total.

Assistance under TeraS includes funding for Bumiputera companies and projects. The funds available comprise the Facilitation Fund and the TeraS Fund. Additionally, its objective is to assist in capacity building and to support overseas expansion (based on companies' ability to meet the specified requirements).

The TeraS programme has also helped identify greater opportunities for Bumiputera companies through the MY Rapid Transit Project (MRT), following intervention by TERAJU and the *Majlis Tindakan Agenda Bumiputera* (Bumiputera Agenda Action Council).

As a result, 47 per cent, or RM9.1 billion worth of the MRT project has been carved out to 322 Bumiputera contractors which allowed greater participation of Bumiputera contractors ranging from Class A to Class F.

The allocation of projects to Bumiputera companies is achieved through the implementation of the Carve Out and Compete initiative. This model is anchored by the six principles of the Bumiputera Economic Transformation plan — market-friendly, needs-based, merit-based, transparent, pro-growth and sustainable competitiveness.

The Government introduced the Facilitation Fund under the Ninth Malaysia Plan's Economic Stimulus Package to encourage implementation of private sector projects. In the Tenth Malaysia Plan, the Government allocated RM20 billion for the Facilitation Fund, under the Public-Private Partnership Unit (UKAS), of which RM2 billion is managed by TERAJU.

The objectives of the Facilitation Fund are:

- to bridge the viability gap in private sector investment in the implementation of high-value projects that have huge spillover effects as well as high strategic impact for economic development
- to become a catalyst for private investment in strategic sectors
- to rationalise the Government's involvement in business and increase participation of the private sector in the economy

To encourage take-up of the Facilitation Fund, the project value threshold was reduced from RM20 million to RM5 million. RM559 million was approved for Bumiputera projects with an investment value of RM4.8 billion. A total of 109 projects have benefited from the Facilitation Fund and will generate 20,343 job opportunities for the local communities.

Companies that have taken up the Fund include Gading Kencana Sdn Bhd, Maple Icon Sdn Bhd, PEPS-JV (M) Sdn Bhd, Dimension Bid (M) Sdn Bhd, Majpadu Bricks Sdn Bhd and Jahasrat Poultry Processing Sdn Bhd.

The TeraS fund, created specifically to assist TeraS companies, provides loans for working capital and asset acquisition. It offers lower interest rates and a faster loan processing time. TERAJU has partnered with SME Bank RHB Islamic Bank, and MIDF under this initiative. To date, 100 TeraS companies have benefited from the fund.

Achievements and Challenges

Four more large iconic projects were identified under the Carve Out and Compete initiative this year. The projects are Menara Warisan Merdeka, Bukit Bintang City Centre, Matrade Exhibition Centre and Sungai Buloh Rubber Research Institute (RRI).

The carve-out percentages by project are as follows:

Project	Project Owner	Carve-Out Commitment
Menara Warisan Merdeka	PNB Merdeka Ventures Sdn Bhd	40 %
Bukit Bintang City Centre	UDA Holdings Bhd	42 %
Sungai Buloh RRI	Kwasa Land Sdn Bhd	35 %
Matrade Exhibition Centre	Naza TTDI	40 %

Exhibit 13.10

In addressing the challenges of attracting established companies to join TeraS, rigorous efforts were made to identify such companies. As a result, there was also an increase in the number of Bumiputera Corporate Champions (BCCs) implementing the Vendor Development Programme (VDP), where established corporates mentor and provide business opportunities to smaller companies.

There are now 13 BCCs in the TeraS programme: Mydin Mohamed Holdings Bhd, Ahmad Zaki Sdn Bhd, Ranhill Utilities Sdn Bhd, Petra Resources Sdn Bhd, Encorp Construct Sdn Bhd, Naim Engineering Sdn Bhd, Zecon Water Corporation Sdn Bhd, Stratech, PBJV Group, Selia Selenggara, Ramly Food Processing, Mutiara Motors and Prestariang Systems. TERAJU is targeting to bring in more listed Bumiputera companies into the TeraS programme as well as create BCCs through mergers and acquisitions.

However, the efforts of BCCs in implementing the VDP must be intensified, with BCCs sharing their expertise with more SMEs to further enhance entrepreneur development. While there are BCCs in the construction sector helping entrepreneurs, there is a need for assistance from BCCs in other sectors.

There is also a need for more established Bumiputera companies to apply for TeraS and for more TeraS companies to expand outside Malaysia.

In terms of financial backing, the TeraS Fund is now also available through MIDF Bhd. It was previously only available from SME Bank and RHB Islamic Bank. As at the end of 2012, the TeraS Fund stood at RM1.02 billion. By the end of 2013, the target is to increase the TeraS Fund to about RM1.64 billion.

Facilitation Fund

The RM2 billion Facilitation Fund is managed by TERAJU and the Public-Private Partnership Unit (UKAS). A total of RM100 million from this fund has also been allocated to each economic corridor in order to decentralise the fund, as well as to enable the corridors to identify projects that are qualified for the grant.

Aside from providing support for Privately-Funded Initiatives (PFI), the fund also serves as a catalyst for private investment in strategic sectors with a minimum project value of RM5 million. At the same time, the fund delivers additional incentives for companies seeking facilitation and assistance under TERAJU's programmes.

The initiative will greatly assist entrepreneurs especially in securing balance of financing from financial institutions. The fund will boost Bumiputera participation in economic activities all over the country and facilitate the implementation of private sector projects.



TERAJU is also collaborating with SME Bank and the Halal Development Corporation in providing a RM280 million fund for the Halal Development industry.

In addition, TERAJU also undertook a new RM10 million ECCE (Early Childhood Care and Education) initiative in collaboration with PUNB (*Perbadanan Usahawan Nasional Bhd*). ECCE is one of the areas of potential growth identified in the ETP and there is expected to be tremendous demand for ECCE operators.

Three ECCE operators have been identified for this initiative: Brainy Bunch, Genius Aulad and Little Caliphs. The next step is to assist these operators to expand their network of franchisees. Franchisees are also eligible to apply for soft loans under the ECCE initiative.

A new Centre of Excellence (CoE) was also launched in September this year to upskill engineers in Bumiputera construction companies. The first batch of engineers has already been taken in by the CoE. This initiative will benefit 120 students.

The CoE is a strategic collaboration between CIDB and TERAJU. It is aimed at developing human capital in tandem with advancements in technology and introduction of new skill-sets.

The CoE also aims to:

- Educate, train and develop the capacity of Bumiputeras in order to increase the number of skilled Bumiputeras in various areas of construction
- Expose Bumiputeras to the latest developments and technologies in the various areas of the construction industry
- Ensure local expertise is being employed in the context of transfer technology in specialised areas

The objective of this programme is aligned with the Bumiputera Economic Transformation Roadmap which is to increase the number of Bumiputeras in high-income jobs.

TERAJU has allocated RM15 million over a three-year period for the CoE while CIDB is the implementing agency. TERAJU will encourage TeraS companies under the construction sector to participate in the programme.

Moving Forward

The target for 2014 is to sign on another 40 BCCs and target 100 BCCs out of 1,100 TeraS companies by 2015.

TeraS companies will also be encouraged to venture overseas. For 2014, the target is for another 60 companies to venture abroad.

Other plans for TeraS companies in the coming year include facilitating capacity building, business development (Government-linked company/BCC business matching, outsourcing, VDP), driving M&A and initial public offerings and reverse takeovers, technology acquisitions, seeking funding for working capital, asset and equity financing, property ownership, and marketing and promotional activities.

Following the success of the MRT Carve Out and Compete initiative, more carve-outs of large projects will be targeted under this SRI. Bumiputera companies will also be encouraged to take advantage of opportunities in ECCE.

Additionally, a *Unit Pemerkasaan Ekonomi Bumiputera* (UPEB) will be established in all Ministries with the aim of creating more merit-based opportunities for capable Bumiputera companies.

Spotlight on TeraS Company – Serba Dinamik Sdn Bhd

Serba Dinamik Sdn Bhd is a total technical engineering and commercial services company formed in 1993. The company started with supplying skilled manpower, especially for the maintenance of rotating machines and as it grew, it started to provide a comprehensive service specialising in rotating equipment and boiler and unfired pressure vessels.

Today, its core business encompasses construction and fabrication, plant operation and maintenance; mechanical, electrical and plumbing; education and training; IT solutions and global trading.

Serba Dinamik is certified in compliance with ISO 9001, OHSAS 18001 and ISO 14001. It has received numerous awards as testament to its quality of services. These include the SME One Asia Awards and the STAR Business Awards 2013. Serba Dinamik was also recognised as the 8th Malaysia Power Brand 2013.



Enabling Change

NARROWING DISPARITY

*on the ground with
the civil service*



Encik Husni Salleh
CEO of TERAJU

2013 was a busy year for TERAJU, not only as the momentum of its projects have gathered pace, but following Prime Minister Dato' Sri Mohd Najib Tun Hj. Abdul Razak's announcement of Bumiputera economic development as a national agenda.

"This year we have done a lot in terms of the rolling out of programmes that we have. On the top of the list, we have TeraS and we are continuously on the lookout for new companies to be part of this programme. As of the end of the year we had close to about 500 companies which have been vetted through the process we have set up," says Husni Salleh, CEO of TERAJU, a unit in the Prime Minister's Department which coordinates the country's Bumiputera economic development programme.

In order to be selected as a TeraS company, companies must undergo the SCORE Rating process by SME Corp, with companies rated three stars and above pre-qualified to move to the next levels of screening. These include receiving a credit rating before the TERAJU committee then evaluates the companies' proposals and considers their potential for growth.

"We would like to see that the company has been disciplined enough to have submitted three years' annual returns. In their audited accounts, there must be signs of growth, which we benchmark against industry growth. And of course, the companies must have no less than 51 per cent Bumiputera shareholding," explains Husni.

The rigorous selection process ensures that only genuine companies with real growth potential receive support through the TeraS programme, which includes wider access to funding, mentoring from Bumiputera Corporate Champions and capability building.

Specifically, one of the programmes administered by TERAJU is the TeraS Fund, a RM1.8 billion facility offered through SME Bank, RHB Islamic Bank and MIDF. The Government has provided RM100 million in funds as collateral for the facility, of which the majority will be used to fund asset acquisition and the remainder available to finance working capital.

The TeraS Fund, as well as other funding programmes available such as a RM280 million *Halal* fund offered through SME Bank in partnership with the Halal Industry Development Corporation, seek to help companies expand their businesses, especially on the foreign front.

"Sustainable growth requires more than just the domestic market. We have a relatively small number of companies that are actively exploring the foreign market. I think those are the biggest challenges that we have. With more competition creeping in the local market, we require a real strategy to move the companies out and tap into new markets; especially with existence of the ASEAN Free Trade Area and the ASEAN Economic Community," says Husni.

TERAJU also aims to help increase the capitalisation of Bumiputera companies, of which quite a number remain small. This will include initiatives to encourage the listing of companies on the stock market. “So long as we do not get more listed Bumiputera companies, we will face a real challenge in terms of the expansion of equity,” Husni adds.

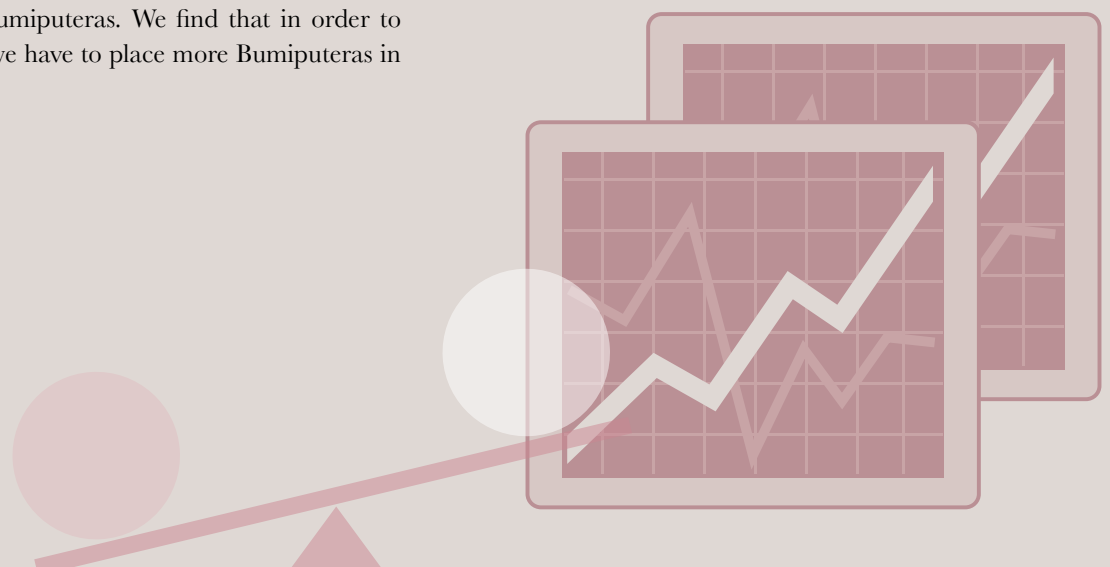
Another initiative overseen by TERAJU is the operation of a Centre of Excellence for the construction industry, launched in 2013 with the Construction Industry Development Board (CIDB). The effort involves a fellowship programme for which CIDB will help recruit mainly middle managers from Bumiputera companies for apprenticeship. The objective of the centre is to promote transfer of knowledge in the area of new construction technologies.

The main goal of the various initiatives managed by TERAJU is to reduce the income disparity seen between the Bumiputera and non-Bumiputera communities, while increasing private sector participation by Bumiputera companies. “Right now, based on the latest statistics, non-Bumiputeras still earn a higher average income per household than Bumiputeras. We find that in order to narrow disparity, we have to place more Bumiputeras in the private sector.

“Working with only the Government and its agencies limits Bumiputera contribution to GDP to less than 40 per cent. Therefore, the remaining has to be contributed by private sector participation,” says Husni.

With the challenge of increasing Bumiputera economic activity further compounded by the longer time it is taking Bumiputera graduates to get their first job, TERAJU has started engaging private sector and multinational companies to seek their support on the Bumiputera agenda.

“We want to make sure everyone understands the Bumiputera agenda is not about taking somebody else’s share, but to create an inclusive society that can share, work and prosper together,” says Husni.



REDUCING GOVERNMENT'S ROLE IN BUSINESS





Dato' Sri Mohd Najib Tun Hj. Abdul Razak
Prime Minister of Malaysia



The initiatives under the Reducing Government's Role in Business SRI lie at the core of the Economic Transformation Programme's goal of creating a globally competitive, private sector-led economy.

At the same time, the rationalisation of the Government's holdings in businesses will allow us to prioritise the formulation of policies which create a conducive environment for commercial activities. It will also allow markets to function with reduced Government's intervention, while encouraging Government-linked companies to reduce their reliance on the state. With this in mind, the Government, through this SRI, will continue to proactively identify opportunities where the private sector can emerge as the engine of growth.



REDUCING GOVERNMENT'S ROLE IN BUSINESS

The Government's role in business, which has hitherto been aimed at helping to accelerate growth in specific industries of national interest, has nonetheless created several challenges which this SRI seeks to address.

These include avoiding crowding out the private sector, increasing liquidity in the capital markets and improving the Government's finances.

In order to attend to these needs, the Government through this SRI will:

- Clearly establish the Government's role in business
- Develop a clear divestment plan
- Establish clear governance guidelines for government and state-owned companies

These efforts are aimed at gradually shifting the Government's role in business from investor to facilitator. In doing so, the Government will adhere to the following guidelines for private sector participation:

- Co-invest with the private sector in projects that will boost GNI such as regional corridor developments
- Ensure the business is directly related to issues of national security
- Ensure the business requires large capital investments and long gestation periods, such as nano-technology, and are deemed strategic businesses or those which are in the national interest

The Government has also identified national infrastructure projects such as renewable energy and public transport systems as those which warrant its participation.

Its divestment exercise will involve the sale of Government-linked companies' (GLCs) ownership in public-listed companies and other entities. To date, 33 companies have been identified for divestment. Of all 33 target companies, 23 have been successfully divested as of November 2013.

Government and state-owned assets will also be divested accordingly under this SRI. However, the Government will continue to hold assets which are deemed strategic to national interest or public service delivery. Of those identified strategic companies, the Government will adopt less invasive strategic control methods such as golden shares, which award a shareholder special voting rights and veto power over corporate actions. The Government will also formulate appropriate policies to protect those industries.

2013 Key Performance Indicators

Reducing Government's Role in Business SRI		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
1	Number of companies divested	4	1	25	●	25	●	0	●
	Two companies under Ministry of Works divested	100%	0	0	●	0	●	0	●
	One company under Ministry of Youth and Sports divested	100%	100%	100	●	100	●	1.0	●
	One company under Ministry of Federal Territories divested	100%	0	0	●	0	●	0	●
2	Divestment of GLC companies : 33 companies 2011 - 2012 = 24 companies 2013 and beyond = 9 companies	9	8	89	●	89	●	0.5	●
	(Note: Divestment means disposal of shares from GLIC to private sector through a listing, stake pare down or outright sale)								
				57%		57%		25%	

Exhibit 13.11

Method 1 Scoring is calculated by a simple comparison against set 2013 targets. The overall SRI composite scoring is the average of all scores

Method 2 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is less than 100%, score #2 is taken as the actual percentage
- If the scoring is equal or more than 100%, score #2 is taken as 100%. The overall SRI composite scoring is the average of all scores

Method 3 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is equal and less than 50%, score #3 is indicated as 0
- If the scoring is more than 50% and less than 100%, score #3 is indicated as 0.5
- If the scoring is equal or more than 100%, score #3 is indicated as 1

Achievements and Challenges

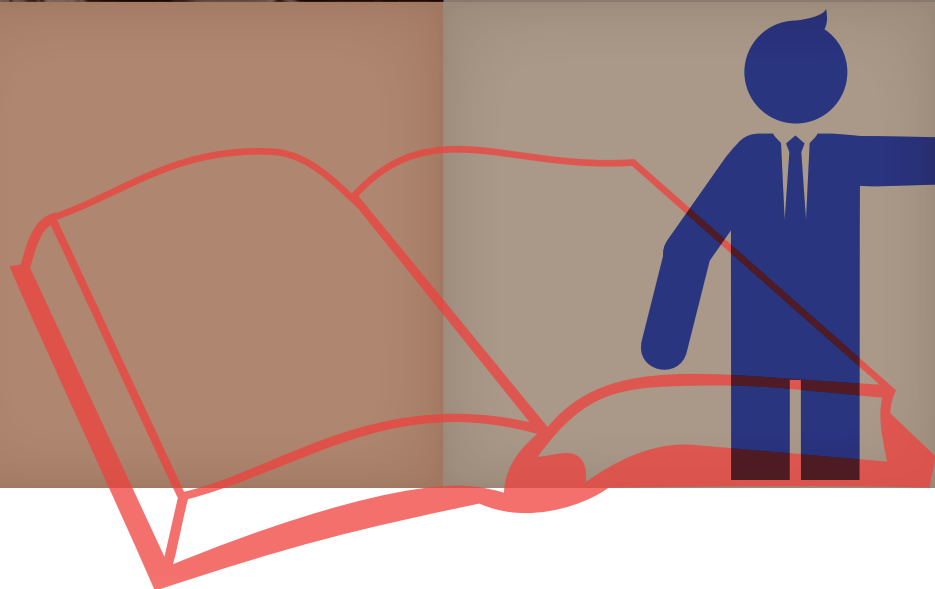
In October 2013, Khazanah Nasional Bhd sold all its holdings in mobile phone operator DiGi.Com Bhd. Its interest in the company was worth up to RM293.5 million. Under the rationalisation programme at the Ministry level, the Ministry of Youth and Sports divested Stadium First Sdn Bhd, a subsidiary of Stadium Malaysia Corporation, through an open tender process. The divestment was completed in June 2013.

Amongst the main challenge to the sale of the Government's interests is the need to balance the fiduciary duties of incumbent owners with market conditions, which may impact pricing.

Moving Forward

This SRI will continue to monitor the companies under the Government's divestment programme, in line with the Government's efforts to facilitate a competitive environment for business and to strengthen the private sector's role in driving the economy.

HUMAN CAPITAL DEVELOPMENT





Dato' Sri Richard Riot Anak Jaem
Minister of Human Resources



In 2013, the Human Capital Development (HCD) SRI achieved great strides in enhancing the labour ecosystem, to help develop Malaysia's talent pool.

Of note has been the implementation of the Minimum Wages Order 2012 and the Minimum Retirement Age Act 2012, which took effect during the year. During the year, the HCD SRI had overseen on a number of human capital development programmes, further strengthening the local workforce's capabilities and expertise in specialised areas. With the building blocks in place to allow Malaysians to capitalise on employment opportunities in a wide range of industries and sectors, the country is now well-positioned to take the next steps in achieving its goal of creating a skilled and competitive workforce.

HUMAN CAPITAL DEVELOPMENT

The Human Capital Development SRI was developed from recommendations of the New Economic Model (NEM) and aims to enhance the country's workforce while supporting the human capital needs of the ETP's 12 NKEAs.

To this end, this SRI undertakes a two-pronged approach which addresses workplace transformation and workforce transformation. The former refers to the components recommended by the NEM which are critical to improving effectiveness in the workplace. The latter, meanwhile, focuses on efforts which complement the Government's existing measures to enhance human capital. These address the need for comprehensive labour market data and upskilling and upgrading employees.

In this respect, this SRI has focussed on modernising labour legislation, upskilling and upgrading the workforce, strengthening human resource (HR) management for SMEs, leveraging women talent and undertaking labour market surveying and forecasting.

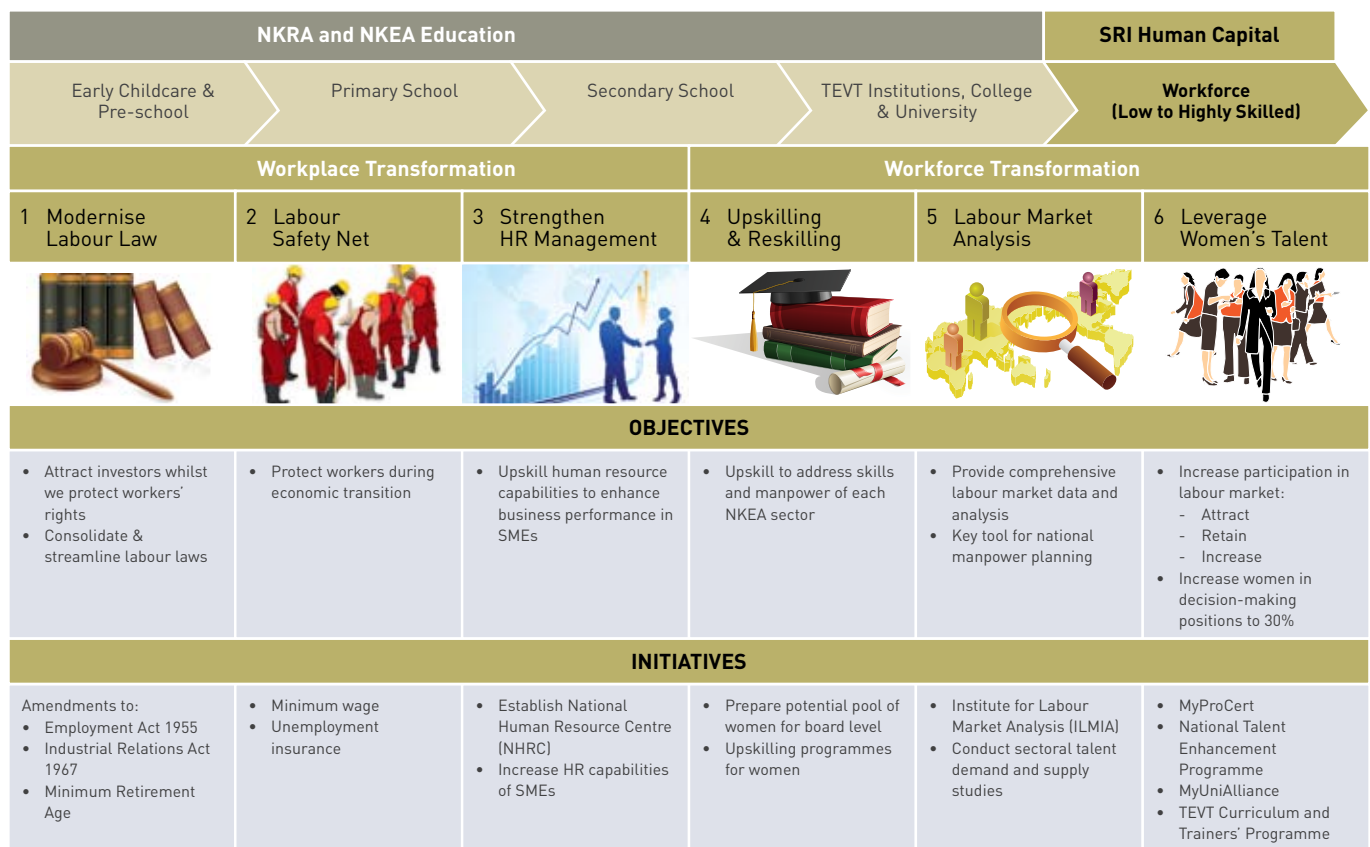


Exhibit 13.12: A snapshot of initiatives within the Human Capital Development SRI

2013 Key Performance Indicators

Human Capital Development SRI		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
1	Macro Manpower Planning (2013-2020)	4	4	100	●	100	●	1.0	●
	Completion of centralised database for labour market analysis ready to be used	100%	100%	100	●	100	●	1.0	●
2	Number of new employers registered with NHRC portal	5,000	5,556	111	●	100	●	1.0	●
	Number of new trainees attended HR training programmes	6,000	10,878	181	●	100	●	1.0	●
3	Completion of report on implementation of minimum wages by August 2013	100%	100%	100	●	100	●	1.0	●
4	Gazettement of regulations pertaining to Minimum Retirement Age Regulation 2013	100%	100%	100	●	100	●	1.0	●
	Draft amendments to the Industrial Relations Act 1967 submitted to AG Chamber's Office	100%	100%	100	●	100	●	1.0	●
5	Number of placement of corporate women to board level	20	93	465	●	100	●	1.0	●
	Number of corporate women trained	500	501	100	●	100	●	1.0	●
6	Number of new childcare centres set up/registered that meets the conditions and quality set under Child Care Center Act 1984	900	1,052	117	●	100	●	1.0	●
	Expansion of HRDF Act to include 19 more sectors	100%	80%	80	●	80	●	0.5	●
	Number of child minders trained under <i>Jabatan Kebajikan Masyarakat</i> (JKM)	2,000	2,345	117	●	100	●	1.0	●
	Establishment of a contributory Unemployment Insurance Scheme (UIS): To complete final report on UIS	Final Report completed	100%	100	●	100	●	1.0	●
7	MyProCert Programme	3,000	4,788	160	●	100	●	1.0	●

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Human Capital Development SRI		KPI (Quantitative)							
No.	KPI	Target (FY)	Actual (YTD)	Achievement					
				Method 1		Method 2		Method 3	
				%		%			
	Industry-Academia Collaboration (IAC)	8,000	10,662	133	●	100	●	1.0	●
	O&G TEVT Curriculum & Delivery	1. Deliver 4 TVET Downstream Modules in Skills Training Institutes - No. of Skills Institutes = 3 - No. of students = 1,002. Develop Upstream O&G Curriculum - 3 Disciplines	88.3	88	●	88	●	0.5	●
	Re-education & Upskilling Programmes	Training for- Solar PV (100)- Biogas/Biomass (25)- Small Hydro (25)	99	99	●	99	●	0.5	●
				132%		98%		91%	

Exhibit 13.13

Method 1 Scoring is calculated by a simple comparison against set 2013 targets. The overall SRI composite scoring is the average of all scores

Method 2 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is less than 100%, score #2 is taken as the actual percentage
- If the scoring is equal or more than 100%, score #2 is taken as 100%. The overall SRI composite scoring is the average of all scores

Method 3 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is equal and less than 50%, score #3 is indicated as 0
- If the scoring is more than 50% and less than 100%, score #3 is indicated as 0.5
- If the scoring is equal or more than 100%, score #3 is indicated as 1

Modernising Labour Legislation and Labour Safety Net

These policy areas, overseen by the Ministry of Human Resource (MoHR), focus on transforming local laws in line with those in developed economies. This is aimed at enhancing the competitiveness of the Malaysian economy while ensuring continued economic growth.

This SRI also ensures labour reform is undertaken in a way that is inclusive and sustainable; with initiatives focussed on reducing businesses' labour management costs and ensuring effective worker protection.

Amendments proposed thus focus on two objectives: i) the reduction of labour management cost to business and ii) ensuring effective worker protection.

In this regard, the MoHR introduced two new legislations in 2012, comprising the Minimum Wages Order 2012 and the Minimum Retirement Act 2012. The Minimum Wages Order aims to raise the *rakyat's* standard of living by establishing a minimum wage for all employees, while the Minimum Retirement Age Act has set the minimum retirement age at 60 to increase productivity and allow the country to retain a larger number of experienced, skilled and knowledge workers.



Panellists during the Technical Workshop on Employment Insurance System

The MoHR is also currently undertaking an internal review on the Industrial Relations Act 1967 to expedite unfair dismissal cases and trade disputes, ensure effective enforcement of Industrial Court awards; and balance business needs and employees' rights through conciliation.

The Employment Act 1955 is also under internal review with an aim to modernise the legislation in line with emerging needs of local and foreign employers and employees, spur productivity and efficiency, raise income levels and protect employees to foster local, regional and global competitiveness.

In addition, since 2011, MoHR has been laying the foundation for the provision of unemployment insurance in an effort to strengthen the country's social safety net and protect the unemployed. This will be achieved by enhancing employability and facilitating return to employment as soon as possible through efforts such as retraining, upskilling and job placements. The project is overseen by the Tripartite Project Committee represented by the Ministry, employers and employees, as well as the International Labour Organisation (ILO) which provides subject matter expertise.

Achievements and Challenges

The Minimum Wages Order 2012 was enforced on 1 January 2013, with the new law stipulating that employees must be paid a basic wage of at least RM900 per month in Peninsular Malaysia and RM800 a month in Sabah and Sarawak.

However, the enforcement of the Order applied to Malaysian workers only, as the Government recognised the challenges and cost impact faced by many industry players, especially SMEs, in implementing minimum wages. As such, the Government allowed an additional transition period for companies to adjust to the new law and make the necessary operational changes. This is very much in the case of companies that employ foreign workers where an extension was given until 1 January 2014 for implementation of Minimum Wage for foreign workers.

Hence, the Order will be fully enforced for all employees in the country, including foreign workers, from 1 January 2014.

The Government has organised a series of nationwide clinics and seminars to share various incentives available, such as financing and upskilling programmes, to support companies in overcoming challenges faced in implementing minimum wages. The programmes are aimed at encouraging companies to automate tasks and move up the value chain, reduce reliance on cheap labour and increase the productivity and skills of the existing workforce.

The clinics and seminars were first launched in Kuala Lumpur on 3 December 2013, followed by Penang and Johor Baru on 10 and 17 December, respectively. Clinics will also be held in Kuantan, Kuching and Kota Kinabalu in 1Q 2014.

Minimum Wages will be fully enforced in Malaysia on 1 Jan 2014



Exhibit 13.14

These public engagement efforts also included the launch of a minimum wages microsite on 3 December 2013 to help inform and educate employers and employees on the new law. The minimum wages microsite can be accessed at <http://minimumwages.mohr.gov.my>.

Meanwhile, the final report on unemployment insurance was completed at the end of 2013. The report contained recommendations and areas for further review, following the completion of a final draft report by the ILO. The ILO assessed the actuarial, institutional and legal impact of unemployment insurance and proposed models for the implementation of unemployment insurance. These findings and recommendations were presented to MoHR and various stakeholders at a Technical Workshop on the Employment Insurance System in October 2013.

The workshop also served to collect feedback from key stakeholders on the initiative, with the Government to deliberate on the feasibility of unemployment insurance and its proposed models in 2014.

Strengthening Human Resource (HR) Management for SMEs

This initiative is aimed at helping SMEs overcome the challenges they face in maintaining productivity and managing their workforce. This is to strengthen the companies' performance and enable them to contribute a larger share to the country's GDP and enhance their global competitiveness.

To this end, the National Human Resource Centre (NHRC) was established under the MoHR to provide strategic human resource management support to expedite the adoption of progressive and modern human resources practices among SMEs. Its main touch point with SMEs is the NHRC Portal which acts as a knowledge centre on HR solutions for SMEs.

NHRC's coverage of HR programmes is encapsulated in the Total Human Capital Development System (THCDS) which consists of:

- HR Related Regulatory Requirements
- Recruitment and Selection



Launch of Minimum Wages portal on 3 December 2013



Participants at the Minimum Wages Seminar and Clinic in Johor on 17 December 2013

- Compensation and Benefits
- Employee Development
- Employment Relations
- HR Leadership Programme
- Other HR-related Areas

Achievements and Challenges

The NHRC has recorded growing usage of its NHRC Portal since its launch in 2012, attracting 6,838 visitors in 2012 and 26,600 visitors in 2013 with a cumulative number of 33,438 visitors. The number of hits on the portal has jumped from 8,034 in 2012 to 30,976 in 2013, while the Knowledge Centre has recorded 103,635 downloads to-date.

The portal also includes HR modules aimed to help employers develop better HR practices, such as modules on recruitment, job description and termination of employees. In addition, it provides comprehensive HR management information covering manpower planning, recruitment, performance management system, training and development, rewards management, employee relations and relevant labour Acts.



Participants at the SME Forum "HRM Programme For Business Excellence"

In 2013, the NHRC commenced developing the following content for the portal:

- a. Translation of the portal to Mandarin and Tamil
- b. Production video on "How to Conduct an Effective Interview": A step-by-step guide on what to do before, during and after an interview session
- c. Job description for 100 Job Titles: A ready-made job description for common jobs in SMEs to support recruitment, talent development, succession planning, HRD and promotion planning
- d. HR Payroll web-based application module: A monthly payroll spreadsheet based on statutory deductions and salary calculation to support micro and small enterprises

Of the NHRC's services which include a toll-free call centre, walk-in advisory sessions, Human Resource Club and Peer Mentoring, it was found that SMEs which have more complex HR issues tend to leverage on consultancy services offered by the Centre. A total of 59 employers had opted for training needs analysis (TNA) consultancy, 427 employers opted for TNA training and another 358 employers preferred HR Solutions Workshop. The NHRC also collaborated with other institutions to organise HR capability programmes. As of 31 December 2013, a total of 10,878 employees had attended HR capability building programmes. Cumulatively, a total of 20,487 employees have been trained in various HR areas.



Launch of 'An Essential Guide to HRM for SMEs' during the HRDF Conference

The NHRC has also produced two customised publications, *Quick Reference on HRM for SMEs* and *How to Write an Employee Handbook*, which have been distributed to SMEs and employer associations. The Centre is also developing the following publications:

- Employee Relations – How to Conduct Domestic Inquiry
- HR Glossary
- Performance Management System (PMS)
- Employee Orientation Toolkit
- HR Competency and Training

Focus on Upskilling and Upgrading the Workforce

In order to meet the needs of the country's transformation into a high-income economy, the Malaysian workforce must enhance its skills and competitiveness. In line with this, this effort focuses on developing the human capital needed to drive the ETP's 12 NKEAs, with initiatives including training programmes in renewable energy by SEDA Malaysia, the MSC Malaysia MyProcert Programme and the MSC Malaysia Industry-Academia Collaboration Programme.

Achievements and Challenges

Renewable Energy

SEDA Malaysia has developed and organised four courses related to renewable energy systems, comprising:

a. Competency Training Course on Field Acceptance Test of Small Hydropower Plants

SEDA Malaysia organised a five-day competency training course on field acceptance tests of small hydropower plants. The training programme encompassed technical and practical sessions focussing on the relevant international standards applicable to small hydro installations.



Participants at the Seminar and HR Solutions workshop for SMEs

18 participants attended the training, which was held from 22-26 October 2013 and culminated in an examination session.

b. Grid Connected Solar Photovoltaic (GCPV) Systems Installation and Maintenance Training Course

Two Train-the-trainers (TtT) sessions were held in June 2013 conducted by UiTM Shah Alam and *Akademi Binaan Malaysia Wilayah Utara* to develop a pool of trainers for this course. A total of 20 trainers have been trained for the TtT programme by these two institutions. SEDA Malaysia has also appointed the Selangor Human Resource Development Centre (SHRDC) to run the course, which will be included in the Work Technical Transformation Programme (WTPP). The class is targeted to be conducted in 2014.



A practical training session

c. SEDA MALAYSIA Grid-Connected Photovoltaic Systems Course for Wiremen and Chargemen

Among the objectives of the course is to expose wiremen and chargemen in Malaysia to solar PV installation, specifically in direct current (DC) and its components. The training, which has been endorsed by the Energy Commission, will encompass both theory and practical sessions, ending with a competency examination.

From August-November 2013, a total of 68 wiremen and chargemen were trained under the course, held in Universiti Kuala Lumpur - British Malaysia Institute (UniKL BMI), Gombak, Selangor. SEDA Malaysia is also planning to open the course to related training institutes in the northern, southern and eastern regions including Sabah and Sarawak.

d. SEDA Malaysia Grid-connected Solar PV (GCPV) System Design Course

In view of the need to develop a pool of solar PV designers in the country, SEDA Malaysia has developed its own course by enhancing the current International Sustainable Power Quality (ISPQ) training module for design and installations of Grid Connected PV (GCPV) systems. This follows the expiry of SEDA Malaysia's ISPQ licence to conduct the ISPQ course and the decision by Global Sustainable Energy Solutions (GSES), which is the accreditor for the Asia-Pacific region, to cease its operations in February 2013. This resulted in the suspension of the ISPQ course in March 2013.



A theory class for Small Hydropower Plants in session

SEDA Malaysia's course has been renamed the SEDA Malaysia Grid-connected Solar PV (GCPV) System Design Course. Two institutes will conduct this course:

- i. Universiti Teknologi MARA (UiTM), Shah Alam, Selangor
- ii. Selangor Human Resource Development Centre (SHRDC)

The training resumed in November 2013 with 28 trainees enrolled into this programme.

MSC Malaysia MyProCert Programme

This programme aims to enhance the skills of Malaysian employees in line with international certification standards, targeting 7,500 participants in three years.

From the pilot offering of SAP certification in 4Q 2011, the programme has now expanded to more than 30 in-demand ICT skill sets in various industry sectors.

In 2013, MyProCert offered 33 skill sets including in the areas of networking, security, enterprise architecture, cloud computing and project management, receiving strong response with nearly 5,000 applications. The full list of certification and training programmes is available on www.msomalaysia.my.

MyProCert also held its Open Day on 5-6 April 2013, attracting 700 participants from companies and individuals interested in professional certifications and careers. 27 speakers from 21 technology areas participated in the event, which brought together MyProCert partners including SAP, Oracle, Microsoft, PMP, ITIL, IASA and Huawei.

Moving forward to 2014, the current skill sets offered will be reviewed in line with future demand and industry trends.

MSC Malaysia Industry-Academia Collaboration Programme

The MSC Malaysia Industry-Academia Collaboration Programme (IAC) was introduced by the Multimedia Development Corporation with support from PEMANDU. Its goal is to nurture graduates to be more industry-ready and employable by enhancing university curriculum, with industry-linked modules.

The programme establishes strategic partnerships between global technology players and public and private institutions of higher learning (IHL) by investing in curriculum development and Train-the-Trainer programmes. This is aimed at equipping the university lecturers with industry knowledge and expertise to enable them to deliver the industry-enhanced curriculum. The IAC will also provide opportunities for undergraduates to undertake work experience programmes with industry players.



Participants at the MSC Malaysia MyProCert (SRI) Open Day and Career Fair 2013



23 teams from 11 IHLs nationwide competed in the Cisco NetRiders Malaysia Challenge Competition 2013

The three main implementation models of IAC are:

1. Train the Trainer (TtT)

During the year, numerous TtT classes on industry-relevant skills were organised to enhance and equip faculty members of IHLs. Some of the focus areas covered in 2013 included Java, MySQL, Visual Effects Animation, Creative Storytelling, Android Application Development, Microsoft Sharepoint, Security (F-Secure), Networking and Communication (Cisco, Huawei).

This initiative also saw collaborations with Intel, Agilent, National Instruments and Altera to conduct TtT programmes in the area of embedded systems. In addition, academicians and final year students from various IHLs were trained on industry-based curriculum, especially on Infosys Software development.

As of 31 December 2013, a total of 10,662 knowledge workers have benefited from IAC programmes, surpassing the 8,000 knowledge workers targeted for 2013.

2. Industry Partnership for Curriculum Alignment and Talent Development

This initiative focussed on enhancing existing IHL curriculum with inputs from industry players such as Infosys, Intel, Cisco and Huawei. Key focus areas included the Google Web Academy, iOS and SAP technologies.

3. Experiential Learning such as Industry Competitions and Strategic Studies

The MSC Malaysia-IHL Business Plan Competition (MIBPC) was held during the year, comprising an annual programme for young talent to acquire the entrepreneurial mindset and skills to create, design and build a viable technology business venture, and learn from successful digital entrepreneurs.

This experiential learning initiative also supported key industry-led competitions during the year, such as the Microsoft Imagine Cup, Cisco Netriders, Innovate Malaysia Design Competition and eGenting Programming Competition.



Supplementary games for supporters at the Cisco NetRiders Malaysia Challenge Competition



The MSC Malaysia-IHL Business Plan Competition (MIBPC) Awards Ceremony

Undertake Labour Market Forecast and Survey Programmes

Malaysia lacks a nationally endorsed, sole source of comprehensive labour market data. This has, in turn, affected the Government's ability to formulate effective labour policies in line with its high-income aspirations.

The Institute of Labour Market Information and Analysis (ILMIA), established under MoHR, was set up in 2012 to conduct workforce demand forecasting in industry sub-sectors. This will be used to support policy formulation and development. ILMIA's main goal is to build a centralised and interactive database to help with national manpower planning and measure workforce supply and demand in each industry sub-sector.

To this end, ILMIA has followed international standards as developed by the ILO and undertaken research and studies on selected manpower topics. It has also assessed workforce demands in industry sectors and sub-sectors, some of which were undertaken in partnership with international organisations like the ILO and the World Bank.

Achievements and Challenges

To raise awareness on ILMIA's role and on the dissemination of labour market information, the first phase of the ILMIA Portal (www.ilmia.gov.my) was launched in December 2013. A central component of the ILMIA portal will be the labour market information dashboard, which achieved substantial progress in its first phase of development through close collaboration between ILMIA, the Department of Statistics, SOCSO, PEMANDU and TalentCorp. When fully developed, the dashboard will serve as an interactive tool for retrieving essential workforce and workplace information and intelligence.

Several key labour market indicators (LMIs) on the Dashboard, including dynamic elements, were developed with assistance from the World Bank. ILMIA hopes to develop LMIs that not only depict historical trends and developments but important forward-looking LMIs that portray likely future labour market scenarios and trends.

However, as expected, there remain several challenges in achieving continued rapid progress in this endeavour. It has been foreseen that this large undertaking can only be completed over a period of two to three years, depending on maximum cooperation from key stakeholders and the availability of adequate budgetary resources for data storage capabilities and IT support.



Minister of Human Resources launching the ILMIA portal in December 2013

Moving forward, areas of focus for the development of solutions include in integrating the varied data formats from diverse sources, standardising the layout for presentation and retrieval of data. However, challenges related to data sharing at various levels remain, due to the data sharing policies and protocols of data compilers. Formal MoUs and agreements on the criteria for access to the data warehouse will thus need to be addressed.

Three studies on talent supply and demand were conducted for the economic corridors of Iskandar, Northern region and Sabah.

These studies were supplemented by a collaboration with Universiti Putra Malaysia (UPM) to build an economic model for estimating manpower requirements. The UPM economic model will also integrate data from the NKEAs talent supply and demand studies that were completed in 2012. The NKEAs covered in the studies were Business Services, Tourism, Healthcare, Oil & Gas and Electrical & Electronics.

ILMIA also worked with international partners to examine important issues seen in the Malaysian labour market, with findings and recommendations from the studies benefiting from the international benchmarking, experience and good practices of the international partners.

These international partners included the World Bank and the ILO, with studies completed on areas including labour market skills gaps and mismatches, policy, immigrant labour and “green” jobs.

Leveraging Women Talent to Increase Productivity

Women are recognised as a crucial component in the development of Malaysian talent. However, the participation of women in the workforce remains constrained, especially as women choose to stop working to raise their families or for socio-cultural reasons.

According to the Ministry of Women, Family and Community Development (MoWFCD)’s Statistics on Women, Family and Community 2010, women participation in Malaysia’s labour market is amongst the lowest in ASEAN.



The ILMIA team

The 10th Malaysia Plan has outlined several targets related to women in the workforce, such as increasing the female labour participation rate to 55 per cent. The Plan has also targeted for 30 per cent of decision-making positions in public-listed companies to be held by women by 2016.

Among initiatives undertaken to achieve these goals include strengthening the platform for upskilling women talent and increasing entrepreneurship opportunities for low-income earners. The Government has also encouraged the establishment of a support system such as childcare and eldercare solutions to encourage women to return and remain in the workforce. More jobs aligned to women's needs such as flexible work arrangements are offered to encourage the participation of women in the workforce.

Achievements and Challenges

The year 2013 saw the implementation of tax incentives for childcare centres at the workplace as announced under Budget 2013. The incentives provide private childcare centre operators a five-year tax exemption and a 10 per cent industrial building allowance annually; double tax deduction for employers who provide subsidies to employees on childcare; and fee assistance for low income families who send their children to private childcare.

As of 31 December 2013, this initiative saw 1,052 childcare centres registered, surpassing the target for the year of 900. As at June 2013, 2,195 childcare centres have been registered in the country, although there are 1,769 centres which remain unregistered.

This initiative has also required enhanced training for childcare minders, with new modules introduced under the PERMATA Early Childcare and Education (ECCE) training programme. A total of 2,345 childcare minders were trained in 2013 by JKM using the PERMATA ECCE training modules.

To further encourage women participation in the workforce, the MoWFCD together with TalentCorp undertook various efforts in 2013, including conducting awareness and advocacy programmes to promote flexible work arrangements. The Government has also offered the Return to Work tax incentive which commenced in the 2012 assessment year.

In addition, the MoWFCD and TalentCorp launched the flexWorkLife.my portal on 8 July 2013, which among others, provides job listings of employers offering flexible work arrangements. Furthermore, a career fair was held during the year to promote these employment opportunities.

For the year of 2013, there were 93 new appointments of women to the boards of public-listed companies. This is an encouraging development towards balancing gender diversity on boards. Several international studies have shown that gender diversity on boards provide a higher degree of corporate governance and contribute to robust decision-making.

The table below shows the number of Women on Board of listed companies from January to 5 September 2013 :

Year	No. of Women on Board	Net gain	Total Board Members	% Women on Board
2013 (as of 5 Sept)	631	35	7,267	8.0%
2012	596	(9)	7,104	7.7%
2011	605	4	7,129	7.8%
2010	601	(1)	7,128	7.8%
2009	602		7,188	7.7%

Exhibit 13.15

From the table above, there was only a net gain of 35 additional female board members between January to 5 September 2013.

Though there were far more new appointments in the corresponding period, the lower net increase is due to women who have resigned or retired from their board positions.

From 27 February-1 March 2013, the HCD SRI-HCD conducted a mini-lab to identify the efforts needed to increase the number of women on the boards of public-listed companies. The recommendations centre on three thrusts: Policy, tracking and enforcement; development and incentives; and communications, education and advocacy.

Initiatives under the first thrust include establishing clear policy definitions for raising the number of women on boards and conducting a baseline study to track progress of the targeted 30 per cent women representation on boards by 2016. Development and incentives include conducting placement and developmental programmes and offering tax incentives, while the third thrust recommends a compulsory module and experiential learning for women directors.

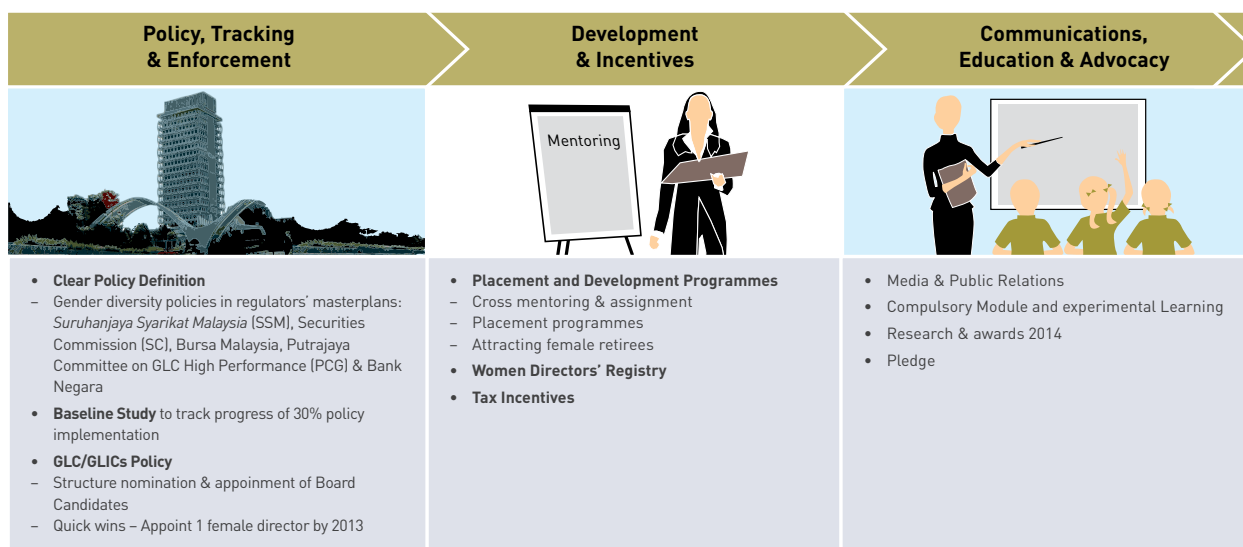


Exhibit 13.16: Recommendations from the mini-lab on increasing women representation at the board-level between 27 February-1 March 2013

Since the mini-lab, focussed efforts have been undertaken to encourage Government-linked investment companies and Government-linked companies to increase the number of women in decision-making positions.

NAM Institute for the Empowerment of Women (NIEW), in collaboration with PEMANDU, has also commissioned a baseline study to understand the current situation of women representation at the board level of public-listed companies and build a database to track and monitor progress. The study was completed in end-2013 and provided additional recommendations and strategies to achieve the target of 30 per cent women in decision-making positions.

Moving Forward

For 2014, whilst continuing efforts on all the initiatives outlined above, the HCD- SRI will also focus on transforming the technical education and vocational training (TEVT) landscape to increase public understanding of the importance of skills in Malaysia, as well as to match skilled workers according to industry requirements.

To this end, the launch of the *iwant2b* portal in March 2013 is a step in the right direction. The portal provides a platform for students and school-leavers to explore TEVT opportunities in private and public TEVT institutions as well as career pathways in vocational and technical jobs. The portal can be accessed via <http://www.iwant2b.my>.

Ultimately, the transformation of the TEVT landscape will be achieved through the implementation of multi-pronged strategies involving consolidating supply data to provide an integrated view of the total quantity and quality, agreeing on areas to streamline and build excellence, and building industry partnerships in areas such as curriculum, facilities, trainers and apprenticeships.



Enabling Change

HUMAN CAPITAL DEVELOPMENT

*on the ground with
the civil service*



**Dato' Sri Dr. Noorul
Ainur Mohd Nur**
Secretary-General
of the MoWFCD

As part of initiatives under the Human Capital Development (HCD) SRI, the Ministry of Women, Family and Community Development (MoWFCD) has been tasked with leading womens empowerment and raising the number of women in the workplace.

“Collaboration between the Ministry with different agencies in the civil service is indeed important due to the fact that empowerment of women needs cross-sectoral intervention.

“The collective efforts will then allow the Government to increase its efforts towards addressing issues confronting women to enable them to realise their full potential and participate more effectively in the economic and social development of the country,” says Dato’ Sri Dr. Noorul Ainur Mohd Nur, Secretary-General of the MoWFCD.

Furthermore, the Government also aims to enhance the quality of women employees by increasing the number of women in decision-making positions. To achieve this, Dato’ Sri Dr. Noorul says it is essential that women are provided with the right opportunities, environment and mindset so that they can participate and contribute in the various fields of national development.

These efforts have shown positive development in the years since the launch of the ETP, with the rate of women participation in the workforce steadily rising from 46.8 per cent in 2010 to 56.4 per cent in 3Q 2013.

Dato’ Sri Dr. Noorul attributes this growth to concerted efforts by the civil service as well as the establishment and registration of more childcare centres with the Department of Social Welfare, which, in turn, enables women to return to, or stay in the workplace.

“For example, for the year 2013, we set our target for 900 newly set-up/registered childcare centres that meet the conditions and quality set under the Childcare Centre Act. I am pleased to announce that at the end of 2013, there were a total of 1,052 newly set-up childcare centres or new childcare centres registered with the Department of Social Welfare,” says Dato’ Sri Dr. Noorul.

However, she notes, one of the main challenges in opening up more childcare centres is the difficulty for operators to obtain approval from local authorities, since consent from neighbours is one of the main conditions. Therefore, plans for new housing estates should include childcare centre facilities, with developers responsible for building the centres.

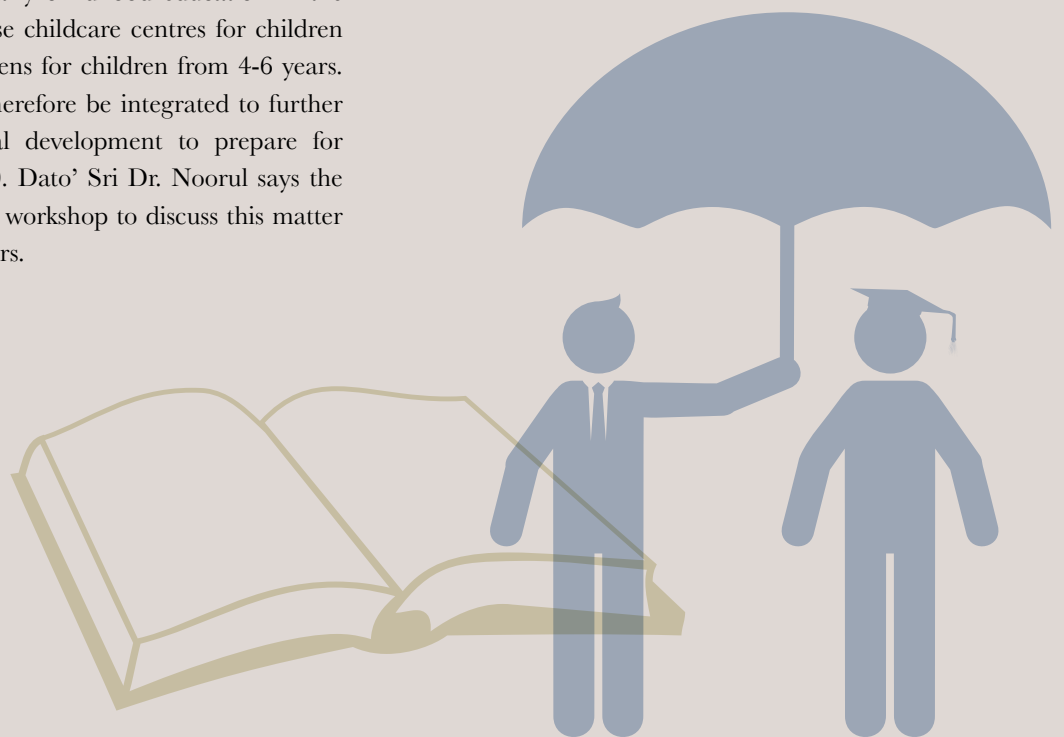
Other key achievements under the HCD SRI's women's empowerment initiatives include the training of 501 women in 2013 to upskill women under the Women's Directors Programme, exceeding the MoWFCD's target of 500 women. "However, our biggest challenge is to ensure that more women are placed at the board level of public-listed companies (PLCs). This is also due to the 'invisible women' syndrome as well as the hesitancy of the PLCs in giving opportunities to women to sit on the boards," notes Dato' Sri Dr. Noorul.

On further efforts that can be undertaken to enhance the implementation of the HCD SRI, she notes that early childhood education in the country plays a key role in enabling women participation in the workforce, and needs to be studied very carefully.

Currently models for early childhood education in the country mainly comprise childcare centres for children below 4 and kindergartens for children from 4-6 years. These models should therefore be integrated to further enhance human capital development to prepare for challenges beyond 2020. Dato' Sri Dr. Noorul says the Ministry will organise a workshop to discuss this matter with relevant stakeholders.

Nonetheless, she remains optimistic of increasing the number and quality of women in the workplace, with more women projected to enter decision-making positions, both in the public and private sector.

"It is now widely argued that the advancement of women and the promotion of gender equality in the workplace not only benefits women and men but brings clear advantages for businesses. A gender-sensitive perspective can help companies to recruit and retain the best employees, make the best use of human resources, improve productivity and competitiveness, as well as raise public image. With this in mind, we might even set a higher target for women in decision-making positions come 2020," she says.



AGREED-UPON PROCEDURE REPORT BY PWC

2013 ETP RESULTS

Verification by Independent Third-Party

A core tenet of the ETP has been transparency and accountability and this is reflected in the Annual Report. The ETP Roadmap was published in October 2010 detailing out the measures in the transformation programme. In this report, the 2013 key performance indicators for each National Key Economic Area (NKEA) and Strategic Reform Initiatives (SRI) were published in full, with achievements versus targets listed*.

PEMANDU endeavoured to ensure the scoring system is transparent and stringent. Extensive rigour has been put into confirming the collection of data, tabulations of statistics and that results are accurate.

To this end, PEMANDU engaged PricewaterhouseCoopers Malaysia (PwC), an independent professional services firm, to conduct a series of Agreed-Upon-Procedures – specific tests and procedures to review reported results for the KPIs and projects announced. These Agreed-Upon-Procedures were applied to a sample taken from the key performance indicators of each NKEA, SRI as well as projects announced during the Progress Updates. The respective calculations were also checked against guidelines and formulae originally developed in the NKEA labs, and prescribed by PEMANDU.

Over the course of this exercise, PwC's findings highlighted a number of exceptions on the samples selected, which were subsequently addressed and reflected in this Annual Report. PwC confirmed that the results reported for the selected samples in the Annual Report have been validated according to the Agreed-Upon-Procedures. PwC also identified opportunities to improve processes and the quality of information. PEMANDU, together with the relevant Ministries and private sector stakeholders will be taking positive prescriptive actions to realise these improvements over the next 12 months.

Extensive
rigour has been
put into confirming
the collection of data,
tabulations of statistics,
and that results are
accurate

* Exceptions were made where targets featured market-sensitive data.
In such instances, this information was kept confidential at the request of involved parties.

ETP SCORECARD

Measurement Methodology Key Performance Indicator

The ETP Scorecard assesses the extent to which the planned Key Performance Indicator (KPIs) for each Entry Point Project achieved the desired outcome for the past year. The actual year-to-date results are presented in three scoring methodologies.

All three methods have been formulated to provide a pragmatic representation of the actual KPI numbers in percentages.

Method 1 Scoring is calculated by a simple comparison against set 2013 targets. The overall NKEA/SRI composite scoring is the average of all scores.




Method 2 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is less than 100%, score #2 is taken as the actual percentage
- If the scoring is equal or more than 100%, score #2 is taken as 100%. The overall NKRA composite scoring is the average of all scores




Method 3 Scoring is calculated by dividing actual results against set 2013 targets with an added rule:

- If the scoring is equal and less than 50%, score #3 is indicated as 0
- If the scoring is more than 50% and less than 100%, score #3 is indicated as 0.5
- If the scoring is equal or more than 100%, score #3 is indicated as 1

Methods 1 and 2

Achievement	Traffic Lights
90% and above	
51% – 89%	
50% and less	

Methods 3

Achievement	Scoring	Traffic Lights
100% and above	1	
51% – 99%	0.5	
50% and less	0	

The traffic light approach is outlined below



Where decimal points are concerned, the scorecard employs a rounding mechanism. In cases where the KPI results have a decimal point of 0.1 to 0.4 per cent, the final percentage value is rounded downwards. Where the results have a decimal point of 0.5 to 0.9 per cent, the final percentage value is rounded upwards.

LIST OF ENTRY POINT PROJECTS

No	Entry Point Projects
Greater Kuala Lumpur/Klang Valley	
1	Attracting 100 of the World's Most Dynamic Firms within Priority Sectors
2	Attracting Internal and External Talent
3	High-Speed Rail Connection to Singapore
4	Building an Integrated Urban Mass Rapid Transit System
5	Revitalising the Klang River into a Heritage and Commercial Centre
6	Greener Kuala Lumpur
7	Creating Iconic Places and Attractions
8	Creating a Comprehensive Pedestrian Network
9	Developing an Efficient Solid Waste Management System
Oil, Gas and Energy	
1	Rejuvenating Existing Fields through Enhanced Oil Recovery (EOR)
2	Developing Marginal Fields through Innovative Solutions
3	Intensifying Exploration Activities
4	Building a Regional Storage and Trading Hub
5	Unlocking Premium Gas Demand in Peninsular Malaysia
6	Encouraging Investments in the Oil & Gas Services and Equipment (OGSE) Industry
7	Taking Local Oil and Gas Services & Equipment Companies to the Global Stage
8	Attracting MNCs to set up Operations in Malaysia and Partner with Local Firms
9	Improving Energy Efficiency
10	Building Up Renewable Energy and Solar Power Capacity
11	Deploying Nuclear Energy for Power Generation
12	Tapping Malaysia's Hydroelectricity Potential
13	Increase Petrochemical Outputs
Financial Services	
1	Revitalising Malaysia's Equity Markets
2	Deepening and Broadening Bond Markets
3	Transforming Development Financial Institutions (DFIs)
4	Creating an Integrated Payment Ecosystem
5	Insuring Most, If Not All, of Our Population
6	Accelerating the Growth of the Private Pension Industry
7	Spurring the Growth of the Nascent Wealth Management Industry

(more on next page)

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No	Entry Point Projects
8	Accelerating and Sustaining a Significant Asset Management Industry
9	Nurturing Regional Banking Champions
10	Becoming the Indisputable Global Hub for Islamic Finance
Wholesale and Retail	
1	Increasing the Number of Large Format Stores
2	Modernising via the Small Retailer Transformation Programme (TUKAR)
3	Developing Pasar Komuniti (moved to Agriculture NKEA in 2012)
4	Transforming Automotive Workshops
5	Developing Makan Bazaars
6	Developing 1Malaysia Malls
7	Developing a Virtual Mall
8	Facilitating Local Businesses to Acquire Stakes in Foreign Retail Businesses
9	Making Malaysia Duty-Free
10	Setting Up Wellness Resorts
11	Organising Unified Malaysia Sales
12	Transforming KLIA into a Retail Hub
13	Developing Big Box Boulevards
Palm Oil and Rubber	
1	Accelerating the Replanting and New Planting of Oil Palm
2	Improving Fresh Fruit Bunch Yield
3	Improving Worker Productivity
4	Increasing the Oil Extraction Rate (OER)
5	Developing Biogas Facilities at Palm Oil Mills
6	Developing High Value Oleo Derivatives and Bio-based Chemicals
7	Commercialising Second Generation Biofuels
8	Expediting Growth in Food and Health-based Segments
9.1	Increasing Average National Rubber Productivity
9.2	Ensuring Sustainability of the Upstream Rubber Industry
9.3	Increase World Market Share of Latex Gloves to 65 per cent by 2020
9.4	Commercialising Ekoprena and Pureprena
Tourism	
1	Positioning Malaysia as a Duty-Free Shopping Destination
2	Designating Bukit Bintang-Kuala Lumpur City Centre Area as a Vibrant Shopping Precinct
3	Establishing Premium Outlets in Malaysia
4	Establishing Malaysia as a Global Biodiversity Hub
5	Developing an Eco-Nature Integrated Resort

(more on next page)

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No	Entry Point Projects
6	Cruise Tourism: Creating a Straits Riviera
7	Targeting more International Events
8	Dedicated Entertainment Zones (DEZ)
9a	Developing Local Expertise and Better Regulating the Spa Industry
9b	Golf Tourism
10	Establishing Malaysia as a Leading Business Tourism Destination
11	Enhancing Connectivity to Priority Medium-Haul Markets
12	Improving Rates, Mix and Quality of Hotels
Electrical and Electronics	
1	Executing a Smart Follower Strategy for Mature Technology Fabrication
2	Developing Assembly and Test Using Advanced Packaging Technology
3	Developing Integrated Circuit Design Firms
4	Supporting the Growth of Substrate Manufacturers and Related Industries
5	Increasing the Number of Silicon Producers
6	Growing Wafer and Cell Producers
7	Increasing Solar Module Producers
8	Developing LED Front-end Operations
9	Expanding LED Packaging and Equipment
10	Creating Local Solid State Lighting Champions
11	Building a Test and Measurement Hub
12	Expanding Wireless Communication and Radio Frequency Identification (RFID)
13	Growing Automation Equipment Manufacturing
14	Building Transmission and Distribution Companies
15	Building an Electrical Home Appliance Manufacturing Hub and International Distribution Network
16	Development of Balance of System for Solar Photovoltaics (PV)
17	Grow the Embedded Systems Industry
18	Enabling Electric Vehicle Component Manufacturing
19	Supporting Regional Rail MRO Services via Electrical and Electronics Component Manufacturing
20	Enabling Industries through Nanotechnology
Business Services	
1	Growing Aviation Maintenance, Repair and Overhaul Services
2	Building Globally Competitive Shared Services and Outsourcers
3	Positioning Malaysia as a World-Class Data Centre Hub
4	Jump-starting a Vibrant Green Technology Industry
5	Nurturing Pure-Play Engineering Services
6	Developing Malaysia as a Shipbuilding and Repair Hub

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No	Entry Point Projects
Communications Content and Infrastructure	
1	Nurturing Malaysia's Creative Content
3	Connecting 1Malaysia
4	Establishing e-Learning for Students and Workers
5	Launching e-Healthcare
6	Deepening e-Government
7	Ensuring Broadband for All
8	Extending Reach
9	Offering a Smart Network
10	Extending the Regional Network
11	Track and Trace
Education	
1	Scaling Up Private Early Childcare and Education (ECCE) Centres
2	Improving Early Childcare and Education (ECCE) Training
3	Scaling Up International Schools
4	Expanding Private Teacher Training
5	Scaling Up Private Skills Training Provision
6	International Expansion of Distance Learning
7	Building an Islamic Finance and Business Education Discipline Cluster
8	Building a Health Science Education Discipline Cluster
9	Building an Advanced Engineering, Science and Innovation Discipline Cluster
10	Building a Hospitality and Tourism Cluster
11	Launching EduCity@Iskandar
12	Championing Malaysia's International Education Brand
13	Introducing Public-Private Partnerships in Basic Education
14	Building a Games Development Cluster
15	Establishment of Branch Campuses for Foreign Universities
16	Establishment of Not-For-Profit Education Institutions
17	Transforming Malaysia into a Leading Accountancy Hub
Agriculture	
1	High-Value Herbal Products
2	Edible Bird's Nest Swiftlet Farming
3	Mini-estate Farming for Seaweed
4	Integrated Cage Farming
5	Cattle Integration in Oil Palm Estates
6	Replicating Integrated Zone for Aquaculture Model (IZAqs) to Tap Market for Premium Shrimp

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No	Entry Point Projects
7	Premium Fruits and Vegetables
8	Food Park
9	Fragrant Rice Varieties in Non-Irrigated Areas
10	Strengthening Productivity of Paddy Farming in MADA
11	Strengthening Productivity of Paddy Farming in Other Granaries
12	Expansion of Cattle in Feedlots
13	Dairy Clusters
14	Seed Industry Development
15	Participation of MNCs
16	Joint Venture of Cattle Farms
17	Pasar Komuniti - PAKAR
Healthcare	
1	Mandating Private Health Insurance for Foreign Workers
2	Creating Supportive Ecosystem to Grow Clinical Research
3	Malaysian Pharmaceuticals
4	Reinvigorating Healthcare Travel
5	Creating a Diagnostic Services Nexus
6	Developing a Health Metropolis: A World-Class Campus for Healthcare and Bioscience
7	Upscale Malaysia's IDV Industry
8	Build Malaysian Showcase on Next Generation of Core Single Use Device (SUD) Products
9	Become the Hub for High-Value Medical Devices Contract Manufacturing
10	Malaysian Clinical Device Champions
11	Medical Equipment Supply Chain Orchestration
12	High Value Medical Devices Manufacturing
13	Build Medical Hardware and Furniture Cluster
14	Renal Products
15	Mobile Healthcare Services
16	Institutional Aged Care
17	Retirement Villages

LIST OF BUSINESS OPPORTUNITIES

No	Business Opportunities
Greater Kuala Lumpur/Klang Valley	
1	Vitalising Putrajaya
2	Housing
3	Basic Sewerage Services
Oil, Gas and Energy	
1	Process Improvements
2	Economic Growth
Financial Services	
1	Investment Banking
2	Other Segments Including DFIs
3	Commercial Banking
4	Insurance and Takaful
5	Asset and Wealth Management
6	Islamic Banking
Wholesale and Retail	
1	Organic Growth
Palm Oil and Rubber	
1	Expansion of Plantation Land Bank
2	Development of Existing Downstream Activities
3	Development of National Biodiesel Activities
Tourism	
1	Food and Beverage Outlets
2	Local Transportation
3	Tour Operator Segment

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No	Business Opportunities
Business Services	
1	Multi-Disciplinary Practice Construction
2	Accounting Sector
Communications Content and Infrastructure	
1	Fixed Services
2	Mobile Services
3	Courier, Post and Broadcast
4	Regional Operations
Education	
1	Discipline Clusters to Support NKEAs
2	Centre of Excellence in Language Learning
Agriculture	
3	Ornamental Fish Farming
4	Aquaculture Feed Mill
5	Aquaculture Export Centre
6	Snacks Industry
7	Free-Range Chicken Rearing
8	Button Mushroom Farming
10	Foreign Direct Investment in Herbal Products
11	Snack Food Industry (SFI)/County Food Facilities

GLOSSARY OF TERMS

AAIM	Automotive After-sales Industry Malaysia	EPMS	Energy Performance Management System
AAM	Automobile Association of Malaysia	EPPs	Entry Point Projects
AIM	<i>Agensi Inovasi Malaysia</i> – National Innovation Agency	EPU	Economic Planning Unit
ACD	Asia Cooperation Dialogue	ETF	Exchange Traded Funds
AeU	Asian e-Learning University	ETP	Economic Transformation Programme
ASB	Amanah Saham Bumiputra	EXIM	Export and Import Bank of Malaysia Bhd
ATOM	Automotive Workshop Modernisation	F&B	Food and Beverage
AWLU	Asian Women's Leadership University	F1	Formula 1
BB	Bukit Bintang	FAMA	Federal Agriculture Marketing Authority
BBB	Big Box Boulevards	FCPO	Crude Palm Oil Futures
BCC	Bumiputera Corporate Champions	FDI	Foreign Direct Investment
BLESS	Business Licensing Electronic Support System	Felda	Federal Land Development Authority
BNM	Bank Negara Malaysia - Malaysia Central Bank	FFBs	Fresh Fruit Bunches
BMI	Business Monitor International	FINAS	National Film Development Corporation Malaysia
BOs	Business Opportunities	FIT	Feed-in Tariff
BPO	Business Process Outsourcing	FRIM	Forest Research Institute of Malaysia
BPR	Business Process Reengineering	FRISB	Felda Rubber Industries Sdn Bhd
CAGR	Compounded Annual Growth Rate	FTZ	Free Trade Zones
CCI	Communications Content and Infrastructure	GAP	Good Agriculture Practices
CCAM	Creative Content Association of Malaysia	GASAC	Government Accounting Standards Advisory Board
CCIG	Creative Content Industry Guild	GBI	Green Building Index
CCM	Companies Commission of Malaysia	GDP	Gross Domestic Product
CGI	Computer-Generated Imagery	GE	General Electric
CIF	Cost, Insurance and Freight	GFMAS	Government Financial Management and Accounting System
CMDV	Centre for Market Discovery & Validation	GHIAL	GMR Hyderabad International Airport Limited
CME	Chicago Mercantile Exchange	GIFT	Global Incentives For Trading
CMSA	Capital Markets and Services Act 2007	GLC	Government-linked Company
CNIIs	Critical National Information Infrastructures	GLIC's	Government-linked Investment Companies
COE	Centre of Excellence	GMP	Good Manufacturing Practices
CRC	Clinical Research Centre	GNI	Gross National Income
CRM	Clinical Research Malaysia	Greater KL/KV	Greater Kuala Lumpur/Klang Valley
CSL	Competition, Standards and Liberalisation	GreenTech Malaysia	Green Technology Corporation
DBKL	Dewan Bandaraya Kuala Lumpur/Kuala Lumpur City Hall	GST	Goods and Service Tax
DC	Data Centre	GTFS	Green Technology Funding Scheme
DCA	Department of Civil Aviation	GTP	Government Transformation Programme
DESB	DreamEdge Sdn Bhd	HCD	Human Capital Development
DEZ	Dedicated Entertainment Zones	HDC	Halal Industry Development Corporation
DMO	Delivery Management Office	HDO	Herbal Development Office
DoA	Department of Agriculture	HR	Human Resources
DoF	Department of Fisheries	IAGTO	International Association of Golf Tour Operators
DSN	Diagnostic Services Nexus	IAOP	International Association of Outsourcing Professionals
DVS	Department of Veterinary Services	IBFIM	Islamic Banking and Finance Institute Malaysia
E&E	Electrical and Electronics	ICs	Integrated Circuits
E&P	Exploration and Production	ICIFE	International Council of Islamic Financial Educators
EASA	European Aviation Safety Authority	ICON	Integrated Content Development Programme
EBN	Edible Bird's Nest	ICT	Information Communications Technology
ECCE	Early Child Care and Education	ICU	Implementation Coordination Unit
ECERDC	East Coast Economic Regional Development Council	IILM	International Islamic Liquidity Management Corporation
EMGS	Education Malaysia Global Services	IUM	International Islamic University Malaysia
EOR	Enhanced Oil Recovery		
EPF	Employees Provident Fund		

ILMIA	Institute of Labour Market Information and Analysis	MiGHT	Malaysian Industry-Government Group for High Technology
INTAN	National Institute of Public Administration	MITI	Ministry of International Trade and Industry
INTI	INTI International University	MMBH	Malaysia Mega Biodiversity Hub
IP	Intellectual Property	MMHE	Malaysia Marine and Heavy Engineering Holdings Berhad
IPO	Initial Public Offering	mmscfd	Million Standard Cubic Feet Per Day
IRB	Inland Revenue Board	mmstb	Million Barrels
IRDA	Iskandar Regional Development Authority	MMU	Multimedia University
IT	Information Technology	MNC	Multinational Company
IVDs	Intravenous Devices	MNPC	Malaysia Nuclear Power Corporation
IWG	Industry Working Group	MoA	Ministry of Agriculture and Agro-based Industry
IZAQs	Integrated Zone for Aquaculture Models	MoE	Ministry of Education
JANM	Jabatan Akauntan Negara Malaysia (Accountant-General's Department of Malaysia)	MoF	Ministry of Finance
JCorp	Johor Corporation	MoH	Ministry of Health
JKR	Department of Works	MoHR	Ministry of Human Resource
JPA	Public Service Department	MOSTI	Ministry of Science, Technology and Innovation
JV	Joint Venture	MoU	Memorandum of Understanding
KeTTHA	Ministry of Energy, Green Technology and Water	MoWFCD	Ministry of Women, Family and Community Development
KLCC	Kuala Lumpur City Centre	MPAJ	Majlis Perbandaran Ampang Jaya
KLIUC	Kuala Lumpur Infrastructure University College	MPC	Malaysia Productivity Corporation
KLK	KL Kepong	MPOB	Malaysian Palm Oil Board
KLRCA	Kuala Lumpur Regional Centre of Arbitration	MPRC	Malaysia Petroleum Resources Corporation
KPI	Key Performance Index/Indicator	MPS	Majlis Perbandaran Selayang
KPJ	Kumpulan Perubatan Johor	MPSAS	Malaysia Public Sector Accounting Standards
KPO	Knowledge Process Outsourcing	MRB	Malaysian Rubber Board
KRS	Konsortium Rangkaian Serantau Sdn Bhd	MRO	Maintenance, Repair and Overhaul
KVMRT	Klang Valley Mass Rapid Transit	MRT Corp	MRT Corporation Sdn Bhd
kWh	Kilowatt-hour	MRT	Mass Rapid Transit
KWSP	Kumpulan Wang Simpanan Pekerja	MS	Malaysian Standard
LED	Light Emitting Diode	MTAB	Majlis Tindakan Agenda Bumiputera - Bumiputera Agenda Action Council
LPG	Liquified Petroleum Gas	MTAC	Malaysia Truly Asia Centre
LTE	Long-Term Evolution	mtpa	Million Tonnes Per Annum
MADA	Muda Agricultural Development Authority	mtpd	Metric Tonnes Per Day
MAE	MAS Aerospace Engineering	MyCC	Malaysian Competition Commission
MAHB	Malaysia Airport Holdings Bhd	MyCEB	Malaysian Convention and Exhibition Bureau
MAMPU	Malaysian Administrative Modernisation and Management Planning Unit	MyCenTHE	Malaysia Centre of Tourism and Hospitality Education
MARA	Majlis Amanah Rakyat	MyClear	Malaysia Electronic Clearing Corporation Sdn Bhd
MARDI	Malaysia Agricultural Research and Development Institute	MyQuest	Malaysia Quality Evaluation System
MAS	Malaysia Airlines	NAPEI	National Association of Private Educational Institutions
MATRADE	Malaysia External Trade Development Corporation	NAV	Net Asset Value
Mbps	Megabits-per-second	NCIA	Northern Corridor Implementation Authority
MCMC	Malaysian Communications and Multimedia Commission	NEAC	National Economic Advisory Council
MDCA	Malaysian Data Centre Alliance	NEM	New Economic Model
MDeC	Multimedia Development Corporation	NGO	Non-Government Organisations
MDTCC	Ministry of Domestic Trade, Cooperatives and Consumerism	NHRC	National Human Resource Centre
MEF	Malaysia Employers Federation	NI-AIN	National Instruments Academy and Innovation Nucleus
MEPS	Malaysian Electronic Payment System Sdn Bhd	NKEA	National Key Economic Area
MGTA	Malaysian Golf Tourism Association	NKRA	National Key Results Area
MGTC	Malaysia Green Tech Corporation	NMIT	Netherlands Maritime Institute of Technology
MHTC	Malaysian Healthcare Travel Council	NOSS	National Occupational Skills Standard
MIA	Malaysian Institute of Accountants	NTDC	NCIA Technology Design Centre
MICE	Meetings, Incentives, Conventions and Exhibitions	NTEP	National Talent Enhancement Programme
MIDA	Malaysian Investment Development Authority		

NUMed	Newcastle University Medicine Malaysia
NWCC	National Wage Consultative Council
OEM	Original Equipment Manufacturing
OER	Oil Extraction Rate
OFSE	Oil Field Services and Equipment
OGE	Oil, Gas and Energy
OUM	Open University Malaysia
PAKAR	Pasar Komuniti
PCG	Petronas Chemical Group Berhad
PDS	Private Debt Securities
PEMUDAH	Special Taskforce to Facilitate Business
PIPC	Pengerang Integrated Petroleum Complex
PNB	Permodalan Nasional Berhad
POIC	Palm Oil Industrial Cluster
POS	Point of Sale
PPP	Public-Private Partnership
PSC	Production-sharing Contract
PTPTN	National Higher Education Fund
PV	Photovoltaics
RAPID	Refinery and Petrochemical Integrated Development
REP	Returning Expert Programme
RGT	Regasification Terminal
ROL	River of Life
RP-T	Residence Pass - Talent
SAM	Strand Aerospace Malaysia
SAMUR	Sabah Ammonia Urea
SC	Securities Commission
SEDA	Sustainable Energy Development Authority
SOCSSO	Social Security Organisation
SPIKPA	Hospitalisation and Surgical Scheme for Foreign Workers
SRI	Strategic Reform Initiative
SSL	Solid State Lighting
TEVT	Technical Education and Vocational Training
TUKAR	Small Retailer Transformation Programme
TtT	Train-the-Trainer





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