

# MALAYSIA 2012 INVESTMENT PERFORMANCE Investment for Transformation



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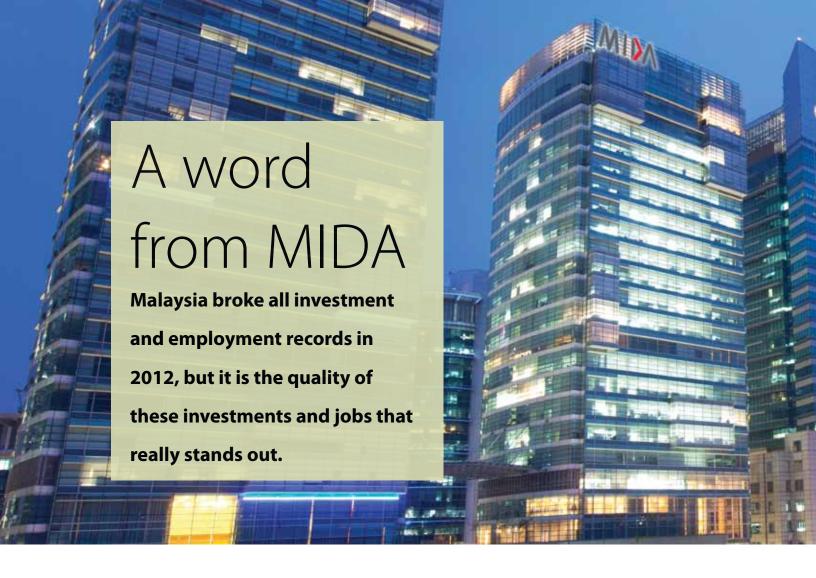
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# hese are exciting times for Malaysia.

Despite uncertain global economic conditions, the country attracted RM162.4 billion in direct investments in 2012, more than any other year. In the process, we also created 182,841 new jobs – an outstanding achievement considering the glum state of the world's economy.

What is infinitely more important than these numbers, however, is the quality of these investments and jobs.

## Prosper the investor

Much of 2012's investments were in new and emerging technologies, particularly within the aerospace, semiconductors, solar, machinery and equipment, biotechnology, petroleum and petrochemical products and medical devices industries as well as the services sector. Investors are looking to Malaysia to provide the right environment for their enterprises in these industries to prosper.

This remarkable achievement was made possible by the Government's new strategies to attract quality investments in targeted sectors. Strategic partnerships with the



country's economic development agencies has supported MIDA's effort in raising Malaysia's profile as an ideal place for high-value added business. Over the past few years, MIDA and its partners have concentrated their efforts on strengthening Malaysia's ecosystems for investors both domestic and foreign. Malaysia has now gained an enviable reputation as a global and regional hub for manufacturing and services, attracting investments that will accelerate the country's shift to high value-added, high technology, knowledgeintensive and innovation-based industries. MIDA's ecosystem approach to developing investments is an important part of this ensuring this success.

## In 2012, Malaysia:

- Attracted the highest amount of direct investments ever recorded: **RM162.4 billion**
- Created 182,841 jobs more than any other year
- Enhanced the domestic investment landscape
- Made strong progress in the development of industries for new and emerging technologies
- Strengthened the ecosystems of existing industries such as semiconductors, LEDs, solar and M&F.
- Bolstered the country's reputation as a global and regional hub for manufacturing and services
- Balanced the development of the country's five economic corridors

After spending more than four decades promoting and coordinating industrial development, the Malaysian Industrial Development Authority (MIDA) received a new name and a wider scope of responsibility in 2011. With the launch of the New Economic Model, the agency was renamed the Malaysian Investment Development Authority and given a key role in spearheading the national investment agenda to drive the goals of the Economic Transformation Programme (ETP).

Just as MIDA has been reshaped for its new mission, Malaysia's investment environment is also being reshaped to attract the right types of investments. The results of 2012 indicate that the country is making good progress towards meeting this goal. Shifts in investment underscore the role of the services sector as a new dimension in the Malaysian economy. We are also attracting more high value-added and knowledge-based activities in new and emerging industries such as biotechnology, aerospace and advanced electronics. Investments also continued to flow into the primary sector, with most of the inflows directed into oil and gas exploration projects.

Clearly, Malaysia is moving up the value chain.

## **Evolving investments**

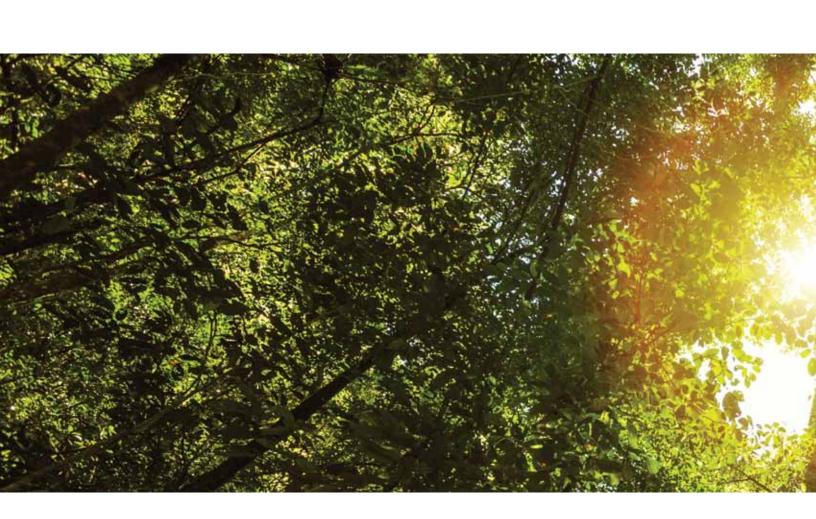
Malaysia continues to be a competitive destination for foreign multinational corporations seeking an educated workforce, Malaysia's investment environment is being reshaped to attract the right kinds of investments

sound infrastructure and business-friendly political climate. Nonetheless, the future of the country is also dependent on the growth of domestic direct investments. It is heartening to note that domestic investment inflows increased substantially by almost four times the FDIs achieved in 2012, a sure sign of the confidence local businesses have in the country's ability to prosper its investors.

MIDA will play an important role in encouraging and mobilising domestic direct investments by identifying opportunities, providing support and enhancing incentives for Malaysian-owned companies. These strategies will help the country make the quantum leap required in realising the national investment agenda: to attract quality investments.

It is crucial that we lock arms to build upon the success of 2012. We must foster business ecosystems that are conducive to investors, domestic or foreign. MIDA must deliver on its promise: Malaysia as the Profit Centre of Asia.

These are exciting times for Malaysia indeed.



Malaysia on the World Stage
Overcoming a subdued global
investment environment





Despite a gloomy
macroeconomic
environment,
Malaysia's economy
continued to grow in
2012, staying on track
to meet the objectives
of the Economic
Transformation
Programme

hile the external economic environment continued to be challenging, the Malaysian economy maintained its growth in 2012. Real Gross Domestic Product (GDP) grew 5.6 per cent in 2012.

From the supply side, all sectors registered positive growth in 2012. The main contributors to overall growth were the services, manufacturing, and mining and quarrying sectors<sup>1</sup>.

The services sector was responsible for the largest share of Malaysia's GDP. In 2012, the sector contributed 54.6 per cent to the country's GDP and recorded a growth rate of 6.4 per cent in value added. Employment in the services sector was estimated at 6.7 million persons or 53.5 per cent of total employment in 2012<sup>2</sup>.

Productivity of the services sector is expected to grow more than four per cent in 2012<sup>3</sup>, led by communications (5.7%), wholesale and retail trade (4.9%) and the other services (5.6%) sub-sectors.

The manufacturing sector remained resilient, contributing 24.9 per cent to GDP in 2012. The value-added of the manufacturing sector expanded by 4.8 per cent during the year. Total exports of manufactured products decreased by 0.1 per cent to RM470.4 billion in 2012 compared with RM471 billion in 2011. Nonetheless, these exports accounted for 67 per cent of Malaysia's total exports for the year. Employment in the manufacturing sector was

Manufacturing remained resilient in 2012, contributing 24.9 per cent to GDP, while the value-added of the sector went up by 4.8 per cent.

estimated at 3.6 million persons, or 28.9 per cent of total employment in 2012<sup>4</sup>.

The performance of the manufacturing sector is reflected in the expansion of the sector's industrial output (as measured by the industrial production index), sales value and productivity. In 2012, the production index and sales value of the sector expanded by 5 per cent and 5.5 per cent respectively compared to the year before. Productivity in the manufacturing sector, as measured by sales value per employee, grew 4.4 per cent for the period of January to October 2012<sup>5</sup>.

The primary sector continues to be an important part of Malaysia's economy. In 2012,

Department of Statistics.

<sup>&</sup>lt;sup>2</sup> Economic Report 2012/2013, Ministry of Finance,

Malaysia Productivity Corporation.

Economic Report 2012/2013, Ministry of Finance, Malaysia.

<sup>&</sup>lt;sup>5</sup> Malaysia Productivity Corporation.

the agriculture sector contributed 7.3 per cent to the country's GDP, a growth of 0.8 per cent from 2011. The agriculture sector employed an estimated 1.4 million persons, representing 11.1 per cent of total employment in 2012<sup>6</sup>.

The mining and quarrying sector contributed 8.4 per cent to the country's GDP in 2012, growing 1.4 per cent during the year.

Employment in this sector during this period was estimated at 41,100 persons<sup>7</sup>.

## A global challenge

A subdued investment environment challenges businesses and governments worldwide

but remains constrained by macroeconomic and financial conditions. Foreign direct investment (FDI) flows continued to recover following the impact of the global financial and economic crisis of 2008-2009. This recovery continued in spite of the on-going European sovereign debt crisis.

Global foreign direct investment (FDI)<sup>1</sup> inflows in 2011 increased by 16 per cent to US\$1.52 trillion from US\$1.31 trillion in 2010, according to the World Investment Report 2012 by the United Nations Conference on Trade and Development (UNCTAD).

In 2011, developed countries widened their lead in FDI inflows. Flows to developed

Global FDI inflows in 2011 increased by 16 per cent to US\$1.52 trillion across all three groups of economies – developed, developing and transition economies.

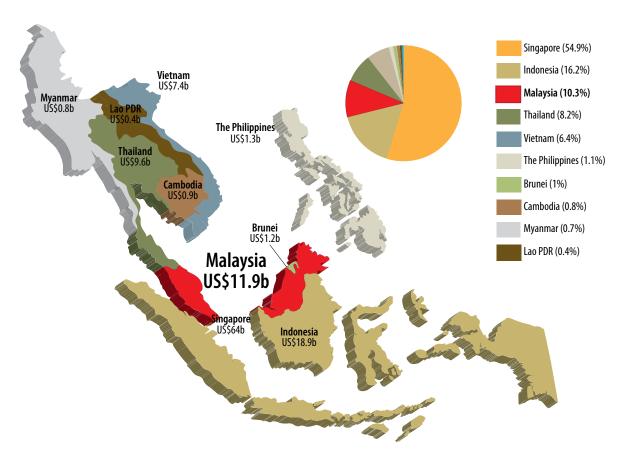
countries increased by 21 per cent, to US\$748 billion. In the developing countries, FDI increased by 11 per cent to reach a record US\$684 billion. In the transition economies, FDI increased by 25 per cent to US\$92 billion. Taken together, developing and transition economies accounted for more than half of global FDI.

Economic Report 2012/2013, Ministry of Finance, Malaysia.

Economic Report 2012/2013, Ministry of Finance, Malaysia.

FDI is defined by UNCTAD as an international investment made with the objective of a lasting interest by a resident entity in one economy in an entity resident in another economy. It comprises equity capital, reinvested earnings and inter-company debt transactions and is largely based on national balance of payment statistics.





The United States of America (USA) maintained its position as the largest recipient of FDI inflows (US\$226 billion) in 2011, followed by the People's Republic of China (US\$123 billion), Belgium (US\$89 billion) and Hong Kong (US\$83 billion).

In the developing regions of East Asia and Southeast Asia, FDI inflows achieved new records in 2012. Total inflows amounted to US\$336 billion, accounting for 22 per cent of global inflows. Southeast Asia alone recorded inflows of US\$117 billion, a 26 per cent increase from the previous year. While East Asia

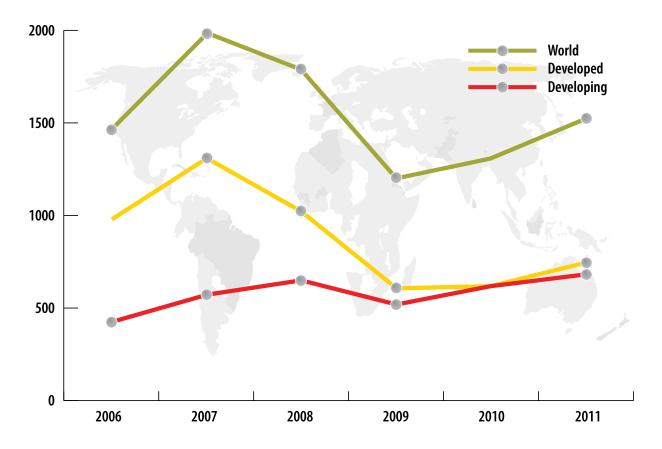
achieved inflows of US\$219 billion, Southeast Asia experienced faster FDI growth.

Among the economies of the Association of Southeast Asian Nations (ASEAN), Brunei Darussalam, Indonesia, Malaysia and Singapore all saw a significant increase in FDI inflows.

Malaysia was the third largest recipient in FDI flows among ASEAN countries in 2011 after Singapore and Indonesia.

FDI inflows to Malaysia rose from US\$9.1 billion in 2010 to US\$11.9 billion in 2011, an increase of 30.8 per cent. FDI inflows into Singapore





registered a strong growth from US\$48.6 billion in 2010 to US\$64 billion in 2011, representing an increase of 31.7 per cent. Indonesia experienced a 37.9 per cent increase of FDI, from US\$13.7 billion in 2010 to US\$18.9 billion in 2011. Growth in ASEAN countries was driven mainly by robust domestic demand and strong expansion in private sector activities.

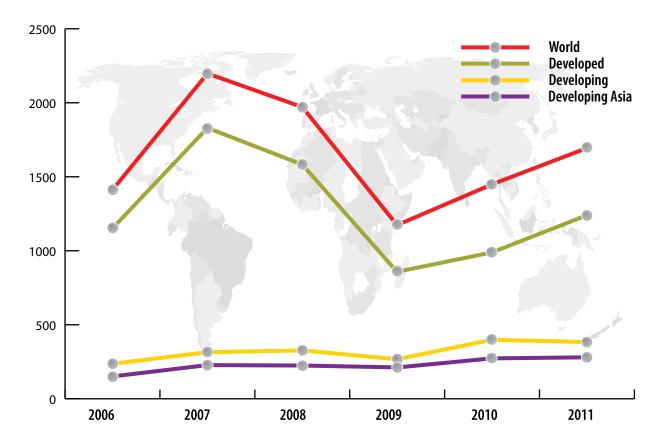
Reflecting the trend for FDI inflows, global FDI outflows rose by 17 per cent from US\$1.45 trillion in 2010 to US\$1.69 trillion in 2011. This level remains below the peak of US\$2.2 trillion in 2007. The rise was primarily due to growth

of outward FDI from developed countries.

Outward FDI from developed economies grew by 25 per cent from US\$0.99 trillion in 2010 to US\$1.24 trillion in 2011, while FDI from the transition economies rose by 19 per cent.

Each of the three major developed-economy investor blocs – the European Union (EU),
North America and Japan – had its own contributing factors leading to this increase.
Outward FDI from the United States reached a record of US\$397 billion, driven by a record level of reinvested earnings (82 per cent of total FDI outflows) which was in part the result

Graph 3 FDI outflows by economies, 2006 - 2011 (US\$ bil)



of transnational corporations (TNCs) building on their foreign cash holdings. Japan reemerged as the world's second largest investor, with an appreciating yen that improved the purchasing power of Japanese TNCs. Japan saw a doubling of FDI outflows, with net mergers and acquisitions (M&As) purchases in North America and Europe rising 132 per cent. In the EU, the increase in FDI outflows was driven by cross-border M&As.

In the developing world's economies, outward FDI fell slightly by four per cent to US\$380 billion in 2011. As a result, the share of

developing and transition economies in global FDI outflows declined from 32 per cent in 2010 to 27 per cent in 2011.

In 2011, total FDI outflows from East Asia and Southeast Asia fell slightly by 1.2 per cent to US\$239 billion. FDI outflows from East Asia dropped by nine per cent to US\$180 billion, while outflows from Southeast Asia rose 36 per cent to US\$59 billion. The main sources of FDI outflows from the East and Southeast Asia were Hong Kong (US\$81.6 billion), the People's Republic of China (US\$65.1 billion) and Singapore (US\$25.2 billion).

In Southeast Asia, Singapore was the largest source of FDI outflows in 2011 with US\$25.2

billion, followed by Malaysia with US\$15.2 billion and Thailand with US\$10.6 billion.

## Better days ahead

The world economy is expected to make a hesitant but gradual recovery over the next two years

UNCTAD projects that FDI flows will continue to improve following the challenges of the 2008–2009 crisis but will remain constrained by global macroeconomic and financial conditions. In 2012, FDI flows are expected to reach between US\$1.5 trillion and US\$1.7 trillion, with a midpoint at about US\$1.6

trillion.

N THE WORLD INVESTMENT REPORT 2012,

After a marked slowdown in 2011, global economic growth is likely to remain moderate in 2012. Most regions, especially developed economies, are expected to expand at a pace below potential and with subdued growth. Sluggish import demand from developed economies is also weighing on trade growth, which is projected to slow further. Oil prices rose in 2011 and are projected to remain relatively elevated in 2012 and 2013, compared with the levels of 2010.

There are risks of further deterioration in the global outlook. The euro-zone crisis remains the biggest threat to the world economy, but a continued rise in global energy prices may also stifle growth. These challenges must be faced by all countries, including Malaysia.

Moderate growth in the global economy is expected in 2012, with most regions, especially developed economies, expanding at a subdued rate.

Based on UNCTAD's Global Investment
Trends Monitor dated 23 January 2013,
global FDI flows declined by 18 per cent to
an estimated US\$1.3 trillion, down from a
revised US\$1.6 trillion in 2011, as significant
investor uncertainty continues to hamper the
FDI recovery. This uncertainty is driven by a
weakening macroeconomic environment
with lower growth rates for GDP, trade, capital
formation and employment. Additional risk
factors in the policy environment are also
contributing to uncertainty: the Eurozone



crisis, the United States fiscal cliff, changes of government in a number of major economies in 2012, and broad-based policy changes with implications for FDI.

In 2012, FDI flows in developed countries fell drastically to values last seen almost ten years ago. The majority of EU countries saw significant drops in FDI flows with the total fall amounting to some US\$150 billion while the United States' FDI flows fell by US\$80 billion.

During 2012, for the first time ever, FDI flows to developing economies exceeded those to developed countries, by some US\$130 billion. FDI flows to developing economies remained resilient in 2012, reaching US\$680

billion, declining only three per cent. Flows to developing Asia lost some momentum, although they remained at historically high levels.

Moving forward, UNCTAD projected that FDI inflows could rise moderately to US\$1.4 trillion in 2013 and US\$1.6 trillion in 2014 as the global economy is expected to make a hesitant and uneven recovery over the coming two years. GDP growth, gross fixed capital formation and trade are projected to rise gradually, both at the global level and especially in developing countries. Such a slight improvement in macroeconomic conditions could prompt transnational companies (TNCs) to undertake new investments.



The Year in Brief MIDA and its partners create a record-breaking year of investments and employment





Investments
exceed targets as
Malaysia enters
a crucial stage
in its economic
development.

he Economic
Transformation
Programme
(ETP) has set a target
to transform Malaysia
into a high-income nation
by 2020 with a Gross
National Income (GNI) target
of RM1.7 trillion by 2020. For
this to happen, the country

needs to attract total investments of RM1.4 trillion during the period of 2011-2020, with 92 per cent (RM1.3 trillion) coming from the private sector and the balance of 8 per cent (RM108 billion) from the public sector. Of the private sector's portion of RM1.3 trillion, 73 per cent (RM953 billion) will come from Domestic Direct Investments (DDI), while 27 per cent (RM358 billion) is to be contributed by Foreign Direct Investments (FDI).

In the shorter term, the 10th Malaysia Plan (10MP) calls for private sector investment to grow at 10.9 per cent per annum, or RM148 billion worth of private investments per year.

The ETP, which is supported by the 10MP and the New Economic Model (NEM), will provide clear platforms in the form of wide-ranging investments through its entry-point projects (EPPs) and business opportunities across the economy. These platforms will enable both the manufacturing and services sectors to take on a greater role in generating growth over the next eight years.

In 2012, realised private investments (measured in terms of Gross Fixed Capital Formation – GFCF) totalled RM139.5 billion, an increase of 24.8 per cent as compared to RM111.8 billion in 2011. As a result of Malaysia's solid investment performance, the country exceeded the private investments target of RM127.9 billion for 2012 by 9.1 per cent.

As a result of Malaysia's solid investment performance, the country exceeded the private investments target of RM127.9 billion for 2012 by 9.1 per cent.

Malaysia's cost-competitive location advantage attracted quality projects with significant levels of investments. In 2012, total investments approved in the Malaysian economy amounted to RM162.4 billion, the highest ever recorded. This constitutes investments approved in the manufacturing, services and primary sectors. Investments were approved in 6,442 projects and are expected to generate 182,841 job opportunities.

The total investments approved exceeded the average annual investment target of RM148 billion set under the 10MP by 9.7 per cent. This significant achievement indicates that Malaysia is on track to become a high-income economy driven by high-technology, knowledge-based and capital-intensive industries.

Of the total investments approved, RM127.6 billion (78%) were contributed by DDI and RM34.8 billion (22%) came from FDI. The higher DDI performance figures suggest that Malaysian investors responded favourably to the Government's call to invest more within the country, as highlighted under the ETP and 10MP.

Another positive indicator can be seen in the investments approved in the National Key Economic Areas (NKEAs), which amounted to RM66.1 billion or 40 per cent of total investments. There were also significant investments in projects approved within the Non-NKEAs which amounted to RM96.3 billion.

A total of 5,536 projects were approved in the services sector in 2012 with investments amounting to RM117.6 billion. Of the total investments, DDI amounted to RM105.4 billion and FDI totalled RM12.2 billion. The projects approved during this period are expected to create 103,180 job opportunities. Within the services sector, the real estate sub-sector continued to be the leading contributor with RM58.8 billion worth of investments approved followed by the utility (RM12.6 billion), hotel and tourism (RM8.9 billion), transport (RM6.8 billion) and telecommunications (RM6.6 billion) sub-sectors. To ensure the growth of the services sector, one of the Government's measures includes progressive liberalisation. This step enhances the competitiveness of the sector and contributes significantly to the ETP.

The higher
DDI figure of
RM127.6 billion
indicates a
positive response
from Malaysian
investors to the
Government's call
for investment.

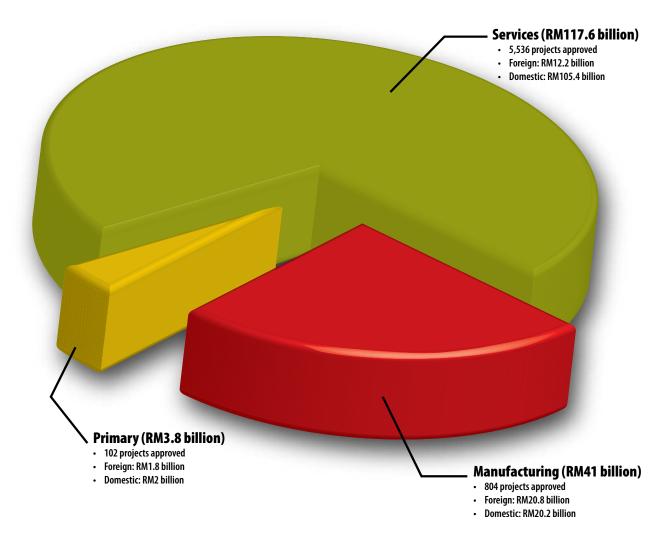
The decline or stagnation in global FDI inflows as well as the increasingly competitive global environment posed challenges for Malaysia in 2012. Despite the challenging situation, Malaysia was still able to attract a considerable amount of investments into the manufacturing sector. In 2012, a total of 804 manufacturing projects were approved, involving investments of RM41 billion. Foreign investments amounted to RM20.8 billion and accounted for 50.7 per cent of the total investments. The balance of RM20.2 billion or 49.3 per cent were investments from domestic sources.

The primary sector accounted for RM3.8 billion of approved investments in 2012. Foreign investments in the primary sector amounted to RM1.8 billion (47%) while domestic investments made up RM2 billion (53%). The mining sub-sector leads the other sub-sectors with approved investments reaching

RM2.7 billion in 18 projects. The rest of the primary sector is made up of the plantation and commodities sub-sector with investments amounting to RM548.7 million, as well as the agriculture sub-sector which registered investments totalling RM507.8 million.

To ensure that Malaysia keeps its cost competitive edge in attracting investments in the services, manufacturing and primary sectors, the Government continuously reviews and fine-tunes its business policies to make Malaysia more attractive as a business location.

Graph 4 Total investments approved in the Malaysian economy, 2012



**Total investments: RM162.4 billion** 

Box article 1 Domestic investment initiatives

## Homespun heroes

Investments from domestic sources drive the national investment agenda.

While inflows of FDI are crucial for the continued development of the economy, the role of domestic investments is not to be underestimated. The New Economic Model (NEM), Economic Transformation Programme (ETP) and the 10th Malaysia Plan (10MP), 2011-2015 have identified the importance of domestic investments in assuming a leading role in the growth of the economy. The ETP has targeted domestic investments at reaching 73 per cent of overall investments.

Malaysia's continued competitiveness is dependent on strengthening the manufacturing and services sectors and accelerating the shift to high value-added and innovation-based industries. This transformation will not be possible without stronger domestic investments in new growth areas, together with inflows of a new breed of FDIs. To help Malaysia make the leap required in national investment to drive the transformation of the economy, several new strategies have been chosen:

 Creating Malaysian conglomerates by identifying potential companies to provide necessary support

- Harnessing and leveraging on outsourcing opportunities created by MNCs operating in Malaysia
- Enhancing the current incentive schemes, to assist Malaysian-owned companies to scale-up
- Intensifying technology acquisition by Malaysian-owned companies
- Providing support to Malaysianowned companies for complying to international standards/certifications in targeted industries such as aerospace, medical devices and solar
- 6. Encourage small Malaysian service providers to merge into larger entities.

To further promote the development of domestic investments, the government announced several measures in 2012, in line with the above mentioned strategies.

These measures will further spur domestic investment and assist Malaysia in achieving the transformation of the domestic investment landscape.

#### **Domestic Investment Strategic Fund**

A Domestic Investment Strategic Fund of RM1 billion, to be managed by MIDA, was established to harness and leverage on outsourcing opportunities created by MNCs operating in Malaysia, intensify technology acquisition by Malaysianowned companies, and enable Malaysiaowned companies to obtain international standards/certifications in strategic industries. This will accelerate the shift towards high value-added innovation-based industries.

## Incentives for Acquiring Foreign Companies for High Technology

This incentive was re-introduced to enable Malaysian-owned companies to acquire state-of-the-art technologies through a leapfrogging approach to move up the value chain or to diversify into new areas. Under this initiative, a locally-owned company in the manufacturing or services sector that acquires a foreign-owned company abroad will be eligible for an incentive in the form of an annual deduction of 20 per cent of the acquisition cost for five years.

## Companies in Production Eligible to Apply for Incentives

Malaysian-owned manufacturing or services companies already in operation for a year or less and undertaking promoted products/activities under the Promotion of Investments Act, 1986 are now eligible to apply for tax incentives. This flexibility is aimed at facilitating new investments by Malaysian-owned companies.

#### **Incentives for Small Scale Companies**

Tax incentives were enhanced for small scale Malaysian-owned companies eligible to apply for tax incentives under the Promotion of Investments Act, 1986. The shareholders' funds threshold was increased from RM500,000 to less than RM2.5 million.

## Incentives for Small Malaysian Service Providers to Merge Into Larger Entities

Special incentives were introduced for mergers of small service providers, including a flat tax rate of 20 per cent on all taxable income for a period of five years (effective from the date of merger) and stamp duty exemption on the merger document. These incentives are aimed at building up the competitiveness of the smaller entities. Sectors eligible for this incentive include professional services (accounting and taxation services, specialised medical and dental practices, architectural services and engineering services), courier services, technical and vocational secondary education services (generic and special needs) and skill training services.

## Partners in attracting investments

Regional economic corridors and agencies lock arms to develop attractions for investment in Malaysia

tasked with transforming the economy under the New Economic Model (NEM) and the Economic Transformation Plan (ETP), MIDA has adopted a new strategic business approach to its operations. As the execution agency for the nation's investment agenda, MIDA is looking at generating quality investments in new and emerging technologies which are necessary to become a high income nation. MIDA is also looking at ways to rebrand Malaysia's image as a centre for high technology and global activities.

To this end, MIDA has outlined new investments strategies including leveraging on an ecosystem approach in promoting investments and developing targeted industries, meeting the human resources needs of investors and transforming the domestic investment landscape. To meet the national investments agenda, MIDA has been tasked with enhancing coordination and cohesion among the various agencies in the country on matters related to investment promotion. As the country's central investment agency, MIDA has been continuously engaging and collaborating with regional corridors and other agencies as well as the private sector to develop new and sustained sources of competitiveness for the country.

# ECER creates new opportunities

#### THE EAST COAST

Economic Region (ECER) accounted for RM12 billion in committed investments in 2012, 20 per cent more than its target of RM10 billion



than its target of RM10 billion. Approximately 75 per cent of these investments came from domestic sources while the rest originated from foreign investors.

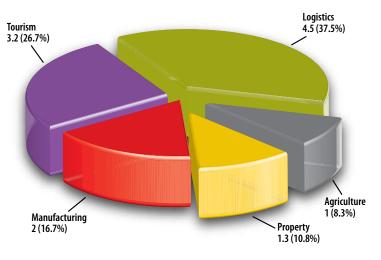
Since the implementation of the ECER Master Plan in 2007, the region has attracted total investments of RM37 billion and created 30,000 jobs for the region. The ECER has resulted in a cumulative investment of RM18.7 billion in Terengganu, creating 10,600 jobs, while Pahang has attracted RM11.1 billion and created 14,590 jobs. Kelantan realised an investment inflow of RM5.6 billion and saw 4,600 jobs created, while the district of Mersing received RM1.6 billion with 210 jobs created.

Among the highlights of 2012 are a project by South Korea's CJ CheilJedang Corporation (CJ) and France's Arkema, which are investing RM2 billion to develop the world's first integrated bio-methionine and thiochemicals plant in Kertih Biopolymer Park (KBP). In Pahang's Gebeng Industrial Estate, the Kaneka Group of Japan recently invested RM287.3 million for a polyimide film production plant through its subsidiary, Kaneka Apical (M) Sdn Bhd. Another investor, Tioxide (M) Sdn Bhd, a subsidiary of Huntsman Tioxide Limited has invested RM275 million to upgrade production facilities at its titanium dioxide pigment plant at the Kemaman Heavy Industrial Park.

Another key development in ECER for the year is the establishment of the Malaysia-China Kuantan Industrial Park (MCKIP), a bilateral project which is expected to strengthen the bilateral trade and economic ties between the two countries. MCKIP is the first bilateral project to be accorded national-level status and is projected to attract RM7.5 billion worth of domestic and foreign investments, as well as create 5,500 jobs by 2020.

To attract potential investors to ECER, the Federal Government has invested some RM3 billion in infrastructure development in the region over the past three years to support private sector investments. Kuantan Port is being expanded to a deep water port capable of handling vessels of up to 200,000 DWT by 2015, and the Government has also invested in human capital development

Graph 5 Total committed investments in the ECER, 2012 (RM bil)



The ECER has attracted total investments of RM37 billion and created 30,000 jobs since 2007.

Among other applications, polyimide film is widely used in the production of flexed printed circuit boards.

programmes such as empower to boost the academic achievement and employability of ECER locals. Agropolitan projects are also being rolled out across the region to eradicate rural poverty.

## NCER enters a new phase of development

## MEANWHILE, THE year 2012 marked the end of Phase I for the Northern



Corridor Economic Region (NCER) and saw a record investment value of RM12.3 billion in manufacturing, services and primary sectors, representing an increase of 24 per cent from the previous year. The NCER has attracted a total of RM29.7 billion in investments since its inception in 2008 and created a total of 42,602 new jobs and business opportunities during Phase I.

In addition to establishing strategic partnerships with various agencies, the Northern Corridor Implementation Authority (NCIA) facilitated the establishment of the first local LED accreditation and testing centre in Malaysia in the Koridor Utara Biotech Centre to encourage agropreneur development. The agency also expanded the aquaculture ecosystem and spearheaded human capital development programmes in the region. Private sector participation in rural areas



increased significantly in 2012, with a total of RM736.1 million invested over the period compared with RM255.6 million in the previous year. Most of these investments were in the agriculture sector.



The Northern Corridor Implementation
Authority (NCIA) also joined in a tripartite
collaboration between the private sector,
academia and the Government to establish
CREST (Collaborative Research in Engineering,

The NCER saw record total investments of RM12.3 billion in 2012.

Science and Technology). To boost R&D in the E&E industry, a total worth of RM14.2 million in grants was awarded for R&D projects in 2012. Of the stated amount, RM5.6 million was funded by CREST while industry players partaking in the R&D projects contributed the remaining RM8.6 million.

CREST and its founding members were among the key contributors in developing a three-year Talent Roadmap for E&E. The Roadmap is a sector-wide plan to attract, nurture industry-ready talents and grow the E&E expert talent pool. In addition, CREST creates awareness about career opportunities in E&E at career fairs, local universities and outreach programmes located in the UK, Australia, the USA and Taiwan. CREST also supports Talent Development through the FasTrack programme and the development of a Talent Repository for mapping competencies and matching students to available positions in the industry.

CREST also drives innovation and commercialisation in the industry through symposiums for promoting partnerships

between local companies, academic institutions and global technology partners.

# Iskandar Malaysia grows from strength to strength

#### **GUIDED BY THE**

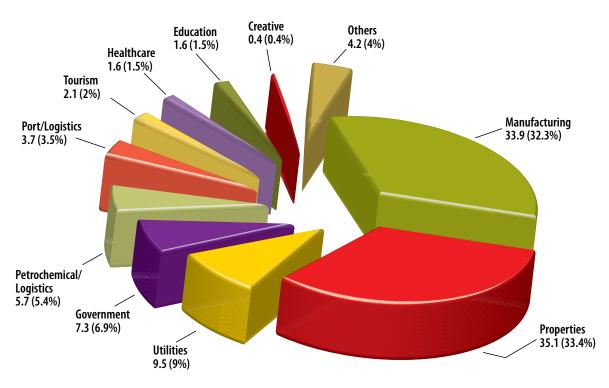
Iskandar Regional
Development Authority
(IRDA), Iskandar Malaysia



has recorded total cumulative committed investments of RM105.1 billion in various sectors as of November 2012, with 42 per cent of these investments having been realised. Of the total cumulative committed investments, 64 per cent (RM67.7 billion) are domestic investments while 36 per cent (RM37.4 billion) are from foreign investors.

The creative, healthcare, financial services and logistics sub-sectors are set to be a magnet for new investments between 2013 and 2015. Iskandar Malaysia is also aiming at increasing tourist interest during this period with ongoing additions to LEGOLAND Malaysia, Johor Premium Outlets and Puteri Harbour to name a few.

The Government has committed RM7.3 billion in Iskandar Malaysia so far under the 9th and 10th Malaysia Plan periods to attract investments and improve living standards. Since the initiative was first announced, the ratio of private sector versus public sector



Graph 6 Total cumulative committed investments in Iskandar Malaysia as at November 2012 (RM bil)

investments has increased from 1:1 in 2006 to 13:1 in 2012. The growth of investments in Iskandar Malaysia also generated an increase in economic activities along with further demand for employees from Johor. An estimated 154,000 new jobs were created in the manufacturing and service sectors from 2006 to 2012.

Significant outcomes in 2012 that could boost investor interest include new highway and bus transportation improvements, the on-going Johor Bahru Transformation Programme, training and placement of over 1,200 employees of catalytic projects, the ongoing development of tourist attractions and continuing social and community development initiatives.

## Energetic developments at SCORE

#### THE SARAWAK

Corridor of Renewable Energy (SCORE)'s role in accelerating the



State's economic growth is supported by



its advantage in energy resources. These abundant resources comprise 20,000 MW of hydropower potential, 1.46 billion tonnes of coal and 40.9 trillion square cubic feet of natural gas.

SCORE is expected to trigger spin-off effects for both downstream and upstream industries as well as provide considerable business and high value employment opportunities to the local populace. With an area of more than 8,000 hectares, Samalaju Industrial Park (SIP) is being aggressively developed as one of the growth nodes of SCORE.

The primary advantages of SIP in attracting investment are competitively priced energy supply from Bakun Hydroelectric Power (HEP) and other sources, an abundant water supply, the availability of land, fiscal and non-fiscal incentives and infrastructure support.

To date, 11 companies with total investments of RM21.2 billion have been approved at SIP. The first foreign investor, Tokuyama Malaysia Sdn Bhd, will begin producing polycrystalline silicon at SIP in June 2013. This first phase will create 500 job opportunities, while another 500 jobs will be created in Phase 2 during the second quarter of 2014. Press Metal Berhad, the first local company to invest in SCORE, has one aluminium smelting plant in Mukah and a second plant operating in SIP. Three more companies, Pertama Ferroalloys Sdn Bhd, OM Materials (Sarawak) Sdn Bhd and Asia

Advanced Materials Sdn Bhd are presently carrying out their site preparatory works.

# SDC gets ready for the global stage



#### THE SABAH ECONOMIC DEVELOPMENT AND

Investment Authority (SEDIA) is the one-stop authority driving the Sabah Development Corridor (SDC) to attract investments in key focus areas. In 2012, the SDC continued to gain eminence as an attractive investment destination.

Since the launch of SDC in January 2008 up until the end of 2012, a total of RM114 billion worth of investments have been planned and committed to Sabah. Approximately RM1.1 billion has been disbursed to SEDIA from the RM1.4 billion allocated under the Ninth and Tenth Malaysian Plans to help drive the SDC's objectives. The Ministry of Finance has also approved a tax incentive package to help SEDIA attract global investors to Sabah's shores.

The key projects in the SDC include the 834-hectare Kenginau Integrated Livestock Centre, the Sabah Oil & Gas Terminal and Kimanis Power Plant. A geothermal power plant in Tawau accounted for RM500 million



## Agencies for change

Government institutions focus on the country's key growth areas.

#### **Multimedia Development Corporation**

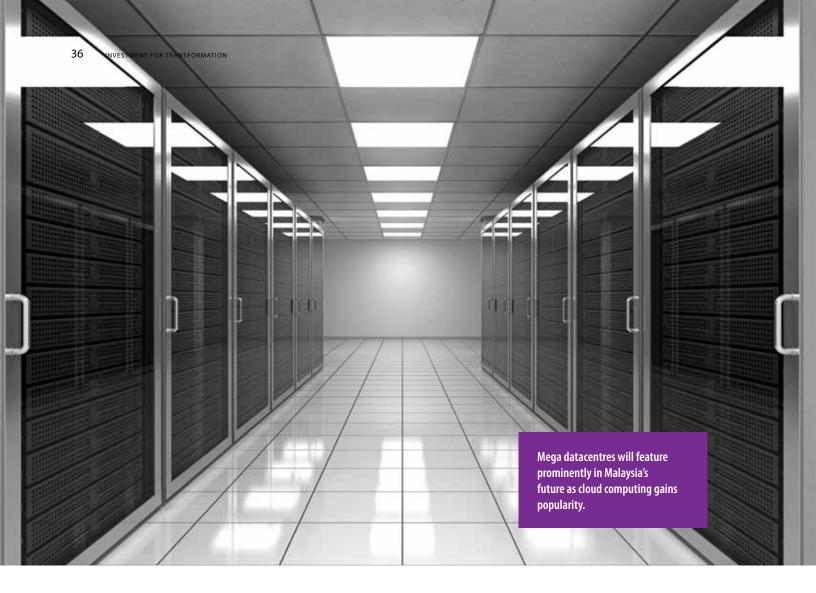


In 2012, the economic slowdown in the Eurozone and delayed growth in the United States created challenges for the Malaysian ICT industry, as 22 per cent of the country's exports of ICT are targeted at these markets. However, the impact on Malaysia's exports was cushioned by Malaysia's growing trade ties with Asia and other emerging markets. Indonesia, Vietnam, China and other ASEAN

countries accounted for nearly 58 per cent of the country's total ICT exports.

These factors are driving the transformation of the ICT ecosystem, as laid out in Multimedia Development Corporation's Digital Malaysia programme. With this programme, MDeC is enabling the greater adoption of ICT and fostering a more conducive ecosystem for home-grown innovations. MDeC is also focusing on important ICT trends such as mobile computing, cloud computing and the "stacking" model for ICT companies.

Founded on three strategic thrusts (see Graph 7), Digital Malaysia aims to advance the country towards a developed digital economy



by 2020. This will be accomplished by creating an ecosystem that promotes the pervasive use of ICT in all aspects of the economy.

Digital Malaysia is aimed at increasing Malaysia's ICT contribution to the country's GNI from the current 9.8 per cent to 17 per cent or RM294 billion by the year 2020, creating 160,000 high-value jobs in the process. The first eight Digital Malaysia projects were rolled out in July 2012 with the remaining 17 projects to be announced in stages from 2013 onwards.

MSC Malaysia also continued to grow. With the addition of Jaya 33 in 2012, Malaysia currently has 25 MSC Malaysia Cybercities and Cybercentres for fostering home-grown ICT ecosystems and attracting quality investments in the sector.

In addition, the EPPs in the ICT sector made several achievements of note in 2012, including adding 2,210 new jobs and over RM318 million in export revenue in the first quarter of 2012 alone. Under EPP2 (Building Globally-competitive outsourcers), IBM will invest RM1 billion over the next six years to build a new IT Global Delivery Centre in Cyberjaya, creating up to 3,000 new high-skill jobs. In 2012, Frost & Sullivan also made a commitment to invest RM595.2 million in a global facility in the Iskandar region, which will create 830 high-value jobs. EPP3 (Positioning Malaysia as a World-Class Data Centre Hub) succeeded in

Graph 7 Strategic thrusts of Digital Malaysia

# FROM... Supply Focused Demand Focused Consumption Centric Production Centric High KnowledgeAdd

further catalysing growth in the data centre business, bringing in over RM320 million in 2011. It is on target to achieve the RM400 million revenue target set out for 2012.

#### **Halal Industry Development Corporation**

The Halal Industry
Development
Corporation (HDC)
coordinates the overall
development of the
national halal industry
with the goal of
making Malaysia the
Global Halal Hub and



Halal Industry Development Corporation

elevating halal as the standard of choice. To

date, 22 Halal Parks have been developed around the country, and the HALMAS status has been awarded to 12 Halal Parks. During the period 2009 - 2012, these HALMAS Halal Parks attracted investments valued at RM 7.2 billion from the USA, Australia and Japan among other countries. A total of 101 projects are in operation, providing employment

In 2012, 6 HALMAS Halal Parks attracted investments valued at RM1 billion. Among the 16 projects approved were multinationals and SMEs producing halal processed food, halal ingredients and halal pharmaceuticals. The largest investments involved were YPJ Palm International Sdn. Bhd. (RM150 million), Inno-

opportunities for 4,967 people.

Wangsa Oils & Fats Sdn. Bhd. (RM150 million), Evyap Sabun Malaysia Sdn. Bhd. (RM350 million) and Musim Mastika Oil & Fats (M) Sdn. Bhd. (RM250 million).

#### InvestKL

InvestKL provides comprehensive support services to attract multinational corporations (MNCs) to the Greater Kuala Lumpur/Klang Valley (GKL/KV) NKEA. During 2012, InvestKL succeeded in attracting committed investments of RM1.1 billion from 11 MNCs. These investments will create more than 12,000 new jobs and are expected to generate GNI of RM1.6 billion.

Of the 11 MNCs, four will establish their Operational Headquarters/ Regional Control Towers in GKL/KL, one will use GKL/KV for global trading for agriculture commodities, five will set up centres of excellence and one will establish retail business in the region. Notable companies include Darden Restaurant Inc, the world's largest full service restaurant company and ServiceSource, a global leader in recurring revenue management.

#### **TalentCorp**

To drive initiatives

towards improving the

country's talent pool

for the Economic Transformation Programme

(ETP), TalentCorp directs its efforts along three strategic thrusts: Optimise Malaysian Talent, Attract and Facilitate Global Talent, and Build Networks of Top Talent.

To date, TalentCorp has organised Attract and Facilitate Global Talent outreach events across 20 countries supported by Virtual Career Fairs (VCFs). TalentCorp also manages the Returning Expert Programme (REP), which has approved more than 1,600 applications from January 2011 to 31 December 2012. To enable top foreign talents to contribute in the longer term in Malaysia, TalentCorp, together with the Ministry of Home Affairs (MoHA) and the Immigration Department oversees the Residence Pass-Talent (RP-T). Over 1,000 RP-T applications have been approved since the initiative's introduction in April 2011 up to 31 December 2012.

The strategic thrust to Build Networks of
Top Talent focuses on bringing together the
best Malaysian talent abroad and selected
companies in Malaysia for the exchange
of knowledge, ideas and exploration of
partnership opportunities. This is done through
talent ambassadors as well as workshops.

#### **BiotechCorp**

BiotechCorp is the lead development agency for the biotech industry in Malaysia and acts as a central contact point



Graph 8 Three strategic thrusts of Talent Corp







providing support, facilitation and advisory services for biotech and life sciences companies in the country. One of the many initiatives driven by BiotechCorp is the commitment to advance the bio-chemical sector and to secure a targeted RM4 billion worth of investments in the industrial biotechnology sector by 2013 to drive the Commercialisation Phase of the National Biotechnology Policy (NBP).

Since its establishment in 2005, BiotechCorp has facilitated the development of 215 BioNexus-status companies in Malaysia with total approved investments of RM2.6 billion. BioNexus-status companies qualify for fiscal incentives, grants and guarantees administered by BiotechCorp.

BiotechCorp and East Coast Economic Region Development Council (ECERDC) have been actively engaging several global industry biotechnology players especially from the USA, Europe, Korea and Japan to set-up their biobased chemical manufacturing facility in Kertih Biopolymer Park. BiotechCorp and ECERDC have successfully secured a RM2 billion investment from a joint-venture between Korea's CJ CheilJedang and France's Arkema to develop the world's first bio-methionine facility in Kertih Biopolymer Park. The biorefinery is slated to be fully operational by 2014 and will utilise renewable energy from biomass. The total project is expected to generate a cumulative GNI of RM 20.4 billion by 2020 and produce 2,500 green jobs for Malaysia.



New Opportunities for Growth

Creating new value in the manufacturing and primary sectors

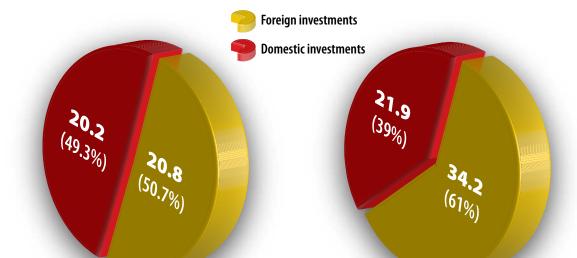




Manufacturing industries are striking out in new directions as new opportunities present themselves.

Global and local investors are finding Malaysia to be the ideal location for high value-added activities.

he country's manufacturing sector is going through a period of transformation and restructuring. As low value-added assembly becomes less important, industry players are expected to reduce their investments



Graph 9 Sources of investments in projects approved, 2012 and 2011

into low-value sectors and increase their activities in new high value-added activities that will open up new opportunities for growth. The creation of these new business ecosystems will support the market for high-skill employment and spur the development of a high-income economy.

2012

The trend of investments approved in 2012 confirms that Malaysia continues to be an attractive investment destination. Despite intense competition for investment, most subsectors registered an increase in investments except for E&E, basic metal products and non-metallic mineral products.

Investment trends in 2012 were also strongly influenced by global economic uncertainties exacerbated by the sovereign debt crisis in

Europe, and the stalled US economy. Malaysia attracted a total of 804 manufacturing projects worth RM41 billion in approved investments in 2012 compared with RM56.1 billion for 846 manufacturing projects in 2011. Almost 50 per cent of this total (RM20.2 billion) were domestic investments with the rest being high quality foreign direct investments (RM20.8 billion).

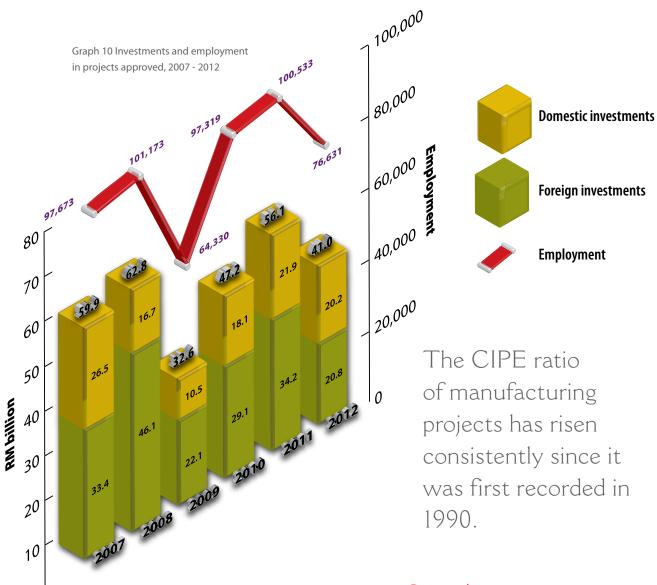
2011

# Resilience in the face of uncertainty

#### MALAYSIA'S ERSTWHILE MANUFACTURING

sector remained resilient as a whole due to its strong, diversified base across multiple industries. The country attracted significant new investments amounting to RM26.8 billion

0



(473 projects) or 65.4 per cent of total investments approved.

Existing companies in Malaysia continued to expand and diversify their operations, reflecting their continued confidence in the country's investment environment. A total of 331 expansion/diversification projects with investments amounting to RM14.2 billion were approved in 2012.

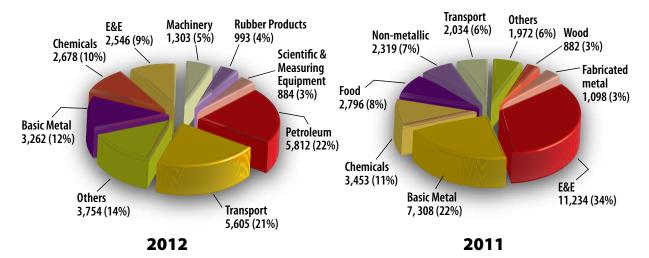
#### Capital-intensive projects

#### MALAYSIA HAS ADOPTED A MORE FOCUSED

and targeted approach in attracting quality investments in new growth areas within emerging technologies, high value-added industries, high technology, capital-intensive and knowledge-intensive industries.

Based on the measurement of capital investment per employee (CIPE) ratio of





projects approved, capital intensity in 2012 stood at RM535,715. The CIPE ratio of manufacturing projects has risen consistently since it was first recorded in 1990, reflecting a general trend towards more capital-intensive, high value-added and high technology projects. In 2012, the industry with the highest CIPE ratio was petroleum products including petrochemicals (RM4,738,958), followed by chemicals and chemical products (RM2,349,438) and scientific and measuring equipment (RM1,134,442).

In 2012, a total of seven projects with investments of at least RM1 billion or more were approved with total investments of RM13.5 billion. In comparison, there were 11 projects which recorded investments of at least RM1 billion or more in 2011 with total investments amounting to RM22.2 billion. There were also 73 approved projects which recorded investments of at least RM100

Table 1 Top eight industries by investment

INDUSTRY	VALUE OF PROJECTS (RM BIL)
Transport equipment	RM7.8 billion
Chemicals & chemical products	RM6.4 billion
Petroleum products including petrochemicals	RM6 billion
E&E products	RM4 billion
Basic metal products	RM3.8 billion
Food manufacturing	RM3.4 billion
Machinery & equipment	RM1.9 billion
Rubber products	RM1.4 billion

million or more, bringing in a combined total of RM29.2 billion or 71 per cent of the total investments approved.

All these projects will have substantial multiplier effects on the manufacturing sector and the economy, including forward-and-backward linkages effects, the development of supporting industries, the transfer of new technologies and R&D, the creation of high income employment opportunities,

local sourcing, skills development, and the generation of foreign exchange earnings.

Together, the top eight industries by investment accounted for RM34.7 billion or 85 per cent of total investments approved. All these industries registered higher levels of investments in 2012 compared with 2011, with the exception of E&E, basic metal products and food manufacturing. The top eight industries by investment are listed in Table 1.

#### Export-oriented projects

#### MALAYSIA OWES ITS FAVOURABLE

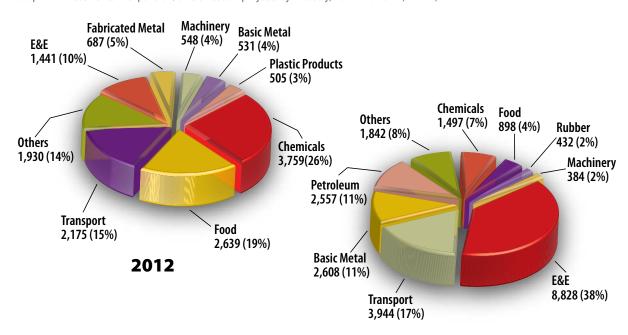
investment environment to a myriad of factors including the availability of excellent infrastructure, telecommunication services,

financial and banking services, supporting industries as well as a skilled and trainable work force. In 2012, a total of 239 projects were approved involving investments of RM15.2 billion proposed to export at least 80 per cent of their output. The top industries with exportoriented projects are listed in Table 2.

Table 2 Top industries with export-oriented projects

INDUSTRY	VALUE OF PROJECTS (RM BIL)	NUMBER OF PROJECTS
Petroleum products including petrochemicals	5	6
Transport equipment	2.1	13
E&E products	1.6	52
Chemicals & chemical products	1.2	11
Rubber products	1.1	8

Graph 12 Investments in expansion/diversification projects by industry, 2012 and 2011 (RM mil)



# A changing workforce

Better jobs means better lives for everyone.

expected to create employment opportunities for 76,631 people, of which 23 per cent are in the managerial, technical and supervisory (MTS) category (17,422) while the other 51 per cent are in the category of skilled workers (38,931). Most of the employment opportunities created are in the E&E sector (18,163 jobs) followed by transport equipment (11,669 jobs) and food manufacturing (7,062 jobs).

The Government continues to grant approvals for expatriate posts to Malaysian as well as foreign-owned companies, particularly for managerial and technical posts. This practice will facilitate technology transfer and complement the local pool of managerial and technical talent. A total of 2,023 expatriate posts were approved in 2012.

# Domestic investors take centre stage

#### MALAYSIA'S CONTINUED COMPETITIVENESS

is dependent on strengthening the manufacturing and services sectors and accelerating the country's shift towards high value-added, high technology, knowledge-intensive and innovation-based industries.

Given the current global economic climate and increasing competition for global FDIs, it is vital that domestic investments take centre stage in driving Malaysia's economic transformation. The country is on track to achieve this transformation, as the share of domestic investments approved in 2012 rose from 39 per cent in 2011 to 49.3 per cent in 2012.

# Becoming a magnet for foreign capital

#### MALAYSIA HAS ADOPTED A MORE FOCUSED

and targeted approach in attracting quality foreign investments in recent years. These quality investments do not always manifest as high levels of capital investments but can have significant multiplier effects throughout the economy. The quality investments being sought include investments in high technology projects, knowledge-intensive industries, high value-added industries and R&D activities.

Malaysia remains a competitive destination for FDI in the region and continued to attract encouraging levels of foreign investments in the manufacturing sector. Foreign investments in approved manufacturing projects amounted to RM20.8 billion in 2012, of which RM12.6 billion (60.6%) was in new projects while the

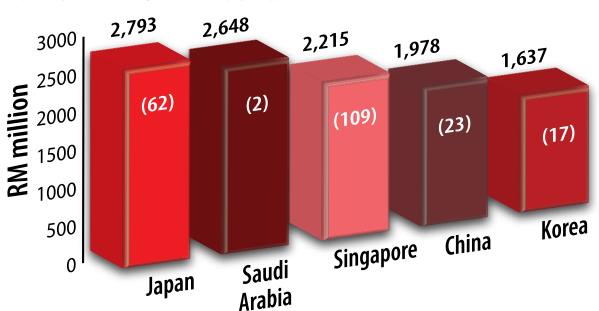
remaining RM8.2 billion (39.4%) was in projects involving the expansion or diversification of existing operations.

The major sources of foreign investments in 2012 were Japan (RM2.8 billion), Saudi Arabia (RM2.6 billion), Singapore (RM2.2 billion), the People's Republic of China (RM2 billion) and the Republic of Korea (RM1.6 billion). These five countries jointly accounted for 53.8 per cent of total foreign investments approved during the period (see Graph 13).

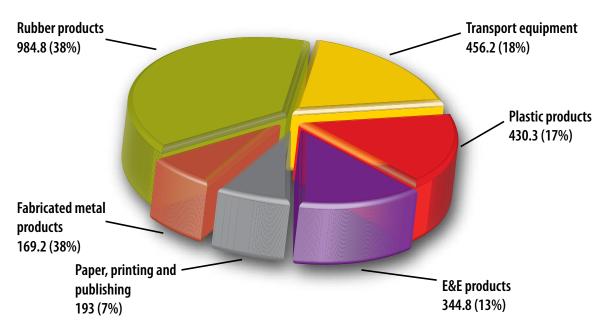
Japan's investments in Malaysia in 2012 amounted to RM2.8 billion in 62 approved projects (see Graph 14). The country's largest investment came from a new project to manufacture passenger cars, SUVs, 4x4s and

light truck eco tyres with an investment of RM891.9 million. In addition, investments for a new project for the manufacture of polyimide film amounted to RM287.8 million while investments for an expansion project for the manufacture and assembly of cars amounted to RM262.7 million.

Saudi Arabia was the second largest source of foreign investments in 2012 with RM2.6 billion in two approved projects. The large investments from Saudi Arabia were primarily contributed by an expansion/diversification project with investments of RM2.6 billion for the manufacture of polycrystalline silicon, sodium hydroxide (caustic soda) chlorine, hydrogen, hydrochloric acid, silicon tri-chloride and other chemicals.



Graph 13 Major sources of foreign investments in projects approved, 2012



Graph 14 Value of investments from Japan by major industry, 2012 (RM mil)

# Diversifying local investment destinations

#### IN TERMS OF VALUE, SELANGOR RECEIVED

the largest amount in approved investments in the manufacturing sector in 2012 (RM11.7 billion) followed by Johor (RM5.5 billion), Sabah (RM5 billion), Sarawak (RM4.7 billion) and Negeri Sembilan (RM2.7 billion). These five states contributed 72 per cent of the total investments approved in the country in 2012.

In terms of the number of projects approved, three states proved most popular among investors, attracting a total of 69 per cent of the total projects approved: Selangor (252 projects), Johor (184 projects) and Pulau Pinang (115 projects).

Most of Selangor's investments were contributed by a wide range of industries including transport equipment (RM5 billion), E&E products (RM1.6 billion) and food manufacturing (RM1.2 billion). One major project approved in Selangor includes a new wholly Malaysian-owned project with investments of RM2 billion to manufacture and assemble trucks, buses and commercial vehicle engines.

Johor registered the second highest level of investments at RM5.5 billion, including a new RM577 million foreign-owned project to manufacture drug substances, insulin, analogues and drug products. Other investments in Johor were concentrated in the chemicals and chemical products subsector (RM869.9 million), E&E (RM809.3 million), food manufacturing (RM697.6 million) and fabricated metal products (RM500.6 million) industries.

J5'000 Sabah attracted investments amounting to RM5 billion J0'000 mainly due to a new RM4.5 billion Malaysian-owned project to manufacture ammonia 8000 and granular urea. Other investments in the state were  $e^{000}$ in chemicals and chemical products (RM254.2 million), food manufacturing 4000 (RM132.8 million) 5000

Graph 15 Investments in approved

projects by location, 2012

and machinery & equipment (RM44.3 million) industries.

# Implementation of approved manufacturing projects

#### A TOTAL OF 4,245 MANUFACTURING

projects were approved during the period from 2008 to 2012. Of these, 3,213 projects were implemented, with 3,005 projects in production as at 31 December 2012 and 208 projects at the stage of factory construction and machinery installation. Of the 3,005 projects in production, 776 projects had commenced production in 2012. Total capital investment of the 3,213 projects that were implemented amounted to RM147.2 billion.

In addition, 76 projects with investments of RM18.2 billion had acquired sites for factories, while 783 projects (RM52.7 billion) were in the active planning stage. When these 859 projects are realised, total investments of these projects which were in various stages of implementation will amount to RM70.9 billion.

Selangor has the largest number of implemented projects, followed by

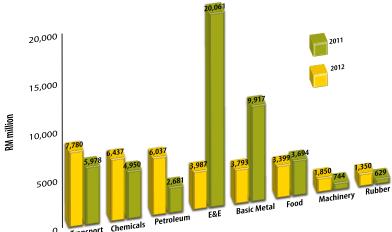
Johor, Pulau Pinang, Perak,

Kedah and Negeri

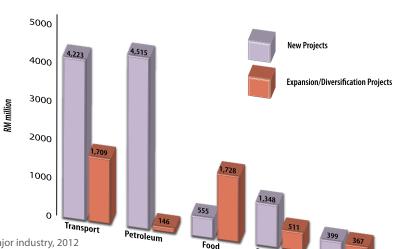
Sembilan.

# Where does the money go?

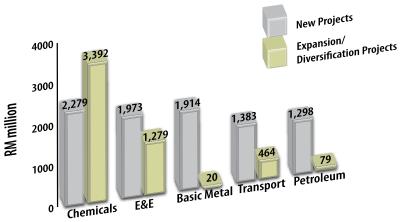
Graph 16 Investments in projects approved by major industry, 2012 and 2011



Graph 17 Domestic investments in projects approved by major industry, 2012



Graph 18 Foreign investments in projects approved by major industry, 2012



Major projects implemented during the period from 2008 to 2012 covered a broad range of industries: E&E products, basic metal products, chemical and chemical products, transport equipment, and food manufacturing.

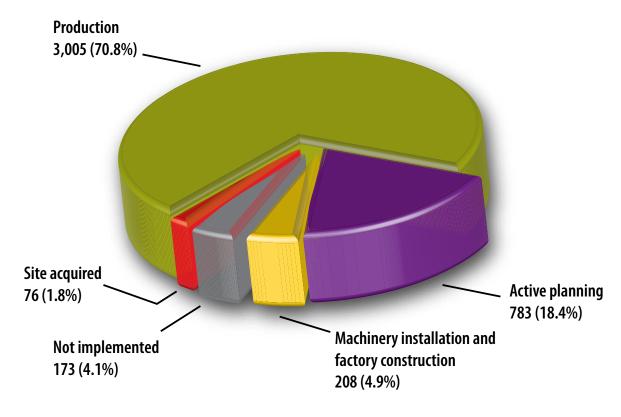
The Government continues to undertake various measures and initiatives at federal and state levels to facilitate investors in the implementation of approved projects. These measures included the setting up of State Investment Centres (SICs), Advisory Services Centre (ASC), Customer Service Centre (CSC), and Immigration Unit Office in MIDA. In addition, MIDA appointed Special Project Officers (SPOs) for hands-on assistance, introduced online application for submission of application forms, and provided automatic

issuance of Manufacturing Licences. Special Task Force to Facilitate Business (PEMUDAH) also introduced improvements to enhance transparency and strengthen processes.

MIDA also continues to manage and monitor projects under the Upgrading of Basic Infrastructure Program of Existing Industrial Areas with the goal of assisting the state government in upgrading and improving basic infrastructure in existing industrial estates.

In 2012, a total of 53 companies downsized their operations, resulting in the retrenchment of 9,194 workers. In addition, 22 companies ceased operations altogether, resulting in the loss of 1,969 jobs. The main reasons cited for these closures included poor market

Graph 19 Status of implementation of manufacturing projects approved, 2008 - 2012



conditions, increased costs and company financial problems.

These closures were more than countered by the creation of 79,807 job opportunities from the 776 projects which commenced production in 2012. These projects will provide alternative employment opportunities for the 11,163 workers who were retrenched during the same period.

Table 3 States with the largest number of implemented projects during 2008-2012

STATE	VALUE OF PROJECTS	NUMBER OF PROJECTS
Selangor	RM30.9 billion	1,091
Johor	RM24.5 billion	659
Pulau Pinang	RM27.4 billion	448
Perak	RM5.4 billion	169
Kedah	RM6.3 billion	153
Negeri Sembilan	RM10.4 billion	144

# Electrical and electronic products

Creating new opportunities in an established industry

high value-add sector such as medical devices, biotechnology and the services sector is offsetting the gradual decline of investments into labour-intensive industries.

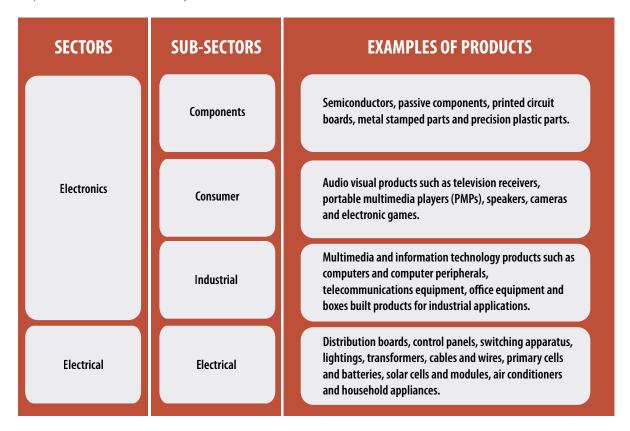
As Malaysia moves towards becoming a high income nation, its share of investments in high value-added activities and knowledge industries will rise while investments in lower-value activities such as assembly and basic manufacturing will fall. This is a strong indicator of the country's economic prosperity as it comes to be measured by the health and wealth of the community rather than its GDP.

Today, MNCs in the E&E sector are concentrating on expanding their R&D capabilities in Malaysia, creating higher income jobs from higher value-added activities. Malaysian companies are following

A total of 112 E&E projects with investments of RM3.9 billion were approved in 2012, most of which came from foreign investors.

suit and are developing their competencies in research, design and development to support the MNC activities. A total of 112 E&E projects with investments of RM3.9 billion were approved in 2012, most of which came from foreign investors (RM3.2 billion or 82.1%)

Graph 20 Structure of the E&E industry

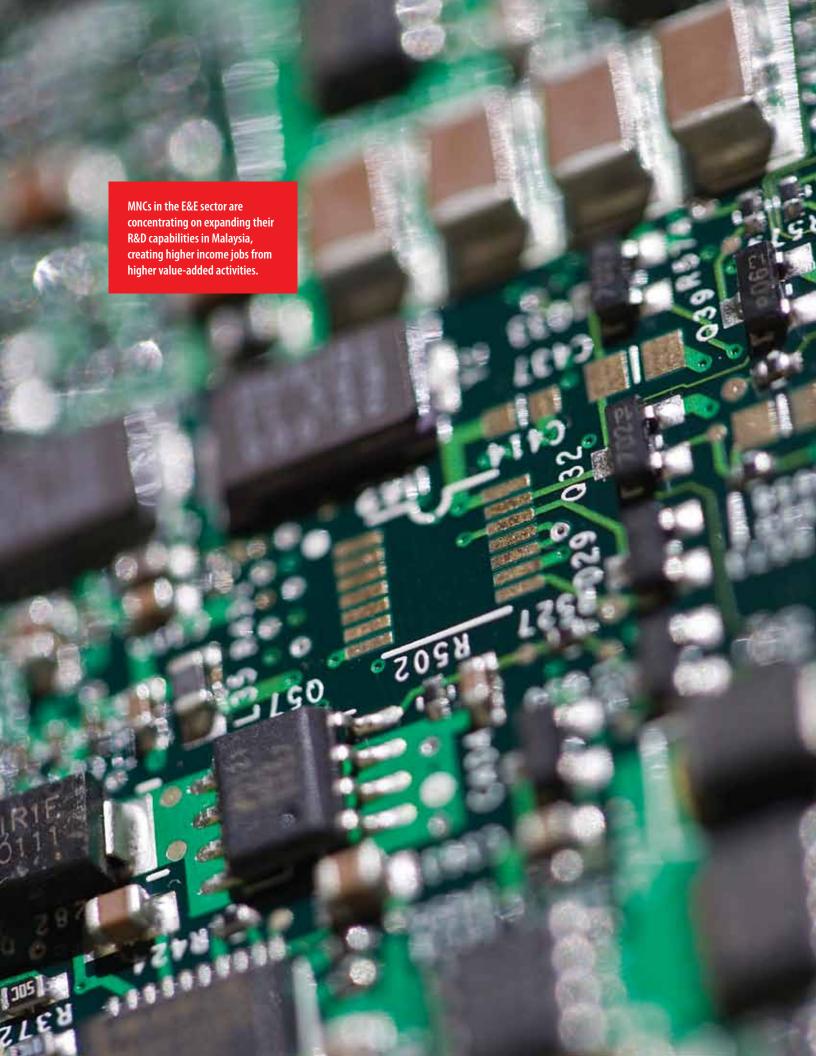


while domestic investments made up the rest (RM734.6 million or 17.9%). The major sources of foreign investments were the USA (industrial electronics and consumer electronics), Japan (electronic components and electrical products) and Canada (electronic components).

In 2012, a total of 31 projects were approved in the electronic components sub-sector with investments of RM1 billion, while a total of eight projects were approved in the consumer electronics sub-sector with investments of RM768.7 million. The industrial electronics

sub-sector attracted a total of 18 projects with approved investments of RM325.3 million.

In the electrical sub-sector, investments in 2012 amounted to RM1.8 billion with 55 projects contributing 46.1 per cent of the total approved investments in the E&E industry. The sub-sector was driven largely by foreign approved investments of RM1.3 billion (72.2%). The sub-sector encompasses three segments – industrial goods, consumer goods and electrical components – and the approved projects are expected to generate 4,463 employment opportunities.



Box article 2 Major ecosystems in the E&E industry

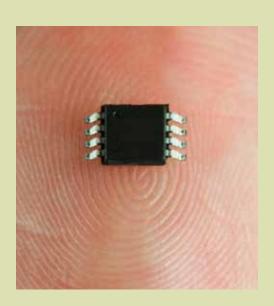
# The E&E ecosystem

The E&E industry in Malaysia is focused on deepening and strengthening the three major ecosystems of semiconductors, solar and LED technologies.

#### **Semiconductors**

Over the past few years, the E&E industry has been supported by strong demand in PCs, mobile phones and TVs. However, mobility and connectivity trends are changing the way people use these devices on a global scale. The increased popularity of using tablets and smartphones has impacted the performance of the Malaysian semiconductor industry which mostly serves the PC segment of the market.

Future demands in communication devices, medical devices, aerospace, biotechnology, automotive and green technology products have induced more R&D activities in the semiconductor industry. This has encouraged IC design firms to set up their operations in Malaysia, which its strong background in back-end activities and sustainable supply of skilled manpower. IC design companies such as Spansion, Phisontech and Pix Art have also spurred the development of supply chain activities by undertaking the sales and distribution of products. The government's



initiatives under the NKEA E&E have encouraged IC design firms to invest into new projects in Malaysia while persuading existing semiconductor players to select the country as their base for R&D centres.

In general, the semiconductor industry will undergo many changes as the demand for chips and communication technology evolves. Foundries must move away from single sources of supply, become more flexible, more transparent and less focused on optimising individual products in order to survive. A compressed product

cycle along with capacity, design and manufacturing costs are among the geographic risks affecting supply, IP and competition and these are the issues circling the foundries. However, it is predicted that this industry has a long way to go with the foundry model seeing huge growth rates and continuing to outpace the integrated model.

#### Solar

Overcapacity in the solar industry has affected world prices for solar panels, although companies that have invested in Malaysia (First Solar, SunPower and Hanwha (Q-Cells)) are expected to survive the crisis. Malaysia is now focused on completing the solar value chain and cluster, especially in the production of solar materials and balance systems for smart

grid solar systems such as batteries and inverters.

#### LED

The Government is phasing out the sale of incandescent bulbs by 2014 and is encouraging consumers to use energy efficient lights such as the compact fluorescent lights (CFL), T5 tube lights and light emitting diode (LED) lights. Companies are beginning to take up the opportunities presented in the government's LED roadmap, including local companies participating in the supply of substrates and modules and solid state lightings in the LED ecosystem. Multi-national corporations such as Philips Lumileds have also established their global R&D Centres to support their manufacturing operations in Malaysia.



Industrial Electronics 325.3 (8%)

Consumer Electronics 768.7(19%)

Electronics Components 1,079.4(27%)

Graph 21 Approved investments in the E&E sector, 2012 (RM million)

Total: RM3.9 billion

# Transportation

Driving competitiveness

equipment out of Malaysia totalled RM10.2 billion. The export of road vehicles amounted to RM5.9 billion, followed by the export of aircraft, associated equipment and parts at RM2.2 billion and ships, boats and floating structures at RM2.1 billion. Automotive GDP growth is expected to increase at least 5.1 per cent in 2013, which will in turn increase the total industry volume (TIV).

In 2012, a total of 85 projects were approved in the transport equipment industry with capital investments of RM7.8 billion. Domestic investments dominated the industry with investments valued at RM6 billion. The approved projects will generate a total of 11,669 employment opportunities.

Table 4 Notable projects approved in 2012 – Electronic components

PROJECT	OWNERSHIP	INVESTMENT VALUE (RM MIL)
An expansion project to produce transceivers.	Foreign	373.5
An expansion project to manufacture boxes built for microprocessors.	Foreign	105
An expansion project to produce transistors for chip scale packages for LEDs.	Foreign	110.7
An expansion project to manufacture multiport proximity sensors.	Joint	68.3
An expansion project to produce components for hard disk drives.	Foreign	58.9

Table 5 Notable projects approved in 2012 – Consumer electronics

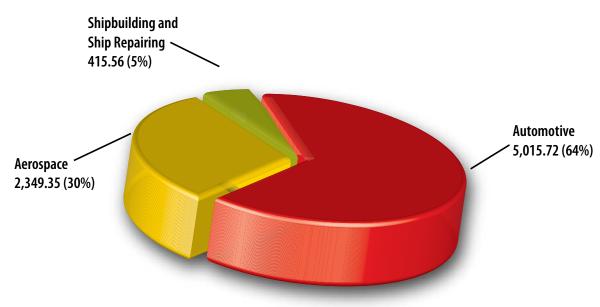
PROJECT	OWNERSHIP	INVESTMENT VALUE (RM MIL)
A new project to undertake the design, development and production of audio visual (AV) products. The company will also establish an R&D Centre and develop its base in Malaysia as a distribution hub for their products for Asia Pacific and the European market.	Foreign	522.7
An expansion project to produce computer storage products and audio systems.	Foreign	26.9
A new project to produce hi-fi speaker systems.	Foreign	24

Table 6 Notable projects approved in 2012 – Industrial electronics

PROJECT	OWNERSHIP	INVESTMENT VALUE (RM MIL)
An expansion project to produce communication equipment.	Foreign	165
A new project to manufacture microcomputers with integrated telephony. The project is a joint-venture between an R&D company and a manufacturing company which plans to produce the world's first mobile computer with integrated telephony.	Malaysian	45
A new project to produce optical fibre cables.	Malaysian	38.9

Table 7 Notable projects approved in 2012 – Electrical

PROJECT	OWNERSHIP	INVESTMENT VALUE (RM MIL)
A new project to manufacture solar-grade silicon wafers and ingots. The project is expected to generate 1,261 employment opportunities and to strengthen the solar value chain in the industry.	Foreign	1,200
A new project to manufacture silicon ingots and wafers for solar panels. The project is expected to create 116 new job opportunities and is evidence that domestic companies are also capable of producing value-added products.	Malaysian	87
A new integrated project to produce solar inverters involving R&D and manufacturing activities. The project is expected to create 46 job opportunities. This will be the first company producing off-grid inverters in Malaysia.	Joint	33
A new project to manufacture LED lighting expected to create 250 new jobs. The company is focuses on LED lighting in industrial applications as well asthe oil and gas, transportation and public infrastructure sectors.	Foreign	17.9



Graph 22 Approved investments in the transport equipment industry by sub-sector, 2012 (RM mil)

#### Total: RM7.8 billion

#### **Automotive**

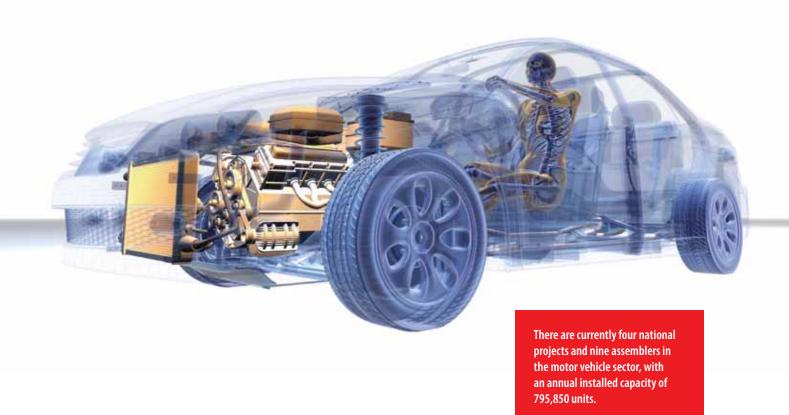
# THE TRANSPORT EQUIPMENT INDUSTRY comprises the automotive, aerospace and

shipbuilding and ship repairing sub-sectors. The automotive sub-sector is the largest in this industry, comprising the manufacture or assembly of motor vehicles (including motorised two-wheelers), the reconditioning/reassembling/rebuilding/conversion of motor vehicles and the manufacture of parts and components, including coach and vehicle bodies.

There are currently four national projects and nine assemblers in the motor vehicle sector, with an annual installed capacity of 795,850 units. Additionally, there are 11 manufacturers/assemblers of motorcycles and scooters with an installed capacity of 995,000 units per year.

According to the Malaysian Automotive
Association (MAA), the production of motor
vehicles for 2012 amounted to 569,620 units,
comprising 509,621 passenger vehicles and
59,999 commercial vehicles. Based on statistics
from the Motorcycle and Scooter Assemblers
and Distributors Association of Malaysia
(MASSAM), the production of motorcycles and
scooters reached 543,088 units in 2012.

As of 2012, there were more than 800 automotive component manufacturers and 112 motorcycle/scooter component manufacturers.



The automotive component sub-sector produces over 5,000 components.

There are currently about 45 vendors in the automotive component sub-sector, with 80 per cent of them Malaysian-owned and having the capability and competency to design and develop products. More than 70 per cent of them have acquired ISO 9000, TS16949 and ISO 14000 standards and their products are accepted in Japan, Germany and the UK due to their quality, compliance with international standards and competitive prices.

In encouraging the move towards green technology, the National Automotive Policy (NAP) 2010 has resulted in an increase in investments for the manufacture of hybrid/electric vehicles to RM792.4 million in 2012. It has also increased investments in critical and high value-added parts and components manufacturing to RM262 million in 2012. Moving forward, the NAP will be re-reviewed to further emphasise high-technology energy efficient vehicles (EEV). The focus may be on

Table 8 Motor vehicles sales in major ASEAN economies

The NAP has resulted in an increase in investments for the manufacture of hybrid/electric vehicles to RM792.4 million in 2012

further liberalisation of the automotive subsector to encourage investments among hightechnology component manufacturers to catch up with the ASEAN motor industry in terms of growth and export volume.

In 2012, a total of 70 projects were approved in the automotive industry with investments of RM5 billion. The approved projects will generate a total of 7,951 employment opportunities.

2012		2011				
COUNTRY	Passenger vehicles (PV)	Commercial vehicles (CV)	Total industry volume (TIV)	Passenger vehicles (PV)	Commercial vehicles (CV)	Total industry volume (TIV)
Indonesia	780,767	335,445	1,116,212	601,945	292,219	894,164
Thailand	694,234	742,101	1,436,335	360,441	433,640	794,081**
Philippines	48,328	108,326	156,654	44,862	96,754	141,616
Singapore	32,724	4,523	37,247	33,493	6,077	39,570
Vietnam	43,692	36,761	80,453	64,505	45,155	109,660
Malaysia	363,684	48,891	412,575	535,113	65,010	600,123
ASEAN 6	2,151,934	1,302,720	3,454,654	1,640,359	938,855	2,579,214

Source: Malaysian Automotive Association (MAA)

<sup>\*\*</sup>From November 2012 data for passenger car sales in Thailand does not include Mercedez-Benz, BMW, MINI and Volvo.

Major Malaysian-owned automotive projects approved include a new project with investments of RM2 billion to manufacture and assemble trucks, buses, commercial vehicle engines and industrial engines, an expansion project with investments of RM282.6 million to manufacture and assemble CBU hybrid electric passenger cars and an expansion project with investments of RM170.5 million to manufacture and assemble commercial vehicles, chassis, electric and hybrid vehicles and fabrication on commercial vehicle bodies.

Major foreign-owned approved projects include a new project with investments of RM346 million to manufacture and assemble luxury passenger vehicles and commercial vehicles and another new project with investments of RM262 million to manufacture electronically controlled automatic transmissions.

#### Aerospace

#### THE AEROSPACE INDUSTRY COMPRISES THE

aviation and space sub-sectors and encompasses manufacturing, maintenance, repair and overhaul (MRO) activities, design and development and the assembly and operation of light aircrafts and support services.

The MRO sub-sector is projected to grow by 12 to 15 per cent annually. The industry contributes to the GDP via two EPPs identified under the ETP which are expected to create 32,000 in the country. The Government will

Table 9 Industry involvement in the aerospace sub-sector

AEROSPACE SUB-SECTOR	NUMBER OF COMPANIES
Manufacture of aircraft parts and components	12
Aerospace assembly	3
Maintenance, repair and overhaul activities (MRO)	0ver 20

also set up the Aerostructure Manufacturing Innovation Centre, which serves as the highestlevel study and training centre and will carry out aircraft structure manufacturing R&D.

In 2012, a total of 11 projects were approved in the aerospace industry with investments of RM2.3 billion. The majority of these investments (RM1.4 billion or 61%) were from domestic investors attracted by the comprehensive tax incentives put into place to support the industry. The approved projects will generate a total of 2,739 employment opportunities, including a RM1.1 billion project by a new wholly Malaysian-owned company involving the design, manufacturing and sub-assembly of jet aircraft and aircraft components.

### Shipbuilding and Ship Repairing

#### THE SHIPBUILDING AND SHIP REPAIRING

industry in Malaysia includes the manufacture of a wide range of ships and ship repairing activities. The industry has extensive links with other industries such as steel, glass, logistics, storage and the bulk-breaking of goods and services.

The Malaysia Shipbuilding and Ship Repair Industry Strategic Plan 2020 aims to generate RM6.4 billion in GNI and to create an additional 55,500 jobs by 2020. This is in line with the growing demand for small to medium-sized vessels to meet maritime as well as the oil and gas industry's needs over the next 10 years. The plan's recommendations are expected to boost the country's industrial competitiveness, which has come under increasing competitive pressure from Singapore, Vietnam, Indonesia, India, China and the Philippines.

In 2012, four projects were approved with investments of RM415.6 million which will generate a total of 999 employment opportunities, 95 per cent of which comes from

The Malaysia
Shipbuilding and
Ship Repair Industry
Strategic Plan 2020
aims to generate
RM6.4 billion in
GNI and create an
additional 55,500
jobs by 2020.

an engineering and construction expansion project by a Malaysian-owned company that primarily focuses on the oil & gas sector (RM393.5 million).

## Machinery and equipment

Gearing-up for change

sector serves as a catalyst to facilitate
Malaysia's transition into a high
technology nation in view of its linkage
to various economic sectors such as
manufacturing, construction, services, mining
and agriculture. Promotional efforts continue
to focus on quality investments that emphasise
high technology and high value-added M&E

in line with Malaysia's aim to become the regional production hub for high technology and specialised M&E. These efforts are also in accordance with the NKEA initiatives that focus on high technology sectors including the oil & gas and energy, aerospace, E&E and ICT industries.



Graph 23 Overview of the M&E industry

# General machinery, equipment, components and parts

Companies in this sub-sector have attained international recognition. Malaysian companies are among the top ten global companies in the manufacturing of tower cranes and port cranes. Malaysia is also the leading manufacturer in South East Asia for pressure vessels, process equipment and modules for chemical, petrochemical, and oil & gas industries.

#### **Metalworking machinery**

Promotional efforts in this sub-sector not only focus on setting up a manufacturing facility for metal cutting machine tools and metal forming/ shaping machine tools but also towards establishing a Technology Centre and Regional or International Procurement Centres. These centres will serve as platforms for foreign MNCs to undertake training activities as well as showcase their latest technology and products to regional agents or clients.

# A total of 84 projects with investments amounting to RM1.9 billion were approved in the M&E industry in 2012. The majority of these investments were for new projects valued at RM1.3 billion. The projects approved in 2012 are expected to generate employment

opportunities for 5,125 persons.

Projects approved in 2012 indicate that focused promotional efforts have helped Malaysia to continue attracting quality investments in high technology and high value-added machinery and equipment.

The bulk of the investments (44.6%) are from the specialised M&E for the semiconductor and oil & gas industries, which contributed

#### Specialised machinery and equipment

Machinery and Equipment (M&E) industry

Includes E&E, oil & gas, medical, agriculture and food and beverage processing and continues to be the major focus for growth of the M&E sector. Generally, projects require a highly-skilled workforce where more than 70 per cent of the total employment opportunities are in the managerial, supervisory and technical levels.

# Power-generating machinery and equipment

As the demand for environmental-friendly and costeffective energy increases, this sub-sector is expected to move up the value chain into the manufacture of advanced energy-efficient power generating M&E and environmentalfriendly renewable energy solutions such as water and wind turbines and photovoltaic power generating systems.

27 projects with investments of RM825.6 million. The power generating M&E sub-sector contributed four new projects with investments of RM44.3 million, while the metalworking machinery sub-sector contributed two expansion/diversification projects with domestic investments of RM19.2 million. The general industrial M&E, components and parts sub-sector contributed 49 projects with investments of RM911.1 million. Maintenance, upgrading or reconditioning projects in the M&E sub-sector contributed two projects with investments of RM49.9 million.

Among the significant projects approved include a new wholly foreign-owned project with investments of RM229.5 million to build a

Box article 3 The M&E industry in Malaysia

# High engineering

Investments in Specialised M&E for Semi-Conductor and Oil & Gas Drives the M&E Industry.

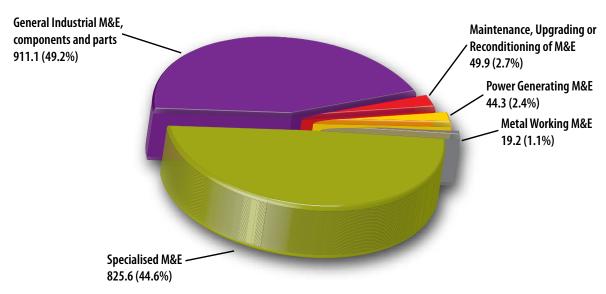
Approved investments in semiconductor M&E are almost equally distributed between foreign and domestic sources. Existing players in this sub-sector are moving up the value chain by expanding and diversifying their product line to cater to complex and sophisticated front-end semiconductor equipment and remain competitive by emphasising R&D, engineering design, assembly and testing.

Malaysia is well positioned to be a regional hub for oil & gas M&E manufacture, fabrication and services such as maintenance, oilfield development and monitoring, inspection and testing. The country has strong capabilities and is well supported by many key industry players both in greenfield (exploration, appraisal and development) and brownfield (production, operation, maintenance and abandonment) activities.

Among the major factors that attract M&E companies to invest in Malaysia is a dynamic engineering supporting industry and strong intellectual property protection laws. The country is emerging as a focus area for oil & gas activities and attracting

increasing investment interests from both local and foreign companies. Existing companies such as Aker, FMC Technologies and Halliburton have expanded and diversified their operations in Malaysia producing umbilicals, cement additives, wellheads and actuators. The industry is also expanding via new investments from local and foreign companies producing gas lift valves and intelligent downhole equipment. All these projects will complement and further enhance the oil & gas ecosystem.

Moving forward, the M&E industry will continue to focus on high technology, high value-added M&E and modules and strengthening core activities such as R&D, D&D, prototyping, software development, system integration, assembly, testing and calibration. This will enable the industry to pursue new global opportunities in the face of increasing competition from emerging countries.



Graph 24 Investments in projects approved in the M&E industry by sub-sector, 2012 (RM mil)

Total: RM1.9 billion

new state-of-the-art umbilical manufacturing plant and a new wholly foreign-owned project with investments of RM144.6 million that chose Malaysia as its global hub to manufacture the company's proprietary products for the oil & gas industry.

Oil & gas-related projects also include a diversification project by a wholly foreignowned company involving investments of RM10.2 million to manufacture cement casing equipment and completion tools and a new joint-venture project with investments of RM5.5 million to manufacture intelligent downhole equipment.

Other projects of note comprise a new Malaysian-owned project with investments of RM2.3 million to manufacture F&B-related The M&E industry is crucial to the country's quest for energy independence.

processing machinery and equipment, a new wholly foreign-owned project with investments of RM122.4 million to manufacture X-ray security detectors and related components and a new wholly foreign-owned project with investments of RM93 million to manufacture vacuum valves.



# Engineering support

Total solutions

The Government is encouraging more companies to move up the value chain in Malaysia's engineering supporting industry and provide total manufacturing solutions for high technology industries such as semiconductors, machinery, medical, oil & gas and aerospace industries. This is in line with Malaysia's efforts to become the preferred location for global engineering outsourcing. The projects approved in 2012 indicate that the industry is on track to achieve this goal.

Companies are moving into providing higher precision and more complex parts and components to comply with stringent requirements from clients, especially from the aerospace, medical and solar/photovoltaic industries.

A total of 47 projects were approved in 2012 with investments of RM641.3 million (see Graph 25). These projects are expected to generate job opportunities for 5,241 persons.



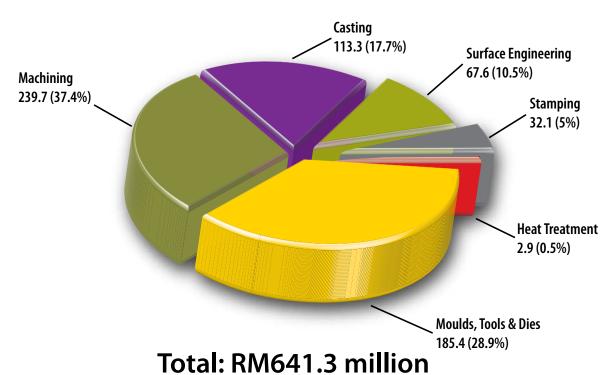


Table 10 Notable projects approved in 2012 – Engineering supporting industry

PROJECT	OWNERSHIP	INVESTMENT VALUE (RM MIL)
New project to manufacture high precision and large moulds and dies for the E&E, medical devices and automotive industries.	Malaysian	5.8
New project to produce machined parts, jigs & fixtures and moulds & dies mainly for E&E industries.	Malaysian	3.9
Design, development and manufacturing of precision stamped and fabricated parts and modules utilised in material handling machinery	Malaysian	22.9
Manufacture of precision machined parts and components.	Malaysian	8.2
Physical vapour deposition (PVD) and thin film coating activity.	Foreign	11.4

Box article 4 The engineering supporting industry in Malaysia

#### Certification time

Malaysia's engineering supporting industry is growing up and will soon be able to offer customers total engineering solutions.

With the current increase in nonequity modes of investment, Malaysia's engineering supporting industry is positioning itself to become a 'onestop centre' by offering total solutions to customers. This is made possible by upgrading facilities and acquiring technologies to meet the stringent requirements of OEMs for parts, components and precision engineering services. These centres will offer integrated services ranging from product conception, including design and prototyping, to serial production and process flow management, including procurement, logistics, packaging, testing and certification.

As it matures, this industry will focus on strengthening services and enhancing capabilities and production quality to provide total engineering solutions.

The industry is moving towards gaining international certifications for the supply of parts and components for the aerospace, medical and solar/photovoltaic industries.

As the global outsourcing market grows, Malaysia will need more manufacturing solution providers with these credentials to secure a larger share of the global outsourcing market, especially within high technology industries. Companies need to consolidate and rationalise to provide total solutions to complement the growth of the manufacturing sector in Malaysia.

### **Basic Metal Products**

Stronger and stronger

■HE BASIC METAL PRODUCTS industry in Malaysia plays a major role in the development of the manufacturing and construction sectors. The industry covers the manufacturing of ferrous (iron and steel) and non-ferrous (aluminium, tin, copper, zinc, lead, etc.) metal products. Malaysia consumed 8.2 million tonnes of steel in 2011, down 0.9 per cent from 2010 (8.3 million tonne).

Malaysia's domestic production of flat steel products such as hot rolled coils (1.3 million tonnes) and plates (0.2 million tonnes) are increasing in tandem with the country's increased manufacturing activities in 2011. Nonetheless, the industry's main products are still steel bars (2.3 million tonnes) and wire rods (1.2 million tonnes) to cater to the country's burgeoning construction sector. Any shortfall in Malaysia's demand for steel was satisfied by imported products - In 2012, imports of ferrous metal products amounted to RM25.2 billion

Table 11 Notable projects approved in 2012 – Basic metals

The World Steel Association has estimated that global steel consumption will grow from 2.1 per cent in 2012 to 3.2 per cent in 2013.

Graph 26 The basic metal products industry

#### LONG **PRODUCTS**

Mainly used in the construction sector

- Billets
- Blooms
- Sections
- Bars
- Wire rods
- Wire products such as wire mesh and hard drawn

#### **FLAT PRODUCTS**

Mainly used in

- · Hot rolled coils,
- plates and sheets Cold rolled coils and sheets
- Galvanised coils
- Tin plates
- Other fabricated products.

PROJECT	OWNERSHIP	INVESTMENT VALUE (RM MIL)
New project to manufacture hot rolled steel bars and hot rolled steel wire rods.	Malaysian	1,250
New project to manufacture silicon metal, microsilica, electrode paste and steam.	Foreign	912
New electric arc furnace dust recycling project to recover zinc oxide and iron oxide.	Foreign	246.2
Expansion project to manufacture steel slabs, flat rolled steel sheets/strip in coils, welded steel pipes, welded spiral pipes and welded hollow sections.	Malaysian	229
New project to manufacture metal silicon and silica fume.	Foreign	185.2
New project to manufacture metal related products.	Malaysian	244
New project to manufacture stainless steel tubes, pipes and fittings.	Malaysian	106.5



while imports of non-ferrous metal products amounted to RM20.4 billion. Exports during the same period amounted to RM9.9 billion (iron and steel products) and RM10 billion (non-ferrous metal products).

The World Steel Association has estimated that global steel consumption will grow from 2.1 per cent in 2012 to 3.2 per cent in 2013. The industry here may see an increase of long products consumption due to the increased growth of 6.6 per cent in the construction sector. However, there may be a continued decrease in the consumption of flat products due to a volatile global outlook and a projected drop in the manufacturing sector growth from 4.5 per cent in 2011 to 3.9 per cent in 2012. The performance of the industry depends on improvement in the economic activities of the USA, developments in the Eurozone debt crisis, and the ease of monetary policy by the People's Republic of China to stimulate growth. On the local front, the steel industry will depend mainly on the implementation phase of ETP projects.

The basic metal products industry is expected to continue to contribute to

the development of Malaysia's economy. Currently, the industry is focusing on the country's construction and infrastructural needs. The government has taken steps to help manufacturers meet their needs for steel goods by reducing import duties on flat steel products from 50 per cent to 25 per cent with a goal to reduce duties to 10 per cent or eliminate them altogether by 2018. However, Malaysia will also implement Safeguard and Anti-Dumping measures to protect local iron and steel manufacturers from unfair foreign competition. Malaysia will also enforce mandatory standards for imported and locally produced steel products to prevent sub-standard materials from being used in Malaysian infrastructure projects and manufactured goods.

In 2012, a total of 96 projects were approved with investments of RM4.9 billion. Of these, foreign investments amounted to RM2.5 billion (50.9%) while domestic investments totalled RM2.4 billion (49.1%). These projects are expected to generate 10,255 employment opportunities.

The increase in foreign investments reflects the liberalisation of equity policy and supportive Government policy and facilitations, which has encouraged companies to further invest in steel mills especially in upstream projects (see Box Article 5). Domestic investments are mostly in the midstream and downstream projects such as steel tubes/pipes and sections, which are expected to generate additional employment opportunities for 4,129 persons.

Box article 5 Initiatives to further enhance the iron and steel ecosystem

# Steely determination

The Malaysian government steps up its efforts to promote the steel business.

The Government has various initiatives in place to develop the iron and steel industry in Malaysia. These include undertaking a study on the industry's competitiveness and defining future direction and policy recommendations and establishing a Steel Council to oversee and continuously align the sector to Malaysia's economic goals. There are also continuous efforts to organise Specific Project Missions (SPMs) and Domestic Specific Project Missions (DSPMs) to targeted companies.

The Government is also actively encouraging multinational corporations (MNCs) and big corporations to outsource their metalworking needs to local companies while promoting projects that add value to the existing iron and steel ecosystem. Malaysia will also seek new



markets for its steel products through Common Effective Preferential Tariff (CEPT) and Free Trade Agreements (FTAs) and have continuous dialogues with Industry Associations, Chambers of Commerce and other relevant Departments to spur exports.

Future developments within this industry will revolve around the ferrous and non-ferrous metal products sectors. The Government has identified missing links upstream in the Malaysian iron and steel ecosystem and will continuously develop upstream activities such as ferro alloys and iron ore palletizing by providing favourable incentives and facilitating the development of energy sources to support the ecosystem.

Non-ferrous metal products continue to provide vast opportunities for new investments. Non-ferrous investments presently focus on aluminium-based products, including tin cans for food and beverage products, packaging foil, ingots and billets, automotive alloy wheels, diecastings, extrusions, insulation materials as well as copper ingots and wires.

### **Fabricated Metal Products**

Solid engineering

involves a high-degree of knowledge and technological expertise and research. Fabricated metal products play an important role in industrial automation and manufacturing, with new designs and products emerging every day to take advantage of new processes and materials.

In 2012, a total of 58 projects were approved in fabricated metal products with investments of RM1.1 billion. These projects are expected to generate additional employment opportunities for 6,126 persons.



Graph 27 The fabricated metal products industry

Fabricated products for the offshore/ onshore oil and gas industry

Fabricated products for building and civil construction

Fabricated products processing and manufacturing plants

Fabrication for industrial machinery, structures and equipment components

Metal containers, furniture and fixtures, non-ferrous metal products and household wares

Table 12 Notable projects approved in 2012 – Fabricated metal products

PROJECT	OWNERSHIP	INVESTMENT VALUE (RM MIL)
Expansion project to manufacture aluminium beverage cans.	Malaysian	210.8
New project to manufacture aluminium rods and aluminium slugs.	Foreign	114.5
Expansion project to manufacture reinforcing fabric.	Malaysian	79.6
Expansion project to manufacture steel tire cord.	Foreign	52.7
New project to undertake activities of slitting and shearing of metal coils.	Malaysian	34.7



## Textiles and textile products

Dressed for success

industry emerged as the country's 12th largest export earner in 2012 contributing approximately RM9.5 billion (1.4%) to the country's total exports of manufactured goods. The USA, Japan, Indonesia, Turkey and the People's Republic of China were the top five export destinations, with the USA accounting for 19.4 per cent of all Malaysian textile exports.

In 2012, a total of 17 projects were approved in the industry with investments of RM374 million, most of which were from foreign sources (RM322.3 million or 86.2%). Of these, seven projects were for the production

of primary textiles (RM342.4 million), five projects were for made-up garments (RM14.3 million) and five projects were for textile products/ accessories (RM17.6 million).

The approved projects will generate a total of 1,342 employment opportunities, 424 of which will exist in the managerial,

technical and supervisory manpower categories. The majority of these projects are also export-oriented – when implemented, they are expected to earn about RM448 million per annum. Expansion and new projects continue to emphasise R&D investments, and will contribute to the creation of high skilled jobs and up-scaled skill levels.

Among the major projects approved were an expansion project by an foreign-owned company with investments of RM182 million for the production of non-woven fabrics, a new wholly foreign-owned project with investments of RM65 million for the production

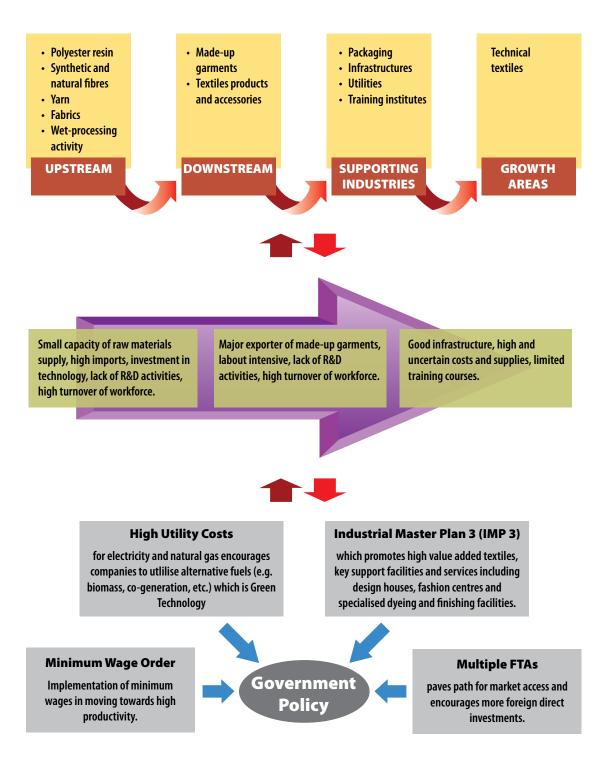
of wool top and wool grease and a

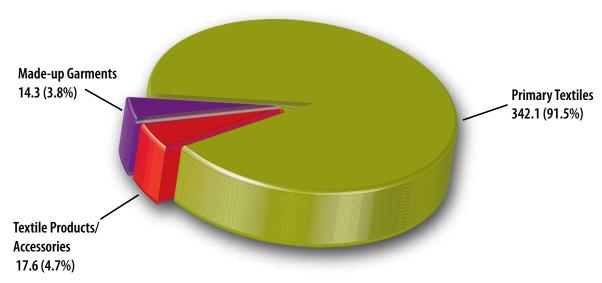
new joint-venture project with

total investments of RM46.6 million for the production of polyester fibre.

In general, investment performance showed an increase of investments in the upstream sub-sector, with seven projects approved for the production of natural and synthetic fibres and fabrics. Some of

Graph 28 Textiles and textile products ecosystem





Graph 29 Investments in projects approved in the textiles and textile products industry by sub-sector, 2012 (RM mil)

**Total: RM374 million** 

the approved projects will also strengthen textile cluster development by producing primary textiles, or raw materials needed to feed downstream activities that are currently dependent on imported raw materials.

The industry has been resilient despite the global economic slowdown. Various bilateral FTAs will provide a bigger platform for further growth while the Trans-Pacific Partnership (TPP) will allow foreign companies dealing with the USA to consider Malaysia as their production base.

### Medical devices

Better healthcare

industry is highly competitive and innovative, and is one of the fastest growing industries in the world with a projected annual market growth rate of about 10 per cent. Scientific advances in medicine

such as the integration of drugs and biologics into devices and longer life expectancy as well as the increasing demand for better healthcare facilities and services are driving rapid technological developments and growth in this industry.

The market for medical devices is vast with products as different as complex MRI machines, laparascopic surgical equipment, to syringes and medical gloves. The global market for medical devices was valued at US\$307.7 billion in 2012. With an estimated US\$110 billion in sales in 2011, the US is the world's largest market for medical devices.

In Malaysia, the medical devices industry is a highly diversified industry that produces a broad range of products and equipment ranging from medical gloves, implantable devices, orthopaedic devices and dialysers. It also includes diagnostic imaging equipment and minimal invasive surgery equipment as well as other devices used for surgical, dental, optical and general health purposes. The market is expected to grow by 15.9 per cent annually to hit US\$2.8 billion by 2017.

The medical devices industry in Malaysia is dominated by small and medium-sized companies (SMIs) engaged in the production of medical gloves and other medical disposable products. There are currently more than 180 medical devices manufacturers in the country including major MNCs such as Ambu, B. Braun, C.R. Bard, Ciba Vision, Meditop Corporation, St. Jude Medical, Symmetry Medical, Accellent and Teleflex. The MNCs in Malaysia are mainly involved in the production of higher value products such as orthopaedic products, surgical instruments, medical electrodes, safety intravenous cannulae, pacemakers, defibrillators, dialysers and ophthalmic lenses.

Malaysia is an ideal location for investments in the medical devices sector due to its strong Intellectual Property (IP) protection regime and strategic geographic location.

Malaysia is an ideal location for investments in the medical devices sector due to its strong Intellectual Property (IP) protection regime and strategic geographic location. In addition, the Medical Device Act 2012 provides the mandatory framework for medical devices registration in Malaysia. The Act sets the requirements for medical device products registration, establishment licensing and conformity assessment body (CAB) registration.

The medical devices industry has been identified as one of the country's key economy growth areas under the Healthcare NKEA. The government recently announced seven Entry Point Projects (EPPs) for the medical devices sector that will create RM17.1 billion in revenue and RM11.4 billion in GNI and generate 86,000 jobs by 2020. Of these seven EPPs, six projects were announced in 2012 with potential

investments of RM255.8 million and a GNI of RM656.2 million by 2020. It is estimated that these projects will generate around 2,880 of jobs.

In 2012, Malaysian exports of medical devices were valued at RM12.9 billion. The country continued to be a major exporter and producer of medical gloves and catheters, which accounted for about 76 per cent of total exports of medical devices (RM9.8 billion). Other major exports included instruments and appliances used in medical, surgical, dental or veterinary sciences (RM1.6 billion), ophthalmic lenses (RM449.1 million) and orthopaedic appliances (RM497 million). The country's major export destinations were the USA, Europe and Japan.

A total of 16 projects with investments of RM253.3 million were approved in 2012 which are expected to generate new employment opportunities for 1,145 people. Of these, 13 projects (RM113.9 million or 45%) were for the manufacture of medical devices other than medical gloves. These projects were mainly for high-end and high value-added products that involve R&D activities.

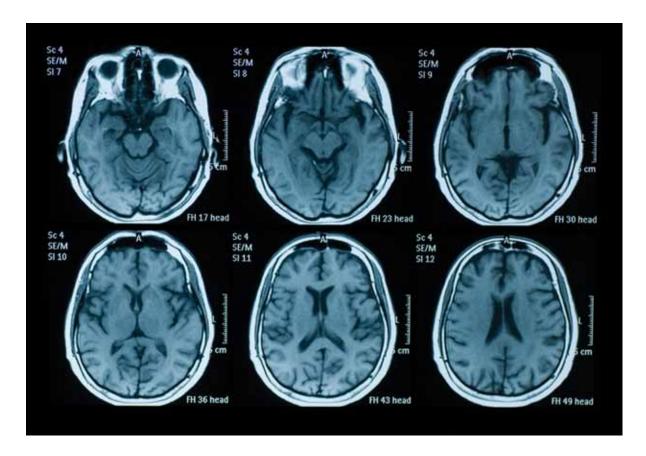
Among the significant projects approved in 2012 is a new foreign-owned facility to manufacture percoutaneous trans-luminal coronary angioplasty (PTCA) / percoutaneous trans-luminal angioplasty catheters (PTA) and coronary stents (RM39 million). This is a knowledge-and-research intensive project that will involve high numbers of science and technical graduates. The technology is the first of its kind in Malaysia and a significant amount of the project cost is dedicated to R&D.

Other major projects include the expansion of a Malaysian-owned facility to manufacture disposable needles, dressing sets, urine containers, blood collection tubes and

sutures (RM24.3 million). The

high value-added feature of
this project portrays the
growing capabilities of
local companies to make
high-value goods, as
does another expansion
project by a Malaysianowned company to
manufacture surgical
sutures, hernia mesh,
underwater chest
drainage system,





disinfectant products and other medical disposables (RM6.7 million). The company is the first local manufacturer to have its products certified as Class III medical devices and will be embarking on an extensive R&D initiative in its in-house laboratory.

All these approved projects indicate that the medical devices industry in Malaysia is expanding fast and diversifying into making higher value-added products. These projects will employ biomedical engineers, medical technologists, chemists and biochemists and will move Malaysia up the value chain in the industry. The growing cluster will also provide outsourcing activities that include machining

for instruments, moulding, sterilisation services, sterile medical packaging and electronic manufacturing services (EMS).

There is potential to further develop Malaysia as a Medical Devices Hub for both R&D and manufacturing in view of the strong supporting industries for medical devices, ranging from sterilisation services, sterile medical packaging, precision engineering, tool and die making, medical compounding to contract moulding, assembly and machinery fabrication, as well as electronics manufacturing services. The availability of these supporting industries has enhanced Malaysia's position as an outsourcing

destination and global supplier of parts and components for major medical devices and equipment companies.

There is also a growing trend towards attaining international standard certifications such as ISO 13485, CE Marking and US (FDA) as these are essential for medical devices companies seeking to penetrate global markets. Accreditation bodies such as TUV, SGS and SIRIM are present in Malaysia to assist companies in obtaining these international certifications which ensure that locally manufactured medical devices are of high quality and of international standards.

As Malaysia becomes a more popular destination for manufacturing high technology

medical devices products, there is an increasing need for more educated and skilled workers. Programmes for developing human capital in this industry are on-going and include collaborations between government agencies and the private sector to enhance the knowledge and skills of Malaysians in the medical devices industry.

The growing medical devices ecosystem will continue to attract quality investments from both local and foreign investors and will encourage new product innovations. Such positive spin-offs are very much in line with the government's initiative to transform Malaysia into a high income nation.

# Agriculture

Feeding the nation

projects were approved in the agriculture sector in 2012 with investments and incentives amounting to RM507.8 million. Of this total, 93 per cent of investments were from domestic sources. The projects approved include the cultivation of mushrooms, fruit and vegetables, aquaculture and livestock rearing. Among the major projects approved was a new project by a wholly foreign-owned company with investments of RM117.3 million to undertake

corn farming in Sri Aman, Sarawak and a Malaysian-owned dairy farming project with investments of RM8.6 million in Kuala Selangor, Selangor.

The agriculture sector comprises the livestock, fisheries, fruit and vegetables sub-sectors with significant links to the Malaysian food processing industry. Under the Agriculture NKEA, incremental GNI is expected to increase by RM21.4 billion through 16 EPPs and 11 business opportunities. The NKEA is also

# Food processing

an estimated annual production of 300,000

vegetables such as jackfruit and pineapples

metric tonnes. Meanwhile, exports of fruit and

amounted to RM1.4 billion in 2012 while total

A healthy appetite

a net importer of food. Total food imports in 2012 amounted to RM14.2 billion compared with RM13.1 billion in 2011, most of which was in the form of cereal and cereal preparations (RM1.2 billion), coffee, tea, cocoa and spices (RM4.9 billion) and vegetables and fruit (RM1.1 billion). Total food exports amounted to RM13.4 billion during the same period compared with RM13.5 billion the year before. The country's major items exported included cocoa, coffee and tea products (RM4.5 billion), edible products

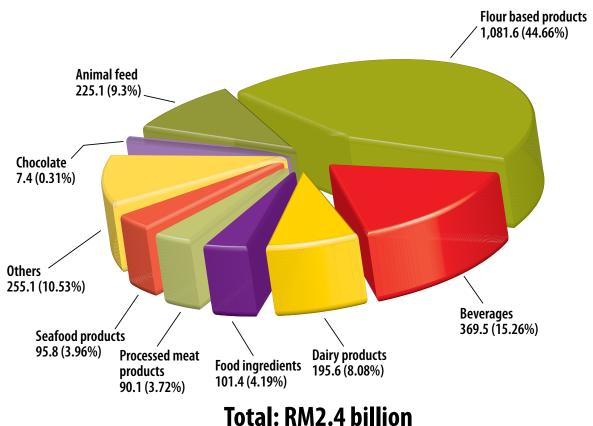
and preparations (RM4.1 billion) and seafood products (RM0.6 billion).

RM4.4 billion comprising

mainly temperate fruit such as

apples, grapes and oranges.

A total of 52 projects with investments of RM2.4 billion were approved in 2012. Significant projects approved include an expansion project by a Malaysian-owned company with investments of RM214.8 million to produce snack foods and a new project by a Malaysian-owned company with investments of RM11.3 million to produce purified chicken powder, purified chicken fat and purified whole egg powder.



Graph 30 Approved investments in the food processing sector, 2012 (RM mil)

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# Oil palm products

Moving up the value chain

remains one of the country's most important industries. It is the fourth largest contributor to the national economy and currently accounts for RM53 billion in GNI. The Palm Oil NKEA is targeted to reach RM178 billion by 2020.

While Indonesia is the largest producer of palm oil in the world, Malaysia is one of the

world's largest exporters of the commodity. In 2011, Malaysia accounted for 39 per cent of the world's total palm oil production and 44 per cent of total palm oil exports. The major consumers of palm oil are the People's Republic of China, India and Europe.

In 2012, the production of crude palm oil (CPO) totalled 18.8 million tonnes compared with 18.9 million tonnes in 2011, while the

production of crude palm kernel oil and palm kernel cake amounted to 2.16 million tonnes and 2.14 million tonnes respectively.

Exports of Malaysian oil palm products in 2012 increased to 24.6 million tonnes from 24.3 million tonnes in 2011. These exports comprised palm oil (crude palm oil and processed palm oil), palm kernel oil, palm kernel cake, oleochemicals, biodiesel, finished products and other palm products. Export value decreased from RM80.4 billion in 2011 to RM71.4 billion in 2012. The People's Republic of China remained the largest importer of Malaysia's palm oil in 2012 with a volume of 3.5 million tonnes, followed by India, Europe, Pakistan, and the USA.

In 2012, a total of 64 projects with investments of RM2.9 billion were approved for the production of oil palm products. These included projects producing palm oil and palm kernel oil products, oleochemicals, products from palm biomass and energy generation from palm biomass. Domestic investments made up the lion's share of these investments at RM2 billion.

### Palm oil and palm kernel oil

IN 2012, THE PALM OIL AND PALM KERNEL oil sub-sector recorded the most investments in this sector at RM1.2 billion. The main activities in this sub-sector are refining and crushing, and there are currently 54 refineries

Malaysia' Palm Oil Industry is the fourth largest contributor to the national economy and currently accounts for RM53 billion in GNI.

and 46 crushing plants in operation in Malaysia with a total capacity of 24.8 million tonnes and 6.9 million tonnes per year respectively.

The refineries processed a total of 14.1 million tonnes of CPO and 1.5 million tonnes of crude palm kernel oil in 2012 while crushing plants processed 4.7 million tonnes of palm kernel.

The main products are refined, bleached and deodorised (RBD) palm olein and stearin. Other products include margarine, vanaspati and specialty fat products.

In 2012, a total of 14 projects with investments of RM1.2 billion were approved in the palm oil sub-sector. All 14 projects were expansion/diversification projects.



Table 13 Notable projects approved in 2012 – Palm oil and palm kernel oil

PROJECT	OWNERSHIP	INVESTMENT VALUE (RM MIL)
Expansion project to produce RBD palm oil, RBD palm olein, RBD palm stearin and palm fatty acid distillate.	Malaysian	301.2
Expansion project to produce RBD palm oil, RBD palm olein, RBD palm stearin and palm fatty acid distillate.	Foreign	168.7

Refining and crushing activities have reached maturity in Malaysia and are no longer promoted as growth areas. Nonetheless, there are significant opportunities in downstream activities that generate high value-added products and in the palm biomass sub-sector. The growth areas in downstream activities are in oleochemical-based products and nutritional foods and ingredients as well as R&D activities which generally involve high levels of technology.

# Oleochemicals and their derivatives

#### **OLEOCHEMICALS ARE CHEMICALS DERIVED**

from animal fats or vegetable oils. There are five basic oleochemical products: fatty acids,

Table 14 Notable projects approved in 2012 – Oleochemicals

methyl esters, fatty alcohols, fatty amines and glycerine. Among other uses, these oleochemicals and their derivatives are used in food products, textile industries, rubber syntheses, medicines and personal care goods.

The oleochemicals industry in Malaysia uses palm oil for its applications. As palm oil is a renewable raw material, these oleochemicals are considered to be more environmentally-friendly when compared to petrochemicals obtained from non-renewable fossils fuels.

The oleochemicals industry recorded positive growth in 2012 as it adopts more competitive manufacturing technology. This is most evident in companies which previously produced basic oleochemicals (fatty acids, fatty alcohol and glycerine) and which now produce specialised oleochemical derivatives.

PROJECT	OWNERSHIP	INVESTMENT VALUE (RM MIL)
Expansion project to produce methyl ester sulphonate (MES).	Malaysian	159
New project to produce fatty esters.	Malaysian	130
New project to produce distilled glycerol mono stearate, glycerol mono stearate and acetic acid esters of monogylceride.	Joint-Venture	126
New project to produce ethylene glycol mono-stearate, ethylene glycol di-stearate and stearamide propyl dimethyl amine.	Joint-Venture	99.3
Expansion project to produce fatty acid, glycerine and soap noodles.	Foreign	60.1
New project to produce oleic acid and fatty acid.	Joint-Venture	35.7

With the wide availability of local raw materials and their continued investment into technology development, companies in the oleochemicals industry are now able to produce a broader range of chemicals as intermediates for the polymer and rubber industry as alternatives to petroleum based chemicals. In 2012, a total of 10 projects were approved with combined investments of RM629.7 million.

#### Palm biomass

#### SIX TYPES OF OIL PALM BIOMASS ARE

produced as by-products of the palm oil industry: oil palm fronds, oil palm trunks, empty fruit bunch, palm kernel shells, mesocarp fibre and palm oil mill effluent (POME).

Malaysia could benefit from an additional RM30 billion contribution to GNI by utilising the biomass from the oil palm industry for higher value-added downstream activities. The production of bio-fuel, bio-fertiliser and animal feed is expected to generate an additional RM14 billion annually to the oil palm industry, giving current palm product revenues of RM60 billion a 20 per cent boost. With the anticipated higher fresh fruit bunch yields and increase in planted areas, Malaysia is expected to produce between 87 and 96 million metric tonnes of biomass annually from 2011 till 2015.

In the palm biomass products sub-sector, 33 projects with investments of RM489.3 million were approved in 2012. Domestic investments made up to almost 70 per cent of these investments. The approved projects were for the utilisation of empty fruit bunches and POME to produce organic fertilisers, oil palm plywood, pallets and fibre.

Energy generation project involving palm biomass attracted eight projects with investments of RM760.8 million in 2012, of which domestic investments came to RM483.4 million while foreign investments totalled RM277.5 million.





## Pharmaceuticals

The right medicine

increased rapidly in recent years. With its competitive operating costs and skilled workforce, Malaysia is in a good position to benefit from increased manufacturing activities by global pharmaceutical companies. The sector is dominated by domestic investments that focus mainly on the production of generic drugs with capabilities to produce medicines in all dosage forms.

There are 259 Malaysian pharmaceutical manufacturers licensed by the Drug Control Authority (DCA), Ministry of Health Malaysia. More than two-thirds of these produce traditional medicines. CCM Pharmaceuticals, KotraPharma, Hovid and Pharmaniaga are strong domestic players of generic drugs for antibiotics, health supplements and injectables. The major global multinational companies in this sector include Ranbaxy, Glaxo-Smith Kline (GSK) and Y.S.P. Industries.

Since becoming a member of the Pharmaceutical Inspection Convention and Pharmaceutical Inspection Cooperation/
Scheme (PIC/S) in 2002, the country's pharmaceuticals exports have steadily increased at a rate of between 10 to 12 per cent annually. Total exports of pharmaceuticals from Malaysia in 2012 amounted to RM909.1 million, mainly to ASEAN countries. Five projects with

investments of RM258.6 million were approved in 2012. Of these, three were expansion/diversification projects valued at RM141.6 million. Foreign investments constituted the bulk of investments in the pharmaceutical industry amounting to RM213.1 million



Table 15 Notable projects approved in 2012 – Pharmaceuticals

PROJECT	OWNERSHIP	INVESTMENT VALUE (RM MIL)
An expansion project to manufacture generic pharmaceuticals and to undertake R&D of new generics for the local market. The company also intends to make Malaysia its export hub for ASEAN, Middle East, Europe and the People's Republic of China.	Foreign	135
A new project to produce aseptically prepared chemotherapy products for the local market.	Foreign	11
A new, high-technology project to manufacture adult and paediatric vaccines. The company's in-house R&D laboratory will be linked to its headquarters, and the majority of the company's workforce will be from the technical and scientific backgrounds.	Foreign	106

(82.4%). The projects approved are expected to generate employment for 619 persons.

The investments in plant expansion/ diversification in the pharmaceutical sector will fulfil the government's objective to increase productivity and achieve sustainable longterm growth in producing high value-added pharmaceutical products. The introduction of novel projects like biopharmaceuticals and vaccines will further spur the technological and research engines of this sector and will develop new and specific pharmaceutical product clusters that will encourage the development and manufacturing of niche pharmaceutical products.

# **Chemical Products**

Enhancing the country's capacity for diversified export products

agricultural chemicals, industrial gases, inorganic chemicals, paints, soap and detergent, cosmetics and toiletries and other chemical products sub-sectors (see Table 16, page 96). The investment trend for 2012 shows a potential expansion of product capacity for supplying domestic and export markets. A total of 53 projects with investments of RM5.1 billion were approved during the year, of which 94 per cent (RM4.7 billion) were derived from foreign sources. The projects approved are expected

to generate new job opportunities for 1,521 persons.

Significant foreign-owned projects approved in 2012 include an expansion project for the production of polycrystalline silicon in Sarawak (RM2.7 billion) to support the solar cluster in Malaysia as well as a new project to produce L-Methionine, ammonium sulfate, ammonium acetate, single cell protein and liquid fertilizer (RM1.2 billion). There was also a significant expansionary investment into a foreign-owned

Box article 6 Malaysia's potential as a centre of pharmaceutical R&D

### Welcome to Pharmville

Malaysia is fast emerging as a centre of pharmaceutical R&D, facilitated by its diversified patient population, skilled manpower and strong intellectual property protection.

The Healthcare NKEA intends to take advantage of recent pharmaceutical patent expiries by pursuing generic pharmaceutical opportunities. The transformation of the pharmaceutical industry will be multi-pronged and includes creating an export platform, localising and upgrading the current products and creating collaborations between multinational companies and local manufacturers.

Malaysia is targeting 20 markets with an additional RM160 million in annual sales of Malaysian pharmaceuticals by 2020. Ultimately, however, the target of the NKEA is for pharmaceuticals to achieve a GNI of RM13.9 billion and to create 12,440 jobs by the year 2020. To remain competitive, local pharmaceutical manufacturers are concentrating on high-margin niche segments, biopharmaceuticals and branded generics including biosimiliars. Currently, R&D companies are aggressively pursuing new drug formulations, new drug delivery systems and product process development. The local research institutes

involved in these R&D activities include SIRIM, FRIM, MARDI, IPHARM and CENAR.

International certifications such as CE
Marking, US (FDA) and certification from
the European Medicines Agency (EMEA)
are essential for pharmaceutical companies
to venture into the global market.
International accreditation bodies such as
TÜV, SGS and the National Pharmaceutical
Control Bureau (NPCB) are present in
Malaysia to assist companies in obtaining
these certifications to ensure that locallymanufactured pharmaceutical products
are of high quality and of international
standards.

The Government has developed high-technology parks and science parks to cater to the needs of the pharmaceutical industry. These parks comprise state-of-the-art buildings with specific functions and offer fully-integrated high technology facilities. Among the parks which include the pharmaceutical industry as one of their targeted industries are Technology Park Malaysia, UKM-MTDC Smart Technology

Centre, Kulim Hi-Tech Park and ENSTEK The Sci-Tech City.

Given that the nature of the pharmaceuticals industry is very technological and research-intensive, qualified professionals are required to perform highly skilled and specialised tasks. Courses related to pharmacy such as microbiology, biotechnology, biochemistry, biomedicinal sciences are being offered by several public universities and private institutions of higher learning to cater to the needs of the pharmaceutical ecosystem.

Malaysia is fast becoming an attractive location for the pharmaceutical industry. The local pharmaceutical industry is diversifying into high-value added products. The introduction of vaccines, for

example, has broadened the entire valuechain of the industry.

Malaysia is also emerging as a centre of pharmaceutical R&D, facilitated by the availability of a diversified patient population, quality data, competitive costs, skilled manpower and strong intellectual property protection. With greater collaboration and cooperation between the various stakeholders involved in the pharmaceutical sector, the industry's major players in Malaysia are also in a strategic position to support the technology transfer required to grow a robust manufacturing base. The Government's fiscal and nonfiscal incentives to pharmaceutical companies have also resulted in the expansion of the industry and will continue to attract investments from both foreign and domestic sources.



project to produce titanium dioxide pigments, ferrous sulphate, ferric sulphate and white gypsum in Terengganu (RM275 million). This project will support the paint, fertiliser and printing ink industries.

Other major investments include a new foreign-owned project to produce polymer-based wire enamels, impregnating varnishes, potting and casting materials (RM105 million)

as well as an expansion project for the production of coated and uncoated calcium carbonate (RM53.4 million) which will provide huge support for the construction and oil and gas industries.

Another expansion project by a locally-owned company to produce granulated compound fertilizers (RM42.4 million) will support the country's agricultural sector.

Table 16 Major products of the chemical industry manufactured in Malaysia.

CHEMICAL SUB-SECTOR	PRODUCTS
Agricultural chemicals	Fertilizers, herbicides and pesticides
Industrial gases (gaseous and liquid form)	Oxygen, nitrogen, hydrogen, carbon dioxide, acetylene, argon and nitrous oxide
Inorganic chemicals	Chloro-alkali, acids and some specialty chemicals such as silicates, oxides, hydroxides, acids, electronic chemicals, catalysts and waste treatment chemicals
Paints	Paints and related products such varnishes, shellac, lacquer and thinner
Soaps, detergent, cosmetic and toiletries	Personal care products and toiletries such as bath soap, shampoo and toothpaste

Table 17 Investments in the chemical industry, 2012.

PROJECT	NO. OF PROJECTS	INVESTMENT VALUE (RM MIL)
Manufacture of chemical products such as polycrystalline silicone, silicontrichloride, pigments, synthetic nanoclay particles, calcined ferrite granules/powder, silica aerogel/powder, polymeric phenol antioxidants and other chemical products.	15	3,197
Manufacture of agricultural chemicals such as fertilisers, herbicides, fungicides and pesticides.	19	1,483
Manufacture of industrial gases such as hydrogen and liquid form of nitrogen and oxygen.	10	264.9
Manufacture of synthetic detergent powder, synthetic detergent bar, fabric softener, dishwashing, liquid laundry detergent, body shampoo and talcum powder.	3	81.1
Manufacture of paints.	1	19.1
Recycling of used/scrap tyres to produce fuel oil, carbon black and steel mesh.	2	18.2
Recycling of used oil to produce base oil, solvents, fuel oil and other recycled chemicals.	3	8.5
TOTAL	53	5,071.8

# Biotechnology

A new engine of growth

substantial growth engine in the global economy and Malaysia has shown potential to be a key biotechnology player on the global life sciences stage. The range of sectors under the scope of biotechnology is likely to diversify further in the future, driven by the continued development of new technologies across multiple fields of science including cellular techniques, genetic engineering, structural molecular biology, bioinformatics and recombinant DNA technology.

As indicated in the 10MP, Malaysia is strengthening its position in commercialisation and innovation within the biotechnology industry. Besides positioning biotechnology as a new economic engine, the National Biotechnology Policy (NBP) aims to enhance R&D in the field and acquire new technology to support its development. In addition, the NBP will promote human capital development to

support growth in agricultural, healthcare and industrial biotechnology.

At present, there are a total of 219 BioNexus-Status companies in Malaysia with total investments of RM2.93 billion. More than half of these companies are local, with an equal spread between healthcare, industrial and agriculture biotechnology. In general, the companies are involved in plant genomics, animal breeding, nutraceuticals, stem cell engineering, bio-remediation and bio-fuels. A total of 16 projects with investments of RM2.9 billion were approved in 2012, of which 11 were by BioNexus-Status companies with investments of RM451.7 million. The projects approved will provide potential employment for 1,493 individuals.

Among the projects that were approved in 2012 include investments into facilities for producing bio-methionine, bio-pharmaceuticals (insulin and insulin analogues),

Table 18 Notable projects approved in 2012 – Biotechnology

PROJECT	OWNERSHIP	INVESTMENT VALUE (RM MIL)
Manufacture of fermentation-based bio-methionine.	Joint	1,150
Production of plasma biopharmaceutical products, the first plasma fractionation plant in the ASEAN region to concentrate on the processing of biopharmaceutical products.	Malaysia	695.6
Development and manufacture of biopharmaceuticals such as insulin analogues. This project is the first integrated biopharma manufacturing and development facility in Malaysia that will comply with USFDA and EMEA current good manufacturing practices (cGMP) standards.	India	577

probiotics (microbial cell preparation) for the healthcare industry, bio-chemical compound fertilisers, blood plasma, oysters spats and adult oysters using biotechnology-based products, and marine fish using biotechnology-based products.

The new investments into this sector indicate the continued growth of the global biotechnology industry and will provide new job opportunities and career development for the local workforce in the field of fermentation, chemical engineering, biotechnology and molecular biology. By 2020, the biotechnology industry is expected to employ about 280,000

By 2020, the biotechnology industry is expected to employ about 280,000 people and to contribute 5 per cent to GDP.

people and to contribute 5 per cent of the national GDP with investments of about RM8 billion.

# Petroleum and petrochemical products

A well of opportunity

chemical industry is an important sector in Malaysia and comprises three sub-sectors: natural gas, petroleum products and petrochemicals. The increasing number of petrochemical plants producing various types of petrochemical products has transformed the country from a net importer to an exporter of major petrochemical products.

The projects approved in 2012 illustrates the rapid development of the petrochemical industry in Malaysia due to the availability of oil and gas as feedstock, a well-developed infrastructure, strong supporting services,

the country's cost competitiveness as well as its strategic location within Asia and close proximity to major international markets.

A total of 14 projects valued at RM6 billion were approved in 2012, of which almost 80 per cent were from local investors. The projects approved will potentially provide employment for 1,274 persons. Among the major projects approved were a new project by a Malaysian-owned company to produce ammonia and granular urea in Sabah. This project will optimise the value of the oil and gas resources found offshore in the state of Sabah, and is expected to develop and grow the industrial



Graph 31 Petroleum and the petrochemical industry

#### **NATURAL GAS**

Liquefied natural gas (LNG), power generation and feedstock for the petrochemical industry.

#### **PETROLEUM PRODUCTS**

Lubricating oils and refinery products such as liquefied petroleum gas, naphtha, gasoline, kerosene, fuel oils, gas oils, jet oils, diesel and bitumen

#### **PETROCHEMICALS**

Olefins, polyolefin, aromatics, ethylene oxides, glycols, oxoalcohols, ethoxylates, acrylic acids, phthalic anhydride, acetic acid, styrene monomer, polystyrene, ethylbenzene, vinyl chloride monomer and polyvinyl chloride.

area in Sipitang as well as support the agricultural NKEA of Malaysia's ETP. The project is valued at RM4.5 billion.

Another major project is in Terengganu, where a foreign-owned company proposes to produce methyl mercaptan, dimethyl disulfide, n-dodecylmercaptan, ethyl mercaptan and tetrahydrothiophene. Valued at RM795 million, this project will support the production of a

bio-methionine plant that produces bio-amino acid for animal feed in the state.

In Johor, a foreign-owned company is investing RM371 million into a project to make of polybutadiene, which is widely used in the manufacture of synthetic rubber goods such as tyres, shoes and other products based on polystyrene.

### **Plastics**

Banking on quality

comprises various sub-sectors with many useful applications. The plastic packaging sub-sector, covering both flexible and rigid products, remains the largest sub-sector and covers bags, sheet, film, hose and containers. The main production processes in this industry are film extrusion, injection

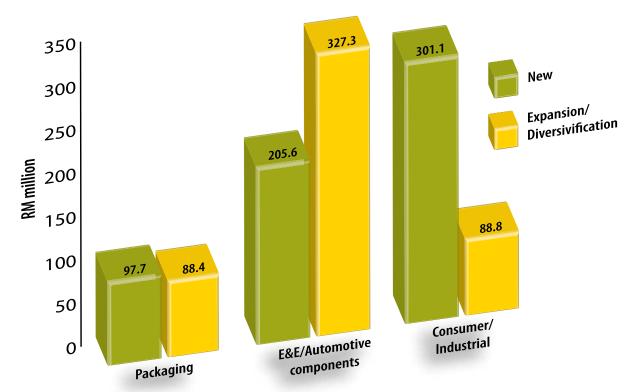
moulding, pipe and profile extrusion, blow moulding and foam moulding. The growth of domestic downstream plastic processing activities can be attributed to the developed petrochemical sector in Malaysia. The sector provides a steady supply of materials to the plastic industry with world-scale resin production facilities producing polyethylene

(PE), polypropylene (PP), polyvinylchloride (PVC), polystyrene (PS), acrylonitrile butadiene styrene (ABS), polyacetal (PA), polyester copolymers, styrene acrylonitrile (SAN) and polybutylene terephthalate (PBT).

Growth in the Malaysian plastics industry was slower in 2012, with the industry registering a total turnover of RM8 billion for the first six months of 2012. The weaker performance is attributable to the prolonged European Union debt crisis, slow growth of global markets and a sluggish domestic market. The E&E industry and automotive industry, of particular importance to the plastics industry, experienced flat growth. Overall, industry

Plastics
manufacturers
achieved a high
export total turnover
ratio by moving up
the value chain,
placing a greater
focus on the quality
of their products.

Graph 32 Investments in projects approved in the plastics products industry by sub-sector, 2012



exports rose marginally by 1.2 per cent, from RM5 billion in the first six months of 2011 to RM5.1 billion in the first six months of 2012. Plastic product manufacturers were able to achieve the high export total turnover ratio because they moved up the value chain to focus more on the quality of their products. The Malaysian plastics industry will continue to expand despite the gloomy global outlook and strong challenges ahead.

A total of 57 projects with investments of RM1.1 billion were approved in 2012 which will provide potential employment for 3,910 persons. The packaging sub-sector remained the leading sub-sector in 2012 with 14 projects and investments of RM186.1 million. The majority of these projects were for the

manufacture of flexible packaging, sheets, bags and film.

A total of 34 projects were approved in the consumer and industrial sub-sectors (RM532.9 million). In addition, nine projects were approved in the E&E and automotive components sub-sectors with investments of RM389.9 million.

Some of the major projects approved included a new joint-venture project with investments of RM75.5 million to manufacture flexible hose, a wholly foreign-owned project with investments of RM287.4 million to manufacture polyimide film, a wholly Malaysian-owned project with new investments of RM35.3 million to manufacture plastic containers, plastic sheets and plastic film.

### Rubber

Bouncing ahead

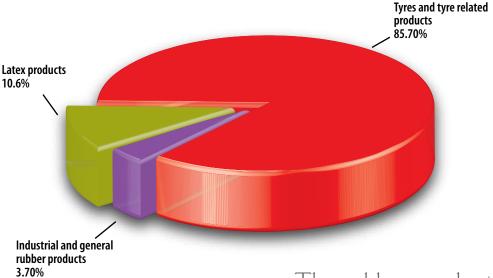
industry is technically well-established and can be categorised into latex products, tyres and tyre-related products, industrial and general rubber products.

Dominated mainly by small and medium enterprises (SMEs), the industry is making a shift towards high value-added products and high-technology rubber products for engineering, construction and marine applications.

The rubber product industry in Malaysia is an exemplary case of rubber industrialisation at its best. Malaysia is truly a global player in the rubber industry, due to the availability of quality raw materials, and through R&D support from the Tun Abdul Razak Research Centre (TARRC) and the Malaysian Rubber Board (MRB).

Both Government agencies and the private sector engage in continuous R&D efforts to

Graph 33 Approved investments in the rubber industry by sub-sector, 2012 (RM mil)



improve efficiency, quality and productivity. However, selected areas of R&D need to be intensified and emphasised to maintain the industry's competitiveness. Higher value-added products based on R&D into new clones, specialty rubber and advanced manufacturing technologies will further strengthen Malaysia's position in the global market. The industry should explore the potential applications of specialty rubber as 'green rubber'. To meet market and R&D demands, the industry also needs to create a pool of experts in rubber technologies, advanced materials, moulds and dies and nanotechnology.

A total of 17 projects with investments of RM1.2 billion were approved in the rubber products industry (excluding medical devices). Investments were mainly in tyres and tyre-related products, synthetic latex and industrial

The rubber product industry in Malaysia is an exemplary case of rubber industrialisation at its best.

and general rubber products. Approved projects are expected to generate a total of 1,680 employment opportunities.

Major projects approved included a new project by a wholly foreign-owned company to produce passenger car tyres, SUV tyres, 4x4 tyres, light truck tyres and eco tyres with investments of RM891.9 million; and a new project with foreign majority ownership to produce synthetic latex with investments of RM128.1 million.

# Wood and wood products and furniture

Making good progress

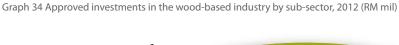
sector has become one of the most important sectors in the country over the last two decades. To date, roughly 5,000 manufacturers operate in various sub-sectors of the industry, which consists of upstream and downstream activities as well as secondary and tertiary wood processing activities.

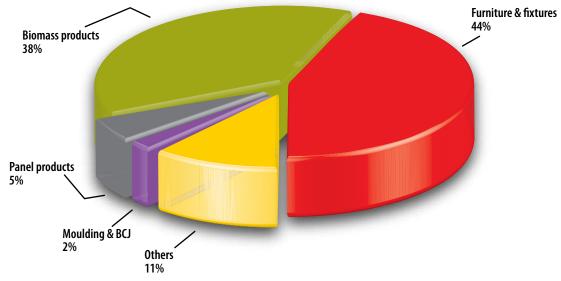
The industry is predominantly owned by Malaysians, with about 87 per cent of these companies comprising small and medium scale manufacturers. Over the years, it has developed from a primary processing industry to a more advanced and technology-driven

industry producing a significant number of downstream value-added products.

The National Timber Industry Policy (NATIP), which was introduced in 2009, has provided the impetus for the wood-based industry to remain sustainable and competitive in the challenging global environment over the past three years.

In 2012, a total of 100 projects were approved with investments of RM890.7 million. These projects are expected to provide job opportunities to 7,274 persons.





In 2012, the furniture sub-sector recorded its highest investments, totalling RM395.6 million (44%). A total of 53 projects were approved in this sub-sector, of which 47 projects were new projects amounting to RM248.9 million or 63 per cent of the sub-sector. The Malaysian furniture industry is typically highly fragmented, with a predominance of SMEs that produce an equal share in terms of gross output value, value-added products, employment, salary and value of assets.

In recent years, the tendency to utilise alternative raw materials such as palm biomass (oil palm trunks, empty fruit bunches, fronds), kenaf and other agricultural waste such as rice husk, coconut trunks and sawdust to produce high value-added products has rapidly increased among industry players. This subsector has shown enormous development, with investments of RM339.3 million or 38 per cent of the total investment in 26 projects. This is in line with the Government's initiative to convert waste materials into higher value-added products as well as to promote green products.

In the panel product sub-sector, three projects were approved with investments of RM40.4 million. Projects approved were for the production of particleboard, laminated boards and flooring panels.

Four projects, mainly for the manufacture of doors, wooden picture frames and engineered door were approved in the

mouldings and builders' carpentry and joinery sub-sector with investments of RM17.3 million.

A total of 14 projects with investments of RM98.1 million were approved for the manufacture of other wood-based products and materials such as wood pellets, pallets, sawn timber and coconut fibre sheet.

Some significant projects approved include one by a wholly Malaysian-owned company with investments of RM90 million to produce engineered lumber from oil palm trunk (OPT). This project, which has the company collaborating on production process R&D with the Forest Research Institute of Malaysia (FRIM) and a company from the USA, will be based in Siliau, Negeri Sembilan and provide job opportunities for about 100 Malaysians.



Box article 7 The wood-based industry products ecosystem

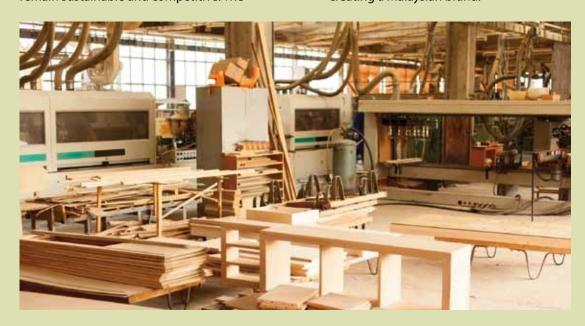
### Out of the woods

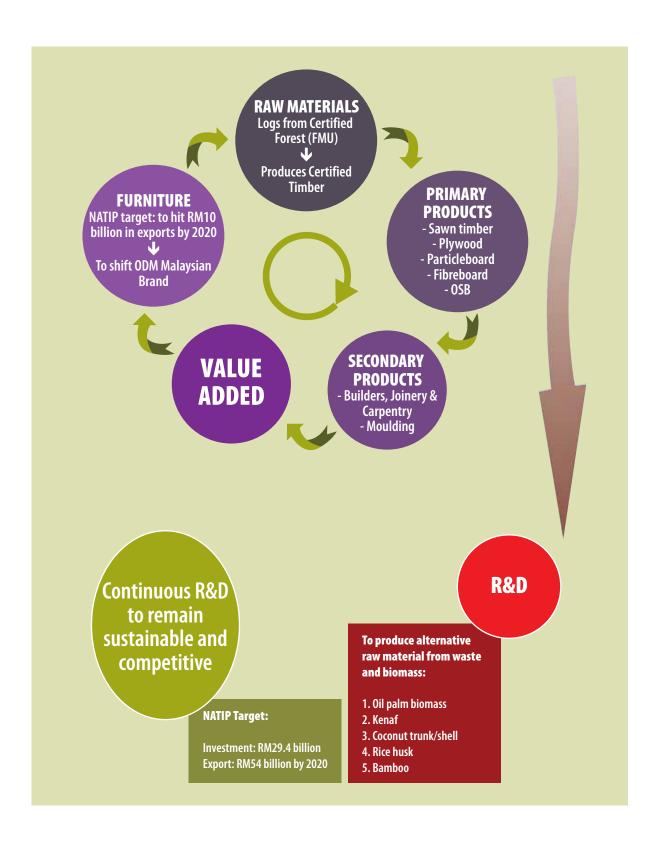
Malaysia is set to become a producer of higher-end furniture products.

The Malaysian wood-based industry has outlined a new roadmap through NATIP to develop the ecosystem to ensure the availability of raw materials in the future. In line with this, the Fibre and Biocomposite Development Centre (FIDEC) was established to undertake continuous R&D activities and training to produce various products from biomass and agricultural waste.

Expanding market opportunities for biomass and biocomposite products offers generous opportunities for the industry to remain sustainable and competitive. The demand for biomass and biocomposite products in the international market is also expected to increase significantly due to continuous R&D activities by industry players to improve product strength and durability.

In addition, a number of universities and training centres such as WISDEC and FITEC offer comprehensive courses to develop human capital to improve mainly design and branding capacities, especially in the furniture industry, and to move towards producing higher-end products and creating a Malaysian brand.





## Non-metallic mineral products

Going up

HE NON-METALLIC MINERAL industry consists of ceramic and claybased products, cement and concrete products, glass products, and other nonmetallic mineral products such as quicklime, barite, marble and granite. In 2012, the industry was the 14th largest export earner, with total exports of RM5.8 billion that contributed approximately 1.2 per cent to total exports of manufactured goods. Malaysia imported non-metallic mineral products amounting to RM5.3 billion for the same period. Major exports included glass and glassware (RM2.3 billion), mineral products (RM1.4 billion) and lime, cement and fabricated construction materials (RM935.6 million). The major export destinations were Singapore, Japan and Indonesia.

A total of 22 non-metallic mineral projects were approved in 2012 with total investments of RM638.3 million. Of the 22 projects approved, three projects (RM51.5 million) were for glass products, six projects (RM280.5 million) for cement and concrete products, 11 projects (RM227.2 million) for the manufacture of ceramic and clay products and two projects (RM79.1 million) for other non-metallic minerals.

Three major projects were approved in 2012, the largest of which was a new Malaysian-

The non-metallic products industry was the country's 14th largest export earner in 2012.

Taiwanese joint venture project with investments of RM145 million to produce ground granulated blast-furnace slag. The product can be considered recycled material and significantly reduces energy consumption and greenhouse gas emission in the production of concrete raw materials. About 90 per cent of the production will be supplied domestically.

The second comprises a wholly foreign-owned project with investments of RM77.6 million to manufacture carbon fibre and graphite parts and components for machinery and equipment. This development, which is expected to generate 138 job opportunities with 20 per cent of them comprising skilled and technical positions, will see 80 per cent of its production exported to Japan.

The third is a Malaysian-Singapore joint venture project with investments of RM71 million

Graph 35 Advanced ceramics ecosystem

### **RAW MATERIALS**

- Alumina
- Zirconium oxide
- Silicon nitride
- · Silicon carbide



### **FINISHED PRODUCTS**

- · Insulating components
- Cutting tool inserts
- · Advanced bearings
- Bio-ceramics
- Electro-chemical devices
- Heat engines
- Filters



### **APPLICATIONS**

- Textile industy
- Metalworking
- Personal protective equipment in paint engineering
- · Chemical industry
- Electrical engineering and electronics
- Ballistics protection
- Automotive industry
- · Medical devices

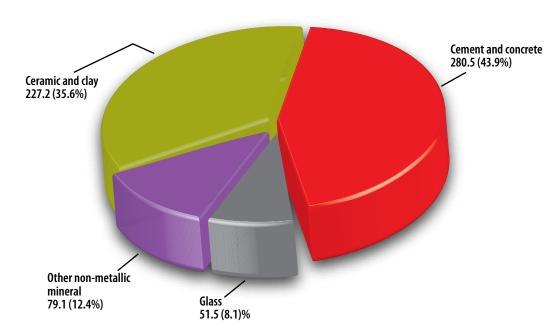
### **Supply of local talent**

### **SKILL SETS**

KDU University College, USM, UniMAP, UKM, UMS
Jabatan Mineral & Geosains

### **R&D Centre**

SIRIM AMREC, Ceramic Technology Excellence Centre



Graph 36 Approved investments in the non-metallic mineral products industry by sub-sector, 2012 (RM mil)

to produce and supply high calcium high re-activity industrial lime products such as hydrated lime, quicklime, calcium carbonate powder and lime slurry to diverse industries. About 95 per cent of the production will be supplied to the domestic market.

The advanced ceramics sub-sector, which comprises parts and components for application in electronics, aerospace, medical and other high technology industries, is a potential growth area in the non-metallic mineral product industry. This is attributed to Malaysia's status as one of the world's leading producers of E&E components. In 2012, the E&E industry exported RM231.2 billion worth of output, comprising mostly semiconductors and components using advanced ceramics as raw material.

High technology advancements in the E&E, aerospace and life sciences industries will provide vast opportunities for the application of advanced ceramics. These factors could enhance Malaysia's position as a preferred location for the manufacture of advanced ceramics products.

Malaysia is also positioning itself to develop the ecosystem for the advanced ceramics sector by making available raw materials, support services and R&D centres. The expanding market opportunities for ceramics and composites will require more scientists and engineers with broad backgrounds in these fields.

Currently, there are a number of universities and R&D training centres that offer



comprehensive courses and provide research in ceramic or composite materials. SIRIM Berhad, the Advanced Material Research Centre (AMREC) and the Ceramic Technology Excellence Centre promote early in-depth knowledge of advanced materials to the design process of industries or universities to improve innovation and give products a competitive advantage.

# Paper, printing and publishing

Looking good

publishing industry encompasses the manufacture of pulp, paper, paper products as well as printing and publishing activities. In recent years, the Malaysian paper industry has progressively increased its production capacity by two-fold, recording 90 per cent self-sufficiency in the supply of paper and paper products and providing employment opportunities to 4,000 persons to date.

In 2012, the import of paper and paper products amounted to RM6.5 billion while exports totalled RM3.5 billion. A total of 27 projects were approved with investments of

RM871.6 million. These projects are expected to provide employment opportunities to almost 2,000 persons, with 20 per cent of the employment in the high-income category. The highest investments recorded were for printing and publishing (RM490.3 million) followed by paper products (RM339.8 million) and pulp and paper (RM41.6 million).

Among the significant projects approved was a development by a wholly foreign-owned company with investments of RM193 million to manufacture dye sublimation thermal transfer film and paper in Pasir Gudang, Johor using high-end Japanese technology.

# Investments in the primary sector

Harnessing the country's natural resources

three major sub-sectors namely agriculture, mining, and plantation

and commodities. In 2012 the sector attracted investments worth RM3.8 billion for 102 projects.



### Agriculture

### IN 2012, A TOTAL OF 77 PROJECTS WERE

approved with total investments of RM507.8 million. Domestic investments amounted to RM471.5 million (92.8%) while foreign investments totaled RM36.3 million (7.2%).

These projects are expected to create 2,526 employment opportunities.

### Mining

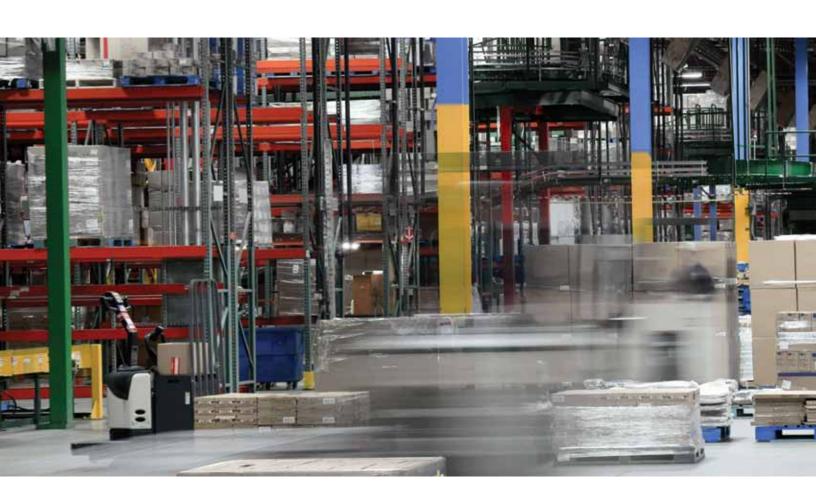
#### INVESTMENTS IN THE MINING SUB-SECTOR

comprise oil and gas exploration projects and the mining of other minerals such as gold and copper. In 2012, a total of 18 projects were approved with investments of worth some RM2.8 billion. Foreign investments amounted to RM1.8 billion (64%) while domestic investments totalled RM977.8 million (36%). Investments into oil and gas exploration comprised 99 per cent of total investments in this sub-sector.

# Plantation and Commodities

### IN 2012, INVESTMENTS VALUED AT RM548.7

million were approved in the plantation and commodities sub-sector, all of which were domestic investments. A total of RM362.8 million or 66.1 per cent of these investments were in the production of palm oil, while RM185.9 million (33.9%) were in the production of rubber.





The services sector continues to support the country's economy





A fast-growing services sector adds a new dimension to Malaysia's economy.

he Malaysian
Government's
efforts to
advance the services
sector to support
Malaysia's economic growth
continued to bear fruit in
2012, and the sector is
expected to expand its
contribution to the

economy during this decade. The sector attracted the largest portion of approved investments into the economy last year (RM117.6 billion), exceeding the total approved investments of RM70.4 billion in 2011 by 67 per cent. Domestic investments of RM105.4 billion accounted for 90 per cent of investments, with foreign investments making up the rest.

The services sector comprises a broad range of services including regional establishments; support services; MSC status companies; real estate (housing); transport; energy; telecommunications; distributive trade; hotels and tourism; financial services; health services

Domestic investors accounted for 90 per cent of investments into the services sector in 2012

and educational services. The 5,536 projects approved in 2012 within these subsectors are expected to generate 103,180 high income employment opportunities.

# Regional Establishments

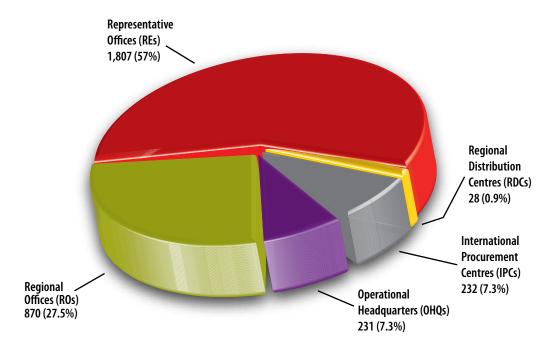
A platform for growth

increasingly popular destination for regional and global operations hubs among MNCs and large corporations. Based on the Service Development Index (SDI) in the Second Global Market Expansion Services Report, Malaysia is ranked eighth among 18 countries in terms of overall level of service sophistication. The SDI measures the level of sophistication of countries by taking into account their market expansion services (MES) covering sales, distribution and logistics as well as market insight services such as market data and intelligence, market entry studies and brand analyses. Another study undertaken

by PriceWaterhouseCoopers (PWC) Malaysia confirms the findings of the SDI and shows that the country has always been a preferred destination for multinational companies setting up operations in the region. The factors

Table 19 Regional headquarter projects approved, 2012

PROJECT	NO. OF PROJECTS
Operational Headquarters (OHQs)	14
International Procurement Centres (IPCs)	9
Regional Distribution Centres (RDCs)	1
Regional Offices (ROs)	29
Representative Offices (REs)	58
TOTAL	111



Graph 37 Number of regional establishments approved as at 31 December 2012

cited for their decisions include Malaysia's proximity to key clients and markets, its favourable tax incentives, the country's stable political environment and its access to human capital.

As a vibrant nation with a dynamic business environment, Malaysia boasts infra-and infostructure that is conducive and comparable to any developed nation. The country also continues to produce highly skilled and knowledge workforce to support the nation's growth, which is a major decision factor for companies seeking to establish regional headquarters in this region.

As at 31 December 2012, a total of 3,168 regional headquarter (RHQ) projects were approved. In 2012 a total of 111 new

regional establishments were approved with investments of RM2 billion (see Table 19, previous page). These quality investments will create employment opportunities for 1,243 Malaysians at the managerial, professional and technical levels.

# Operational Headquarters (OHQs)

#### AS AT 31 DECEMBER 2012, A TOTAL OF 231

projects relating to operational headquarters (OHQs) were approved with investments of RM3.5 billion. The major OHQ activities undertaken by these companies include the provision of common corporate functions such as finance/accounting, IT, technical support,

R&D services, administration and management, oil & gas-related services as well as business planning and coordination to support their operations in the Asia Pacific region.

Several world-renowned MNCs have established their OHQs in Malaysia. Of the 231 approved OHQs, 22 of the companies are involved in the oil & gas industry. Most companies are from the USA (39), Netherlands and United Kingdom (19 each), Japan and Australia (18 each) and Germany (14). The other 104 OHQs are from other countries, including three from Malaysia. These OHQs have generated a total of 10,828 job opportunities for Malaysians.

In 2012, a total of 14 new OHQs were approved with a combined proposed investment (operating expenditure) of RM1.2 billion (see Table 20). These investments are projected to contribute RM88.2 million to the country's GNI and will create 578 jobs for Malaysians.

Among the major OHQs approved in 2012 is the upgrading of the Regional Office of Freudenberg-Nok ST Malaysia Sdn. Bhd, a

Table 20 New OHQs approved, 2012

COUNTRY	NO. OF PROJECTS
The USA	3
Hong Kong, The United Kingdom, Singapore	2 each
Australia, Japan, France, Belgium, Malaysia	1 each
TOTAL	14

USA-based company that manufactures sealing packages for engines, rubber and plastic components transmissions, electrical and fuel systems, accumulators, magnetic encoders for chassis control systems, brakes and axles. The Group's new OHQ will coordinate the activities of its subsidiaries and related companies operating in Italy, Germany, the USA, Mexico and France and will generate a total of 53 job opportunities for Malaysians, 23 of which will undertake R&D activities for the company.

Japan's NGK Spark Plug Co. Ltd.'s Regional Office in Malaysia has been upgraded to an OHQ under NGK Spark Plugs Malaysia Berhad to provide support services to its related companies in Japan, the USA, Taiwan, Germany and PRC. Bionersis S.A of France has also established its OHQ in Malaysia to serve as a hub for its regional operations through a fullyowned subsidiary, Low Carbon Technology Sdn. Bhd. Bionersis S.A is involved in the production of renewable energies and the reduction of greenhouse gas emissions, and its new OHQ will be provide support services to its offices in Thailand, Indonesia, British Virgin Islands and Vietnam.

Another European company that has come to Malaysian shores is Execujet Aviation Group, a Swiss-based aviation services company. Its local subsidiary Execujet Malaysia Sdn. Bhd. will enable the transfer of technology and development of local talents through specialised training. Inmagine, a global digital stock photography provider for the creative

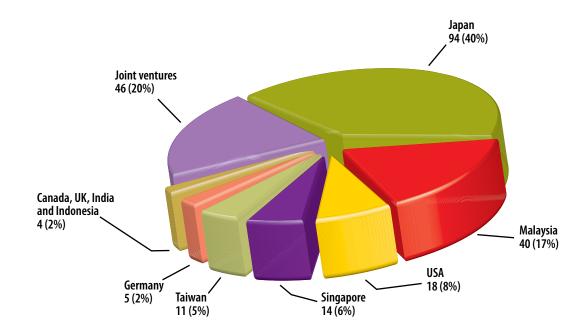


industry, has also identified Malaysia as its base to expand its Asian operations. Its whollyowned subsidiary Inmagine Sdn. Bhd. will act as a co-ordination centre and to provide qualifying services to its related companies in the region.

Spansion (Penang) Sdn. Bhd. has been in Malaysia since 2003 undertaking the manufacturing, development and design of flash memory semiconductors as well as high-performance and high-reliability flash memory solutions for microprocessors, controllers and other programmable semiconductors. Spansion's new OHQ will

serve 21 Spansion subsidiaries worldwide and provide qualifying services that will generate some 261 employment opportunities for Malaysians at executive, technical, senior executive and management levels. The new OHQ of Fosroc Asia Sdn. Bhd., a subsidiary of Fosroc Group, will also provide qualifying services to its related companies in the UK, the UAE, Thailand, the Philippines, Indonesia and Singapore. The company is a world leader in solutions for construction projects, providing high quality products, expert technical support, customer service, innovation and design and specification support.

Graph 38 IPC projects approved, 2012 as at 31 December 2012



# International Procurement Centres (IPCs)

### A TOTAL OF 232 INTERNATIONAL

Procurement Centres (IPCs) have been approved as at 31 December 2012, with a total annual sales turnover estimated at RM73.1 billion. Total investments in these

Table 21 New IPCs approved, 2012

COUNTRY	NO. OF PROJECTS
Japan	4
Malaysia	3
Singapore and Indonesia	1 each
TOTAL	9

IPCs amounted to RM7.2 billion, of which 94 (40%) were by corporations from Japan (see Graph 38). A total of 124 (53.4%) of these IPCs are servicing the E&E industry while the remaining IPCs are servicing other industries such as chemicals/petrochemicals (32%), machinery and industrial parts (18%); textiles (10%), oil and gas (10%) and furniture (8%).

Many IPCs have diversified their activities to include supply chain management for their manufacturing operations in the region.

IPC operations in Malaysia also enhance competitiveness through the establishment of synergistic linkages and integration within manufacturing plants as well as between

common infrastructure and support facilities, making the entire manufacturing process more cost effective and efficient.

A total of nine IPCs were approved in 2012. Of these, three IPCs were approved with incentives involving investments amounting to RM566 million. They contributed RM496.5 million to the GNI and are estimated to result in an annual sales turnover of RM620 million. These IPCs will also create employment opportunities for 300 Malaysians, mainly in the managerial, technical and skilled categories and will procure a total of RM1 billion worth of products from local companies.

Notable IPCs that were approved in 2012 include that of Nifco Manufacturing (Malaysia) Sdn. Bhd., a subsidiary of Nifco Inc. Japan. Nifco has established an IPC to procure raw materials, parts and components for its manufacturing operations and for distributing its finish products in the global market. In addition, home-grown QL Resources Berhad (QLRB) has established its subsidiary QL IPC Sdn.

Bhd. to

consolidate the procurement and distribution activities for the company's export market with an estimated sales turnover of RM334 million by the third year. The QL Group is Asia's largest surimi manufacturer and Malaysia's largest surimi-based and fishmeal product manufacturer.

APM Auto Parts Marketing (Malaysia) Sdn.
Bhd. has one marketing office and 10
manufacturing and marketing offices outside
of Malaysia. A fully-owned subsidiary of APM
Automotive Holdings Berhad, the company's
IPC procures and distributes raw materials,
semi-finished components and finished goods
from related and unrelated entities from within
and outside of the country. The company is
involved in various industries such as logistics,
manufacturing, trade and automotive parts.

## Regional Distribution Centres (RDCs)

# AS AT 31 DECEMBER 2012, A TOTAL OF 29 Regional Distribution Centres (RDCs) were

approved with total investments of RM132.9
million and an expected annual sales
turnover of RM2.7 billion (see
Table 22). A total of 664
employment opportunities
will be created by these
RDCs, 90 per cent of
which will be filled by
Malaysians.

Table 22 New RDCs approved, 2012

COUNTRY	NO. OF PROJECTS
Germany	4
The United Kingdom, Malaysia, the USA and Japan	2 each
The Austria, Netherlands, Switzerland, Belgium, Finland, France, Italy, Ireland, Spain, Denmark, Canada, Hong Kong, Pakistan, Taiwan and India	1 each
Joint ventures with Germany and Japan	1 each
TOTAL	29

# Regional/Representative Offices (REs/ROs)

### A TOTAL OF 870 REGIONAL OFFICES (ROS)

and 1,807 Representative Offices (REs) were approved as at 2012. These REs/ROs were established as a first step into Malaysia to undertake feasibility studies and to coordinate business activities for their parent companies.

Table 23 New REs/ROs approved, 2012

COUNTRY	NO. OF PROJECTS
Japan	12
The People's Republic of China	10
Singapore	9
Republic of Korea	6
Spain and the UK	5 each
Germany, France and Hong Kong	4 each
Ireland, Sweden and Australia	3 each
Norway, Indonesia, Austria, Thailand and the USA	2 each
Belgium, Canada, UAE, Vietnam, Nigeria, Saudi Arabia, Italy, Taiwan and Denmark	1 each
TOTAL	87

In 2012, a total of 29 ROs and 58 REs were approved with total spending of RM144.2 million. These REs/ROs are expected to create employment opportunities for 163 Malaysians. The major approved ROs and REs by country are listed in Table 23.

## Global Operation Hubs

Management nucleus

alaysia is an ideal place to set up a global operations or logistics hub for MNCs and small and medium enterprises due to its strategic location within the ASEAN region as well as its world-class infrastructure, cost efficiency in doing business, excellent banking and financial services, a highly skilled multi-cultural and multi-lingual

professional and technical workforce and a probusiness, investor-friendly government. In 2012, MIDA approved eight projects which propose to make Malaysia a Global Operations Hub for businesses. These projects have substantial investments with significant spin-off effects on the economy.

Among the companies that are establishing a global operations hub in Malaysia is Darden Restaurants, which owns and operates more than 2,000 restaurants and employs 185,000 people worldwide. The Fortune 500 company will make Malaysia its Regional Management Centre (RMC) in Asia Pacific through which it intends to introduce its chain of restaurants into Malaysia and throughout Asia. Through its subsidiary Darden Aquasciences Sdn. Bhd., Darden Restaurants will also invest RM900 million in technology and infrastructure to develop the world's first integrated lobster aquaculture park (iLAP) in Sabah under a RM1.8 billion joint venture with two Malaysian companies. This project will position Malaysia as an important player in the growth of the global market for lobsters, presently valued at RM12 billion.

The Aquaculture hub project will create 14,000 jobs by 2022 covering a wide spectrum of skills ranging from PhD and Masters level scientists and engineers to aquaculture specialists. It will also bring commercial hatchery technology to Malaysia including the country's first broodstock development centre. Darden Restaurant's RMC and Aquaculture projects are expected to contribute RM50.4 million to the country's GNI.

World leader in energy Halliburton also selected Malaysia to be the company's Regional Technical and Business Centre (RTBC) in 2012 ahead of seven other potential locations in five countries. The company serves Halliburton selected
Malaysia to be the
company's Regional
Technical and
Business Centre
(RTBC) ahead of
seven other potential
locations in five
countries.

the upstream oil & gas industry throughout the lifecycle of the reservoir with more than 72,000 employees in approximately 80 countries.

Since first setting up its Malaysian operations in 1977, Halliburton has established a regional headquarters in Kuala Lumpur, a Technical Excellence Centre at Universiti Teknologi PETRONAS (UTP) and a manufacturing plant in Johor with service centres in Kemaman and Labuan. The company has created job opportunities for nearly 1,300 Malaysians.

Halliburton's RTBC will play an integral part in the knowledge transfer, training and creation of more experienced local workers for both the company's business support functions and the technology team. Its establishment in Malaysia will boost the country's profile as a suitable location for other oil & gas players to establish Regional Business Support Centres. This RTBC is expected to create job opportunities for more



than 100 Malaysians in the coming years and to contribute RM50.4 million to the country's GNI.

In January 2012, leading business information service provider IHS opened its third Centre of Excellence (COE) in Malaysia to complement the activities of its other COEs in the Americas and Europe/Middle East/Africa. The company selected Malaysia for the project due to the country's strong economic climate, attractive business environment and highly educated and multi-lingual workforce. IHS's COE provides a broad range of services for delivering exceptional customer experiences, including finance (accounts payable and receivables), customer care, order management (processing,

delivery), purchasing, product development, inside sales and information aggregation and analytics. The company employs over 110 Malaysians and plans to expand its operations by doubling its capacity in 2013 to cater to the high growth of the Asia Pacific region.

Ansell Limited, a global leader in protective solutions, also selected Malaysia as its base for the company's Global Procurement and Trading Centre (GPTC) in 2012. The company designs, develops and manufactures a wide range of surgical examination, industrial and household gloves, protective clothing and condoms. The company's new GPTC will consolidate and maintain its worldwide supply

Box article 8 Malaysia: an ideal business ecosystem for regional and logistic operations

## Global champs

Many companies establish their regional operations in Malaysia ahead of other countries due to the country's business-friendly logistics ecosystem.

#### **Developed Infrastructure**

The greatest advantage Malaysia offers MNCs seeking to establish operations in the region is the country's persistent drive to develop and upgrade its infrastructure. This has earned Malaysia a reputation of having one of the most well developed infrastructures among the industrialising countries of Asia.

### **Network of Highways**

Peninsular Malaysia's network of wellmaintained highways is a boon to regional and logistics operations. By linking major growth centres to seaports and airports throughout the peninsular, they provide an efficient means of transportation for goods within and outside of the country. To complement these highways, a Kuala Lumpur-Bangkok-Kuala Lumpur containerised service known as the ASEAN Rail Express (ARX) has been initiated with the aim of turning it into the Trans-Asia Rail Link that will include Singapore, Vietnam, Cambodia, Lao PDR and Myanmar before ending up in Kunming in the People's Republic of China.

### Seaports

Almost 95 per cent of Malaysia's trade is facilitated by seaports today via the country's seven international ports -Penang Port, Port Klang, Johor Port, Port of Tanjung Pelepas, Kuantan Port and Kemaman Port in Peninsular Malaysia as well as Bintulu Port in Sarawak. Port Klang's central location and the Government's emphasis on making the port a national and regional hub has resulted in an increasing volume of cargo. Nilai Inland Port (NIP) will soon complement Port Klang as the Southern Region Hub for handling containers. The electronic data interchange (EDI) systems in Port Klang, Penang Port and Johor Port also speed up the clearance of cargo through customs.

### **Industrial parks**

Malaysia has over 600 industrial parks developed by State Economic Development Corporations (SEDCs), Regional Development Authorities (RDAs), port authorities, municipalities and private developers.

To meet the increasing demand for industrial land, new industrial parks are constantly being planned, many of which are being developed with environmentally-friendly features in response to the demands of eco-conscious businesses and investors.

# Development of quality and professional talents

Fifteen years ago, many managerial and professional positions were filled by non-Malaysians from various countries for prestigious and high impact value projects. However, many companies now recognise the calibre of local talent and have started grooming them for leadership positions. Malaysia has a distinct advantage over its regional peers in this regard, with its large base of relatively young and well-educated talent. Literacy rates in Malaysia have reached nearly 93 per cent, and more than 50 per cent of graduates come from the fields of social sciences, business and law or science, mathematics and computers.

Most Malaysians are multi-lingual. This is an added advantage in global business since Asian markets present MNCs with large-scale business opportunities and market share. Many oil and gas companies have established their Regional Training Centres (RTCs) in Malaysia with a view of

building expertise and technical specialists, while other MNCs have established Centres of Excellence (COEs) in Malaysia to build their employees' capabilities through the transfer of knowledge and professional training. Through such training, Malaysian talents will become more central in operations.

#### **Political environment**

While the country's stable political, economic and regulatory environment has always been an attractive deciding factor for MNCs investing in Malaysia, the government has also introduced special taxation and financial incentives to further encourage foreign investments into manufacturing related services. The Malaysian government also has actively addressed issues relating to bureaucracy in business-government dealings via the Special Task Force to Facilitate Business (PEMUDAH). Some key initiatives recently coordinated by PEMUDAH are the e-filing system (EFS) to improve the enforcement of contracts as well as the liberalisation of several important services sub-sectors by allowing 100 per cent foreign equity participation in selected sub-sectors. The government is also reviewing its stand on compensations for late refunds of income tax, the reduction in the time bar for tax audits and the cost of logistics.

chain management activities in Malaysia and support 19 manufacturing sites and 26 distribution centres for Ansell worldwide.

Ansell's activities will contribute significantly to Malaysia's GNI and will increase the utilisation of domestic services such as insurance, logistics, utilities, legal, audit, tax consulting as well as the usage of the country's seaports and airports.

Integrated logistics support (ILS) provider
Guper became the owner and operator of the
Nilai Inland Port (NIP) in 2012, a project that
will involve investments of RM48.6 million and
contribute RM34.4 million to the country's
GNI. The port project will enhance Negeri
Sembilan's reputation as a competitive location
for doing business and also complement Port
Klang as the Southern Region Hub for handling
containers.

# Support services

Domestic investors take charge

N 2012, A TOTAL OF 70 SUPPORT services projects were approved with tax incentives by MIDA. Total approved investments in these projects rose by 357 per cent in 2012 to RM3.2 billion compared with RM718.2 million in 2011. The significant increase was due to the many large investments that were approved in renewable energy, energy efficiency and R&D projects.

Domestic investments of RM2.4 billion accounted for the bulk of these investments (75%) while foreign investments of RM772.8 million made up the rest (25%). Investments were most significant in the areas of environmental management activities – of the 70 projects approved, 33 projects (47%) involve energy generation using various renewable resources while 17 projects involved energy conservation (see Table 24). A total of 13,752

Table 24 Approved investments in support services, 2012

PROJECT	NO. OF PROJECTS	INVESTMENT VALUE (RM MIL)
Renewable Energy	33	1,192.1
Energy Efficiency/ Conservation	17	1,009.9
Research & Development (R&D)	9	243.2
Integrated Logistics Services (ILS)	2	160.2
Cold Room / Chain	3	1.6
IC Design	1	76.7
Technical & Vocational Institutes	2	474.2
Others	3	30.1
TOTAL	70	3,188

job opportunities will be created by these new projects in support services.

### Renewable Energy

### **RENEWABLE ENERGY (RE) WAS**

introduced as the fifth fuel by the government in 2001 to address the country's issues on

Table 25 Notable projects approved in 2012 – Renewable energy

PROJECT	INSTALLED CAPACITY (MW)	INVESTMENT VALUE (RM MIL)
Renewable energy plant in Perak to generate electricity from biogas from palm oil mill effluent (POME) to be used for its own consumption as well as to supply to the National Grid under the FiT programme.	12.5	134
Renewable energy plant to generate electricity from oil palm empty fruit bunches (EFBs) in Pahang.	10	125
Solar farm in Perlis to generate electricity to be supplied to the National Grid under the FiT programme.	6.3	123.2

Table 26 Notable projects approved in 2012 – Energy efficiency and conservation

PROJECT	POTENTIAL SAVINGS PER ANNUM (RM)	INVESTMENT VALUE (RM MIL)
An energy efficient air conditioning system, lift system, power optimisation system and electrical system for a telecommunications company.	936,295	440.6
Installation of two inverter air compressors at a manufacturing company located in Shah Alam, Selangor.	76,578	61.3
Replacing a conventional electric air conditioning system with a Thermal Energy Storage (TES) System to increase the production capacity of cold water and cover additional load requirement of office buildings.	59,200,000	N/A

sustainable development. Since then, the government has introduced several initiatives designed to encourage investments into RE in the country, including the Feed-in-Tariff (FiT) Programme. This has led to a sharp increase in the number of approved RE projects in 2012. Increasing environmental awareness and an emphasis on sustainable development under the New Economic Model (NEM) have also contributed to the increasing interest in renewable energy.

Total approved investments in the renewable energy industry nearly tripled in 2012 to RM1.2 billion from RM424.4 million in 2011. Of this total, RM997.6 million came from

Total approved investments in the renewable energy industry nearly tripled in 2012 to RM1.2 billion from RM424.4 million in 2011.

domestic sources (84%) while RM194.5 came from foreign sources (16%). These projects are expected to provide employment

opportunities to 2,199 workers in this subsector.

Almost 90 per cent of the country's renewable energy potential is in biomass and solar energy, so it not surprising that most investments in renewable energy are in these areas. Of the approved investments in 2012, a total of 21 projects (RM464.4 million) will involve the use of solar energy while 12 projects (RM727.7 million) will use biomass and biogas to generate energy.

# Energy Efficiency and Energy Conservation

#### **ENERGY CONSERVATION IS CRUCIAL TO**

preserve the environment and achieve sustainable development. Many companies have begun to realise this and have taken positive steps towards implementing energy



efficiency and energy conservation measures savings millions of ringgit in the process. In addition, several government initiatives have been established to encourage industries to "go green" by using energy efficient equipment and products. Companies can now enjoy tax incentives and exemptions on import duties and sales tax subject to prevailing guidelines.

Numerous industries such as manufacturing, utilities, telecommunications and hotels have shown a strong interest in using energy efficient systems and equipment in their activities. Out of the 17 projects approved in 2012, eight were undertaken by the manufacturing industry while the other nine were in the hospitality, utilities and healthcare industries. The projects were approved with tax incentives to undertake energy efficiency and energy conservation projects involving investments of RM1 billion - a tremendous increase compared to the RM21.9 million recorded in 2011. Domestic investments made up 74 per cent of the total investments approved. These investments are expected to provide 10,391 employment opportunities.

# Research and Development (R&D)

### **R&D ACTIVITIES INCLUDE INDUSTRIAL**

design (product and process development including designing and prototyping) and research services provided by design houses,

contract R&D companies, R&D companies, and approved R&D institutes/research companies.

Nine R&D projects were approved with tax incentives in 2012. Of these, five projects were to undertake contract R&D activities for the healthcare industry and green water technology while the other four projects were for in-house R&D activities. Total investments amounted to RM243.2 million, of which RM157.9 million (65%) came from foreign investors with the other RM85.3 million (35%) from domestic investors. A total of 322 employment opportunities are expected to be created by these investments.

## Integrated Logistics Services (ILS)

### INTEGRATED LOGISTICS SERVICES (ILS)

activities comprise freight forwarding, warehousing, transportation and other related value-added services such as distribution, procurement and supply chain management. To encourage investment in these areas, approved ILS companies are currently offered an option to either become a Pioneer Status (PS) company or to enjoy incentives under the Investment Tax Allowance (ITA) scheme. These incentives are designed to create an efficient and competitive logistics industry while encouraging the integration and consolidation of the various transport intermediaries along the logistics supply chain in Malaysia.

The incentive also encourages Malaysian companies to expand and venture into higher value-added services to enable them to compete globally.

To date, a total of 33 companies with investments valued at RM2.6 billion have been granted these incentives. Of these companies, seven were investing in new projects and 26 were investing expansion projects. In 2012, two companies were approved ILS incentives for their project expansion with total investments of RM160.2 million. Of note is the expansion of GD Express Sdn. Bhd. (GDEX), a courier company that operates over 103 stops across Malaysia as well as international networks. The company has invested more than RM9 million to upgrade its hub infrastructure, technical processes, trucks, regional branches and warehouse facilities. With the ILS status, GDEX will now act as an integrated logistics hub for its group and provide value-added activities such as packing, distribution and software development. The expansion project will incur investments of RM26 million.

# MSC Status companies

IN 2012, A TOTAL OF 213 COMPANIES WERE granted the MSC Status with approved investments amounting to RM2.9 billion.

Domestic investments amounted to RM2.2 billion (75.9%) while foreign investments

totalled RM703.6 million (24.1%). A total of 15,376 employment opportunities are expected to be created by these new MSC companies. In 2011, a total of 215 companies were awarded MSC Status with approved investments amounting to RM2.5 billion.

In 2012, approved investments in this subsector were valued at RM12.6 billion, all of which were domestic. This is more than double the amount recorded in 2011 (RM6.1 billion). The sub-sector remains a major contributor to investments in the services sector.

# Real Estate (Housing)

#### **REAL ESTATE COVERS THE HOUSING**

industry (excluding commercial buildings) in Malaysia. In 2012, a total of 1,704 real estate projects were approved with total investments amounting to RM58.8 billion, more than triple the amount of approved in 2011 (RM17.3 billion for 1,422 projects). Domestic investments accounted for 97.7 per cent (RM57.4 billion) of this total.

### **Utilities**

#### THE UTILITIES SUB-SECTOR INCLUDES THE

generation, transmission and distribution of energy and water. It encompasses both independent power producers (IPPs) as well as government-linked producers such as Tenaga Nasional Berhad (TNB), Syarikat SESCO Bhd. (SESCO) and Sabah Electricity Sdn. Bhd. (SESB). Water services are managed by Suruhanjaya Perkhidmatan Air Negara (SPAN) and Pengurusan Aset Air Berhad (PAAB).

### Hotels and Tourism

### A TOTAL OF 79 PROJECTS WERE APPROVED

in 2012 with total investments of RM8.9 billion in the hotels and tourism sub-sector. Domestic investments totalled RM8.6 billion (96.6%), while foreign investments amounted to RM320.6 million (3.4%). In comparison, investments approved in the hotels and tourism sub-sector for the whole of 2011 amounted to RM1.9 billion, most of them being domestic investments.

## Transport

### THE TRANSPORT SUB-SECTOR COVERS

maritime transport, aviation, and highway construction and maintenance. In 2012, a total of 60 projects were approved with investments of RM6.8 billion. Domestic investments amounted to RM6.6 billion (97.1%) and foreign investments totalled RM231.5 million (2.9%). In comparison, investments approved in the transport sub-sector in 2011 amounted to RM11.7 billion.

The investments approved in 2012 were mainly in the maritime sub-sector with 13 projects valued at RM3.5 billion. The other 45 approved projects were in the aviation sub-sector with investments amounting to RM3 billion.

**Telecommunications** 

### THE TELECOMMUNICATIONS SUB-SECTOR

covers network facilities, network services, application services (including content application services), post and broadcasting.

In 2012, total investments in this subsector amounted to RM6.6 billion, all of which were domestic investments. In comparison, investments approved in the telecommunications sub-sector in 2011 amounted to RM9.1 billion.

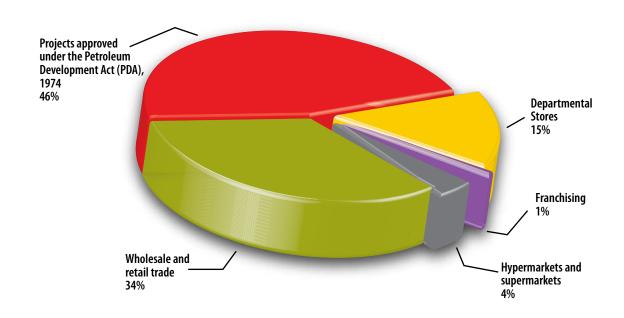
### Distributive Trade

#### THE DISTRIBUTIVE TRADE SUB-SECTOR

covers wholesale and retail trade; hypermarkets/supermarkets, department stores and direct selling; franchising; and projects approved under the Petroleum Development Act (PDA), 1974.

In 2012, a total of 2,676 projects were approved in this sub-sector with investments of RM4.9 billion (see Graph 39). Domestic investments totalled RM2.9 billion (59.2%), while foreign investments amounted to RM2 billion (40.8%).





### **Financial Services**

### **INVESTMENTS IN FINANCIAL SERVICES**

cover banking, insurance and capital markets (venture capital, fund management, investment advisory and brokerage).

In 2012, a total of 55 projects were approved in the financial services sub-sector with investments of RM4.5 billion. Domestic investments amounted to RM3.7 billion (82.2%) while foreign investments totalled RM831.4 million (17.8%). Banking attracted the largest amount of investments in this sub-sector (RM3.2 billion or 66.7%) followed by insurance (RM1.2 billion). Investments in Islamic banking amounted to RM1.7 billion.

### **Education Services**

### **EDUCATION SERVICES COVER PRIVATE**

colleges/universities, private education institutions and skills centres. A total of 485 projects were approved for the establishment

of educational institutions in 2012 involving investments of RM936.6 million. Domestic investments amounted to RM910.3 million (97%) while foreign investments totalled RM26.3 million (3%).

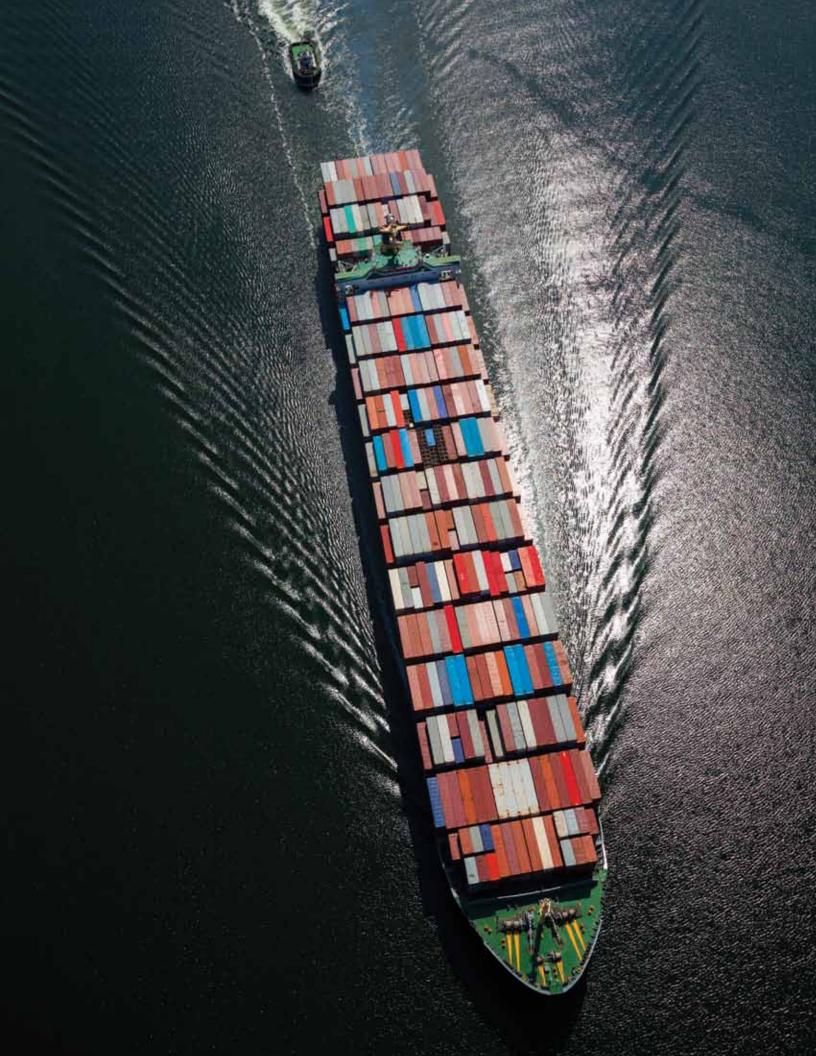
Table 27 Investments in education services, 2012.

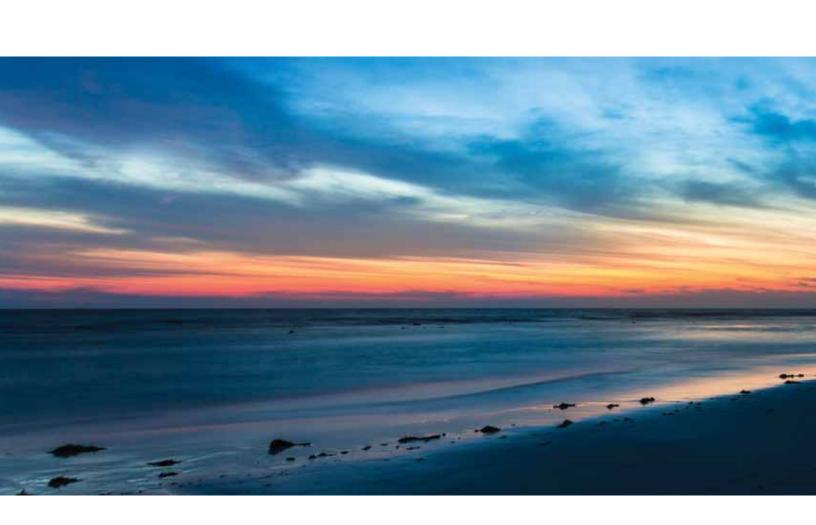
TYPE OF INSTITUTION	NO. OF PROJECTS	INVESTMENT VALUE (RM MIL)
Private colleges/ universities.	24	795.8
Private education institutions	425	95.8
Skilled centres	36	45
TOTAL	485	936.6

### Health Services

# **HEALTH SERVICES COVER BOTH PRIVATE** hospitals and clinics.

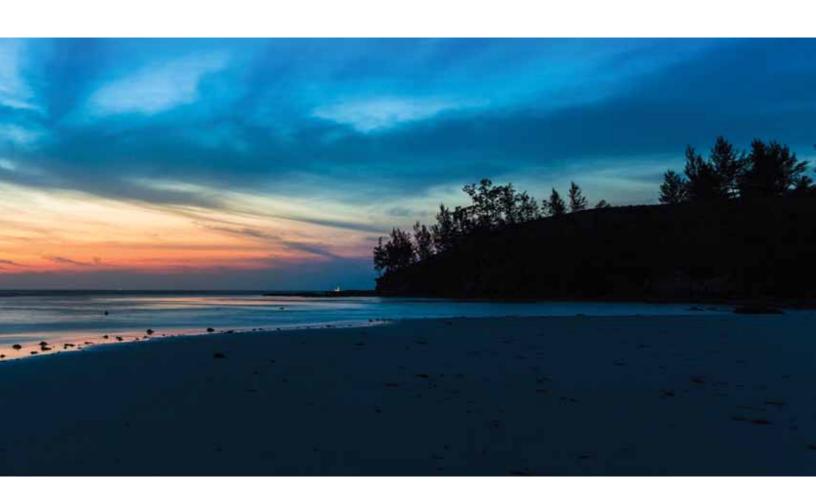
In 2012, approvals were granted to six private hospitals or clinics involving investments of RM340 million, all of which were domestic investments.







Challenges and opportunities in the year ahead





Foreign investment
will always be an
important part
of the country's
aspirations,
but domestic
investment is the
key to Malaysia's
transformation
plans.

he country's
economic
fundamentals
remain strong
despite challenging
global economic conditions.
Based on UNCTAD's
preliminary figures on
global FDI flows released on
23 January 2013, global FDI

inflows declined by 18 per cent in 2012 to an estimated US\$1.3 trillion – a level close to the trough reached in 2009 – due mainly to macroeconomic fragility and policy uncertainty for investors. FDI flows to developing economies remained relatively resilient in 2012, reaching US\$680 billion, the second highest level ever recorded. UNCTAD has projected that FDI inflows could rise moderately to US\$1.4 trillion in 2013 and US\$1.6 trillion in 2014 as the global economy makes a hesitant if uneven recovery over the next two years.

Juxtaposed against the challenging global environment in 2012, Malaysia still managed to attract a considerable level of total approved investments amounting to RM162.4 billion in the manufacturing, services and primary sectors compared with RM154.6 billion in 2011. Domestic investments constituted the bulk of investments amounting to RM127.6 billion (78%), while foreign investments totalled RM34.8 billion (22%) of investments approved in 2012.

Moving forward, Malaysia will face numerous challenges posed by both external and domestic factors. On the external front, world economic growth has been forecasted to grow by 3.5 per cent in 2013 by the IMF in view of the deteriorating prospects in both the advanced and developing economies. The stalled growth in the US economy and the on-going European sovereign debt crisis are expected to have spill over effects over most trading nations in Asia, including Malaysia.

Despite the challenging global environment,
Malaysia attracted total approved investments of RM162.4 billion in 2012.

The country's economy will also be influenced by recent developments that could impact investment decisions such as the minimum wage and retirement policies, the progressive removal of subsidies on utilities as well as the proposed Goods and Services Tax (GST).

Considering global and regional macroeconomic and societal developments, the Government has decided to undertake an eco-system approach to promote private investments in the economy. MIDA will assume a pivotal role in bridging the human capital needs of individual potential investors and leverage new competitive advantages for Malaysia as it targets niche products, technologies and services to fill gaps throughout the economic value chain.

In addition, focus will be given to mega trends and the development of technologically advanced target products and applications such as artificial intelligence, robotics, 3D



printing and smarter and flexible production technology.

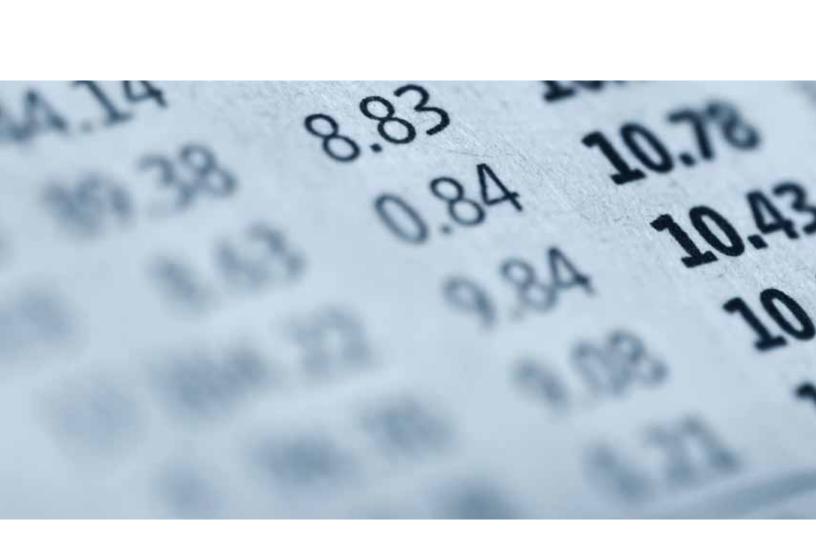
Besides targeting new and re-investments, MIDA will also intensify collaborations with relevant agencies in the areas of human capital, infrastructure, utilities and R&D to enhance investment activity in Malaysia. The Government has introduced several strategies to accelerate investments including liberalising some of the services sub-sectors, enhancing private public sector collaboration, spurring regional development and developing niche growth areas. The implementation of these measures and the continued implementation

of the ETP and 10th Malaysia Plan is expected to enhance the inflows of investments in 2013 and beyond.

While efforts to boost FDI inflows into Malaysia intensify, the outlook for domestic investments remains positive. The strategic initiatives introduced in July 2012 were a timely boost to domestic investment as funds and incentives were made available for investors in selected areas and activities. Moving forward, MIDA will redouble its efforts to mobilise domestic direct investments through various means such as harnessing and leveraging outsourcing opportunities, upgrading capacities and

improving the innovative capabilities of domestic companies through R&D and human capital development. MIDA will also encourage the acquisition of technology and international standards and promote the commercialisation of R&D findings, particularly those that leverage local resources.

Malaysia was ranked the 12th most businessfriendly country in the world by the World Bank in its Doing Business Report 2013 ahead of Germany (20th), Japan (24th) and Switzerland (28th). This is the country's highest position ever since the World Bank and the International Finance Corporation began compiling the annual ranking in 2005. Malaysia was also ranked as the 25th most competitive nation in the world by the World Economic Forum in its Global Competitiveness Report 2012-2013, which also recognised that the country has advanced from being an efficiency-driven economy to an innovation-driven economy. These achievements demonstrate Malaysia's progress towards becoming a developed nation and will certainly enhance Malaysia's efforts in attracting global FDI.







Appendix 1 Approved manufacturing projects, 2012 and 2011

	NEW	M	EXPANSION/ DI	XPANSION/ DIVERSIFICATION	10	TOTAL
	2011	2012	2012	2011	2012	2011
Number	473	512	331	334	804	846
Potential employment	42,522	56,758	34,109	43,775	76,631	100,533
Total Proposed Capital Investment (RM million)	26,837.4	33,096.0	14,215.0	22,990.8	41,052.4	56,086.8
Local (RM million)	14,210.2	12,930.3	5,996.8	9.700,6	20,207.0	21,937.9
Foreign (RM million)	12,627.2	20,165.7	8,218.2	13,983.2	20,845.4	34,148.9

Appendix 2 New manufacturing projects approved by size of capital investment, 2012 and 2011

		2	2012			7	2011	
Size of Capital Investment	Number	Domestic Investment (RM million)	Foreign Investment (RM million)	Total Capital Investment (RM million)	Number	Domestic Investment (RM million)	Foreign Investment (RM million)	Total Capital Investment (RM million)
Less Than RM 2.5 million	71	74.0	20.2	94.2	95	106.8	14.0	120.8
RM 2.5 million - <rm 5.0="" million<="" td=""><td>77</td><td>209.0</td><td>56.8</td><td>265.8</td><td>96</td><td>269.8</td><td>74.9</td><td>344.7</td></rm>	77	209.0	56.8	265.8	96	269.8	74.9	344.7
RM 5.0 million - <rm 10.0="" million<="" td=""><td>94</td><td>514.6</td><td>162.8</td><td>677.4</td><td>111</td><td>599.1</td><td>198.5</td><td>9.767</td></rm>	94	514.6	162.8	677.4	111	599.1	198.5	9.767
RM 10.0 million - <rm 50.0="" million<="" td=""><td>165</td><td>2,181.4</td><td>1,466.7</td><td>3,648.1</td><td>142</td><td>1,765.1</td><td>986.5</td><td>2,751.6</td></rm>	165	2,181.4	1,466.7	3,648.1	142	1,765.1	986.5	2,751.6
RM 50.0 million- <rm 100.0="" million<="" td=""><td>31</td><td>1,208.6</td><td>824.9</td><td>2,033.5</td><td>21</td><td>675.3</td><td>812.1</td><td>1,487.4</td></rm>	31	1,208.6	824.9	2,033.5	21	675.3	812.1	1,487.4
RM 100.0 million - <rm 500.0="" million<="" td=""><td>23</td><td>1,248.0</td><td>3,260.2</td><td>4,508.2</td><td>33</td><td>3,291.7</td><td>3,401.4</td><td>6,693.1</td></rm>	23	1,248.0	3,260.2	4,508.2	33	3,291.7	3,401.4	6,693.1
RM 500.0 million - <rm 1.0="" billion<="" td=""><td>9</td><td>9.569</td><td>3,699.2</td><td>4,394.8</td><td>7</td><td>2,411.3</td><td>2,286.5</td><td>4,697.8</td></rm>	9	9.569	3,699.2	4,394.8	7	2,411.3	2,286.5	4,697.8
RM 1.0 billion & Above	9	8,078.9	3,136.5	11,215.4	7	3,811.2	12,391.8	16,203.0
TOTAL	473	14,210.1	12,627.3	26,837.4	512	12,930.3	20,165.7	33,096.0

56,086.8

34,148.9

21,937.9

100,533

846

41,052.4

20,845.4

20,207.0

76,631

804

Miscellaneous

TOTAL

5.7

179.2

77.7

101.5

1,531

7

Foreign Investment (RM million) 3,220.6 1,066.3 2,567.9 1,464.0 3,587.4 18,703.7 RM million) Investment 2011 Domestic 4,911.8 1,729.5 1,712.8 1,125.9 1,099.5 1,357.7 6,329.3 492.8 538.3 619.8 394.7 214.9 55.0 910.7 251.5 78.1 Number | Employment 42,688 1,616 2,976 6,653 5,438 3,936 4,248 4,153 3,032 2,100 1,852 1,356 3,194 5,479 149 405 69 129 15 38 64 74 74 19 63 = 37 25 45 9 4 Total Capital Investment (RM million) 7,780.6 6,437.5 6,037.4 3,986.7 3,399.5 1,850.1 1,350.3 1,229.5 1,109.0 3,793.1 915.5 871.6 631.9 395.6 347.6 407.4 Foreign Investment (RM million) 1,848.7 5,671.2 1,376.8 3,252.0 1,934.0 1,118.0 1,243.1 605.4 707.3 597.4 310.0 328.0 149.8 220.6 177.1 0.3 Domestic Investment (RM million) 2012 5,931.9 4,660.6 1,859.1 2,281.4 766.3 607.0 321.9 143.0 126.9 734.7 401.7 738.4 274.2 257.6 314.3 131.7 624.1 15.6 **Employment** 2,740 1,274 2,414 6,218 3,910 1,674 1,638 5,316 4,129 7,062 5,125 1,991 1,126 1,071 807 Number 16 27 21 31 85 14 67 84 20 61 57 34 4 Scientific & Measuring Equipment Electrical & Electronic Products Chemical & Chemical Products Non-Metallic Mineral Products Leather and Leather Products Paper, Printing & Publishing **Fabricated Metal Products Fextiles & Textile Products** Petroleum Products (Inc. Machinery & Equipment Wood & Wood Products **Transport Equipment Basic Metal Products** Beverages & Tobacco Food Manufacturing Furniture & Fixtures Rubber Products Plastic Products Petrochemicals) Industry

Appendix 3 Approved manufacturing projects by industry, 2012 and 2011

Total Capital Investment (RM million)

20,061.4

9,916.7

3,693.8

744.2 629.5

251.4

1,424.5

804.7

665.7 434.5 533.6

271.0 356.4 318.7 2,563.5

291.1 994.0 306.1 39.5

236.1

54.6

4,950.1 2,681.2

968.5

5,978.1

Appendix 4 Approved manufacturing projects with investments of RM100 million and above, 2012

			NEW			EXPANSION/D	EXPANSION/DIVERSIFICATION	NO		1	TOTAL	
Industry	Number	Domestic Investment (RM million)	Foreign Investment (RM million)	Total Capital Investment (RM million)	Number	Domestic Investment (RM million)	Foreign Investment (RM million)	Total Capital Investment (RM million)	Number	Domestic Investment (RM million)	Foreign Investment (RM million)	Total Capital Investment (RM million)
Transport Equipment	∞	3,463.3	1,271.9	4,735.2	9	1,225.2	388.4	1,613.6	14	4,688.5	1,660.3	6,348.8
Petroleum Products (incl Petrochemicals)	3	4,500.0	1,166.4	5,666.4	-	102.5	ı	102.5	4	4,602.5	1,166.4	5,768.9
Chemicals & Chemical Products	5	153.6	1,934.2	2,087.8	4	197.9	3,017.2	3,215.1	6	351.5	4,951.4	5,302.9
Basic Metal Products	9	997.1	1,824.8	2,821.9	2	351.0	ı	351.0	∞	1,348.1	1,824.8	3,172.9
Electrical & Electronic Products	2	1	1,722.8	1,722.8	9	ı	730.0	730.0	∞	1	2,452.8	2,452.8
Food Manufacturing	-	111.5	42.5	154.0	10	1,265.2	476.5	1,741.7	=	1,376.7	519.0	1,895.7
Rubber Products	<b>-</b>	ı	891.9	891.9	_	ı	128.1	128.1	7	ı	1,020.0	1,020.0
Scientific & Measuring Equipment	2	695.6	106.0	801.6	ı	ı	ı	ı	2	695.6	106.0	801.6
Machinery & Equipment	æ	1	496.6	496.6	-	ı	173.1	173.1	4	ı	2.699	2.699
Paper, Printing and Publishing	<b>.</b>	ı	193.0	193.0	2	37.2	278.9	316.1	m	37.2	471.9	509.1
Plastic Products	-	ı	287.8	287.8	-	ı	141.6	141.6	7	ı	479.4	429.4
Beverages & Tobacco	ı	ı	ı	ı	7	84.8	220.6	305.4	7	84.8	220.6	305.4
Fabricated Metal Products	<del></del>	ı	114.5	114.5	-	112.9	9.2	122.1	2	112.9	123.7	236.6
Textiles & Textile Products	ı	ı	ı	1	-	ı	182.3	182.3	-	ı	182.3	182.3
Non Metallic Mineral Products	<del>-</del>	101.5	43.5	145.0	ı	1	1	1	-	101.5	43.5	145.0
TOTAL	35	10,022.5	10,095.9	20,118.4	38	3,376.7	5,745.9	9,122.6	73	13,399.2	15,841.8	29,241.0

Appendix 5 Approved new and expansion/diversification manufacturing projects by industry, 2012 and 2011

			14	2012					7	2011		
		New	EX	Exp./Div.		lotal		New	Ex	Exp./Div.		[otal
Industry	Number	Total Capital Investment (RM million)										
Transport Equipment	48	2,605.7	37	2,174.9	85	7,780.6	58	2,034.4	25	3,943.8	110	5,978.1
Chemical & Chemical Products	37	2,678.3	36	3,759.1	73	6,437.5	32	3,452.7	37	1,497.3	69	4,950.1
Petroleum Products (Inc. Petrochemicals)	8	5,812.5	9	225.0	14	6,037.4	5	124.5	10	2,556.7	15	2,681.2
Electrical & Electronic Products	49	2,546.1	63	1,440.6	112	3,986.6	92	11,233.7	73	8,827.7	129	20,061.4
Basic Metal Products	79	3,261.7	11	531.4	37	3,793.1	22	7,308.6	16	2,608.1	38	9,916.7
Food Manufacturing	30	2092	37	2,638.7	29	3,399.5	20	2,795.8	14	898.0	49	3,693.8
Machinery & Equipment	61	1,302.3	23	547.8	8	1,850.1	4	360.3	30	383.9	74	744.2
Rubber Products	7	992.9	13	357.4	70	1,350.3	=	197.8	∞	431.7	19	629.5
Fabricated Metal Products	38	542.2	23	687.3	19	1,229.5	51	1,098.0	12	326.4	63	1,424.5
Plastic Products	31	604.4	76	504.6	27	1,109.0	32	465.9	23	199.8	55	665.7
Scientific & Measuring Equipment	6	884.2	7	31.3	16	915.5	5	178.6	9	255.9	11	434.5
Paper, Printing & Publishing	18	528.2	6	343.4	77	871.6	22	175.6	15	358.0	37	533.6
Non-Metallic Mineral Products	6	402.6	12	229.3	71	631.9	15	2,318.5	10	245.0	25	2,563.5
Textiles & Textile Products	23	233.9	8	237.1	31	471.0	8	59.8	9	231.3	14	291.1
Wood & Wood Products	25	385.0	6	22.4	34	407.4	36	882.2	6	111.8	45	994.0
Furniture & Fixtures	47	248.9	9	146.7	53	395.6	51	231.1	6	75.0	09	306.1
Beverages & Tobacco	_	11.0	3	336.6	4	347.6	3	39.5	-	ı	4	39.5
Leather and Leather Products	7	14.2	_	1.7	3	15.9	I	ı	I	ı	1	1
Miscellaneous	4	22.4	-	ı	5	22.4	=	138.9	3	40.3	14	179.2
TOTAL	473	26,837.4	331	14,215.0	804	41,052.4	512	33,096.0	334	22,990.8	846	56,086.8

Appendix 6 Approved manufacturing projects with Malaysian majority $^{st}$  ownership by industry, 2012 and 2011

				2012					7	2011		
		New	Exi	Exp./Div.		otal		New	Ext	Exp./Div.		otal
Industry	Number	Total Capital Investment (RM million)										
Transport Equipment	40	4,436.7	32	1,677.0	72	6,113.7	20	1,250.6	43	3,574.7	93	4,825.3
Petroleum Products (Incl.Petrochemicals)	3	4,519.4	3	134.5	9	4,653.9	3	50.6	4	1,354.0	7	1,374.6
Food Manufacturing	77	625.7	23	1,892.7	20	2,518.4	38	1,039.0	m	39.9	41	1,079.0
Basic Metal Products	21	1,838.7	1	531.4	32	2,370.1	13	5,411.9	12	1,503.3	25	6,915.2
Electrical & Electronic Products	32	599.9	17	165.6	46	765.5	31	1,265.9	21	301.9	25	1,567.8
Scientific & Measuring Equipment	5	710.6	7	27.8	7	738.4	8	22.1	3	45.8	9	6.79
Chemical & Chemical Products	70	380.8	17	344.8	37	725.6	25	886.3	23	918.3	48	1,804.6
Fabricated Metal Products	76	251.1	12	384.8	38	635.8	36	570.2	9	95.2	42	665.4
Machinery & Equipment	32	345.1	16	7.77.2	48	622.8	31	219.4	16	284.4	47	503.8
Non–Metallic Mineral Products	9	257.8	∞	135.3	14	393.1	8	1,089.2	4	9.6	12	1,098.8
Plastic Products	19	237.5	16	130.4	35	367.9	25	263.2	6	9.79	34	330.8
Furniture & Fixtures	43	224.6	4	122.5	47	347.1	46	199.1	8	53.8	54	252.9
Wood & Wood Products	18	252.1	6	22.4	27	274.5	30	846.9	8	84.4	38	931.3
Paper, Printing & Publishing	12	197.5	9	25.0	18	222.4	14	110.2	7	110.3	21	220.5
Textiles & Textile Products	19	156.4	4	12.3	23	168.7	4	21.9	3	30.1	7	52.0
Rubber Products	4	22.4	9	121.3	10	143.6	∞	130.5	7	430.4	15	560.9
Beverages & Tobacco	-	11.0	-	31.2	2	42.2	_	5.0	_	* *	7	5.0
Leather & Leather Products	7	14.2	-	1.7	3	15.9	I	ı	ı	ı	1	ı
Miscellaneous	3	17.1	ſ	ı	3	17.1	7	98.7	ı	ı	7	98.7
ТОТАГ	333	15,098.6	188	6,038.0	521	21,136.6	373	13,450.7	178	8,903.6	551	22,354.3

\*\* Projects with Malaysian equity ownership of more than 50 per cent.

<sup>\*\*</sup> Expansion/diversification projects with no additional called-up capital.

Appendix 7 Approved projects in the engineering supporting industry by sub-sector, 2012

			NEW			EXPANSION/DIVERSIFI	NVERSIFICATION	NO			TOTAL	
Sub-Sector	Number	Number Domestic Investment (RM million)	Foreign Investment (RM million)	Total Capital Investment (RM million)	Number	Domestic Investment (RM million)	Foreign Investment (RM million)	Total Capital Investment (RM million)	Number	Domestic Investment (RM million)	Foreign Investment (RM million)	Total Capital Investment (RM million)
Moulds, Tools & Dies	∞	44.7	43.0	87.7	٣	10.0	87.6	97.6	Ξ	54.7	130.6	185.3
Machining	13	56.5	62.7	118.7	7	2.7	118.4	121.1	70	59.2	180.6	239.8
Stamping	3	6.1	0.0	6.1	7	1.5	24.4	25.9	5	9.7	24.4	32.0
Casting	2	68.4	5.6	71.0	2	42.3	0.1	42.4	4	110.7	2.7	113.4
Surface Engineering	4	32.7	34.8	67.5	1			0.0	4	32.7	34.8	67.5
Heat Treatment	2	1.4	1.6	3.0	1	1		0.0	7	1.4	1.6	3.0
Jigs & Fixtures	ı	ı	1	•	_	-	0.3	0.3	-	0.0	0.3	0.3
TOTAL	32	209.8	144.2	354.0	15	56.5	230.8	287.3	47	266.3	375.0	641.3

Appendix 8 Approved projects in electrical & electronics industry by sub-sector, 2012

			NEW			EXPANSION/D	EXPANSION/DIVERSIFICATION	NC		T	TOTAL	
Sub-Sector	Number	Number Domestic Investment (RM million)	Foreign Investment (RM million)	Total Capital Investment (RM million)	Number	Domestic Investment (RM million)	Foreign Investment (RM million)	Total Capital Investment (RM million)	Number	Domestic Investment (RM million)	Foreign Investment (RM million)	Total Capital Investment (RM million)
Consumer Electronics	2	1	558.7	558.7	5	3.0	207.1	210.1	<b>∞</b>	3.0	765.8	768.8
Electronic Components	12	147.3	100.6	247.9	19	8.3	823.2	831.5	31	155.6	923.8	1,079.4
Industrial Electronics	4	101.3	18.0	119.3	14	12.7	193.3	206.0	8	114.0	211.3	325.3
Electrical Products	30	324.1	1,296.1	1,620.2	25	137.9	55.0	192.9	55	462.0	1,351.1	1,813.1
TOTAL	49	572.7	1,973.4	2,546.1	63	161.9	1,278.6	1,440.5	112	734.6	3,252.0	3,986.6

Appendix 9 Manufacturing projects approved with foreign participation by source, 2012 and 2011

		2012		2011
COUNTRY	Number	Foreign Investment (RM)	Number	Foreign Investment (RM)
Japan	62	2,792,900,107	77	10,101,843,184
Saudi Arabia	2	2,648,021,433	1	2,170,930,000
Singapore	109	2,214,565,561	88	2,477,713,827
China	23	1,977,802,063	20	1,194,224,823
Korea, Rep.	17	1,636,972,599	10	5,185,122,961
France	7	1,436,231,317	5	177,455,180
Norway	2	1,141,520,001	_	7,800,000
India	12	903,232,183	5	247,558,022
Netherlands	18	834,759,905	14	1,010,043,358
Germany	15	693,342,814	13	1,951,184,609
United Kingdom	10	611,126,863	11	240,673,279
Switzerland	7	495,286,625	5	353,530,245
Thailand	=	445,947,652	3	241,533,800
USA	16	295,779,636	21	2,508,973,082
Denmark	3	222,335,953	2	156,709,783
British Virgin Islands	8	185,625,815	3	15,323,374
Taiwan	13	171,590,970	23	1,394,403,650
Sri Lanka	<b>-</b>	168,735,000	ı	1
Hong Kong	7	90,888,472	10	394,929,855
United Arab Emirates	3	88,100,000	ı	ı
Others	124	1,790,683,408	129	4,318,914,381
ТОТАГ	* *	20,845,448,377	**	34,148,867,413

\*\*\* Figures are not totalled to avoid double counting

Appendix 10 Approved manufacturing projects by state, 2012 and 2011

			3	2012					3	2011		
		New	Ex	Exp./Div.		[otal		New	Ex	Exp./Div.		otal
STATE	Number	Total Capital Investment (RM million)	Number	Total Capital Investment (RM million)	Number	Total Capital Investment (RM million)	Number	Total Capital Investment (RM million)	Number	Total Capital Investment (RM million)	Number	Total Capital Investment (RM million)
Selangor D.E.	156	8,144.7	96	3,590.1	252	11,734.8	171	4,383.8	92	4,357.4	263	8,741.1
Johor D.T.	107	2,843.8	77	2,692.0	184	5,535.8	104	2,854.9	84	3,729.7	188	6,584.6
Sabah	22	4,857.0	<b>∞</b>	177.3	30	5,034.3	70	845.8	7	75.6	77	921.4
Sarawak	19	1,352.5	15	3,375.8	34	4,728.3	59	8,172.0	14	281.3	43	8,453.3
Negeri Sembilan D.K.	19	2,012.2	21	717.8	40	2,730.1	24	4,610.8	14	1,294.6	38	5,905.4
Penang	71	1,799.9	44	671.5	115	2,471.5	61	4,487.2	48	4,618.8	109	9,106.0
Terengganu D.I.	5	2,070.2	9	340.8	1	2,411.0	7	57.0	8	1,335.7	15	1,392.7
Perak D.R.	22	1,244.8	27	1,036.2	49	2,281.0	70	843.3	10	141.6	30	984.9
Pahang D.M.	10	1,896.3	9	194.9	16	2,091.1	1	1,220.8	14	1,817.2	25	3,038.0
Melaka	12	96.4	14	956.3	97	1,052.6	22	639.9	17	3,723.9	39	4,363.8
Kedah D.A.	70	396.0	Ξ	193.0	31	589.0	24	4,702.6	18	1,433.4	42	6,136.0
F.T Kuala Lumpur	∞	119.5	3	133.1	Ξ	252.6	15	174.7	4	133.0	19	307.7
Kelantan D.N.	7	4.1	2	111.0	4	115.1	-	80.0	4	48.6	5	128.6
F.T Labuan	1		_	25.2	-	25.2		,	1	1	,	
Perlis I.K.	1	,	ı	,	1		3	23.3	1	-	3	23.3
TOTAL	473	26,837.4	331	14,215.0	804	41,052.4	512	33,096.0	334	22,990.8	846	56,086.8



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