



# **MALAYSIA**

## **INVESTMENT PERFORMANCE**

### **2011**



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# **MALAYSIA**

## **INVESTMENT PERFORMANCE**

# **2011**

**February 2012**

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# 1

## INTRODUCTION

The Malaysian economy continued to expand despite the more challenging external environment. The real Gross Domestic Product (GDP) recorded a growth of 5.1 per cent in 2011<sup>1</sup>.

Despite the challenging environment, the Malaysian economy registered a higher growth due to stronger domestic demand. The robust domestic demand was driven by an expansion in both household and business spending as well as higher public sector expenditure.

Meanwhile, on the supply side, manufacturing sector recorded a significantly better performance supported by strong output of construction-related materials and resource-based industries. In tandem with robust private consumption, the services sector is envisaged to grow strongly led by trade, transport and finance sub-sectors.

## MANUFACTURING

Manufacturing continued to be an important sector in the economy contributing 27.5 per cent of GDP in 2011. Value-added of the manufacturing

sector expanded by 4.5 per cent.

Exports of manufactured products accounted for 67.7 per cent of Malaysia's total exports in 2011. It increased by 2 per cent to RM470.3 billion in 2011 from RM461 billion in 2010. Employment in the manufacturing sector was estimated at 3.5 million persons or 28.7 per cent of total employment in 2011<sup>2</sup>.

The improved performance of the manufacturing sector was also reflected in the expansion of the sector's industrial output (as measured by the industrial production index), sales value and productivity. The production index and sales value of the sector expanded by 4.7 per cent and 10 per cent respectively in 2011 compared with 2010. Productivity in the sector, as measured by sales value per employee recorded a growth of 9.6 per cent<sup>3</sup> in 2011.

## SERVICES

The services sector encompasses broad and diverse activities such as transport; telecommunications;

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<sup>1</sup> Department of Statistics

<sup>2</sup> Economic Report 2011/2012, Ministry of Finance, Malaysia

<sup>3</sup> Malaysia Productivity Corporation

financial services (banking, insurance and capital markets); real estate; business and professional services; utilities; distributive trade; hotels and tourism; education and health services.

The services sector accounted for the largest share of Malaysia's GDP. In 2011, the sector contributed 58.6 per cent to the GDP. The services sector recorded a growth rate of 6.8 per cent in value-added for the same period. Employment in the services sector was estimated at 6.5 million persons or 53.3 per cent of total employment in 2011<sup>2</sup>. The productivity of the services sector expanded by 4.3 per cent in 2011<sup>3</sup> led by the communication; utilities; and transport and storage sub-sectors which grew by 6.8 per cent, 5.5 per cent and 5.4 per cent respectively.

## **PRIMARY**

The agriculture sector recorded a growth rate of 5.6 per cent in 2011. The sector contributed 7.3 per cent to the GDP. Employment in the agriculture sector was estimated at 1.4 million persons or 11.5 per cent of total employment in 2011<sup>2</sup>.

The mining and quarrying sector recorded a decline of 5.7 per cent in 2011. It contributed 6.3 percent to the GDP. Employment in this sector was estimated at 42,000 persons of total employment in 2011<sup>2</sup>.



# 2 GLOBAL INVESTMENT SCENARIO

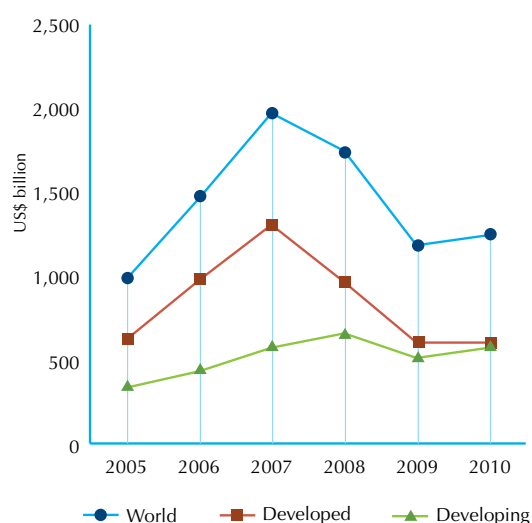
# 2

## GLOBAL INVESTMENT SCENARIO

### FDI INFLOWS

Global foreign direct investment (FDI)<sup>4</sup> inflows in 2010 increased moderately by 5 per cent to US\$1.24 trillion from US\$1.18 trillion in 2009, according to the World Investment Report 2011 by the United Nations Conference on Trade and Development (UNCTAD). For the first time, developing and transition economies attracted more than half of global FDI inflows whereas FDI inflows to developed economies continued to decline.

**Graph 1**  
**FDI Inflows by Economies, 2005 - 2010**



Source: World Investment Report, 2011

The United States of America (USA) maintained its position as the largest recipient of FDI inflows (US\$228 billion) in 2010, followed by the People's Republic of China (US\$106 billion), Hong Kong (US\$69 billion) and Belgium (US\$62 billion). The recovery of FDI flows in 2010 revealed an uneven pattern whereby there was an increase in cross-border mergers and acquisitions (M&A) as well as reinvested earnings in developing countries and a decline in greenfield investments.

FDI inflows to developed countries and transition economies contracted further in 2010. In contrast, FDI inflows to developing economies rose by 12 per cent (to US\$574 billion) in 2010. This was due to their relatively fast economic recovery, the strength of domestic demand, and burgeoning South–South flows. The value of cross-border M&As into developing economies doubled due to attractive valuations of company assets, strong earnings growth and robust economic fundamentals.

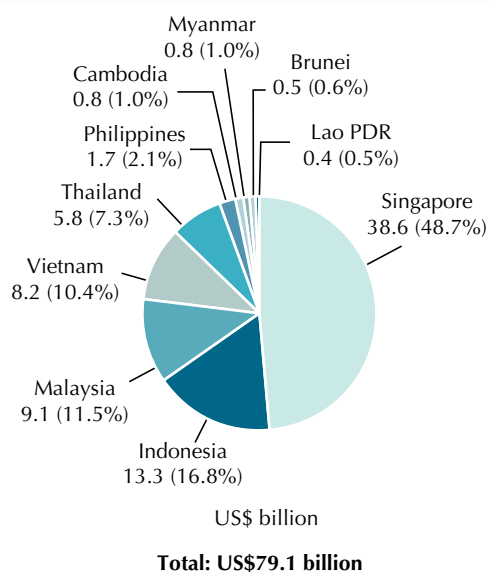
FDI inflows to East Asia, South-East Asia and South Asia as a whole rose by 24 per cent in 2010, reaching US\$300 billion. However, the three sub regions

<sup>4</sup> 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

experienced very different trends: inflows to Association of Southeast Asian Nations (ASEAN) countries more than doubled; those to East Asia saw a 17 per cent rise; FDI to South Asia declined by one-fourth. The People's Republic of China was the largest recipient of FDI in Asia (US\$105.7 billion), followed by Hong Kong (US\$68.9 billion) and Singapore (US\$38.6 billion).

FDI inflows to Malaysia rebounded strongly from US\$1.4 billion in 2009 to US\$9.1 billion in 2010, an increase of 550 per cent. FDI inflows into Singapore also registered a strong growth from US\$15.3 billion in 2009 to US\$38.6 billion in 2010, while FDI inflows into Indonesia rose to US\$13.3 billion in 2010, from US\$4.9 billion in 2009. Growth in ASEAN countries was driven mainly by robust domestic demand and primarily by strong expansion in private sector activity. Malaysia was the third largest recipient among ASEAN countries in 2010, after Singapore and Indonesia.

**Graph 2**  
**FDI Inflows to ASEAN Countries, 2010**



Source : World Investment Report, 2011

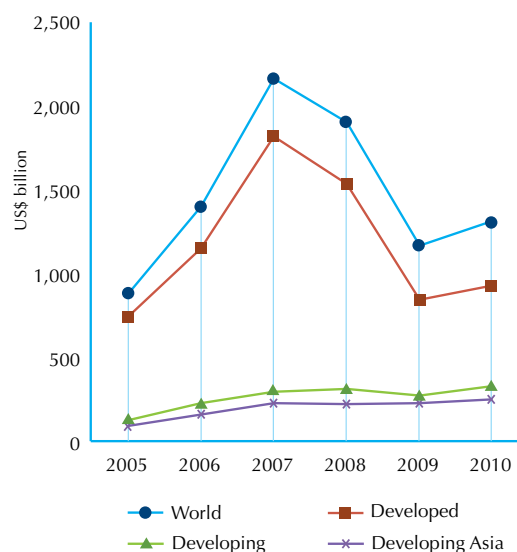
## FDI OUTFLOWS

Reflecting the trend for FDI inflows, global FDI outflows increased by 13.1 per cent from US\$1.1 trillion in 2009 to US\$1.3 trillion in 2010. However, the level is still below their peak in 2007 (US\$2.1 trillion).

FDI outflows from developed countries increased by 10 per cent from US\$0.8 trillion in 2009 to US\$0.9 trillion in 2010. The developed countries remained the largest net outward investor group.

FDI outflows from developing countries rose by 20.9 per cent from US\$270.7 billion in 2009 to US\$327.6 billion in 2010. FDI outflows from developing and transition economies reached US\$388 billion in 2010, a 21 per cent increase over 2009. The FDI outflows reflect the strength of economies, the dynamism of transnational corporation (TNCs) and growing aspiration to compete in new markets.

**Graph 3**  
**FDI Outflows by Economies, 2005-2010**



Source : World Investment Report, 2011

In 2010, FDI outflows from the South, East and South-East Asia rose 19.8 per cent to US\$231.6 billion. The main sources of FDI outflows were Hong Kong (US\$76.1 billion), the People's Republic of China (US\$68 billion), Singapore (US\$19.7 billion), Republic of Korea (US\$19.2 billion) and India (US\$14.6 billion).

In South-East Asia, Singapore was the largest source of FDI outflows in 2010 with US\$19.7 billion followed by Malaysia with US\$13.3 billion.

Developed countries as a whole saw only a limited recovery of their outward FDI. The outflows from Europe and the USA were up (9.6% and 16%, respectively), while Japanese FDI outflows dropped further in 2010 (down 25%).

## **FUTURE PROSPECTS**

UNCTAD in the World Investment Report 2011 projected that global FDI flows will recover to its pre-crisis level in 2011, increasing to US\$1.4-US\$1.6 trillion. FDI flows are expected to rise further to US\$1.7 trillion in 2012 and reach US\$1.9 trillion in 2013.

Non-equity modes (NEMs) of international production mechanism, such as contract manufacturing, services outsourcing, contract farming, franchising, licensing and management contracts can be

considered as alternative forms for investment. Worldwide, NEMs have generated over US\$2 trillion of sales in 2010. In most cases, NEMs are growing more rapidly than the industries in which they operate. Malaysia is a competitive location for NEM activities particularly in contract manufacturing and outsourcing. Growth areas for manufacturing are in machinery and equipment (M&E) industries, electronics (including semiconductor) industry and medical devices industry.

Based on UNCTAD's latest quarterly publication<sup>5</sup>, global FDI inflows rose by 17 per cent in 2011 to US\$1.5 trillion, surpassing their pre-crisis average (2005-2007) levels of US\$1.47 trillion, despite turmoil in the global economy. Developing and transition economies continued to account for half of global FDI in 2011 as their inflows reached a new record high, at an estimated US\$755 billion, driven mainly by robust greenfield investments.

Looking forward, UNCTAD estimates that FDI flows will rise moderately in 2012, to around US\$1.6 trillion. However, the fragility of the world economy, with growth tempered by the European debt crisis and rising financial market turbulence, will have an impact on FDI flows in 2012. All these factors indicate that the risks and uncertainties for further FDI growth in 2012 remain in place.

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<sup>5</sup> Global Investment Trends Monitor No.8 UNCTAD (24 January 2012)







# 3

## MALAYSIA'S INVESTMENT PERFORMANCE

# 3

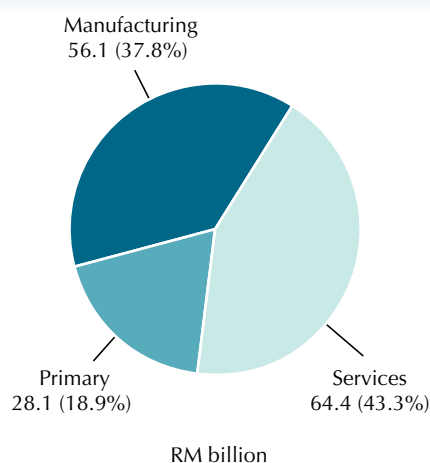
## MALAYSIA'S INVESTMENT PERFORMANCE

The year 2011 marked the implementation of several key initiatives such as the Economic Transformation Programme (ETP) and the 10th Malaysia Plan (10MP) by the Government, laying the foundation for the country's transformation into a high income economy as envisioned in the New Economic Model (NEM). Malaysia continues to be a cost-competitive location and has been able to attract projects with significant levels of investments.

In 2011, total investments approved in the Malaysian economy amounted to RM148.6 billion<sup>6</sup>. This constitutes investments approved in the manufacturing, services and primary sectors. The investments approved were in 4,964 projects and are expected to generate 149,496 job opportunities. The total investments approved exceeded the average annual investment target of RM115 billion set under the 10MP by 29.2 per cent. This is a significant achievement in the first year of the ETP roll-out plan and indicates that Malaysia is on track to achieve the investment targets set under the ETP by 2020 that will transform Malaysia into a high-income nation. Another positive indicator is investments approved in the National

Key Economic Areas (NKEAs) which amounted to RM87.4 billion or 58.8 per cent of total investments. There were also significant investments in projects approved within the Non-NKEAS which amounted to RM61.2 billion.

**Graph 4**  
**Total Investments Approved in the Malaysian Economy, 2011**



**Total Investments Approved: RM148.6 billion**

The services sector is expected to assume a greater role in driving economic growth during this decade. Approved investments in the services sector in 2011 registered a considerable increase of 75.5 per cent to RM64.4 billion compared with RM36.7 billion in 2010. The 3,957 projects approved during the period are expected to generate 43,784 employment opportunities. Domestic

<sup>6</sup> Statistics on investments in the services and primary sectors are preliminary

investments accounted for the largest share of investments with RM48.2 billion or 74.8 per cent. It is important to note that foreign investments approved had made a significant leap from RM4.1 billion in 2010 to RM16.2 billion or 25.2 per cent of total investments in 2011.

This was mainly due to several multinational companies (MNCs) which have chosen Malaysia as their global operations hub. These projects have substantial investments with significant spin-off effects on the economy. Within the services sector, the real estate sub-sector continued to be the leading contributor with RM16.9 billion worth of investments approved followed by the transport, global operations hub, energy and telecommunications sub-sectors. Further liberalisation of the services sub-sectors in 2012 is expected to enhance the level of competitiveness of the services sector in the country which has been identified by the Government to contribute significantly to the ETP.

The manufacturing sector is expected to remain a significant contributor to growth. In 2011, Malaysia continued to attract high levels of quality investments in the manufacturing sector, which reflects the country's competitiveness as a preferred location for high technology investments in the region. A total of 846 projects were approved in 2011 with investments amounting to RM56.1 billion compared with 910 projects involving investments of RM47.2 billion in 2010. Malaysia remained a competitive destination for FDI in the region and continued to attract

encouraging levels of foreign investments in the manufacturing sector. Foreign investments in projects approved in 2011 amounted to RM34.2 billion (61%) compared with RM29.1 billion in 2010. In line with the call by the Government for domestic investors to assume a prominent role under the ETP, domestic investments approved in the manufacturing sector increased from RM18.1 billion in 2010 to RM21.9 billion in 2011. Domestic investments accounted for 39 per cent of total approved investments in 2011.

The primary sector accounted for RM28.1 billion of approved investments in 2011. Foreign investments in the primary sector amounted to RM16 billion (56.9%) while domestic investments totalled RM12.1 billion (43.1%). The mining sub-sector is the leading sub-sector with approved investments reaching RM26.7 billion in 44 projects. The mining sub-sector is dominated by the oil and gas exploration activities. The strong performance of the oil and gas sub-sector, which has been identified as one of the NKEAs indicates that Malaysia is well poised to become one of the leading oil and gas hubs in the region. The rest of the primary sector is made up of the plantation and commodities sub-sector with investments amounting to RM989.5 million and the agriculture sub-sector which registered investments totalling RM417.5 million.



# 4 INVESTMENTS IN THE MANUFACTURING SECTOR

# 4 INVESTMENTS IN THE MANUFACTURING SECTOR

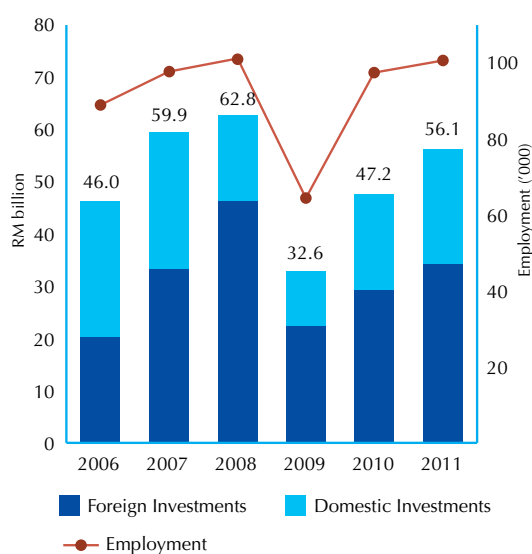
## A. PROJECTS APPROVED

### OVERVIEW

Malaysia attracted significantly higher levels of investments in the manufacturing sector in 2011 compared with 2010. A total of 846 manufacturing projects with investments of RM56.1 billion were approved in 2011 compared with 910 manufacturing projects with investments of RM47.2 billion in 2010.

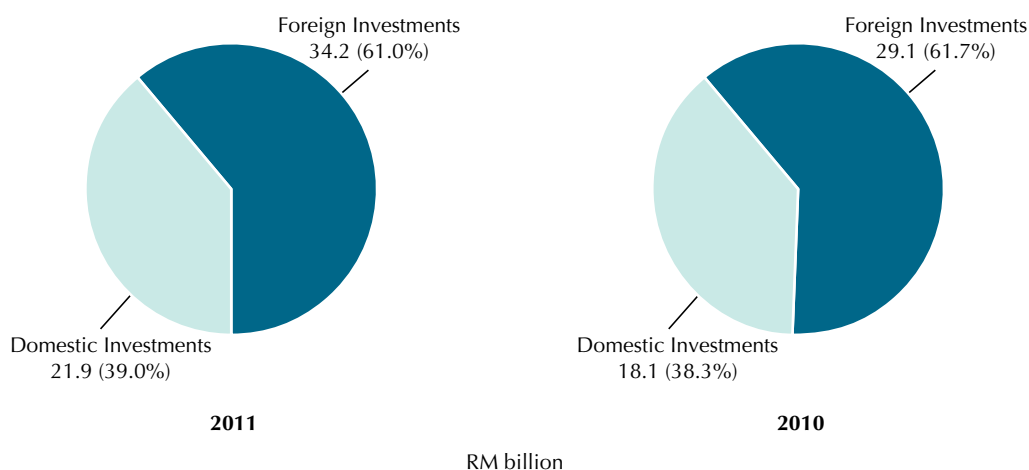
Malaysia continued to remain as a competitive investment location for foreign investors. Of the total investments approved, RM34.2 billion or 61 per cent was foreign investments. This was attributed to the greater interest by foreign investors to invest in quality projects in new growth areas and emerging

Graph 5  
Investments and Employment in Projects Approved, 2006 – 2011



technologies, which are high value-added, high technology, and skills-and knowledge-intensive in nature.

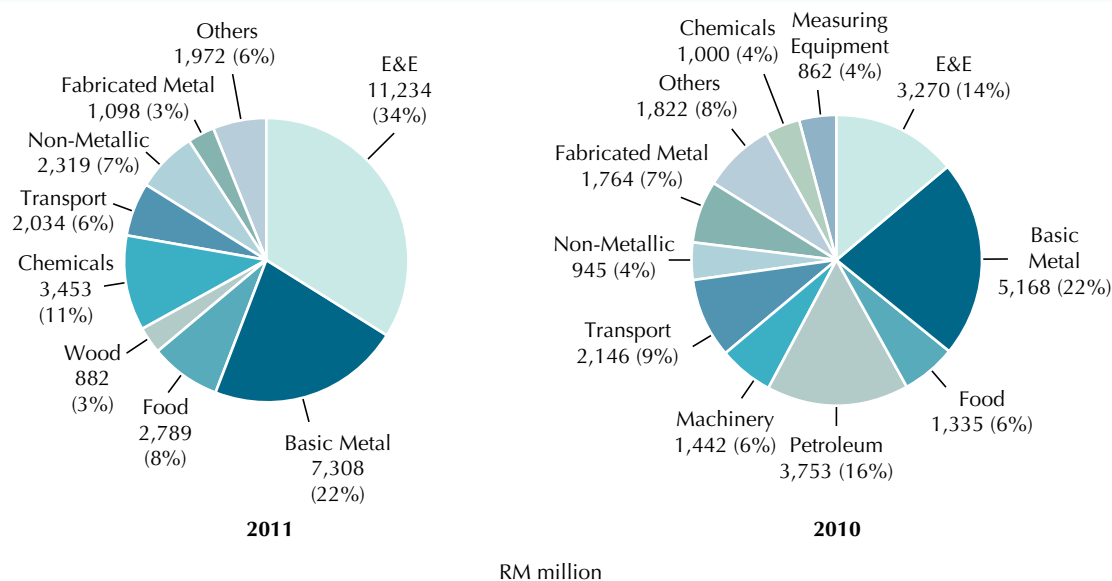
Graph 6  
Sources of Investments in Projects Approved, 2011 and 2010





Graph 7

## Investments in New Projects by Industry, 2011 and 2010



Domestic investments approved in the manufacturing sector surged by 21 per cent to RM21.9 billion in 2011 from RM18.1 billion in 2010. Domestic investments accounted for 39 per cent of total approved investments in 2011.

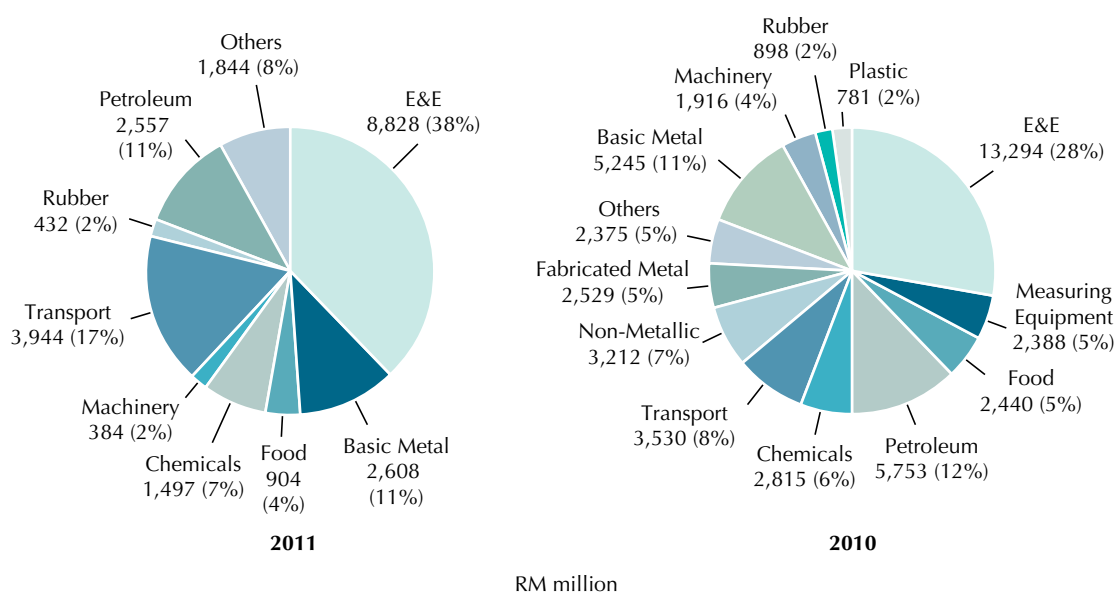
The majority of the projects approved in 2011 were new projects (511 projects) with investments of RM33.1 billion (59%). Of these, RM12.9 billion or 39

per cent were domestic investments while RM20.2 billion or 61 per cent were foreign investments.

The trend of expansion/diversification by existing manufacturing companies continued in 2011. Of the total projects approved, 335 projects were for expansion/diversification involving investments of RM23 billion, accounting for 41 per cent of total investments.

Graph 8

## Investments in Expansion/Diversification Projects by Industry, 2011 and 2010



## Capital-Intensive Projects

With increased competition from low cost producers such as the People's Republic of China, India and Vietnam, Malaysia is no longer competitive in the area of low-end manufacturing. To raise the economy up the value chain, the Government will continue to intensify its efforts in identifying and attracting investments in new growth areas and emerging technologies, high value-added industries, high technology and capital intensive industries and research and development (R&D) activities in line with the Government's efforts to become a high income nation by 2020.

Capital-intensity, as measured by the capital investment per employee (CIPE) ratio of projects approved in 2011 was RM557,894 compared with RM484,767 in 2010. The CIPE ratio of manufacturing projects has registered an increasing trend since 1990 (RM167,638). This reflects the general trend towards more capital-intensive, high value-added and high technology projects.

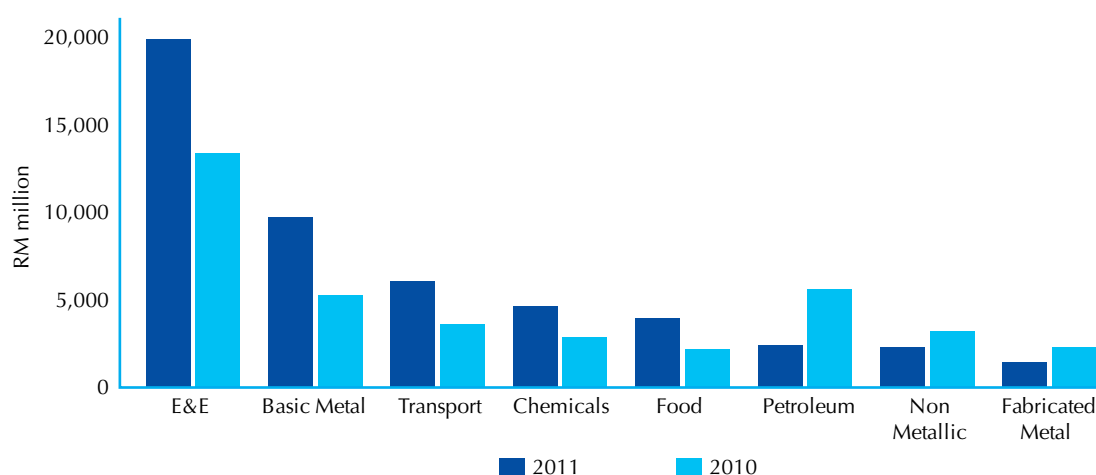
In 2011, a total of 92 projects with investments of RM100 million or more each were approved, of which 11 had investments exceeding RM1 billion. Investments in these 92 projects amounted to RM46.9 billion or 83.6 per cent of the total investments approved.

These capital-intensive projects were mainly in electrical and electronics (E&E) (28 projects/RM18.7 billion), basic metal products (13 projects/RM9.4 billion), transport equipment (15 projects/RM4.9 billion), chemicals and chemical products (7 projects/RM4 billion), food manufacturing (10 projects/RM2.6 billion), petroleum products including petrochemicals (5 projects/RM2.6 billion) and non-metallic mineral products (4 projects/RM2.2 billion) industries.

## Projects Approved by Industry

In 2011, the E&E industry remained the leading industry in terms of number of projects approved (129 projects), as well as investments (RM20.1

Graph 9  
Investments in Projects Approved by Major Industry, 2011 and 2010



billion). This was followed by basic metal products (RM9.9 billion), transport equipment (RM6 billion), chemicals and chemical products (RM5 billion), food manufacturing (RM3.7 billion), petroleum products including petrochemicals (RM2.7 billion), non-metallic mineral products (RM2.6 billion) and fabricated metal products (RM1.4 billion). These eight industries accounted for RM51.4 billion or 91.6 per cent of total investments approved.

### ***Export-Oriented Projects***

Of the 846 projects approved in 2011, a total of 274 projects (32.4%) were export-oriented projects involving exports of at least 80 per cent of their output. Investments in these export-oriented projects totalled RM24.7 billion or 44 per cent of total investments. Foreign investments in these export-oriented projects amounted to RM20.1 billion, while domestic investments totalled RM4.6 billion. These export-oriented projects were mainly in the E&E products (RM13.7 billion), basic metal products (RM3.5 billion), food manufacturing (RM2.2 billion), chemicals and chemical products (RM1.6 billion), transport equipment (RM513.4 million), rubber products (RM499.9 million) and fabricated metal products (RM479.1 million) industries.

### ***Employment Opportunities***

A skilled workforce is essential for manufacturing companies to compete

globally. The workforce transition in the manufacturing sector is already taking place with an increasing proportion of employment being in more highly skilled occupations. Projects approved in 2011 are expected to generate a total of 100,533 employment opportunities, of which 62,584 or 62.3 per cent will be in the managerial, technical, supervisory and skilled manpower categories. Industries which are expected to create the most number of employment opportunities are E&E (42,688), transport equipment (9,727), basic metal products (6,653), furniture and fixtures (5,479) and food manufacturing (5,438).

### ***Expatriate Posts***

To facilitate technology transfer and supplement the local pool of managerial and technical skills, the Government continued to grant approvals for expatriate posts, particularly managerial and technical posts to Malaysian as well as foreign-owned companies. In 2011, a total of 1,915 expatriate posts were approved, of which 301 were key posts which could be permanently filled by foreigners. The remaining 1,614 were term posts, generally granted for three to five years where Malaysians are trained to eventually take over the posts.

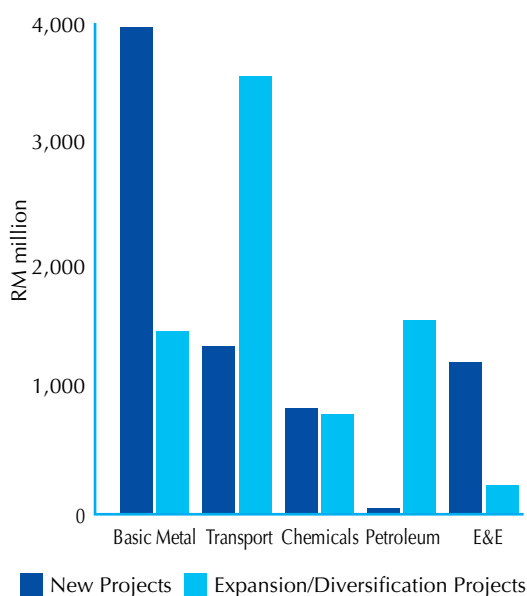
## **APPROVED PROJECTS BY OWNERSHIP**

### **Domestic Investments**

Domestic investments in projects approved in 2011 surged by 21 per cent

to RM21.9 billion from RM18.1 billion in 2010, indicating continued interest by domestic companies to invest in the manufacturing sector. This is also in line with Government's continued drive to actively promote domestic investments as outlined in the ETP and the 10MP. Domestic investments accounted for 39 per cent of total approved investments in 2011.

**Graph 10**  
**Domestic Investments in Projects**  
**Approved by Major Industry, 2011**

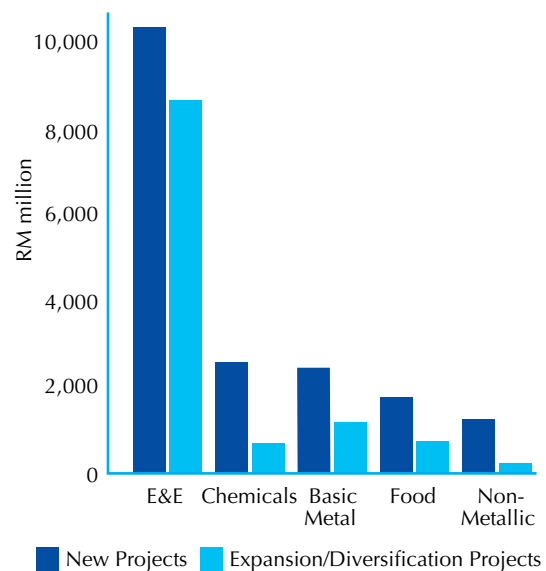


The major portion of the domestic investments approved in 2011 amounting to RM12.9 billion was in new projects, while RM9 billion was in expansion/diversification projects. Domestic investments were mainly in the basic metal products (RM6.3 billion), transport equipment (RM4.9 billion), chemicals and chemical products (RM1.7 billion), petroleum products including petrochemicals (RM1.7 billion) and E&E (RM1.4 billion) industries.

## Foreign Investments

Despite intense global and regional competition for FDI with a moderate increase in global FDI inflows, Malaysia successfully attracted high levels of foreign investments in the manufacturing sector in 2011. Foreign investments amounting to RM34.2 billion were approved in 2011 compared with RM29.1 billion in 2010. There was continued interest by foreign investors to invest in quality projects in new growth areas and emerging technologies, which are capital-intensive, knowledge-intensive, high value-added and high technology in nature.

**Graph 11**  
**Foreign Investments in Projects**  
**Approved by Major Industry, 2011**



Foreign investments in new projects totalled RM20.2 billion. Investments were mainly in E&E products (RM10.1 billion), chemicals and chemical products (RM2.6 billion), basic metal products (RM2.4 billion), food manufacturing

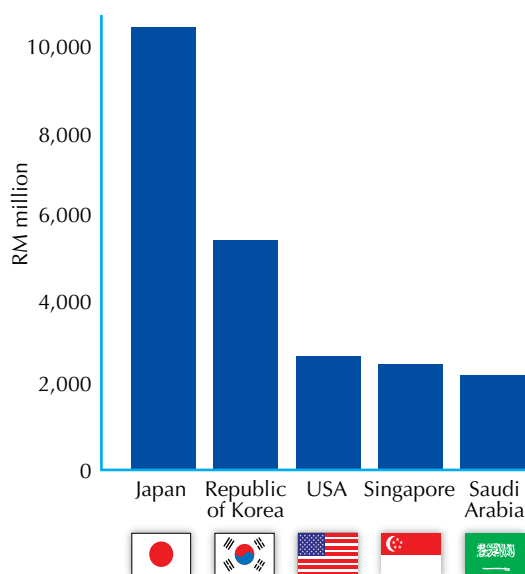
(RM1.8 billion) and non-metallic mineral products (RM1.2 billion) industries.

Existing foreign investors continued to reinvest, consolidate, expand and diversify into higher value-added products and activities to increase competitiveness of their operations in the country. Foreign investments in expansion/diversification projects totalled RM14 billion. Investments were mainly in the E&E products (RM8.6 billion), basic metal products (RM1.2 billion), petroleum products including petrochemicals (RM864.6 million), food manufacturing (RM806.8 million) and chemicals and chemical products (RM637.5 million) industries.

## Major Sources of Foreign Investments

The five leading sources of foreign investments in approved projects in

Graph 12  
**Major Sources of Foreign Investments in Projects Approved, 2011**



2011 were Japan (RM10.1 billion), Republic of Korea (RM5.2 billion), the USA (RM2.5 billion), Singapore (RM2.5 billion) and Saudi Arabia (RM2.2 billion). These five countries jointly accounted for 66 per cent of total foreign investments approved during the period.

### Japan

Japan was the largest source of foreign investments in 2011, with 77 projects approved involving investments of RM10.1 billion. Investments in new projects amounted to RM6.9 billion (24 projects) while investments in expansion/diversification projects totalled RM3.2 billion (53 projects).

Investments from Japan were mainly in E&E products (31 projects/RM9.1 billion); transport equipment (9 projects/RM325.8 million); petroleum products including petrochemicals (2 projects/RM168.7 million); basic metal products (3 projects/RM158.6 million) and non-metallic mineral products (2 projects/RM138.9 million) industries.

The large investments from Japan were contributed mainly by:

- A new project to undertake design, development and manufacturing of silicon photovoltaic wafers, cells and modules with investments amounting to RM4.6 billion;
- A new project for the manufacture of advanced substrates for semiconductors

with an investment of RM1.8 billion; and

- An expansion project with investments of RM1.4 billion for the manufacture of video tape recorders and players including camcorders; mecha deck for video tape recorders and players and camcorders; CD-ROM disk drives; hi-fi stereo system and radio/cassette recorders.

### **Republic of Korea**

Republic of Korea was the second largest foreign investor with total investments of RM5.2 billion. Korean investments were in 10 projects, of which seven were new projects and three were expansion/diversification projects. The large investments from Republic of Korea were mainly from:

- A new project with investments of RM2.2 billion for the manufacture of lithium ion batteries; and
- A new project with investments amounting to RM1.1 billion for the production of photovoltaic functional glass.

### **The USA**

The USA was the third largest investor with investments of RM2.5 billion in 21 projects. Investments from the USA were mainly in expansion/diversification projects which amounted to RM2.4 billion (12 projects) while investments in new projects amounted

to RM145.8 million (9 projects). The large investments from the USA were:

- A diversification project for the manufacture of electronics measuring instruments and bio and chemical analytical equipment with an investment of RM967.8 million;
- An expansion project for the design, development and manufacture of silicon photovoltaic wafers/cells/modules/panels with investments amounting to RM668.4 million; and
- An expansion project for the manufacture of integrated circuits and to undertake activity on testing of semiconductor devices with investments of RM600 million.

### **Singapore**

Singapore continued to be a major source of investments in 2011 with RM2.5 billion in 88 approved projects. Investments from Singapore in new projects amounted to RM1.5 billion (43 projects) while investments in expansion/diversification projects amounted to RM997.9 million (45 projects).

Singapore investments were concentrated in the food manufacturing (13 projects/RM1.1 billion) and E&E (16 projects/ RM476.3 million) industries.

Major projects approved included a RM270 million project for the production of palm oil, palm kernel



oil and palm-based products such as interesterified fat, ice cream fats, cocoa butter substitute, shortening/bakery fats and other vegetable oils such soya bean oil, sunflower oil, corn oil, rapeseed oil and blended oils.

## Saudi Arabia

Saudi Arabia was the fifth largest source of foreign investments in 2011 with investments totalling RM2.2 billion. Investments from Saudi Arabia was in a single new project involving the manufacture of polycrystalline silicon, sodium hydroxide (caustic soda), chlorine, hydrogen, hydrochloric acid, silicon tri-chloride, silicon tetra-chloride, mixed chlorosilane, oxygen and nitrogen.

## APPROVED PROJECTS BY LOCATION

The states of Selangor (263 projects), Johor (188 projects) and Penang (109 projects) continued to be the leading

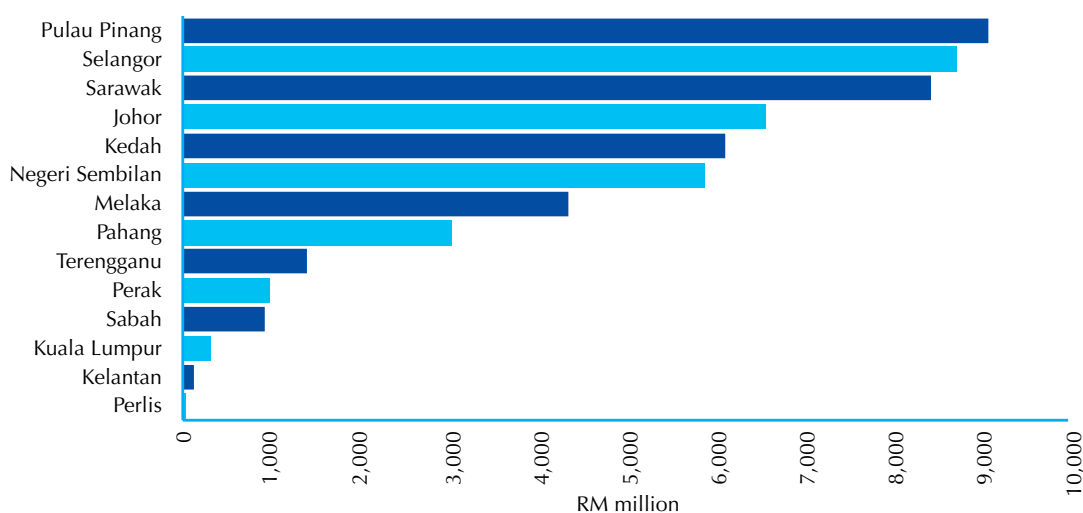
states in terms of number of projects approved. A total of 560 projects or 66.2 per cent of the projects approved will be located in these three states.

The concentration of projects in these states was mainly contributed by the presence of a more developed infrastructure coupled with the availability of well established engineering supporting industries.

The three states jointly accounted for 336 new projects or 65.8 per cent of the total number of new projects approved in 2011 and 66.9 per cent (224 projects) of the total number of projects approved for expansion/diversification. Existing companies continued to undertake expansion/diversification projects given the strong industrial base that has developed in these states.

By value of investments, the states of Penang (RM9.1 billion), Selangor (RM8.7 billion), Sarawak (RM8.5 billion), Johor

Graph 13  
Investments in Approved Projects by Location, 2011



(RM6.6 billion) and Kedah (RM6.1 billion) contributed almost 70 per cent of the total investments approved in 2011.

The state of Penang registered the highest level of investments amounting to RM9.1 billion. Investments were mainly in the E&E (RM7.3 billion), basic metal products (RM715.7 million), transport equipment (RM587.6 million), machinery manufacturing (RM111.3 million) and fabricated metal products (RM94.7 million) industries. A major project approved in Penang includes a new wholly foreign-owned project with investments of RM1.8 billion to manufacture advanced substrates for semiconductors.

The state of Selangor registered the second highest level of investments amounting to RM8.7 billion. Investments in Selangor were in a wide range of industries such as transport equipment (RM2 billion), E&E (RM1.4 billion), food manufacturing (RM1.3 billion), basic metal products (RM1.1 billion) and chemicals and chemical products (RM713.4 million) industries. Major projects approved in Selangor include a new RM856 million wholly Malaysian-owned project to manufacture and assemble electric and hybrid commercial vehicles.

The state of Sarawak attracted investments amounting to RM8.5 billion, mainly due to a new RM2.5 billion majority Malaysian-owned project to undertake integrated manufacturing

of aluminium rods. Investments in Sarawak were concentrated in basic metal products (RM5.8 billion), chemicals and chemical products (RM2.2 billion), transport equipment (RM135.3 million), petroleum products including petrochemicals (RM100 million) and, wood and wood products (RM85 million) industries.

## **B. PERFORMANCE OF THE MANUFACTURING SECTOR BY INDUSTRY**

### **ELECTRICAL AND ELECTRONIC PRODUCTS**

Malaysia has a strong base for the development of the E&E industry especially in semiconductor, consumer electronics, home appliances, industrial electronics and supporting industries. The country continues to focus on elevating the industry into higher-end activities through the strengthening and deepening of the E&E industry cluster by targeting front-end operations. The recent investment approvals reflect the Government's efforts in widening the industry value chain.

The Government has identified the E&E industry as one of the key growth areas within the NKEAs to help increase the country's Gross National Income (GNI) by RM90 billion and to create an additional employment of 157,000 jobs by 2020. The E&E NKEA focuses on semiconductor, solar, light emitting diodes (LEDs), wireless communications and radio frequency identification



(RFID) applications. With the launching of the Entry Point Projects (EPPs) under the E&E NKEA's initiative, Malaysia is expected to attract higher levels of investments in high quality projects in new and emerging technologies.

The E&E industry in Malaysia has evolved vis-à-vis global development trends. As the major contributor to export growth, the E&E industry has moved from pure assembly operations to the production of high technology products leveraging on market needs for high-end applications.

The future focus of the industry in Malaysia is on green and smart technologies such as LEDs and the solar industry. In addition, new products such as advanced integrated circuits, high brightness light emitting

diodes (HBLEDs); radio frequency (RF) and Microelectromechanical Systems (MEMS) devices are also given emphasis due to their growth potential. These industries are being promoted by leveraging on the ecosystem and supporting cluster development.

Collaborations between industry and educational institutions are essential for continuity and sustainability of companies. To ensure a stable supply of skilled manpower in the industry and to provide an adequate platform for the industrial linkage programmes between the industry and universities, the Ministry of Higher Education (MOHE), together with the Ministry of Human Resources (MOHR) are also introducing new courses in industrial training institutes, public universities and community colleges.

**Table 1**  
**Structure of E&E the Industry**

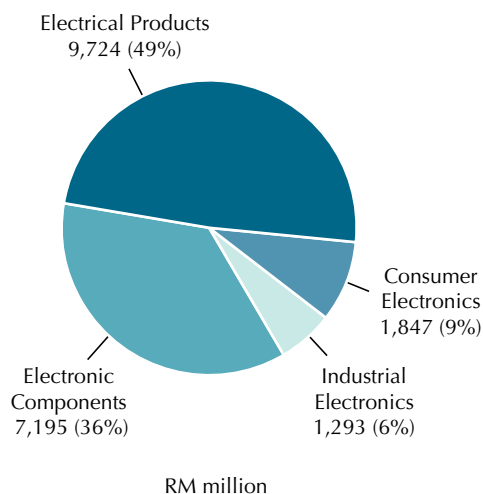
Sectors	Sub-Sectors	Examples of Products
Electronics	Components	Semiconductors, passive components, printed circuit boards, metal stamped parts and precision plastic parts
	Consumer	Audio visual products such as television receivers, portable multimedia players (PMP), speakers, cameras and electronic games
	Industrial	Multimedia and information technology products such as computers and computer peripherals, telecommunications equipment, office equipment and box built products for industrial applications
Electrical	Electrical	Distribution boards, control panels, switching apparatus, lightings, transformers, cables and wires, primary cells and batteries, solar cells and modules, air conditioners and household appliances

## Projects Approved in 2011

A total of 129 E&E projects with investments of RM20 billion were approved in 2011. Of the total, 56 projects were new projects with investments of RM11.2 billion while 73 were expansion/diversification projects with investments amounting to RM8.8 billion. Domestic investments amounted to RM1.3 billion (6.5%) while foreign investments totalled RM18.7 billion (93.5%). Major sources of foreign investments were from Japan, the USA and Germany.

The investments approved from Japan were mainly in the electronic components, consumer electronics and electrical products sub-sectors. Investments from the USA were mainly in the electronic components and industrial electronic sub-sectors, while investments from Germany were mainly in the electronic components sub-sector.

Graph 14  
**Investments in Projects Approved in the E&E Industry by Sub-sector, 2011**



## Electronic Components

In 2011, a total of 44 projects were approved in the electronic components sub-sector with investments of RM7.2 billion. Of these, 18 were new projects with investments amounting to RM2.5 billion (34.7%) and 26 were expansion and diversification projects with investments of RM4.7 billion (65.3%). Foreign investments amounted to RM6.7 billion (93.1%), while domestic investments totalled RM475 million (6.9%).

This sub-sector has undergone structural changes where companies have shifted their focus to front-end processes which require more advanced research, design and development activities. It provides opportunities for local engineers to be engaged in new product development and leading edge technologies. This is in tandem with the Government's efforts to promote sustainability and enhance cluster development within the sub-sector.

This sub-sector continues to be driven by the semiconductor industry, and IC design is part of the growing segment in the value chain. The semiconductor industry is a key driving force in innovation and will accelerate the development and growth of the medical, aerospace, automotive and communication industries as well as energy efficient products or applications.

Among the significant projects approved were:

- A new project by a wholly foreign-owned company with investments of RM1.8 billion to manufacture advanced substrates for semiconductors;
- An expansion project by a wholly foreign-owned company to manufacture printed circuit boards with investments of RM1 billion;
- An expansion project by a wholly foreign-owned company in wafer fabrication with investments of RM800 million;
- An expansion project by a wholly foreign-owned company with investments amounting to RM832 million to manufacture LED chips/devices and LED-based lighting products/systems/modules;
- An expansion project by a wholly foreign-owned company with investments amounting to RM600 million to produce semiconductor devices. The high investments were mainly for establishing an integrated microprocessor and graphic processor assembly and test line;
- An expansion project by a wholly foreign-owned company with investments of RM594 million to undertake advanced assembly and test operations for semiconductor devices. The company also plans to

expand its existing R&D activities in the country; and

- An expansion project by a majority Malaysian-owned company to undertake design, development and production of microprocessor based applications with investments of RM107 million.

## Consumer Electronics

This sub-sector which has been in existence since 1980s has now attracted more companies to undertake in-house R&D activities to support the manufacturing operations in the country. In 2011, a total of 12 projects were approved with investments of RM1.8 billion all of which were from foreign sources. Approvals for the sub-sector mainly involved from expansion/diversification projects which accounted for 82.2 per cent of the total investments approved during the period.

One notable project approved was an expansion project by a wholly foreign-owned company with investments of RM1.4 billion to undertake design, development and production of LCD TVs, audio/video products and peripheral devices. The company had established a R&D Centre for LCD TVs as Malaysia is the Asia Pacific hub for these products.

## Industrial Electronics

In 2011, a total of 27 projects with investments of RM1.3 billion were

approved. The sub-sector was mainly dominated by foreign-owned companies, accounting for 97 per cent of the total approved investments in 2011. The approvals were mainly for existing companies undertaking expansion/diversification projects, which accounted for 82.4 per cent of total approved investments as compared with only 17.6 per cent approved for new projects.

Complementing existing technology players such as original equipment manufacturer (OEM) and original design manufacturer (ODM), the electronic manufacturing services (EMS) providers are also involved in the design, development and manufacture of industrial electronic products. The EMS companies in the country have now diversified into the production of medical, chemical, oil and gas, aviation and aerospace products. They have also developed their capabilities by intensifying the R&D activities to support the technological growth of the industry.

The companies in the sub-sector have also assisted in nurturing and developing local capabilities by establishing smart partnerships with universities/institutes of higher learning and local companies/vendors. The smart partnerships will expose graduates to the industrial environment thus facilitating adoption of the latest technological changes within the industry. The above eco-system has benefitted all parties including the MNCs themselves as they are able to

maintain their competitiveness and sustainability in the global market.

Among the significant projects approved were:

- An expansion project by a wholly foreign-owned company with investments of RM967.8 million to undertake design, development and production of electronics and bio and chemical analytical instruments. The project is expected to create employment opportunities for 800 people, of which 480 are those with science and technical qualifications; and
- A new project by a wholly foreign-owned company to manufacture solid state storage products with investments of RM79.1 million. Data storage devices produced by the company uses solid-state memory technology, which is the latest technology in the industry.

## Electrical

The electrical sub-sector is the largest sub-sector, contributing 49 per cent of the total investments approved in the E&E industry. Within this sub-sector, a total of 46 projects were approved with investments of RM 9.7 billion. Of these, 26 were new projects and 20 were expansion/diversification projects. The sub-sector is mainly dominated by foreign investments amounting to RM8.8 billion (91.4%) while domestic investments totalled RM841 million

(8.6%). The projects are expected to generate employment opportunities for 15,043 people.

The solar industry contributed 71.5 per cent of the total investments approved in the electrical sub-sector. These investments further strengthen the country's position as a solar hub and are in line with the Government's efforts to make Malaysia as the second largest exporter of solar cells and modules by 2020.

The emergence of major solar companies in Malaysia has spurred the growth of the solar value chain, opening up new opportunities for both local and foreign investors in developing the solar cluster.

Apart from solar, companies are also leveraging on the well established infrastructure of the semiconductor industry to undertake similar based operations which include LEDs in the country, targeting the ASEAN market.

Among the significant projects approved were:

- A new project by a wholly foreign-owned company with proposed investments of RM4.5 billion to undertake design, development and manufacturing of silicon photovoltaic wafers, cells and modules. The project is the first integrated solar operation for the group and is expected to create 3,400 new job opportunities;
- A new project by a wholly foreign-owned company to undertake design, development and manufacture of lithium ion cells and battery packs with investments of RM2.2 billion. The project is expected to create 2,992 new job opportunities. This is the first integrated manufacturing project for cells and battery packs located outside the Republic of Korea;
- A new project by a wholly Malaysian-owned company with investments amounting to RM101.5 million to produce super capacitors for the smart hybrid storage system. The product is a critical component used in handheld devices, electric vehicles and for solar energy applications. The company will be undertaking R&D activities together with the University of Nottingham to develop and enhance the products. The knowledge based project is expected to create a total of 95 job opportunities;
- A new project by a wholly foreign-owned company to manufacture LED lightings with investments of RM95.7 million. The company is expected to use its own ceramic technology to produce highly efficient LED lightings; and
- A new project by a foreign-owned company with investments of RM4.4 million to manufacture components and equipment for smart energy solutions such as power controllers, smart battery packs, smart power system, smart chargers, wind turbine

pitch control, solar chargers and panel power control and automotive battery control system. The company also plans to establish an R&D centre for these above products.

Based on the approvals in the E&E industry, electrical products is now the leading sub-sector, replacing the electronic components. This is due to the significant investments approved in solar projects compared with previous years. The influx of investments in solar projects was contributed by the global awareness and the importance of 'green technology' including renewable energy, despite the slower demand in the industry during the period. Many companies especially those undertaking integrated projects continue to invest based on the expectation of an upward trend in the industry. The International Energy Agency (IEA) forecasted the industry to grow 21 per cent between 2013 to 2015 and 29 per cent for the period 2015 to 2020.

## TRANSPORT EQUIPMENT

The transport equipment industry comprises the automotive; aerospace; and shipbuilding and ship repairing sub-sectors. The automotive industry is the largest sub-sector in this industry.

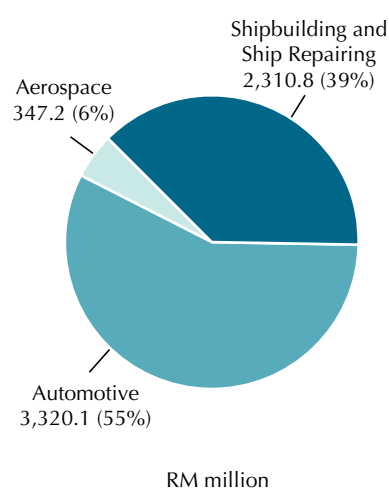
In 2011, exports of transport equipment totalled RM9.2 billion. Exports of road vehicles (comprising passenger vehicles, commercial vehicles, motorcycles/scooters, trailers/semi-trailers, bicycles/other cycles and parts and components)

amounted to RM5 billion. Exports of aircraft and associated equipment and parts totalled RM3.1 billion while exports of ships, boats and floating structures amounted to RM1.1 billion.

## Projects Approved in 2011

In 2011, a total of 110 projects were approved in the transport equipment industry with investments of RM6 billion. Domestic investments amounted to RM4.9 billion (82%), while foreign investments totalled RM1.1 billion (18%). The approved projects would generate a total of 9,727 employment opportunities.

Graph 15  
**Investments in Projects Approved in the Transport Equipment Industry by Sub-sector, 2011**



Of the total projects approved, 58 were new projects while 52 were expansion/diversification projects. The new projects accounted for RM2 billion or 33 per cent of the total investments while expansion/diversification projects accounted for RM4 billion (67%).



## Automotive

The automotive sub-sector comprises:

- manufacture/assembly of motor vehicles, including motorised two-wheelers;
- reconditioning/reassembling/rebuilding/conversion of motor vehicles; and
- 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. In addition, there are 11 manufacturers/assemblers of motorcycles and scooters with an

installed capacity of 995,000 units per year. There are also three composite body sports car manufacturers.

According to the Malaysian Automotive Association (MAA), production of motor vehicles for 2011 totalled 533,515 units comprising 488,261 units of passenger vehicles and 45,254 units of commercial vehicles. Sales of motor vehicles amounted to 600,123 units in 2011 consisting of 535,113 units of passenger vehicles and 65,010 units of commercial vehicles.

Based on Motorcycle and Scooter Assemblers and Distributors Association of Malaysia (MASSAM) statistics, production of motorcycles and scooters has reached 467,941 units in 2011. Imports of motor vehicles, parts and

Table 2

**Motor Vehicles Sales in the ASEAN Main Six Countries**

(units)

ASEAN 6 Countries	2011			2010		
	PC	CV	TIV	PC	CV	TIV
Indonesia	601,945	292,219	894,164	536,050	218,950	755,000
Thailand	360,441*	433,640	794,081	339,460	432,040	771,500
Philippines	44,862	96,754	141,616	60,840	108,160	169,000
Singapore	33,493	6,077	39,570	47,775	4,148	52,500
Vietnam	64,505	45,155	109,660	56,160	51,840	108,000
Malaysia	535,113	65,010	600,123	540,450	60,050	600,500
<b>Total</b>	<b>1,640,359</b>	<b>938,855</b>	<b>2,579,214</b>	<b>1,580,735</b>	<b>875,765</b>	<b>2,456,500</b>

Note: PC - Passenger Car

CV - Commercial Vehicle

TIV - Total Industry Volume

\* For Thailand, data for passenger car did not include Mercedes-Benz, BMW, MINI and Volvo from November 2011 onwards.

Source: Malaysian Automotive Association (MAA)

components in 2011 totalled RM18.3 billion.

As at 2011, there were more than 704 automotive component manufacturers and about 112 motorcycle/scooter component manufacturers. The automotive component industry produces over 5,000 components.

More than 80 per cent of the automotive component manufacturers are Malaysian-owned. A number of these companies have technical collaborations with global automotive component companies. More than 70 per cent of the component manufacturers have acquired international standards such as ISO 9000, TS16949 and ISO 14000. Global automotive component manufacturers operating in Malaysia include Bosch, GKN, Denso, Delphi, Nippon Wiper Blade, Toyota Auto Body and ZF Steering. They are producing automotive air conditioner system, security system and other automotive body and parts modules.

The policies and measures outlined under the revised National Automotive Policy (NAP) in encouraging the move towards green technology has resulted in an increase in investments particularly for the manufacture of hybrid/electric vehicles. The lifting of the freeze on Manufacturing Licence for manufacturing and assembling activities in this segment has encouraged new investments and expansion of existing projects in the country. Investments in the development of hybrid and electric vehicles bring the benefits of the acquisition of new, high

end technology and the promotion of a more sustainable energy policy.

### ***Projects Approved in 2011***

In 2011, a total of 95 projects were approved in the automotive industry with investments of RM3.3 billion. Domestic investments amounted to RM2.5 billion (76%), while foreign investments totalled RM784 million (24%). The approved projects would generate a total of 8,473 employment opportunities.

Of the total projects approved, 46 were new projects while 49 were expansion/diversification projects. The new projects accounted for RM1.7 billion or 52 per cent of the total investments while expansion/diversification projects accounted for RM1.6 billion (48%).

Major projects approved included:

- A new project by a Malaysian-owned company with investments of RM856 million to manufacture and assemble electric and hybrid commercial vehicles;
- A new project by a majority foreign-owned company with investments of RM241 million to assemble commercial trucks and commercial buses; and
- An expansion project by a wholly foreign-owned company with investments of RM143 million to manufacture gaskets.



Malaysia's GDP growth in automotive is expected to increase at least 5.1 per cent in 2012 which will also increase the total industry volume.

Due to the effects of Japan's earthquake and tsunami as well as the impact of the floods in Thailand, the OEMs are most likely to increase their production to meet the local demand. In addition, several new key model launches will definitely drive forward Malaysia's automotive industry in 2012.

The extension of full import duty and excise duty exemption for hybrid and electric cars until December 2013 under the 2012 Budget would further promote greater demand for the energy efficient and eco-friendly vehicles.

## **Aerospace**

The aerospace industry comprises the aviation and space sub-sectors. In Malaysia, the aviation sub-sector encompasses:

- manufacturing of parts and components;
- maintenance, repair and overhaul (MRO) activities;
- design and development; and
- assembly and operation of light aircraft and support services.

The aerospace industry in Malaysia which began with the establishment of MRO operations back in the 1970s has progressed

into the manufacture of aerospace parts and components and assembly of light aircrafts. Currently, there are 12 companies involved in the manufacture of aircraft parts and components including ground support equipment, three companies involved in assembly activities, while more than 19 companies are involved in MRO activities.

Malaysia has a full range of MRO capabilities which include modification and remanufacturing of engines and engine components, repair and overhaul of aircraft parts, components and airframes, repair and testing of aircraft instruments and components and provision of line and heavy maintenance to both military and civil aircrafts. Major MRO companies in Malaysia include MAS Engineering, GE Engine, AIROD, Hamilton Sundstrand, Honeywell, Parker Haniffin and Eurocopter. The MRO sub-sector is projected to grow by 12 to 15 per cent annually.

## ***Projects Approved in 2011***

In 2011, a total of seven projects were approved in the aerospace sub-sector with investments of RM347.2 million. Foreign investments in these projects amounted to RM282.6 million or 81 per cent while domestic investments totalled RM64.6 million (19%). The approved projects would generate a total of 457 employment opportunities.

A significant project approved in the aerospace industry is for the production of the machine aerospace structures by

a new wholly foreign-owned company with investments of RM237 million.

The aerospace industry is expected to contribute an additional RM16 billion to GDP through two EPPs under the ETP. The two EPPs have been identified and are expected to contribute RM16 billion to GDP and create about 32,000 job opportunities. The Government had also agreed to set up the Aerostructure Manufacturing Innovation Centre which would carry out R&D activities relating to aircraft structure manufacturing and also serves as the highest level study and training centre. The innovation centre would involve an investment of RM40 million, funded by the Government and industry players.

## **Shipbuilding and Ship Repairing**

The shipbuilding and ship repairing industry in Malaysia includes the manufacture of a wide range of ships including barges, passenger boats/ferries, patrol vessels, tug-boats, landing crafts, tankers, leisure crafts, yachts, hydrofoils, hovercrafts and ship repairing activities. The industry has developed specialised skills and technological capabilities in engineering design, naval architecture, metallurgy, corrosion control, machining, welding and fabrication. The industry has also extensive linkages with other industries such as steel, glass, logistics, storage, bulk-breaking of goods and services (port services, financing, insurance and consultancy).

There are more than 70 shipyards in Malaysia. The major activities undertaken by these shipyards include constructing or building ocean-going vessels, boats and offshore structures for oil and gas industries; repairing, maintaining, upgrading, overhauling and refurbishing vessels; conversion of ships; and heavy engineering and fabricating of offshore structures, steel structures and cranes.

The largest shipyard in Malaysia can accommodate dry-docking of vessels of up to 450,000 DWT and has a ship lift system capability of up to 50,000 DWT. The demand for larger and more sophisticated naval vessels is still fulfilled by foreign shipyards which have the capacity and capability in the construction of such vessels.

## ***Projects Approved in 2011***

In 2011, a total of eight wholly Malaysian-owned projects comprising seven new projects and one expansion project were approved with investments of RM2.31 billion to undertake shipbuilding and ship repairing. These included a project with investments of RM2.26 billion to undertake marine repairs, marine conversions, engineering and construction. The approved projects would generate a total of 797 employment opportunities.

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

The plan's recommendations are expected to boost Malaysian industrial competitiveness in shipbuilding and ship repair, industries which have come under increasing competitive pressure from regional players such as Singapore, Vietnam, Indonesia, India, the People's Republic of China and the Philippines. Key recommendations include the enforcement of build and repair quality, enhancement of local content levels and the introduction of new technologies and processes.

The plan promote local content in design and build, and the alignment of state and local strategies with the needs of the shipbuilding and ship repair industry.

## **MACHINERY AND EQUIPMENT**

The machinery and equipment (M&E) industry in Malaysia covers the specialised M&E for specific industry; power generating M&E; metalworking machinery; and general industrial M&E, components and parts.

The M&E industry is one of the sectors identified that will spur Malaysia's development into a high technology nation, and as such, is one of strategic importance. Focused promotional efforts for high technology and high value-added M&E have resulted in significant inflow of investments in the last few years especially for specialised machinery for specific industries. The presence of global M&E manufacturers has enhanced the capabilities of local

fabricators in R&D and design and development (D&D) activities to move up the value chain from producing low-end parts and components to the design and manufacture of high value-added, high technology and sophisticated modules and complete machines. In addition, the current Government efforts under the NKEA initiatives focus on high technology sectors which include the oil and gas and energy, aerospace, E&E and ICT industries. In view of M&E linkages to these industries, the requirement for high value-added and high technology M&E will stimulate growth to provide support and services for the industries identified. This will shift Malaysia from its reliance on semi-skilled and low cost labour to one that hinges on advanced manufacturing, high technology and a modern services sector, employing highly skilled talent.

### **Specialised M&E for Specific Industry**

The specialised M&E for specific industry sub-sector caters for the needs of specific industries and are designed according to the specific requirements of users. Industries targeted include the E&E, oil and gas, medical, solar/ photovoltaic, agriculture, automotive, food and beverage, woodworking and plastic processing.

Companies in this sub-sector undertake R&D, engineering design, innovation and system integration, with significant outsourcing of parts and components. This sub-sector will continue to be the major

focus for growth of the M&E sector to shift Malaysia towards high technology and a modern society dependent upon skills and higher wages. Generally, the projects approved in this sub-sector require highly skilled workforce whereby more than 70 per cent of the total employment opportunities are in the managerial, supervisory and technical levels.

### **Power Generating M&E**

Companies in this sub-sector manufacture a wide range of power generating M&E such as boilers, condensers, engines, turbines and industrial generator sets for use in refineries, oil and gas exploration platforms, petrochemical plants and other commercial operations, in accordance with internationally recognised standards.

As the demand for environmentally friendly, efficient and cost effective 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 environmentally friendly renewable energy solutions such as water and wind turbines; and photovoltaic power generating systems.

### **Metalworking Machinery**

The metalworking machinery sub-sector is divided into two categories, namely metal cutting machine tools and metal forming/ shaping machine tools. Among the M&E manufactured in this category are laser cutting

machines, machining centres, electro-discharge machines (EDM), milling machines, drilling machines, lathes, shearing machines, bending rolls, stamping machines, press brakes, forging machines, and hydraulic and power presses.

Most of the metalworking machines produced locally are metal forming/ shaping machine tools such as hydraulic and power press brakes with press capacity ranging from 20 to 3,000 tonnes and sheet metalworking machines.

### **General Industrial M&E, Components and Parts**

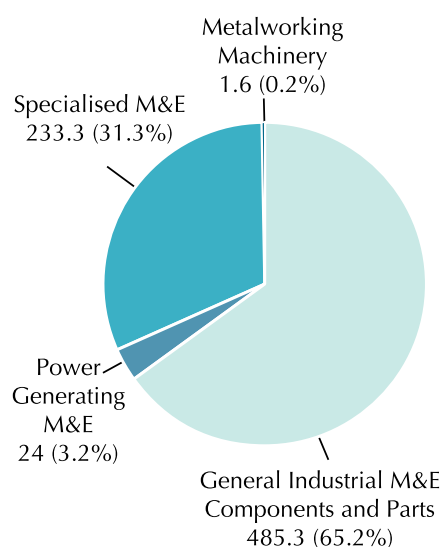
The general industrial M&E, components and parts sub-sector covers a broad category of products such as industrial air-conditioning equipment and plants, elevators, cranes, conveyor systems, pumps, compressors, heat exchangers, pressure vessels, filtering equipment, valves, bearings, gears, actuators, gaskets and fittings.

Companies in this sub-sector have attained international recognition and rankings in their own fields. In the field of tower crane manufacturing, Malaysia is currently one of the three leading countries in Asia, after Japan and the People's Republic of China. Malaysia is also the leading manufacturer in the South East Asian region for pressure vessels, process equipment and modules for chemical, petrochemical, and oil and gas industries.

## Projects Approved in 2011

In 2011, a total of 74 projects with investments of RM744.2 million were approved in the M&E industry. Of these, 44 were new projects (RM360.3 million or 48.4%) and 30 were expansion/diversification projects (RM383.9 million or 51.6%). Domestic investments totalled RM492.8 million (66.2%) while foreign investments amounted to RM251.4 million (33.8%). Projects approved in 2011 are expected to generate employment opportunities for 3,936 persons.

Graph 16  
Investments in Projects Approved in the  
M&E Industry by Sub-sector, 2011



The specialised M&E for specific industry sub-sector contributed 21 projects with investments of RM233.3 million. These comprised 14 new projects with investments of RM129.4 million (55.5%) and seven expansion/diversification projects with investments of RM103.9 million (44.5%). Foreign investments amounted to RM70.5 million (30.2%)

while domestic investments totalled RM162.8 million (69.8%).

The power generating M&E sub-sector contributed three projects with investments of RM24 million. These comprised two new projects with investments of RM12.7 million and one expansion project with investments of RM11.3 million. Domestic investments amounted to RM17.5 million (72.9%) while foreign investments totalled RM6.5 million (27.1%).

The metalworking machinery sub-sector contributed one new project with domestic investments of RM1.6 million.

The general industrial M&E, components and parts sub-sector contributed 49 projects with investments of RM485.3 million. These comprised 27 new projects with investments of RM216.6 million (44.6%) and 22 expansion/diversification projects with investments of RM268.7 million (55.4%). Foreign investments amounted to RM174.4 million (35.9%) while domestic investments totalled RM310.9 million (64.1%).

Significant projects approved included:

- A majority Malaysian-owned diversification project with investments of RM141.8 million to manufacture winches for the oil and gas industry and shipyards. This company is one of the top global manufacturers for tower, offshore and port cranes. This project involves an acquisition of a foreign company with more than 10



years experience for its technical and business know-how. Eighty per cent of the winches will be exported to foreign shipyards, ship-owners and rigging companies;

- A wholly Malaysian-owned diversification project with investments of RM29.3 million to manufacture tyre building machinery and parts. The company is currently involved in the manufacture of rubber tyre moulds. This project will enhance the company's capability to move up the value chain;
- A new wholly foreign-owned project with investments of RM31.6 million to manufacture oil and gas well completion equipment such as liner hangers, liner support, gravel pack tools, flow control and packer systems;
- A wholly foreign-owned diversification project with investments of RM28 million to manufacture test handling system, modules and related components for the semiconductor industry;
- A majority Malaysian-owned diversification project with investments of RM21.8 million to manufacture solvent extraction plants for animal oil, fixed fats, oleochemical and other processing excluding crude palm oil. The company, which is currently involved in the fabrication of pressure vessels, is now venturing into supplying turnkey projects for solvent extraction plants;
- A new wholly Malaysian-owned project with investments of RM7.7 million to manufacture mechanical seals for the petrochemical and oil and gas industries. The company also undertakes research and development activities and has successfully obtained two patents for its mechanical seals;
- A new wholly foreign-owned project with investments of RM5.9 million to manufacture packaging machines and parts thereof. The company will supply all its products to Nestle, Procter & Gamble and Unilever companies overseas;
- A wholly Malaysian-owned project with investments of RM4.8 million to manufacture auto vision inspection handlers, robotic loaders and flexible manufacturing systems, and medical and surgical glove packing machines. This company is an existing M&E company which undertakes R&D, D&D and manufacturing activities for the E&E industry. This diversification project will expand their client base to include the medical industry;
- A new wholly Malaysian-owned project with investments of RM2.8 million to manufacture test chambers for various applications such as IT, electronics, aerospace, defense, scientific, medical laboratories and manufacturing R&D. The product manufactured is environmentally friendly as it is free from chlorofluorocarbon (CFC) and hydrofluorocarbon (HFC); and

- A new wholly Malaysian-owned project with investments of RM1.7 million to design, develop and manufacture automated and semi-automated M&E for the medical industry. This company will offer complete production lines which include manufacture, testing, and packaging of intravenous (IV) catheters, syringes, and injection needles.

Projects approved in 2011 indicated that the M&E industry has moved up the value chain to further undertake R&D, engineering design, assembly and testing to cater to the oil and gas, E&E, pharmaceutical and medical industries. The relatively strong engineering supporting industry in Malaysia which provides solutions for outsourcing requirements is one of the major factors that attract M&E companies to invest in Malaysia. Strong intellectual property protection laws are also an added factor influencing foreign manufacturers of high technology and advanced M&E to locate their operations in Malaysia.

The future direction of the M&E industry will continue to focus on high technology and 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. With the availability of high skilled human resources in R&D and D&D for M&E manufacturing activities, coupled with a dynamic engineering supporting industry providing total solutions, Malaysia will remain competitive as a

preferred location for manufacturing solutions and production technology.

## **ENGINEERING SUPPORTING INDUSTRY**

Malaysia's engineering supporting industry which encompasses the mould and die, machining, metal stamping, metal casting, surface engineering, heat treatment and forging activities provides vital support for the industrial development of the country, in view of its linkages to various economic sectors such as manufacturing, construction, transportation, mining and agriculture.

In the last four decades, the industry has progressed in tandem with the country's transformation from an agriculture dependent economy to a global manufacturing hub. Building on their vast experience and international recognition for their capabilities, consistent quality production and fast and reliable delivery in a diverse range of engineering activities, particularly in machining and fabrication, players in the industry have begun upgrading their facilities and acquiring technologies to meet the stringent requirements of OEMs for parts and components and precision engineering services.

By moving up the value chain and providing total manufacturing solutions, as well as parts and components for high technology industries in the E&E, automotive, machinery manufacturing, medical, oil and gas, aerospace, defence and solar/photovoltaic industries, the

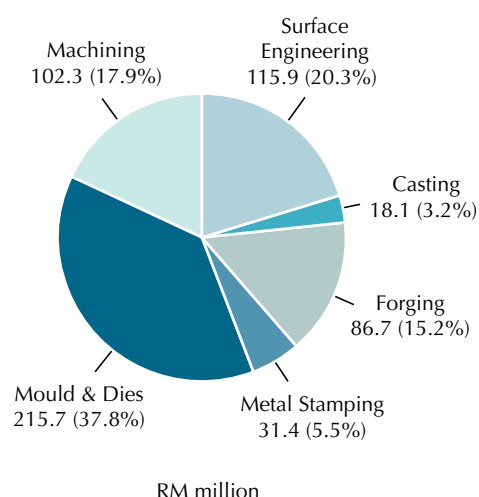
industry will be a major contributor to Malaysia's efforts to become a preferred location for the global outsourcing demands.

Among leading Malaysian companies capable of providing total manufacturing solutions to advanced global demands are Alpha Master Sdn. Bhd., Atasmi Precision Machinist Sdn Bhd., UWC Holdings Sdn. Bhd., Lypometal Sdn. Bhd., Kobay Technology Sdn. Bhd. and Kein Hing International Bhd. These companies develop and produce high value-added modular components, machine structures, precision engineering parts, sheet metal fabrication and sub-assemblies and undertake surface finishing.

### ***Projects Approved in 2011***

A total of 42 projects were approved in the engineering supporting industry in 2011 with investments of RM570.1

**Graph 17**  
**Investments in Projects Approved in the Engineering Supporting Industry by Sub-sector, 2011**



million compared with 59 projects (RM681.4 million) in 2010. Of these, 36 were new projects (RM440.7 million or 77.3%) and six were expansion/diversification projects (RM129.4 million or 22.7%). Domestic investments amounted to RM176.9 million (31%) and foreign investments totalled RM393.2 million (69%). Projects approved in 2011 are expected to generate employment opportunities for 2,831 persons.

The mould and die sub-sector contributed 15 projects with investments of RM215.7 million. These comprised 12 new projects with investments of RM123.3 million (57.2%) and three expansion/diversification projects with investments of RM92.4 million (42.8%). Foreign investments amounted to RM156.7 million (72.6%) while domestic investments totalled RM59 million (27.4%).

The machining sub-sector contributed 16 projects with investments of RM102.3 million. These comprised 14 new projects with investments of RM96.5 million (94.3%) and two expansion/diversification projects with investments of RM5.8 million (5.7%). Foreign investments amounted to RM56.3 million (55%) while domestic investments totalled RM46 million (45%).

The metal stamping sub-sector contributed two new projects with investments of RM31.4 million. Foreign investments amounted to RM20.8 million (66.2%) while domestic investments totalled RM10.6 million (33.8%).



The metal casting sub-sector contributed two new projects with investments of RM18.1 million. Foreign investments amounted to RM4.3 million (23.8%) while domestic investments totalled RM13.8 million (76.2%).

The surface engineering sub-sector contributed six projects with investments of RM115.9 million. These comprised five new projects with investments of RM84.6 million (73%) and one expansion/diversification project with investments of RM31.3 million (27%). Foreign investments amounted to RM68.4 million (59%) while domestic investments totalled RM47.5 million (41%).

The forging sub-sector contributed one new project with foreign investments of RM86.7 million.

Significant projects approved included:

- A new wholly foreign-owned project with investments of RM86.7 million to undertake the manufacture of forged products of steel and non-ferrous alloys. The company will produce large and complex forged products for the petrochemical and oil and gas industries, making it the only company in Malaysia undertaking this activity;
- A new wholly foreign-owned project with investments of RM60.9 million to undertake coating of steel and iron pipes' activities. This project will provide services for the oil and gas industry for overseas market;
- A wholly foreign-owned expansion project with investments of RM43.8 million to undertake the manufacture of precision sawing wire for silicon ingots. This project will complement the semiconductor and photovoltaic clusters in Malaysia and will further enhance the development of these sub-sectors;
- A diversification project by an existing wholly foreign-owned company involving investments of RM36.8 million to manufacture precision metal stamped and turned parts, machining, tools and dies for the E&E industry. This project will involve the acquisition of an existing company with various engineering technology capabilities to become vertically integrated and serve its group of companies in the Asia Pacific region and South America, as well as other global clients such as HP, Foxcon, Jabil and Xerox;
- An expansion project by an existing joint-venture company with investments of RM30.3 million to manufacture plastic injection moulds. This company is one of the subsidiaries of a group known for supplying plastic injection parts and moulds for the automotive industry. The expansion project proposes to manufacture large moulds of more than 10 tonnes and will enhance the group's capabilities to offer total moulding solutions for the automotive industry;

- A new wholly foreign-owned project with investments of RM16.4 million to undertake precision machining of plastics and metal parts for the medical, aerospace and oil and gas industries. This project will provide outsourcing opportunities to Malaysian companies for secondary processes such as heat treatment, anodising and plating; and
- A new majority Malaysian-owned project with investments of RM10 million to undertake surface engineering activities for high technology industries namely the aerospace, semiconductor, medical and optical industries.

Projects approved for 2011 indicated that the industry is consolidating and rationalising itself to provide total solutions to complement the growth of the manufacturing sector in Malaysia which is moving towards high technology, capital-intensive and high value-added industries.

Future development of the engineering supporting industry will focus on strengthening its services, and enhancing its capabilities and quality of production to provide total solutions. The industry is gearing towards international certification for the supply of parts and components for the aerospace, medical and solar/photovoltaic industries.

As the global outsourcing market is growing rapidly, Malaysia needs to have in place many more total solution

or manufacturing solution providers to secure a larger share of the global market demand, especially for high technology industries. The engineering supporting industry will continue to be a major contributor to Malaysia's efforts to become a preferred location for the global outsourcing demands.

## **BASIC METAL PRODUCTS**

The basic metal products industry supplies primary and intermediate products and inputs required for the development of the manufacturing and construction sectors.

The industry comprises two sub-sectors namely ferrous (iron and steel) and non-ferrous (aluminium, tin, copper, zinc, lead, etc) metal products. There are currently 410 companies approved manufacturing licences with a total installed capacity of 36.1 million tonnes.

The basic metal products sub-sectors can be categorised into three distinct products/groups namely:

- Primary products comprising scrap substitutes such as hot-briquetted iron and direct reduced iron; and semi-finished products such as billets, blooms and slabs;
- Rolling and finished products comprising long products such as bars; wire rods and sections; and flat products such as hot-rolled plates and sheets and cold-rolled coils; and

- Secondary products comprising wire and wire products such as nails; wire mesh; bolts and nuts; and secondary flat products.

Imports of iron and steel products amounted to RM24.8 billion in 2011 while imports of non-ferrous metal products amounted to RM21.2 billion in 2011.

Exports of iron and steel products amounted to RM10.2 billion in 2011 while exports of non-ferrous metal products amounted to RM10.9 billion in 2011.

The World Steel Association estimates that global steel consumption will grow by 6.5 per cent in 2011, following growth of 15.1 per cent in 2010. In 2012, it is forecasted that world steel demand will grow further by 5.4 per cent, despite the economic slowdown in the USA and the European sovereign debt crisis.

Malaysia's apparent steel consumption in 2010 totalled 8.8 million tonnes, an increase of 14 per cent from 2009. In 2011, Malaysia's apparent steel consumption is expected to grow by 5 to 7.5 per cent. The higher forecast in 2011 is mainly attributed to recovery in steel demand in the first half of the year.

Steel production in Malaysia is dominated by long products, principally used in the construction sector, such as billets (7.6 million tonnes), steel

bars (3.1 million tonnes) and wire rods (1.2 million tonnes). Production of flat products such as hot rolled coils (2.5 million tonnes) and cold rolled coils (0.7 million tonnes) is increasing in tandem with increasing manufacturing activities.

### ***Projects Approved in 2011***

In 2011, a total of 38 projects were approved with investments of RM9.9 billion. Of the 38 projects, 22 were new projects with investments of RM7.3 billion while 16 were expansion/diversification projects with investments of RM2.6 billion. Of the approved, RM6.3 billion or 64 per cent were domestic investments while RM3.6 billion were foreign investments.

Major projects approved included:

- A new majority Malaysian-owned project to undertake integrated manufacturing of aluminium rods with investments of RM2.5 billion;
- A new majority Malaysian-owned project with investments of RM1.8 million to undertake aluminium smelting activities;
- An expansion project by a majority Malaysian-owned company to manufacture wire mesh and rail tracks with investments of RM985 million;
- An expansion project by a wholly foreign-owned company to

manufacture seamless and welded pipes with investments of RM886 million;

- A new wholly foreign-owned project to manufacture silicon metal and silica fume with investments of RM815 million;
- A new majority Malaysian-owned project with investments of RM700 million to manufacture hot rolled coils;
- A new wholly foreign-owned project with investments of RM637 million to manufacture metal silicon; and
- An expansion project by a wholly Malaysian-owned company to manufacture iron pellets with investments of RM210 million.

The basic metal products industry is expected to continue to contribute to the development of Malaysia's economy. Following the setting up of a medium/heavy section plant and a hot-rolled coil plant in Malaysia, local sourcing of such steel products/materials by various midstream and downstream consumer industries is gaining momentum.

The Government will continue to promote investments in the production of basic metal products with growth potential such as metal alloys in extreme and highly-demanding applications for turbine blades of jet engines, spacecrafts, nuclear reactors and others. Common alloyants including manganese, nickel, chromium,

molybdenum, vanadium, silicon and boron and less common alloyants such as aluminium, cobalt, copper, cerium, niobium, titanium, tungsten, tin and zirconium will be further developed in view of their importance and also to complement the metal industries.

A recent development in the policy related to basic metal products industry is the implementation of mandatory standards on imports of aluminium sheets and foils covering six tariff lines effective 1 November 2011. The new measure is introduced to ensure the raw materials used in end products produced in the country meet the quality and safety requirements.

## **FABRICATED METAL PRODUCTS**

Metal fabrication activities can be classified into four categories, namely:

- Fabrication for the offshore/onshore oil and gas industry;
- Building and civil construction fabrication;
- Processing and manufacturing plant fabrication; and
- Industrial machinery and equipment structures and component fabrications.

The industry also covers other products such as the manufacture of tanks, drums, metal boxes, tin cans, metal

furniture and fixtures, wire and wire products, non-ferrous metal products and household wares.

### ***Projects Approved in 2011***

In 2011, a total of 63 projects were approved for the manufacture of fabricated metal products with investments of RM1.4 billion. Domestic investments amounted to RM619.8 million (44%), while foreign investments totalled RM804.7 million (56%). Of the 63 projects approved, 51 were new projects (RM1.1 billion) and 12 were expansion/diversification projects (RM326.4 million). Projects approved in 2011 are expected to generate additional employment opportunities for 4,153 persons.

Major projects approved included:

- A new majority Malaysian-owned project to manufacture petroleum production platforms with investments of RM300 million;
- A new wholly foreign-owned project to manufacture induction heated quenched and tempered wires for automotive industry with investments of RM239.7 million; and
- An expansion project by a wholly Malaysian-owned company to manufacture beverage cans with investments of RM111 million.

The metal fabrication industry in Malaysia is an established industry

supplying fabricated metal products to a wide range of industries including oil and gas, machinery and equipment, E&E, construction and automotive.

The industry is dominated by Malaysians and many Malaysian companies have developed world class capabilities in a diverse range of activities. The future development of the industry will depend on its ability to diversify the range of products to cater for the advanced requirements of high technology industries such as oil and gas, aerospace and automotive.

### **TEXTILES AND TEXTILE PRODUCTS**

The textiles and textile products industry in Malaysia comprises four sub-sectors, namely primary textiles which cover activities such as polymerisation, spinning, weaving, knitting and wet processing; made-up garments; made-up textiles; and textile accessories.

Currently, there are more than 662 licensed companies in operation, producing a wide range of textiles and textile products from fibres, yarn and fabrics to made-up garments and dyeing, printing and finishing of yarn and fabrics. In addition, there are about 1,000 small scale textile companies in operation which are exempted from Manufacturing Licence.

Due to the intensified global competition, Malaysian textile manufacturers are moving up the

value chain by diversifying into the production of higher value-added textiles, implementing automation and computerised manufacturing processes, seeking business collaboration with foreign companies to acquire new technologies and undertaking research and development activities to develop new processes, new applications and value-added products.

In 2011, the textiles and textile products industry was the tenth largest export earner, contributing approximately 2.3 per cent to Malaysia's total exports of manufactured goods. In 2011, exports of textiles and textile products amounted to RM10.8 billion. The main export items were yarn, woven fabrics and apparels. Malaysian apparel manufacturers continue to maintain an excellent reputation for quality and capability in the production of up-market brands such as Nike, Adidas, DKNY, Ann Taylor, Armani, Talbots and Tommy Hilfiger.

In 2011, imports of textiles and textile products amounted to RM6.6 billion. The main import items were yarn and woven fabrics which were used for the production of fabrics and made-up garments.

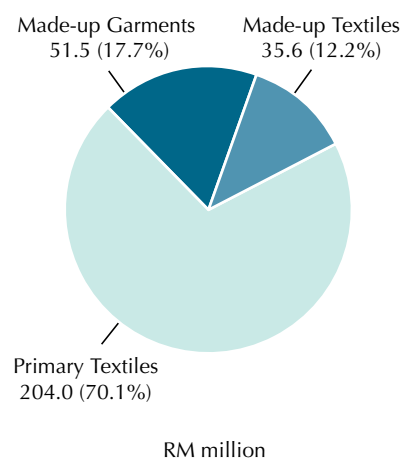
### ***Projects Approved in 2011***

In 2011, a total of 14 projects were approved in the textiles and textile products industry with investments of RM291.1 million. Of these, eight were new projects (RM59.8 million) while

the remaining six were expansion/diversification projects (RM231.3 million). Domestic investments amounted to RM55 million (18.9%) while foreign investments totalled RM236.1 million (81.1%).

Of the 14 projects approved, three projects were for the production of primary textiles (RM204 million), seven projects for made-up garments (RM51.5 million) and four projects for the made-up textiles (RM35.6 million). The approved projects would generate a total of 1,356 employment opportunities, of which 492 were in the managerial, technical, supervisory, and skilled manpower categories. Some of the skilled jobs to be created include engineers, technicians and designers.

**Graph 18**  
**Investments in Projects Approved in the Textiles and Textile Products Industry by Sub-sector, 2011**



The major projects approved were:

- An expansion project by an existing foreign-owned company with additional investments of RM195



million for the production of yarn. This company is currently producing polyester chips, fibre, yarn and fabrics and undertaking bleaching, dyeing, printing and finishing fabrics activities. The company proposed to set up a new state-of-the-art fourth generation fully drawn yarn/partially oriented yarn technology plant in Malaysia. This project when implemented would be the first of its kind in the ASEAN region. The project would create higher income jobs for skilled workers and provide significant contribution to the GNI of the country. Ninety per cent of its production will be exported to the USA, Europe and Japan; and

- An expansion project by a Malaysian-owned company with an investment of RM23.3 million. The company proposed to manufacture ropes and fishing nets and other nets for industrial use from man-made fibre. This project encompasses a broad range of integrated manufacturing activities and various rope production processes. The project will produce established products under the 'Eagle' and 'Fish' brands which are well-known in the fishing nets industry. Sixty per cent of its production is for the local market.

The textiles and textile products industry continues to be an important industry to the Malaysian economy. The continued investments by existing and new investors indicates that Malaysia is still capable of sustaining

its domestic and global market share due to its reputation for high quality textile products and ability to meet prompt delivery deadlines.

The majority of the projects approved in the textiles and textile products industry have plans to export a significant portion of the output. When implemented, these projects will generate significant export earnings of about RM671 million per annum for Malaysia.

## **MEDICAL DEVICES INDUSTRY**

The medical devices industry has experienced significant growth in recent years. The global medical devices industry is fairly large, intensely competitive and highly innovative, with estimated worldwide sales of more than US\$300 billion and is growing at 10 per cent annually. Growth in this industry is fuelled by an aging population, increases in healthcare expenditure and product innovation. The USA is currently the largest market for medical devices, accounting for 47 per cent of the total market.

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 to diagnostic imaging equipment and minimal invasive surgical equipment and other devices which can be used for medical, surgical, dental, optical and

general health purposes. Currently, the Malaysia's medical devices market is valued at about US\$900 million. By 2015, the value of Malaysia's medical devices market is expected to reach US\$1.7 billion.

The medical devices industry in Malaysia is dominated by small and medium-sized companies engaged in the production of medical gloves and other medical disposable products. Currently, there are more than 180 medical devices manufacturers including some world renowned MNCs operating in Malaysia. These MNCs include Ambu, B. Braun, C.R. Bard, Ciba Vision, Meditop Corporation, St. Jude Medical, Symmetry Medical, Accelent and Teleflex.

The MNCs in the industry 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.

The industry continues to expand as existing medical devices companies, both local and foreign, expanded their operations in Malaysia, and new manufacturing facilities were established in the country. The existing companies include Hartalega, Top Glove, Terang Nusa, Dufu Industries, Ciba Vision and Munivac while new companies include Qube Medical, Peri-dent Star, Umami Medical and Formedic Technologies.

The medical devices industry has been identified as one of the growth areas and has been included under the Healthcare NKEA. To date, the Government has announced seven new medical devices related EPPs, which will create RM17.1 billion in revenue as well as RM11.4 billion in GNI and generate 86,000 jobs by 2020.

In order for Malaysia to become a significant player in the medical devices market in Asia Pacific in the near future and capture niche value-added markets in Europe, the USA and other countries by 2020, major initiatives will be undertaken which include improving the domestic market penetration, increasing exports and moving up the value chain. An additional goal in the initiative includes passage of the Medical Device Bill. The Bill has been under review since September 2011 and, once passed, would require registration of all medical devices imported or sold in Malaysia.

In 2011, exports of medical devices were valued at RM11.7 billion. Malaysia continued to be a major exporter and producer of medical gloves and catheters with exports valued at RM9.1 billion, accounting for about 77.8 per cent of total exports of medical devices. Other major exports included instruments and appliances used in medical, surgical, dental or veterinary sciences (RM1.5 billion), ophthalmic lenses, including contact lenses (RM353.2 million) and orthopaedic



appliances (RM230.9 million). The USA, Europe and Japan were the major export destinations.

### ***Projects Approved in 2011***

A total of 16 projects with investments of RM735.2 million were approved in 2011. Of these, seven were new projects with investments of RM104.8 million and nine were expansion/diversification projects (RM630.4 million). Foreign investments amounted to RM282.5 million (38.4%) while domestic investments totalled RM452.7 million (61.6%). These projects will create more than 6,000 jobs.

Of the 16 projects approved, eight projects with investments of RM266.6 million or 36.3 per cent of total investments were for the manufacture of non-medical gloves. These projects were mainly for high-end and high value-added products that involve R&D.

Among the significant projects approved were:

- An expansion project by a wholly foreign-owned company with investments of RM180 million to manufacture contact lenses inclusive of silicon hydrogel. The company will be undertaking R&D activities with an estimated expenditure of RM18 million. The project would bring an additional of 822 employment opportunities. The products will be exported mainly to the USA, Europe and Japan;
- A new project by a wholly Malaysian-owned company with investments of RM17.7 million to manufacture medical and laboratory equipment and devices. The company will also be undertaking design and development activities to manufacture these products. The company is expected to engage a high level of skilled manpower with its MTS index at 66 per cent. With its high level of local content and value addition, this project will contribute significantly to the local outsourcing chain. The products will be exported mainly to ASEAN countries, Middle East and Africa; and
- A new project with investments of RM1.3 million by a wholly Malaysian-owned company to manufacture portable percussion for congested lung. The product, which is for patients with chronic diseases such as cystic fibrosis, neurovascular disease and chronic obstructive pulmonary disease, is the first of its kind to be manufactured in Malaysia. The product itself is an innovation by local Malaysian and is in the process of being patented. The project's high number of knowledge workers with MTS index of 75 per cent is significant in portraying local capabilities. The product will be exported to the USA, Europe, Japan and the People's Republic of China.

The approved projects indicate that the medical devices industry in Malaysia

has expanded and diversified into higher value-added range of products, in line with the NKEAs. These projects provide outsourcing opportunities for local companies especially small and medium companies. These outsourcing activities would include machining for instruments, moulding, sterilisation services, sterile medical packaging and EMS.

With a strong presence in supporting industries for the medical devices industry, the expansion in production of higher quality and technology intensive as well as sophisticated medical devices is expected to continue. This is in line with the objective of Healthcare NKEA which aims to develop the medical technology sub-sectors such as medical devices, diagnostic equipment and healthcare information technology.

## **AGRICULTURE AND FOOD PROCESSING**

### **Agriculture**

The agriculture sector comprises aquaculture and marine fisheries; cultivation of crops/fruits/vegetables; floriculture; ornamental fish; livestock farming; and apiculture. Livestock, fisheries, fruits and vegetables are the major sub-sectors with significant linkages to the Malaysian food processing industry.

Poultry and beef are the main products in the livestock sub-sector. Improvements

in rearing and farming methods have contributed to higher productivity in poultry farming and lowering risks to diseases. Although Malaysia is self sufficient in poultry, pork and eggs, a large percentage of the domestic demand for beef and mutton is continued to be sustained by imports.

The fisheries sub-sector in Malaysia can be categorised into marine capture fisheries and aquaculture. Aquaculture remained the fastest growing segment in this sub-sector, with an estimated annual production of 300,000 metric tonnes. Malaysia's total exports of fish and other seafood in 2011 amounted to RM2.7 billion.

The Agriculture NKEA is targeted to raise total GNI contribution by RM20 billion to reach RM49 billion by 2020, through 16 EPPs and 11 business opportunities. The Agriculture NKEA targets the creation of additional 75,000 jobs, mostly in rural areas and increasing the incomes of farmers participating in the initiatives by two to four times. The Palm Oil and Wholesale and Retail NKEAs are the major sources of multiplier effect on the Agriculture NKEA.

In 2011, exports of vegetables and fruits amounted to RM1.4 billion. Most of the fruits produced were for fresh consumption in the domestic market. Imports were mostly of temperate fruits such as apples, grapes and oranges. Total imports of vegetables and fruits amounted to RM4.3 billion in 2011.

## ***Projects Approved in 2011***

In 2011, a total of 43 agricultural projects were approved with incentives. Investments in these projects amounted to RM255 million. Of the projects approved, 40 were new projects (RM233 million), while three were expansion/diversification (RM22 million) projects. Domestic investments amounted to RM196.5 million (77%) while foreign investments totalled RM58.5 million (23%).

The approved projects included floriculture, aquaculture, livestock rearing and cultivation of mushrooms, fruits and vegetables.

Among the major approved projects were:

- A majority Singaporean-owned project with investments of RM78 million to undertake planting of chrysanthemum flowers in Lojing, Kelantan for export markets; and
- A wholly Malaysian-owned project with investments of RM10.5 million to undertake breeding of ornamental fish. More than 95 per cent of the fish will be exported to the People's Republic of China, Taiwan, Japan, Republic of Korea and Hong Kong.

## **Food Processing**

The food processing sub-sector comprises all value adding activities which utilise agricultural or horticultural produce.

Transformation in the food industry from conventional processes into processes utilising emerging technologies mirrors the developments in the industry globally.

Malaysia continues to remain a net importer of food. In 2011, total food imports amounted to RM34.5 billion, compared with RM27.4 billion in 2010. Major imports were cereal and cereal preparations (RM7.2 billion), coffee, tea, cocoa and spices (RM5.7 billion) and vegetable and fruits (RM4.3 billion). Total food exports amounted to RM20.6 billion in 2011 compared with RM16.4 billion in 2010. Among the major items exported were cocoa, coffee and tea products (RM5.6 billion), edible products and preparations (RM4.8 billion) and seafood products (RM2.7 billion).

In July 2011, the Government decided to add the food industry to be the seventh National Key Result Area (NKRA) in addition to the existing six NKRAs. This new NKRA will cover food and other essential items including the supply chain. This is to address the issue of the rising costs of living, whereby the global increase in food prices is now affecting countries all over the world. To ease the people's burden and to address food safety and security, the Government announced that the price control mechanism and subsidy for most of the essential goods will remain.

Several new measures would be undertaken to liberalise the supply chain such as allowing more imported

goods and items into the market, utilising unused empty fields for food production and cultivation and acquiring cheaper alternative sources of feedstock.

chocolate and chocolate confectionery products; seafood products, and other food products such as honey products, food flavours; animal feed; and beverages.

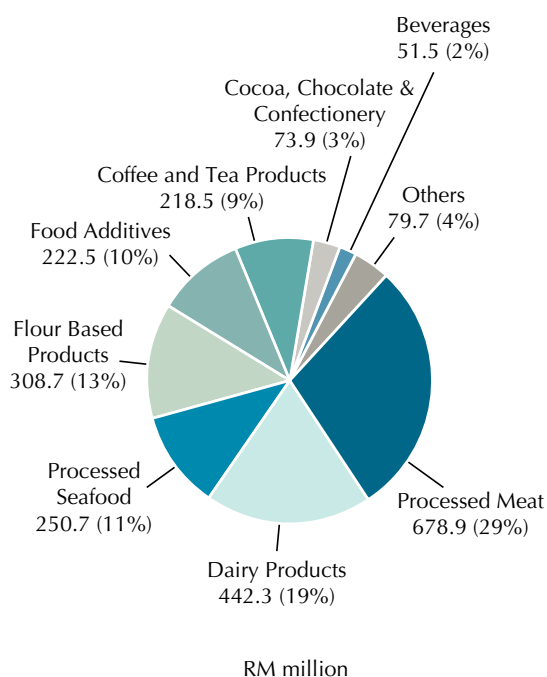
### **Projects Approved in 2011**

A total of 47 projects with investments of RM2.3 billion were approved for the food processing sub-sector (including beverages) in 2011 compared with 80 projects with investments of RM2.6 billion in 2010. Of the total investments approved, foreign investments amounted to RM1.4 billion (60.9%) while domestic investments totalled RM900 million (39.1%).

Significant projects approved were:

- An expansion project by a wholly Malaysian-owned company with investments of RM222 million to produce processed beef, poultry and seafood products. The company is moving towards full mechanisation with dedicated lines for each specific product. This expansion project is to fulfill the increasing demands from Singapore, Thailand, Indonesia, the People's Republic of China, India and the Middle East; and

**Graph 19**  
**Approved Investments in the Food Processing Sector, 2011**



The projects approved were for the production of processed meat products; dairy products; cocoa products,

- A wholly foreign-owned project from Denmark with investments of RM122 million to produce emulsifiers and stabilisers. The company is one of the main global players in the food ingredient sub-sector. The company proposed to undertake R&D activities in the manufacturing and production process improvements in order to increase productivity and production of cake emulsifiers. More than 95 per cent of the products will be exported to the USA, Australia, Brazil, Japan, Republic of Korea, the People's Republic of China, India, Taiwan, and South East Asian countries. This will boost the utilisation of local palm oil products since the company will use local raw materials for its finished products.

## **OIL PALM PRODUCTS**

The oil palm products sub-sector comprises palm oil, palm kernel oil, oleochemicals and derivatives (including biodiesel) and products from palm biomass (including energy generation).

The palm oil industry is an important industry in Malaysia. 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 GNI by 2020.

Indonesia remains the largest producer of palm oil while Malaysia is the largest exporter. The major consumers of palm oil are the People's Republic of China, India and Europe.

In 2011, production of crude palm oil (CPO) totalled 18.9 million tonnes compared with 16.9 million tonnes in 2010. In 2011, the production of crude palm kernel oil and palm kernel cake amounted to 2.1 million tonnes and 2.4 million tonnes, respectively.

The states of Sabah, Johor and Pahang were the main producers of crude palm oil. The utilisation rates of palm oil mills and palm kernel crushers were 93.4 per cent and 63 per cent, respectively while the utilisation rates of palm oil refineries and oleochemicals were 78 per cent and 77.1 per cent, respectively.

Exports of Malaysian oil palm products in 2011, constituting palm oil (crude palm oil and processed palm oil),

palm kernel oil, palm kernel cake, oleochemicals, biodiesel, finished products and other palm products, amounted to 24.3 million tonnes compared with 23 million tonnes in 2010. Exports value increased from RM59.7 billion in 2010 to RM80.3 billion in 2011.

The People's Republic of China remained the largest importer of Malaysian palm oil amounting to 4 million tonne in 2011 followed by Europe, Pakistan, India and the USA.

### ***Projects Approved in 2011***

In 2011, a total of 52 projects with investments of RM3 billion were approved for the production of oil palm products compared with 75 projects with investments of RM3.6 billion in 2010. These included projects producing palm oil and palm kernel oil products, oleochemicals, products from palm biomass and energy generation from palm biomass. Foreign investments and domestic investments each totalled RM1.5 billion. Oleochemicals registered the highest investments with RM1.4 billion, followed by the palm oil and palm kernel oil sub-sector (RM1.1 billion), products from palm biomass (RM396.7 million) and energy generation projects from palm biomass (RM73.7million).

### **Palm Oil and Palm Kernel Oil**

Refining and crushing are the main activities in this sub-sector. Currently, there are 53 refineries and 43 crushing



plants in operation with a total capacity of 22.8 million tonnes and 6.8 million tonnes per year, respectively. The refineries process a total of 16.2 million tonnes of crude palm oil and 1.6 million tonnes of crude palm kernel oil while the crushing plants processed 4.7 million tonnes of palm kernel. The main products produced are refined, bleached and deodorised (RBD) palm olein and stearin. Other products include margarine, vanaspati and specialty fat products.

### ***Projects Approved in 2011***

In 2011, a total of six projects with investments of RM1.1 billion were approved. Of these, four were new projects with investments of RM1.1 billion and two were expansion/diversification projects (RM62 million). Foreign investments amounted to RM1.1 billion while domestic investments totalled RM18.9 million.

The approved projects included a foreign-owned project with investments of RM360 million to manufacture downstream products such as interesterified fat and esterified fat, RBD hydrogenated oil cocoa butter substitute, margarine, shortening/bakery fats, and palm mid fraction and calcium soap.

### **Oleochemicals and Derivatives**

Oleochemicals are products derived directly from naturally occurring fats and oils from animal and vegetable sources. In Malaysia, oleochemicals

are mainly derived from palm-based oils. The industry comprises basic oleochemicals (fatty acids, fatty alcohol, methyl esters, and glycerine) and oleochemical derivatives (fatty esters, fatty amines, soap noodles and metallic soaps) and palm-based constituents such as tocotrienols and carotene.

### ***Projects Approved in 2011***

Nine projects were approved with investments of RM1.4 billion in 2011. Domestic investments amounted to RM1.1 billion (78.6%) while foreign investments totalled RM301.1 million (21.4%).

The major projects approved were:

- An expansion project by a majority Malaysian-owned company with total investments of RM480 million for the production of fatty acids, fatty alcohol, glycerine and surfactants in Selangor;
- A new project by a majority Malaysian-owned company with total investments of RM420 million for the production of fatty acids, glycerine and soap noodles in Sabah;
- A new project by a foreign-owned company with investment of RM270 million for the production of fatty acids, glycerine, soap noodles and personal care products in Johor; and
- Two expansion projects by a majority Malaysian-owned company with total

investments of RM48.3 million for the production of fatty acids, glycerine and medium chain triglycerides in Johor.

The projects approved in 2011 show that the oleochemicals sub-sector has been growing due to increased global demand for more environmentally friendly products. The demand for oleochemicals is expected to be strong in line with the demand growth for consumer products such as cosmetics and plastics. The oleochemicals manufacturers use renewable natural resources, to develop high-performance products that are fully compliant with environmental safety.

With these developments, the oleochemicals sub-sector is expected to focus on further developing higher value-added oleochemical derivatives and consumer products such as soaps, surfactants, polyols, food additives and nutraceuticals, such as tocotrienols (Vitamin E), carotenoids (Vitamin A) and flavonoids.

## **Palm Biomass**

Six types of oil palm biomass are produced as by-products of the palm oil industry, namely 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 biomass from the oil palm industry for higher value-added downstream

activities. The production of bio-fuels, bio-fertilisers and animal feed is expected to generate an additional RM14 billion annually to the palm oil industry, giving it a 20 per cent boost to the current palm product revenue of RM60 billion. 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 until 2015.

## ***Projects Approved in 2011***

In the palm biomass products sub-sector, 32 projects with investments of RM396.7 million were approved in 2011 compared with 37 projects with investments of RM655.1 million in 2010.

Domestic investments amounted to RM321.4 million (81%) while foreign investments totalled RM75.3 million (19%). The approved projects were for the utilisation of empty fruit bunches and palm oil mill effluent to produce organic fertilisers, oil palm plywood, pallets and fibre.

In addition, five projects with investments of RM73.7 million were approved for the generation of energy from palm biomass. Domestic investments totalled RM68.6 million while foreign investments amounted to RM5.1 million.

Refining and crushing activities have reached maturity levels in the country and are no longer promoted

as growth areas, except in the Palm Oil Industrial Clusters (POICs) which are being developed into integrated sites. Significant opportunities, however, exist in downstream activities that generate high value-added products and in the palm biomass sub-sector. In the downstream activities, the growth areas are in oleochemical-based products and palm-based constituents which generally involve high levels of technology.

## **CHEMICALS AND CHEMICAL PRODUCTS**

### **Pharmaceuticals**

Pharmaceutical products manufactured by the Malaysian pharmaceutical industry can be broadly categorised as prescription drugs; over-the-counter (OTC) medicines; and herbal preparations and health supplements, including traditional medicines.

The sector is dominated by domestic investments focused mainly on the production of generic drugs with capability to produce medicines in all dosage forms such as tablets (coated and non-coated), capsules (hard and soft gelatine), liquids, powders, creams, ointments, sterile eye drops and small volume injectables (ampoules and vials).

There are more than 250 Malaysian pharmaceutical manufacturers licensed by the Drug Control Authority (DCA), of which over two-thirds are traditional medicine manufacturers. Ranbaxy and GSK are among the large global

multinational companies that have manufacturing operations in the country. Major domestic players are CCM Pharmaceutical, Hovid, Kotra Pharma, Pharmaniaga and Ain Medicare.

In 2011, exports of pharmaceuticals were valued at RM688.9 million mainly to ASEAN countries such as Singapore, Vietnam, Brunei, Indonesia and Thailand as well as to other countries like France, Germany, Hong Kong and Taiwan. Since the admission of Malaysia as a member of the Pharmaceutical Inspection Convention and Pharmaceutical Inspection Cooperation/Scheme (PIC/S) in 2002, the country's exports of pharmaceutical products received a boost, especially among the member countries, which include the European Union (EU), Australia and Canada.

### ***Projects Approved in 2011***

In 2011, a total of seven projects were approved with investments of RM327.1 million. Of the total, three were expansion/diversification projects (RM285.3 million) and four were new projects (RM41.8 million). Domestic investments dominated this sector with a total value of RM281.6 million (86.1%) while foreign investments totalled RM45.5 million (13.9%).

Among the projects approved were for the production of pharmaceutical formulations and preparations, radiopharmaceutical products,



processed active pharmaceutical ingredients (APIs), herbal medicines, hard gelatine capsules, herbal medicated ointment and cream, ophthalmic solution, nebuliser solution, urological catheterisation sets, lubricating and anaesthetic gel.

Among the significant projects approved were:

- An expansion and diversification project by a wholly Malaysian-owned company with investments of RM227.3 million in Melaka. The company is expected to hire an additional 288 staff, of which 47 per cent will be science and technical personnel. The project is the single largest investment made by a local pharmaceutical company and it will be the largest pharmaceutical production facility in Malaysia. With its new investments, the company will enhance its capabilities to produce all the essential drugs dosage forms (except for vaccine and soft gel) as well as to venture into production of biopharmaceuticals;
- A diversification project by a wholly Malaysian-owned company based in Kelantan with investments of RM39.7 million to manufacture ophthalmic solution, nebuliser solution, disinfectants, and lubricating and anaesthetic gel. The project will create an additional 140 job opportunities including 22 additional engineers and scientists in the East Coast of Malaysia; and
- A new project by a wholly Malaysian-owned company with total investments of RM11.2 million to manufacture hard gelatine capsules in Penang. The project is to cater for the increasing demand of the pharmaceutical industry for high quality empty hard gelatin capsules. The project will create employment opportunities for 170 people of which 58 per cent will be for managerial, technical and supervisory staff.

Under the Healthcare NKEA sector, one of the key recommendations is to promote the manufacturing of generic drugs. The target is to achieve GNI of RM13.9 billion as well as creating 12,500 employment opportunities by 2020.

The key to achieving sustainable growth in the industry is to ensure that the Malaysian pharmaceutical industry produces high value-added products that can compete in the global marketplace. The new capacity expansion and plant modernisation in the local pharmaceuticals industry will result in the production of higher value-added products.

These new investments will create opportunities for more bioequivalent and biosimilar research, as well as clinical trials to be undertaken in Malaysia. It will facilitate the development of knowledge workers in R&D processes and encourage collaboration with local research institutions, universities and private companies particularly research laboratories and clinical research organisations.

## Chemical Products

The chemical industry comprises agricultural chemicals; industrial gases; inorganic chemicals; paints; soaps and detergents; cosmetics and toiletries; and other chemical products sub-sectors.

The major products in these sub-sectors manufactured in Malaysia include:

- Agricultural chemicals (fertilisers and pesticides);
- Industrial gases - oxygen, nitrogen, hydrogen, carbon dioxide, acetylene, argon and nitrous oxide;
- Inorganic chemicals sub-sector - chlor-alkali, acids and some specialty chemicals such as silicates, oxides, hydroxides, acids, electronic chemicals, catalysts and waste treatment chemicals;
- Paints - paints and its related products such as varnishes, shellac, lacquer and thinner; and
- Soaps, detergents, cosmetics and toiletries - using palm oil as the main raw material and includes manufacture of personal care products and toiletries such as bath soaps, shampoos and toothpastes.

### *Projects Approved in 2011*

In 2011, a total of 47 projects with investments of RM3.1 billion were approved. Of these, 16 were new projects

(RM2.4 billion or 76.5%) while 31 projects were expansion/diversification projects (RM723.1 million or 23.5%). Domestic investments amounted to RM295.3 million (10%) while foreign investments totalled RM2.8 billion (90%). The projects approved are expected to generate employment for 1,469 persons.

Of the 47 projects approved:

- Eleven projects with investments of RM2.5 billion were for the manufacture of other chemical products such as polycrystalline silicon, polymeric sulphur, recycling of catalyst, nano particles and other chemical products;
- Nine projects with investments of RM169.7 million were for the manufacture of industrial gases such as hydrogen, oxygen, nitrogen, carbon dioxide and argon;
- Three projects with investments of RM153.7 million were for the manufacture of basic chemicals (sulphuric acid, phosphoric acid and calcium carbonate);
- Eight projects with investments of RM95.4 million were for the manufacture of agricultural chemicals such as fertilisers and herbicides;
- Eight projects with investments of RM69.9 million were for the manufacture of paints, coatings and varnishes; and

- Eight projects with investments of RM50 million were for the manufacture of soaps, detergents, toiletries and personal care products.

Among the significant projects approved were:

- A new polycrystalline silicon project with total investments of RM2.2 billion in Sarawak. This project is wholly owned by a foreign company. The production of polycrystalline silicon is important to support the solar cluster in Malaysia;
- An expansion project by a foreign-owned company with total investments of RM285.9 million for the production of polymeric sulphur in Pahang. The polymeric sulphur is used as a vulcanising agent in the production of tyres;
- Two expansion projects by a foreign-owned company with total investments of RM99.2 million for the production of industrial gases in Terengganu and Sabah. These industrial gases are supplied as inputs to industries for use in welding, cutting, blanketing and hydrogenation and the plants are located near to the customers;
- An expansion project with total investments of RM90.1 million for the production of sulphuric acid in Gebeng, Pahang. This is to support the Lynas Advanced Materials Project (LAMP) project in Gebeng where

sulphuric acid will be used directly in the rare earth refinery; and

- A new project by a Malaysian-owned company with investments of RM43 million to produce phosphoric acid in Selangor. The production of phosphoric acid may support the iron and steel industry as it is used to remove rust on metal surfaces.

The projects approved require additional manpower of 1,371 people. Therefore, the investments in 2011 provide new job opportunities and career development for local workers.

The investment trend for 2011 shows the expansion of product capacity for supply to domestic and export markets. The exports of chemicals and chemical products in 2011 increased to RM13.2 billion or 15.2 percent higher than the corresponding period in 2010. Major products exported were chemical materials and products.

## BIOTECHNOLOGY INDUSTRY

Currently, the biotechnology industry contributes about two per cent of the GDP. It is estimated that by 2020 the industry will contribute approximately 5 per cent of national GDP with total investments of about RM8 billion and employment of 280,000.

Under the 10MP, the focus will be on intensification of commercialisation and innovation in the biotechnology

industry. Among the action plans are programmes to intensify FDI participation, expand pool of knowledge workers, create global brands, increase technology acquisition and develop expertise in drug discovery as well as improve new product development.

Malaysia's biotechnology industry is targeted at applications in three major fields namely healthcare (pharmaceutical, nutraceuticals, pharmagenomics and gene therapy), agriculture (improved crop yields and increased resistance to environmental stress) and industrial (cosmetics, biodegradation and bioremediation).

Malaysia currently has a total of 210 Bionexus Status companies with total investments of RM2.2 billion.

### ***Projects Approved in 2011***

A total of 25 companies with proposed total investments of RM184.9 million were approved with Bionexus Status as at 13 December 2011 in healthcare, industrial and agricultural biotechnology. The agricultural and industrial biotechnology fields dominated this sector with investments valued at RM86.8 million (46.9%) and RM88.1 million (47.7%), respectively.

Domestic investments amounted to RM162.2 million (87.7%) while foreign investments totalled RM22.7 million (12.3%). Foreign investments were from the USA, Taiwan, the People's Republic of China, Australia and Singapore.

Among the major products/activities that were approved included:

- Herbal products using advanced bioscience technology;
- Paper products using biotechnology process;
- POME treatment system for the capture of biogas as a source of renewable energy and to undertake its related research and development activities;
- Animal feed additives; and
- Bioplasticiser and resins utilising enzymatic process.

A significant project was by a wholly foreign-owned company to manufacture propanediol (PDO) in Iskandar Malaysia, Johor. This project will be the first of its kind to be established in Malaysia. With investments of RM110 million, the company would also be conducting its own R&D focusing on process developments for the fermentation of biomass. The company plans to utilise local crude glycerine, a product of oleochemicals plants as its feedstock. The first plant with an installed capacity of 8,000 tonnes will be ready by the end of 2012.

The industry had an impressive growth in 2011 in line with the growth trends of the global biotechnology industry. The high percentage of approvals for agricultural and healthcare related

biotechnology products/activities in 2011 is consistent with the projection under the NKEAs and the National Biotechnology Policy to transform and advance the agricultural sector as well as develop a platform to access the nation's natural resources with commercialisation potential.

In addition, the industry has received numerous pledges of interest in the manufacturing of active pharmaceutical ingredients and biopharmaceuticals from the USA and India.

## **PETROLEUM PRODUCTS INCLUDING PETROCHEMICALS**

The petroleum and petrochemical industry comprises three sub-sectors, namely natural gas, petroleum products and petrochemicals. Natural gas is mainly used for the production of liquefied natural gas (LNG), power generation and as a feedstock for the petrochemical industry. The petroleum products sub-sector includes lubricating oils and refinery products such as liquefied petroleum gas, naphtha, gasoline, kerosene, fuel oils, gas oils, jet oils, diesel and bitumen.

Petrochemical products are derived from petroleum products and other hydrocarbon sources. The Malaysian petrochemical industry currently offers a wider range of petrochemical products including olefins, polyolefins, aromatics, ethylene oxide, glycols, oxo-alcohols, ethoxylates, acrylic acids,

phthalic anhydride, acetic acid, styrene monomer, polystyrene, ethylbenzene, vinyl chloride monomer and polyvinyl chloride. These petrochemical products are consumed in a wide variety of industries such as construction, automotive, agricultural products, textiles, packaging and various other consumer goods industry.

The growth of the domestic petrochemical industry is attributed to the existence of the three integrated petrochemical zones which offers centralised utilities, efficient storage services and comprehensive transportation network that help to reduce capital and operational costs. Each zone is an integrated complex with crackers, syngas and aromatics facilities to produce basic feedstock for downstream products. The development of these zones with clusters of petrochemical plants has resulted in a value chain that ensures the progressive development of downstream petrochemical activities.

### ***Projects Approved in 2011***

A total of 15 projects with investments of RM2.7 billion were approved in 2011, of which five were new projects with investments of RM124.5 million and ten were expansion projects with investments of RM2.6 billion. Domestic investments amounted to RM1.7 billion (63%) while foreign investments totalled RM968.5 million (37%). The projects approved will provide potential employment for 405 persons.

The major projects approved were:

- An expansion project by a majority Malaysian-owned company with total investments of RM1.3 billion for the regasification of liquefied natural gas in Melaka;
- An expansion project by a joint-venture company with investments of RM853 million for the production of gas oil and sulphur in Negeri Sembilan;
- An expansion project by a foreign-owned company with total investments of RM175 million for the production of polyvinyl butyral resin in Pahang; and
- An expansion project by a foreign-owned company with total investments of RM168.7 million for the production of emulsion polyvinyl chloride paste resin in Pahang.

The trend of investments in the industry for the past three years has been towards increasing feedstock availability, expanding capacities, enhancing the value-add of existing products and broadening the range of petrochemicals produced in the country. This has resulted in improved export performance.

The Government encourages the private sector to invest in support facilities, infrastructure and supply services, which are important for

the development of petrochemical zones. These investments are to be undertaken through a consortium of joint-ventures. This would enable the sharing of costs in building and maintaining the facilities at competitive levels. Development of upstream and downstream linkages is also a part of the plan. Efforts would also be made to realise the full potential of the three major existing petrochemical zones, through a systematic and coordinated approach. These efforts are in line with the ETP and NKEA for oil and gas.

In terms of market, the petrochemical industry is facing challenging times with downward pressure on product prices caused by a massive increase in capacities in Asia and the Middle East. Malaysian producers will need to constrain feedstock costs in order to sustain production volumes. This would depend on the industry's ability to maintain competitive advantages over other competing nations in the global market.

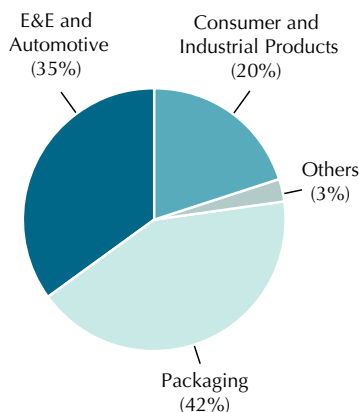
## **PLASTIC PRODUCTS**

The plastic products industry comprises a number of sub-sectors with many useful applications. The major sub-sectors are plastic packaging, E&E and automotive components and consumer and industrial products.

The plastic packaging sub-sector, both flexible and rigid (including bags, films, bottles and containers), remains the largest sub-sector in the



**Graph 20**  
**Sub-sectors of the Plastic Products Industry, 2011**



Source: Malaysian Plastic Manufacturers Association

plastic products industry. The main production processes in the plastic products industry are film extrusion, injection moulding, pipes and profiles extrusion, blow moulding and foam moulding. In 2011, the plastic industry recorded a total sales turnover of RM16.1 billion.

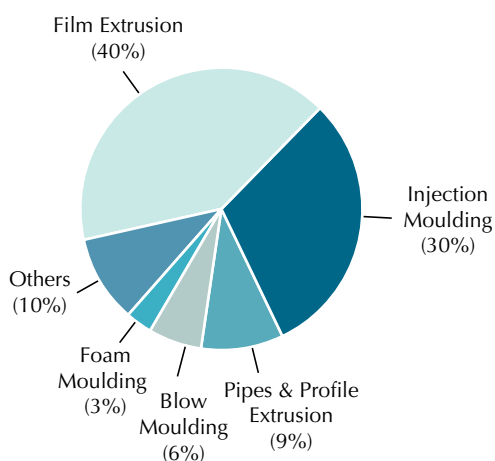
The growth of the domestic downstream plastic processing activities can

be attributed to the existence of a developed petrochemical sector in Malaysia. The sector provides a steady supply of materials for 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).

### **Projects Approved in 2011**

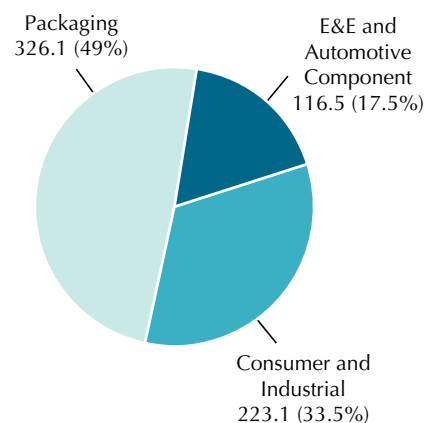
A total of 55 projects with investments of RM665.7 million were approved in 2011, of which 32 were new projects with investments of RM465.9 million, and 23 were expansion/diversification projects with investments of RM199.8 million. Foreign investments amounted to RM271 million (40.7%) while domestic investments totalled RM394.7 million (59.3%). The projects approved will provide potential employment for 3,032 persons.

**Graph 21**  
**Profile of the Plastic Products Industry by Manufacturing Process, 2011**



Source: Malaysian Plastic Manufacturers Association

**Graph 22**  
**Investments in Projects Approved in the Plastic Products Industry by Sub-sector, 2011**



RM million

The packaging sub-sector remained the leading sub-sector in 2011 with 28 projects and investments of RM326.1 million. Of these, 17 were new projects (RM221.4 million) and 11 were expansion/diversification projects (RM104.7 million). The majority of these projects were for the manufacture of flexible packaging, sheets and bags, and blow moulding bottles and containers.

A total of 22 projects were approved in the consumer and industrial sub-sector (RM223.1 million). Of these, 12 were new projects (RM136 million) while ten were expansion/diversification projects (RM87.1 million).

Five projects were approved in the E&E component and automotive component sub-sector with investments of RM116.5 million.

Among the major projects approved were:

- A new joint-venture project with investments of RM95.3 million to manufacture solar encapsulant films which are used in the production of solar panels/solar cells;
- A wholly foreign-owned project with investments of RM75 million to manufacture plastic bottles, preforms and caps for the food industry; and
- A wholly Malaysian-owned project with investments of RM74.7 million to undertake the activity of recycling

of plastic wastes to produce plastic pallets.

The growth of the plastic products industry is dependent on the growth in the NKEAs announced in the 10MP. It is also driven by an increase in exports of plastic packaging, mostly industrial applications driven by increasing demand specifically from the food sector, which are mainly exported to major world markets such as the USA, Europe, Australia and Japan. Malaysia is able to produce high quality and environmentally friendly plastic packaging products at competitive prices. With new emerging markets, especially the People's Republic of China, the demand for regional suppliers is expected to grow.

Trade liberalisation under the Free Trade Agreements (FTAs) and ASEAN Free Trade Agreement (AFTA) has opened up vast opportunities for Malaysian plastic manufacturers. However, due to the competitive nature of the industry, the future growth of the Malaysian plastic products industry will depend on the ability of domestic manufacturers to sustain their competitiveness through improvements in technologies and skills to maintain current markets and diversify into new markets. In this regard, it is important that the Malaysian plastic products industry continuously keeps abreast with the developments in international environmental regulations and directives such as Restriction on Hazardous Substances (RoHS), Waste Electrical and Electronics



Equipment (WEEE), Energy Using Products (EuP), End of Life Vehicle (ELV) and Registration, Evaluation and Authorisation of Chemical Substances (REACH).

## RUBBER PRODUCTS

The rubber products industry can be categorised into latex products, tyres and tyre-related products and industrial and general rubber products. The industry is dominated mainly by small and medium enterprises.

Domestic consumption of natural rubber in 2011 was estimated at 399,000 tonnes. Consumption by the latex products sub-sector constituted 85 per cent of the total domestic natural rubber consumption in Malaysia.

Total revenue from exports of rubber products in 2011 amounted to RM18.1 billion while imports of rubber products totalled RM5.8 billion.

### *Projects Approved in 2011*

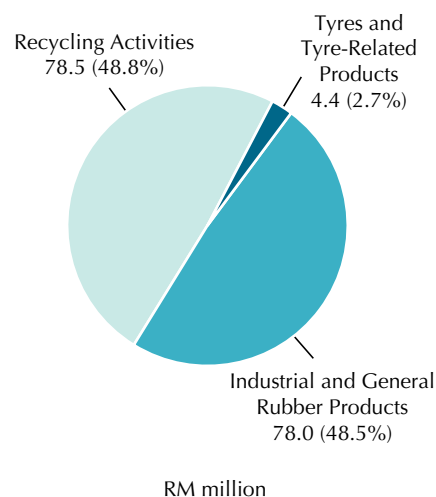
A total of 11 projects with investments of RM160.9 million were approved in the rubber products industry (excluding medical devices). Of these, eight were new projects with investments of RM144.1 million, while three were expansion/diversification projects with investments of RM16.8 million.

The approved projects involved domestic investments of RM123.3 million (76.6%) and foreign investments

of RM37.6 million (23.4%), respectively. Four of the projects approved were wholly Malaysian-owned (RM82.1 million), five projects were joint-ventures (RM73.1 million) and two projects were wholly foreign-owned (RM5.7 million).

The investments were mainly in industrial and general rubber products, recycling of waste tyres into rubber powder, fuel oil, carbon black, steel wires, and rubber granules and tyres and tyre-related products. The approved projects would generate a total of 448 employment opportunities.

Graph 23  
**Investments in Projects Approved in the Rubber Products Industry by Sub-sector, 2011**



Major projects approved included:

- A new project by a wholly Malaysian-owned company to undertake recycling of used or scrap tyres to produce rubber powder and rubber scrap with investments of RM69.6 million; and

- A new project with foreign majority ownership to produce rubber compound master batch with investments of RM43.1 million.

The investment trend in the rubber products industry is more towards downstream manufacturing, whereby a variety of technologies have been developed for rubber products to meet required specifications. The outlook for the industry is expected to be positive especially with the recovery and increased demand in the global automotive sector. Rubber prices are expected to be steadily increased due to declining stocks in major consuming countries, coupled with fears that the supply situation may worsen due to the political situation in several rubber exporting countries. On the other hand, the industry is in need to create a pool of experts in rubber technologies, advanced materials, moulds and dies, and nanotechnologies to meet market and R&D demands.

For the Malaysian rubber products industry to remain competitive, selected areas of R&D need to be intensified and emphasised to maintain the industry's competitiveness. R&D on new clones, specialty rubber and advanced manufacturing technologies towards higher value-added products will further strengthen Malaysia's position in the global market and also will ensure that Malaysian rubber products meet international standards. Concerted efforts by the Government through relevant agencies need to be established for the rubber products industry to be sustainable and environmentally friendly towards

low carbon emission. The utilisation by the industry of speciality rubber and its applications as *green rubber* should be enhanced.

## **WOOD AND WOOD PRODUCTS AND FURNITURE**

The wood-based industry comprises upstream and downstream activities. Upstream activities involve the systematic and sustainable harvesting of natural forests and forest plantations. Downstream activities cover primary, secondary and tertiary operations where primary wood processing activities utilise logs as their raw material to produce sawn timber and veneer. Secondary and tertiary wood processing activities turn primary products and other solid wastes such as small branches, off-cuts, edgings or slabs, chippings and sawdust into value-added products.

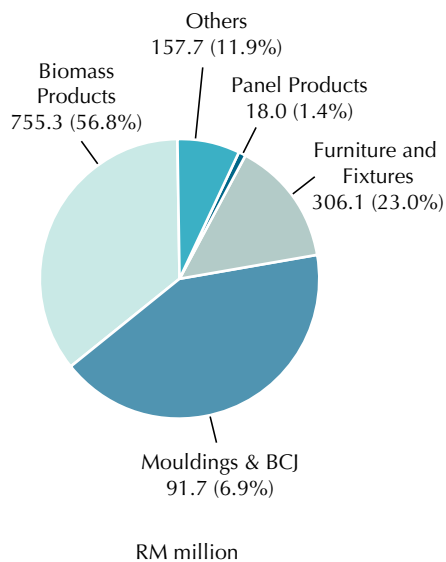
There are about 3,991 mills in operation, providing employment to more than 300,000 people or 3.5 per cent of the total employment in Malaysia. The industry is predominantly owned by Malaysians with about 87 per cent of the companies being small and medium scale manufacturers. Over the years, it has developed from a primary processing industry to a more advanced and technology-driven industry producing a significant number of downstream value-added products.

### ***Projects Approved in 2011***

In 2011, a total of 106 projects were approved with investments of RM1.3

billion. Domestic investments amounted to RM1.2 billion (89.6%) while foreign investments totalled RM137.9 million (10.4%). Of the projects approved, 88 were new projects with investments of RM1.1 billion (83%) while 18 were expansion/diversification projects (RM186.9 million or 17%). These projects are expected to provide job opportunities to almost 8,700 people.

**Graph 24**  
**Approved Investments In the Wood-based Industry by Sub-sector, 2011**



In recent years, the wood-based industry has been gradually increasing the utilisation of alternative raw materials such as palm biomass (oil palm trunks, empty fruit bunches, fronds), kenaf and other agricultural waste such as rice husk, coconut trunk and sawdust to produce value-added products. This sub-sector has shown encouraging progress, where the investments have ranked the highest in the industry with RM755.3 million or 56.8 per cent of total investments (19 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.

Another major sub-sector was the furniture sub-sector with 60 projects approved and investments of RM306.1 million. Of these, 51 were new projects with investments of RM231.1 million (75.5%) and nine were expansion/diversification projects valued at RM75 million (24.5%). Domestic investments in these projects amounted to RM251.5 million (82.2%) while foreign investments totalled RM54.6 million (17.8%). This sub-sector will create job opportunities for 5,400 Malaysians.

There were eight projects approved in the mouldings and builders' carpentry and joinery (BCJ) sub-sector with investments of RM91.7 million. Domestic investments amounted to RM46.9 million (51.2%) while foreign investments totalled RM44.8 million (48.7%). The projects approved were mainly for the manufacture of doors, window frames and engineered wood flooring.

In the panel products sub-sector, five projects were approved with investments of RM18 million. All these projects involved domestic investments. Two of the projects approved were for the production of plywood from coconut and palm biomass. These are alternative materials which are gaining recognition among the panel producers.

A total of 14 projects with investments of RM157.7 million were approved for the manufacture of other wood-based

products such as sawn timber and kiln dried wood.

Among the significant projects approved was an expansion project by a wholly Malaysian-owned company with investments of RM27.9 million to produce value-added products such as powder, pellets and furniture using kenaf. For this project, the company is collaborating with Lembaga Kenaf dan Tembakau Negara (LKTN) and has signed a Memorandum of Understanding to secure consistent supply of kenaf. The company is expected to invest one per cent of its annual gross sale in R&D activities. This project which is located at Besut, Terengganu will provide job opportunities for 82 Malaysians.

Alternative raw materials such as palm biomass and other agricultural waste offer vast potential for development. In 2011, a total of 22 projects utilising palm biomass, kenaf and other agricultural waste to produce various products such as pellets, bio-coal and bio-composites were approved with total investments of RM764.3 million. The Government will continue to encourage industry players to undertake more R&D to ensure the reliability of these alternative materials.

## **NON-METALLIC MINERAL PRODUCTS**

The non-metallic mineral products industry consists of cement and concrete products, ceramics and clay-based products, glass products, and other non-metallic mineral products, such as

quicklime, barite, marble and granite. The cement and concrete sub-sector includes the production of Portland cement (ordinary cement), clinker, ready-mix concrete, hydraulic cement and articles of concrete, cement and plaster.

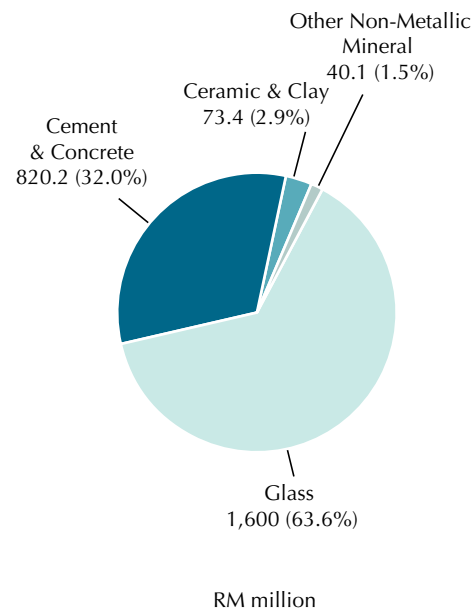
The ceramics industry can be classified into two categories, namely traditional ceramics and advanced ceramics. The traditional ceramics sub-sector comprises the production of wall and floor tiles, roofing tiles, high refractory products, clay pipes, sanitary ware and tableware. The advanced ceramics industry is a new industry in the country and it has wide technologically advanced applications in electronics, aerospace, medical and other industries.

The glass industry covers the production of float glass, safety glass, glass containers, glassware, architectural glass, glass fibre and hi-tech precision glass products such as glass panels for plasma display, hard disc glass substrates and solar glass.

Other non-metallic minerals include quicklime and calcium carbonate. Quicklime is a chemical compound widely used in mortar and plaster as well as in the production of glass, metal and paper. Calcium carbonate is a chemical compound used in the construction industry as building material or as a component for cement. It is also used in drilling fluids for the oil industry, as a filler material for latex gloves and plastics and as a glazing material, as well as for other applications.

In 2011, the non-metallic mineral products industry was the 14th largest export earner, contributing approximately 1.2 per cent to the total exports of manufactured goods. In 2011, exports of this industry totalled RM5.7 billion while imports totalled RM5.9 billion. Major export items included glass and glassware (RM2.7 billion); mineral products (RM1 billion); and lime, cement and fabricated construction materials (RM923.7 million). Major import items were glass and glassware (RM3.1 billion), mineral products (RM794.7 million) and lime, cement and fabricated construction materials (RM693.5 million).

**Graph 25**  
**Investments in Projects Approved in the Non-Metallic Mineral Products Industry by Sub-sector, 2011**



### **Projects Approved in 2011**

In 2011, a total of 25 projects were approved in the non-metallic mineral products industry with investments of RM2.6 billion. Of these, 15 were new projects with investments of RM2.3 billion (90.4%), while 10 were expansion/diversification projects with investments of RM245 million (9.6%). Domestic investments totalled RM1.1 billion (42.9%) and foreign investments amounted to RM1.5 billion (57.1%).

Of the 25 projects approved, eight projects (RM1.6 billion) were for the production of glass products, five projects each were for the manufacture of cement and concrete products (RM820.2 million), and ceramic and clay products (RM73.4 million), and the remaining seven projects for other non-metallic mineral products (RM40.1 million).

Significant projects approved included:

- An expansion project by a wholly foreign-owned company to manufacture glass tubings and architectural glass to glass blocks with investments of RM120 million. Currently, the company is producing glass tubings for lighting and is expanding its production to produce borosilicate glass tubing for the medical sector. The company plans to export 90 per cent of its production of glass tubings to Japan and Italy; and
- An expansion project by a wholly foreign-owned company with investments of RM50 million for the production of cover glass to serve the needs of the photovoltaic industry. The entire production of the company will be supplied to



the local market. The project will enhance the competitiveness of Malaysia as a preferred location for the production of solar modules/panels with the access to solar glass.

The glass industry in Malaysia is currently evolving from the production of conventional glass for the packaging, automotive and construction industries to higher value products used in the high technology industries such as hard disc drives, liquid crystal displays and solar panels.

## PAPER, PRINTING AND PUBLISHING INDUSTRY

The paper, printing and publishing industry encompasses the manufacture of pulp, paper, paper products as well as printing and publishing activities. The paper sub-sector covers the production of medium paper, test liner, newsprint, printing and writing paper, tissue paper and joss paper. The paper products sub-sector consists of packaging products such as corrugated cartons, inner packaging and cushioning materials, labels, stickers and disposable diapers. The printing and publishing sub-sector includes all printing of packaging materials, books, magazines, security documents, greeting cards, calendars and other miscellaneous printing activities.

Currently, Malaysia has recorded 88 per cent self-sufficiency in the supply of paper and paper products. There are 20 paper mills with a total

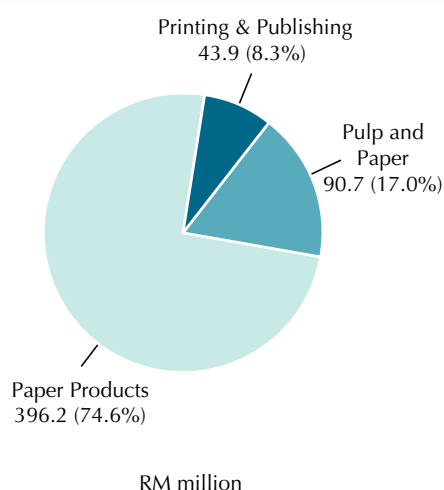
production capacity of about 1.3 million metric tonnes annually. An additional production capacity of 300,000 metric tonnes of paper and paperboard was installed in 2011.

The domestic printing and publishing industry consists mainly of small and medium-scale domestic-oriented manufacturers. There are currently about 1,000 companies in operation mainly undertaking general printing. In 2011, imports of paper and paper products amounted to RM6.6 billion while exports totalled RM3.4 billion.

### *Projects Approved in 2011*

In 2011, a total of 37 projects were approved with investments of RM533.6 million. Of these, 15 were expansion/diversification projects with investments of RM358 million (67.1%), while 22 were new projects with investments of RM175.6 million (32.9%). Foreign investments amounted to RM318.7 million (59.7%), while domestic

**Graph 26**  
**Investments in Projects Approved in the Paper, Printing and Publishing Industry by Sub-sector, 2011**



investments were valued at RM214.9 million (40.3%). These projects are expected to provide employment opportunities to about 2,100 people with 15 per cent of the employment in the high income category.

The highest investments were recorded in the paper products sub-sector with RM396.2 million (24 projects) followed by the pulp and paper products sub-sector with investments of RM90.7 million (seven projects) and printing and publishing sub-sector with totalled investments of RM43.9 million (five projects).

A significant project approved was a new project by a majority Malaysian-owned company with investments of RM15 million to produce pulp and recycled plastic sheets from non-recyclable laminated paper such as magazines, brown paper, catalogues and laminated paper with foils or plastic. The technology used will be environmentally friendly where no chemical and hazardous gas will be emitted during the production process. This project will be located at Padang Besar, Perlis.

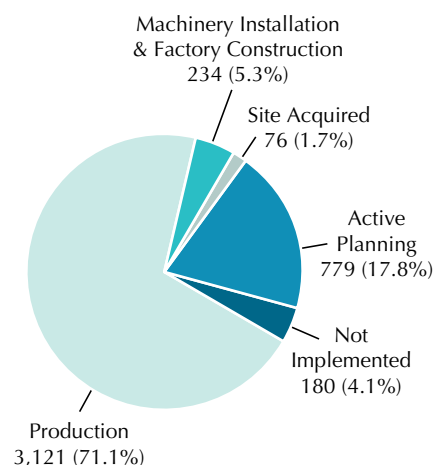
### C. IMPLEMENTATION OF APPROVED MANUFACTURING PROJECTS

A total of 4,390 manufacturing projects were approved during the period 2007 to 2011 of which 3,121 projects (71.1%) had commenced production as at 31 December 2011 while 234 (5.3%) were at the stage of factory construction and

machinery installation. Of the 3,121 projects in production, 344 projects had commenced production in 2011.

Total capital investment in the 3,355 projects that were implemented (covering projects which have commenced production and those that have undertaken factory construction and machinery installation) amounted to RM140.3 billion. In addition, 76 projects with investments of RM24.7 billion have acquired sites for factories, while 779 projects (RM84.3 billion) are in active planning stage. When these 855 projects are realised, total investments will amount to RM109 billion.

**Graph 27**  
**Status of Implementation of Manufacturing Projects Approved during 2007– 2011**



**Investments in Projects Implemented: RM258.6 billion**

Most of the implemented projects are located in Selangor (1,106 projects) with investments of RM35 billion, followed by Johor (701 projects/RM30.5 billion), Penang (467 projects/ RM20.9 billion), Perak (185 projects/RM5.8 billion), Kedah (180 projects/RM9.8 billion)



and Melaka (151 projects/RM10.7 billion).

Major projects implemented during the period 2007 to 2011 covered a broad range of industries, namely E&E products, fabricated metal products, M&E, food manufacturing and plastic products.

Various measures and initiatives continue to be undertaken by the Government to improve the delivery system, including facilitating investors to implement their approved projects. These measures and initiatives include:

- Handholding activities which are actively carried out by Special Projects Officers (SPOs) at the Federal and State levels in MIDA through meetings, briefings, dialogues and consultations between Federal and State agencies and companies to facilitate implementation of projects;
- Setting up of State Investment Centres (SICs) as the States' one-stop agency to promote and provide information and advisory services to potential and existing investors as well as to facilitate investors in setting up operations in their respective states. The SICs are also involved in handholding activities together with MIDA;
- Establishment of the Advisory Services Centre (ASC) in MIDA to provide information and advisory support services effectively and efficiently in all areas of implementation. Representatives stationed in MIDA are from the Immigration Department, Royal Customs and Excise Department, Telekom Malaysia Berhad and Labour Department. To further enhance the activities of ASC, designated Liaison Officers have been appointed from various Ministries/agencies such as Department of Environment (DOE), Tenaga Nasional Berhad (TNB), Multimedia Development Corporation (MDeC), Construction Industry Development Board (CIDB), Department of Safety and Health (DOSH), Ministry of Finance, Ministry of Health, Ministry of Tourism and Ministry of Higher Education;
- Setting up of the Customer Service Centre (CSC) in MIDA to serve investors and clients by providing information particularly through direct response to phone enquiries;
- Formation of an Immigration Unit in MIDA to facilitate applications relating to immigration matters for expatriates and their dependents. The main functions of the Immigration Unit are to assist and advise companies as well as to approve applications for visas, work permits, employment passes, dependant passes for wives and children under 21 years old, Social Visit Passes for husbands, parents and children above 21 years old, students' endorsements for the children of expatriates and identification card for expatriates;

- On-line application for submission of application forms to MIDA. Submissions cover all aspects relating to applications for manufacturing licence, incentives, expatriate posts and duty exemption on raw materials, components machinery and equipment;
- Automatic issuance of Manufacturing Licence to facilitate submission of applications for manufacturing licence. It covers all industries and activities except for those related to security, safety, health, environment, religion, projects located in Sabah and Sarawak, activities subject to Environmental Impact Assessment (EIA) approval from DOE and projects requiring approval under the Petroleum Development Act (PDA)/ Ministry of Health (MOH)/Atomic Energy Licensing Board (AELB);
- Approving and monitoring of the Infrastructure Development Fund by MIDA with the main objective to assist the State Government to upgrade and improve basic infrastructure in existing industrial estates; and
- Improvements by the Special Task Force to Facilitate Business (PEMUDAH) to enhance transparency and strengthen processes and procedures:
  - Reducing the time taken for clearance of exports to facilitate trade;
  - Reducing the time taken for property registration through improvement of processes and enabling on-line applications for property registration;
  - Improvements in tax administration;
  - Facilitating e-Payments;
  - Establishing a one-stop centre to expedite incorporation of companies; and
  - Improving the processes for employing expatriates and skilled workers.

Based on the Labour Department's records, a total of 22 companies had downsized their operations, which resulted in the retrenchment of 1,794 workers. In addition, 14 companies had ceased operation, resulting in the loss of jobs for 1,400 workers. The main reasons cited for closures were, declining market demand, increasing costs of production and financial problems.

At the same time, a total of 305 projects had commenced production in 2011 resulting in the creation of 33,558 job opportunities. These projects will provide alternative employment opportunities for the 3,194 workers who were retrenched or lost their jobs during the same period.



# 5

## INVESTMENTS IN THE SERVICES SECTOR

# 5 INVESTMENTS IN THE SERVICES SECTOR

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 and educational services.

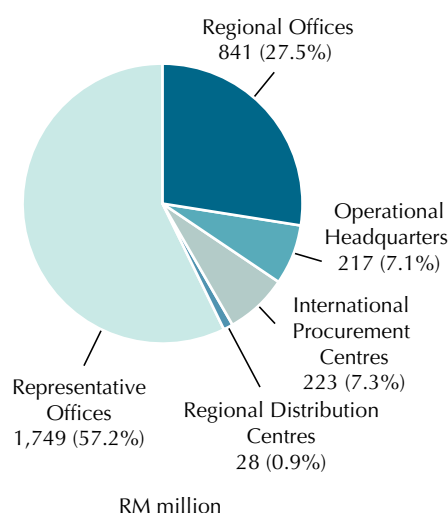
## REGIONAL ESTABLISHMENTS

Many prominent MNCs and large corporations have chosen Malaysia to establish their regional and global operations. The attractiveness of its financial environment, people skills and availability, and business environment in Malaysia placed it at the top three spots in the 2011 Global Services Location Index™ (GSLI) by AT Kearney and helped it to attract regional establishments into the country.

Among the key reasons cited by the MNCs for their decision to establish their regional operations in Malaysia are its world class infrastructure, good connectivity, attractive investment incentive packages including tax incentives and liberal policies on foreign equity participation and employment of expatriates.

As at 31 December 2011, there were 3,031 approved regional establishments in Malaysia, which include 217 Operational Headquarters (OHQs), 223 International Procurement Centres (IPCs), 28 Regional Distribution Centres (RDCs), 841 Regional Offices (ROs) and 1,749 Representative Offices (REs).

Graph 28  
Number of Regional Establishments  
Approved as at 31 December 2011



In 2011, a total of 112 new regional establishments were approved to be set up in Malaysia with investments of RM291.8 million. These operations will create a total of 904 jobs for Malaysians which are mainly at the managerial, professional and technical levels.

## Operational Headquarters (OHQs)

As at 31 December 2011, a total of 217 OHQs were approved with investments of RM2.3 billion. Of these, 36 were from the USA; 19 from the Netherlands; 17 each from Japan, Australia and the United Kingdom (UK); and 14 from Germany while 97 were from other countries. These OHQs have created a total of 12,684 job opportunities comprising 10,250 for Malaysians and 2,237 for expatriates. 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; as well as business planning and coordination to support their operations in the Asia Pacific region.

Of the 217 OHQs approved, a total of 22 companies are involved in the oil and gas industry. Some of the world renowned MNCs have established OHQs in Malaysia as mentioned in Table 3.

**Table 3**  
**Established OHQs in Malaysia by World Renowned MNCs**

Country	Name of Company	
USA	<ul style="list-style-type: none"> <li>• General Electric</li> <li>• Du Pont</li> <li>• Dow Chemicals</li> <li>• PepsiCo</li> <li>• Grey Communications</li> <li>• Hess Oil &amp; Gas</li> <li>• Air Products</li> <li>• Henry Schein</li> <li>• Kellogg's</li> <li>• Schlumberger</li> </ul>	<ul style="list-style-type: none"> <li>• Baker Hughes</li> <li>• Intel</li> <li>• Transocean</li> <li>• Agilent</li> <li>• IBM</li> <li>• Mars Foods</li> <li>• Hewlett-Packard</li> <li>• E-Storm</li> <li>• Harman</li> </ul>
Japan	<ul style="list-style-type: none"> <li>• Sharp Electronics</li> <li>• Japan Tobacco International</li> <li>• Bridgestone</li> <li>• NEC Infrontia</li> </ul>	<ul style="list-style-type: none"> <li>• Sumitomo</li> <li>• Nippon Electric Glass</li> <li>• Nippon Menard</li> <li>• Oji Paper Asia</li> </ul>
Germany	<ul style="list-style-type: none"> <li>• BASF</li> <li>• Muehlbauer</li> <li>• Eppendorf</li> <li>• Arvato</li> <li>• Siemens</li> </ul>	<ul style="list-style-type: none"> <li>• Nordenia</li> <li>• Bayer</li> <li>• Binder</li> <li>• A. Hartrodt</li> </ul>
Australia	<ul style="list-style-type: none"> <li>• IBA Health</li> <li>• IEV Group</li> <li>• Leighton</li> <li>• Linfox</li> <li>• Wagners</li> <li>• Worley Parsons</li> </ul>	<ul style="list-style-type: none"> <li>• Paradigm</li> <li>• Ansell</li> <li>• Dome</li> <li>• Delta Asia</li> <li>• Cochlear</li> <li>• Avanser</li> </ul>

Country	Name of Company	
UK	<ul style="list-style-type: none"> <li>• RMC Industries</li> <li>• British-American Tobacco</li> <li>• Diagonal Consulting Group</li> <li>• Avocet Mining</li> </ul>	<ul style="list-style-type: none"> <li>• OHM Surveys</li> <li>• Fitness First</li> <li>• G4S Management</li> <li>• Velosi</li> </ul>
Switzerland	<ul style="list-style-type: none"> <li>• Novartis Corporation</li> <li>• SBM Group</li> </ul>	<ul style="list-style-type: none"> <li>• Omya Group</li> <li>• Tetra Pak</li> </ul>
France	<ul style="list-style-type: none"> <li>• Lafarge</li> <li>• Thales International</li> </ul>	<ul style="list-style-type: none"> <li>• Monier</li> </ul>
Netherlands	<ul style="list-style-type: none"> <li>• Flexsys</li> <li>• Prometric</li> <li>• Friesland Foods</li> <li>• Dow Corning</li> <li>• Barry Callebaut</li> </ul>	<ul style="list-style-type: none"> <li>• Organon</li> <li>• Mammoet</li> <li>• Subsea</li> <li>• Core</li> <li>• Acision</li> </ul>
Sweden	<ul style="list-style-type: none"> <li>• Volvo</li> <li>• Ascom</li> </ul>	<ul style="list-style-type: none"> <li>• UCB Group</li> </ul>
Norway	<ul style="list-style-type: none"> <li>• Aker Kvaerner</li> <li>• Wilhelmsen</li> </ul>	<ul style="list-style-type: none"> <li>• AGR</li> </ul>
Singapore	<ul style="list-style-type: none"> <li>• NOL Global</li> <li>• ACE Asia Pacific</li> </ul>	<ul style="list-style-type: none"> <li>• Global Footware</li> </ul>
Hong Kong	<ul style="list-style-type: none"> <li>• Aramis</li> <li>• OMG</li> </ul>	<ul style="list-style-type: none"> <li>• DBC</li> </ul>

### ***Projects Approved in 2011***

In 2011, a total of 18 OHQs were approved with investments of RM163 million. Of these, four were from Singapore, two each were from the UK and Malaysia, one each from the Netherlands, Australia, Norway, Luxembourg, France, Japan and Bermuda. The remaining two were joint-venture projects of which one was between Hong Kong and Malaysia, and the other between Singapore and India. A total of 125 expatriate posts were approved for these OHQs and 571 employment opportunities will be created for Malaysians.

Major OHQs approved in 2011 included:

- Proserv Offshore Malaysia Sdn. Bhd., whose parent company in Norway supplies an extensive range of equipment and services for marine and subsea operations. The OHQ in Malaysia will undertake management and administration, planning and coordination, technical support and maintenance as well as marketing control and promotional planning for their related companies in Australia, Indonesia and Malaysia;



- GA Design International Sdn. Bhd., a company fully owned by the GA Group of companies, which is involved in interior design and architectural designs specialising in hospitality design work. Headquartered in London, the group of companies has expertise in interior designing for hotels, resorts, golf clubs and restaurants and service apartments. The OHQ will provide services comprising general management and administration, business planning and coordination to its offices and related corporations located in the UK and Hungary;
- UMW Oil and Gas Corporation Sdn. Bhd., a Malaysian company which is fully owned by UMW Oil and Gas Berhad. The group is involved in multiple industries such as automotive, equipment, manufacturing and engineering as well as oil and gas. The OHQ will be providing services to its related companies in Singapore, Indonesia, Vietnam, Thailand, Australia, the People's Republic of China, Taiwan, India, Oman, Bahrain, United Arab Emirates (UAE) and Canada;
- Ceva Animal Health Asia Pacific Sdn. Bhd., a subsidiary of a French company that undertakes manufacturing and marketing of animal healthcare products. The qualifying services will include activities such as general management and administration; business planning and coordination, marketing control and sales promotional planning, technical support and maintenance as well as training for their related companies in Thailand, Indonesia and the Philippines; and
- H.I.S Management Services Sdn. Bhd., a Japan-based travel company. The OHQ will be providing qualifying services to its related companies in the Asia Pacific region.

## International Procurement Centres (IPCs)

A total of 223 International Procurement Centres (IPCs) have been approved as at 31 December 2011 with total annual sales turnover estimated at RM72.5 billion while investments in these IPCs amounted to RM6.6 billion. Of the IPCs approved, a total of 90 or 40 per cent were by corporations from Japan, 38 from Malaysia, 17 from the USA, 13 from Singapore, 11 from Taiwan, five from Germany, one each from, Canada, the UK and India while the remaining 46 were joint-ventures.

A total of 123 or 55 per cent of these IPCs are servicing the E&E industry while the remaining IPCs are servicing the chemicals/petrochemicals (31); machinery and industrial parts (16); textiles (10); oil and gas (10); furniture (7) and other industries. To date, more than 140 IPCs have started operation.

Among the IPC operations undertaken in Malaysia are the procurement and distribution as well as supply chain

Table 4  
IPC Operations in Malaysia by Major MNCs

Country	Name of Company	
Japan	<ul style="list-style-type: none"> <li>• Matsushita</li> <li>• Sharp</li> <li>• Sony</li> <li>• Kenwood</li> <li>• TDK Corporation</li> <li>• Canon Opto</li> <li>• Murata</li> <li>• Sumiden</li> <li>• Hitachi</li> </ul>	<ul style="list-style-type: none"> <li>• JVC Electronics</li> <li>• NEC Electronics</li> <li>• Brother Engineering</li> <li>• Sharp-Roxy</li> <li>• Nitto Denko</li> <li>• Mitsumi</li> <li>• Mitsubishi</li> <li>• Nippon Wiper Blade</li> </ul>
USA	<ul style="list-style-type: none"> <li>• Dell</li> <li>• Knowles</li> </ul>	<ul style="list-style-type: none"> <li>• Smart Modular Technologies</li> <li>• Jabil</li> </ul>
Germany	<ul style="list-style-type: none"> <li>• Robert Bosch</li> <li>• Henkel</li> </ul>	<ul style="list-style-type: none"> <li>• B.Braun</li> </ul>
Taiwan	<ul style="list-style-type: none"> <li>• Acer</li> <li>• Inventec Electronics</li> </ul>	<ul style="list-style-type: none"> <li>• Titan</li> </ul>
France	<ul style="list-style-type: none"> <li>• Mapa Spontex</li> </ul>	<ul style="list-style-type: none"> <li>• Safic-Alcan</li> </ul>
Hong Kong	<ul style="list-style-type: none"> <li>• Lee Kum Kee</li> </ul>	
Netherlands	<ul style="list-style-type: none"> <li>• Flextronics</li> </ul>	<ul style="list-style-type: none"> <li>• Benchmark</li> </ul>
Singapore	<ul style="list-style-type: none"> <li>• Ghim Li</li> <li>• Jackspeed Leather</li> </ul>	<ul style="list-style-type: none"> <li>• World Kitchen</li> <li>• Om Materials</li> </ul>

management for their manufacturing operations in the region. Major MNCs have located their IPC operations in Malaysia as mentioned in Table 4.

### ***Projects Approved in 2011***

Six IPCs were approved in 2011 with investments of RM70.5 million and estimated annual sales turnover of RM1.5 billion. Of the six IPCs approved, one each were from the USA, Canada, the UK, India, Malaysia and one was a joint-venture company between Yemen and Cayman Islands. These IPCs will provide employment opportunities for 132 Malaysians, mainly in the

managerial, technical and skilled categories and will procure a total of RM5.2 billion worth of products from local companies.

These IPCs will export about RM3.8 billion or 98 per cent of their products through seaports, of which RM1.8 billion (47%) will be exported through Pasir Gudang Port and the rest will be exported through Port Klang (RM1 billion), Port of Tanjung Pelepas (RM713.4 million), Penang Port (RM249 million) and Tanjung Puteri (RM12 million). Of the goods to be exported through airports, RM59 million will be exported via the Kuala Lumpur

International Airport. In addition, more than eight existing IPCs have embarked on expansion programmes by adding new products in their procurement and distribution network.

Among the IPCs approved were:

- Tamco Switchgear (M) Sdn. Bhd., a company fully owned by Larsen & Toubro Limited, India, which undertakes designing, manufacturing, supplying, installation, commissioning and maintenance of equipment and systems for power distribution and motor control;
- Material Advantage Group Sdn. Bhd., a manufacturing company, fully owned by the MAG Group from the UK, which manufactures machined parts and components; and
- Baerlocher (M) Trading Services Sdn. Bhd., a Malaysian company which is fully owned by Baerlocher (M) Sdn. Bhd., which manufactures polymer additives and metal soaps. The Group of companies which originates from Germany has a presence in more than 50 countries, with manufacturing plants in Italy, France, Britain, the USA, Brazil, Peru, Argentina, India and the People's Republic of China.

All the above approved IPCs will procure and distribute their products inside and outside Malaysia.

## **Regional Distribution Centres (RDCs)**

As at 31 December 2011, a total of 28 Regional Distribution Centres (RDCs) have been approved with total annual sales turnover of RM2.7 billion and investments of RM132.9 million. Of these, four were from Germany, two each from the UK, Malaysia, the USA and Japan, and one each from Austria, the Netherlands, Switzerland, Belgium, Finland, France, Italy, Ireland, Spain, Denmark, Canada, Hong Kong, Pakistan, and India while two were joint-venture projects with Japan and Germany. A total of 664 employment opportunities will be created by these RDCs, of which 90 per cent will be filled by Malaysians.

Among the RDCs which are in operation include:

- i. Osram Opto Semiconductors, BMW, EPCOS AG, Siteco Group and BD Agriculture from Germany;
- ii. UMW Toyota from Japan;
- iii. Scapa Group from the UK;
- iv. Agfa from Belgium;
- v. Amer Sport from Finland;
- vi. Sidel Group from France;
- vii. Acerinox from Spain;
- viii. International Merchandising Inc. from Canada;
- ix. BEML from India; and
- x. CPM Sdn. Bhd. from Hong Kong.

## **Projects Approved in 2011**

One RDC was approved in 2011 with investments valued at RM10 million and

total annual sales turnover of RM104 million. The approved RDC is for a Japanese company which is involved in packaging film, industrial film and functional sheet. Its RDC will distribute finished products which are mainly sourced from its related companies in Japan to its customers in Singapore, the Philippines and Germany.

### **Regional/Representative Offices (ROs and REs)**

As at 31 December 2011, a total of 841 Regional Offices (ROs) and 1,749 Representative Offices (REs) have been approved. These ROs and REs were established mainly to assist foreign companies to plan or coordinate business activities for the corporations' affiliates, subsidiaries and agents in Malaysia and in the region.

Malaysia is a base for these ROs and REs to coordinate and support their operations in the Asia Pacific region. The establishment of these ROs and REs will provide opportunities for the companies to set up OHQs/IPC/RDCs in the long run.

### ***Projects Approved in 2011***

In 2011, a total of 32 ROs and 55 REs were approved with total investments of RM48.3 million. Of the total, investments for ROs and REs amounted to RM24.4 million and RM23.9 million respectively. These ROs/REs were mainly from Singapore (11), France (6), Japan (5), the USA (4), the UK (4) and the People's Republic of China (3)

as well as from Germany, Iran, Hong Kong, India, Spain, Sweden, Qatar, Thailand, Belgium, Republic of Korea and Australia. These ROs and REs are expected to create employment opportunities for 193 Malaysians.

The major approved ROs and REs included:

Country	Name of Company
Australia	<ul style="list-style-type: none"> <li>• Australian Aviation Training College</li> </ul>
Hong Kong	<ul style="list-style-type: none"> <li>• BroadLearning Solutions</li> </ul>
USA	<ul style="list-style-type: none"> <li>• Hobsons</li> <li>• International Metals</li> <li>• Nextech Solution</li> </ul>
Republic of Korea	<ul style="list-style-type: none"> <li>• Hyundai Rotem Company</li> <li>• Korean Register of Shipping</li> </ul>
Singapore	<ul style="list-style-type: none"> <li>• Imago Production</li> <li>• Userx Ptye. Ltd.</li> <li>• IMI Inpro Tec</li> </ul>
Ireland	<ul style="list-style-type: none"> <li>• Adaptive Mobile Security Ltd.</li> </ul>

Malaysia with its strategic location within the ASEAN region has vast potential to be the logistics hub for MNCs. Malaysia has also been actively promoting the services sector as it provides numerous opportunities for growth especially in the establishment of OHQs, IPCs and RDCs. The setting up of these establishments will benefit the country in terms of enhanced global trade, provision of skilled employment opportunities and business

opportunities for local wholesalers and retailers.

## Global Operations Hub

MIDA has also approved four projects which proposed to make Malaysia their Global Operations Hub. These projects have substantial investments with significant spin-off effects on the economy. The four approved projects are as follows:

- **Vale**

Present in more than 38 countries, Vale is one of the world's largest producers of iron ore and pellets, key raw materials for the steel industry as well as nickel which is used to produce stainless steel, batteries, special alloys, chemicals and other products.

Vale has recently started construction of a dedicated jetty for the iron ore distribution centre in Teluk Rubiah, Perak. The construction phase will involve investments of about RM4 billion. Once the Distribution Centre is operational, iron ore from Brazil will be transported in Very Large Ore Carriers (VLOCs) of 400,000 DWT to Teluk Rubiah. From there, the ore will be distributed to its customers in the region.

Potentially, the project foresees subsequent phases of investments which will include the manufacturing of iron ore pellets which would

result in a total estimated investment of RM15 billion and provide employment opportunities to 615 people, mostly in the management and skilled category.

- **Integrated Device Technology (IDT)**

IDT, an analog and digital semiconductor company will establish a Global Operations Hub in Penang. IDT has consolidated all of its worldwide supply chain management activities in Malaysia which includes procurement of silicon wafers and assembly packaging services, integrated circuit (IC) testing, manufacturing process R&D (hardware and software development, test simulation) and production planning.

The total investment for this project is valued at RM25 million and is expected to create jobs for 160 Malaysians including 56 high income knowledge workers in related fields by 2020. In addition, the project involves local sourcing amounting to RM80 million to RM126 million annually for assembly and testing activities.

- **Indian Green Grid Group Limited (IG3)**

IG3, an infrastructure and finance company from India, will establish a Disaster Recovery Centre (DRC) in Selangor Science Park, Cyberjaya, Selangor. This project involves

investments of RM979.6 million and will create 300 jobs especially for highly skilled software engineers. It will also further increase utilisation of domestic services such as insurance, logistics, utilities, legal, audit, tax consulting; usage of local infrastructure such as ports and airports and business outsourced to Malaysian companies for services such as security, engineering and facilities management.

- **Nestle**

Being the world's leading nutrition, health and wellness company with its headquarters located in Switzerland, the Nestle Group has been in Malaysia for the past 100 years producing a range of products such as MILO, MAGGI, and NESCAFE. Nestle Malaysia is the biggest Halal producer in the Nestle Group warranting the company to be recognized as the Halal Centre of Excellence for Nestle worldwide.

Nestle will be establishing a regional centre of excellence for engineering expertise, known as the Regional Engineering Centre (REC) in Malaysia. The REC will play an active role in the development and planning of Nestle's engineering resource for the region. The establishment of the REC supports the Government's ETP in pursuing a strategy to make Malaysia a high-income society. The REC would create high-value employment opportunities, a source of national brain-gain which would contribute

to developing high-value domestic capabilities. The personnel within the REC would consist of mainly managerial and senior managerial engineering positions with total earnings of up to RM1.3 million per annum.

## **SUPPORT SERVICES**

Support services such as R&D, renewable energy and energy conservation/efficiency, engineering design, integrated logistics services, integrated market support services, cold chain facilities, sterilisation, central utilities facilities and technical, vocational and science training are among the services activities currently being promoted by the Government in order to enhance the value creation of the manufacturing sector in Malaysia. Service providers undertaking these activities are eligible to apply for tax incentives in the form of Pioneer Status (PS) and Investment Tax Allowance (ITA) for a period of 5 to 10 years.

In 2011, a total of 56 support services projects were approved with tax incentives in MIDA, involving total investments of RM518.4 million. The bulk of the investments were contributed by domestic investments amounting to RM470.3 million or 90.7 per cent of the total investments. Domestic investments were significant in the areas of environmental management activities such as renewable energy and energy conservation, as well as in other supporting services such as R&D, cold chain and logistics services.



**Table 5**  
**Investments in Approved Support**  
**Services, 2011**

Support Services	No	RM million
Renewable Energy	36	424.4
Energy Efficiency/ Conservation	12	21.9
Cold Chain Activities	1	15.7
Integrated Logistics Services (ILS)	1	9.2
Research & Development (R&D)	3	7.6
Integrated Market Support Services (IMS)	1	2.5
Others	2	37.1
<b>Total</b>	<b>56</b>	<b>518.4</b>

Of the 56 projects approved, 36 (64.3%) were approved for generation of energy using various renewable resources, 12 for energy efficiency/conservation, three for R&D, while the remaining five were for a wide range of support services including cold chain facilities, integrated logistics and market support services. A total of 983 job opportunities would be created by these projects.

## Renewable Energy

Renewable energy generated from renewable resources such as biomass, biogas, solar, mini-hydro and solid waste is being actively encouraged by

the Government. Under the 10MP, the Government has set a target of 5.5 per cent of the total electricity generation mix or 985MW from renewable energy by 2015. The Government is also working on a Feed-in Tariff mechanism to allow sales of electricity that is produced from indigenous renewable resources to power utilities at a fixed premium price for a specific duration.

With abundant palm oil plantations in the country and a tropical climate, biomass and solar energy are amongst the most popular renewable energy resources in this country, where 90 per cent of the renewable potential are from these two resources.

The increasing awareness of the importance of environmentally friendly development and the emphasis on sustainable development highlighted under the NEM have resulted in an increase in the number of projects for renewable energy. In 2011, a total of 36 projects were approved with tax incentives to generate energy using renewable resources, compared with 21 in 2010. However, these projects were generally on a smaller scale with total investments amounting to RM424.4 million (2010: RM563.7 million). The majority of the projects were for own consumption, with a small quantity to be supplied to the national grid. A total of 29 out of the 36 approvals were projects undertaken by domestic investors contributing 95 per cent of the total investments approved.



Of the 36 projects approved, 19 projects would be using solar energy, 15 projects would be using biomass including biogas, one integrated project using both solar energy and biogas and one project using animal waste to generate renewable energy. Greater interest was registered in 2011 for the use of solar energy as a renewable resource to generate energy. Most of the projects were in Peninsular Malaysia, particularly Selangor, Kuala Lumpur and Johor. On the other hand, projects using biomass as renewable resources were mainly located in Sabah and Sarawak where oil palm plantations are abundant.

Among the quality investments approved were:

- An integrated renewable energy park in Negeri Sembilan to generate electricity from solar and biogas. The total investment of the project is estimated at RM133 million and the energy generated will be supplied to TNB;
- A project to install a centralised solar hot water system and solar hybrid air conditioning system for a self-contained commercial and residential mixed development in Bukit Jalil by a local property development company, with total investments amounting to RM84 million;
- Renewable energy plants to be set up by a well known local plantation

company in two of its palm oil processing mills in Sabah using biogas from palm oil mill effluent. These projects involved a total investment of RM26.3 million and the energy generated would be used for own consumption; and

- A joint-venture wood-based company in Sarawak to generate electricity and steam from wood waste with investments amounting to RM24.4 million. The waste would be supplied by plywood companies in Sarawak.

## Energy Efficiency/ Conservation

The Government encourages companies to invest in energy efficiency and energy conservation activities as this is the way forward for sustainable development. Many initiatives have been undertaken by the Government to encourage industries and consumers to *go green* by using energy efficient equipment and products. In 2011, rebates were given to encourage middle-class households to buy energy-efficient appliances under the Sustainability Achieved via Energy Efficiency (SAVE) programme. For the business community, companies can avail themselves of tax incentives, import duty and sales tax exemptions subject to the prevailing guidelines for these applications.

Many companies realise the importance of *going green* and have already taken positive steps to implement energy

efficiency and energy conservation measures to generate savings in energy cost.

In 2011, a total of twelve companies were approved with tax incentives to undertake energy efficiency and energy conservation projects, involving total investments of RM21.9 million. This *go green* initiative was driven by domestic investors who contributed 86.8 per cent of the investments.

The hotel industry in particular has shown strong interest to use energy efficient systems and equipment in the construction of new hotels as well as for refurbishment and modernisation of their hotel operations. Out of the 12 projects approved, seven were projects undertaken by hoteliers.

Besides the hotel industry, notable projects include:

- A property investment and office management company based in Kuala Lumpur to replace their existing chillers with energy efficient chiller plant in its existing building. This would involve an investment of RM12 million and result in 38 per cent savings of electricity which is equivalent to savings of RM1.6 million per annum;
- A joint-venture medical centre in Melaka to replace its existing chillers with energy efficient water cooled chillers in the hospital, involving investments of RM3.5 million.

This replacement would result in a reduction of energy consumption by 41 per cent per annum, equivalent to a saving of about RM785,000 per annum for the medical centre; and

- An insulation material manufacturer in Penang to improve its production system and conserve energy in terms of gas consumption (33,600 MT/year) and electricity consumption (176, 904 KW/year). This exercise will involve a total investment of RM2.4 million with energy savings amounting to RM54,304 per annum.

## Cold Chain Activities

A company that provides cold chain activities such as cold room services and refrigerated trucks for perishable agriculture produce such as fruits, vegetables, flowers, ferns and meats and aquatic products, is eligible for either PS or ITA.

In 2011, a wholly-owned Malaysian company was approved incentives for providing cold chain activities. Located in Penang, the company will rent its cold room facilities to Malaysian companies in the area which collect the perishable products from local farmers, breeders as well as fishermen. The company will also undertake value-added activities such as washing, peeling, grading, freezing and packing based on the customer's requirement. The investment amounts to RM15.7 million.

## **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 undertaken on an integrated basis.

Approved ILS companies are granted tax incentives in the form of PS or ITA. The 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. In this regard, Malaysian companies are encouraged to expand and venture into higher value-added services to enable them to compete globally. A total of 28 companies with investments valued at RM2.4 billion have been granted incentives. Of these, seven were new projects and 21 were expansion projects.

In 2011, a new Malaysian-owned ILS project was approved in Bintulu, Sarawak. The company which was previously involved in construction activities is venturing into logistics activities namely freight forwarding, warehousing, transportation, distribution as well as value-added services such as packing, repacking, and relabelling with investments of RM8.3 million.

## **International Integrated Logistics Services (IILS)**

An International Integrated Logistics Services (IILS) is a status granted to a logistics company that provides integrated and seamless logistics services (door-to-door) along the logistics value chain as a single entity on a regional or global scale. A Customs Agent License will be issued to qualified IILS.

In 2011, three existing Malaysian-owned companies and one foreign-owned company were approved IILS status. These companies previously concentrated in Integrated Logistics Services activities. By having the IILS status, they can expand their activities to ASEAN countries.

## **Research and Development (R&D)**

R&D services 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.

In 2011, three contract R&D companies were approved with tax incentives, with total investments of RM7.6 million. Of significance, is a fully Malaysian-owned contract R&D company, NGLTech Sdn. Bhd. that has succeeded in developing innovative and proprietary

technologies which are particularly suited for oil and gas facilities including marginal field developments, floating production storage and offloading (FPSOs) facilities and offshore fixed platforms. The technologies developed are used for the improvement and enhancement of the processes in the upstream production facilities.

These technologies provide alternative solutions in terms of simplicity, cost efficiency and other operational benefits and are able to reduce greenhouse gas emissions to address growing environmental concerns in the exploration of oil and gas. The company has filed five patents internationally.

### **Integrated Market Support Services (IMS)**

Integrated Market Support Services (IMS) comprise the activities of branding, market research and customer relationship management. In 2011, a fully foreign-owned company was approved tax incentives to undertake IMS, involving investments of RM2.5 million. The Paris based company is among the top five global research companies that has been established for more than 30 years. The group is currently operating in 66 countries with a full time employment of more than 8,700 people and has done research in more than 100 countries.

The company specialises in advertising research, marketing research, media research, opinion and social research,

customer and employee relationship management research, data collection and delivery. The group has identified the Asia Pacific region as one of the potential markets for growth and Malaysia was chosen due to its strategic location, cost competitiveness, efficient communication network and economic strength.

### **MSC STATUS COMPANIES**

In 2011, a total of 215 companies were granted the MSC Status with approved investments amounting to RM2.5 billion. Domestic investment amounted to RM1.6 billion (64%) while foreign investments totalled RM927.3 million (36%). A total of 11,315 employment opportunities are expected to be created by the MSC companies. Of the 215 companies awarded MSC Status in 2011, a total of 149 (69.3%) were wholly Malaysian-owned, 36 (16.7%) were wholly foreign-owned, while the remaining 30 (14%) were joint-venture projects. In 2010, a total of 218 companies were awarded MSC Status with approved investments amounting to RM1.5 billion.

### **REAL ESTATE (HOUSING)**

Real estate covers the housing industry (excluding commercial buildings) in Malaysia.

In 2011, a total of 1,422 projects were approved with total investments amounting to RM16.9 billion. Domestic investments accounted for 97.6 per cent (RM16.5 billion) of the total investments

in this sub-sector. Investments approved in the real estate sub-sector in 2011 exceeded the investments approved in this sub-sector in 2010 which amounted to RM6.5 billion (1,328 projects).

## **TRANSPORT**

The transport sub-sector covers maritime transport, aviation, and highway construction and maintenance.

In 2011, a total of 34 projects were approved with investments of RM11.7 billion. Domestic investments amounted to RM9.4 billion (80.3%) and foreign investments totalled RM2.3 billion (19.7%). In comparison, investments approved in the transport sub-sector in 2010 amounted to RM5.6 billion.

The investments approved in 2011 were mainly in the road sub-sector with three projects valued at RM5.2 billion while seven projects were approved in the maritime sub-sector with investments amounting to RM5 billion.

## **ENERGY**

The energy sub-sector covers independent power producers (IPPs); and generation, transmission and distribution of electricity by TNB, Syarikat SESCO Bhd. (SESCO) and Sabah Electricity Sdn. Bhd. (SESB).

In 2011, investments valued at RM6.1 billion were approved in this sub-sector, all of which were domestic

investments. The sub-sector remained as one of the major contributors to investments in the services sector.

## **TELECOMMUNICATIONS**

The telecommunications sub-sector covers network facilities, network services, application services (including content application services), post and broadcasting.

In 2011, total investments in this sub-sector amounted to RM6 billion, all of which were domestic investments.

## **FINANCIAL SERVICES**

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

In 2011, a total of 51 projects were approved in the financial services sub-sector with investments of RM3.2 billion. Domestic investments amounted to RM3 billion (93.8%) while foreign investments totalled RM153.2 million (6.2%).

Banking attracted the largest amount of investments in the financial services sub-sector with RM2.3 billion or 71.9 per cent, followed by the capital market (RM516 million) and insurance (RM414.2 million).

Islamic banking was the major contributor to investments in banking amounting to RM1.9 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 2011, a total of 1,498 projects were approved in this sub-sector with investments of RM2.5 billion. Domestic investments totalled RM1.5 billion (60%), while foreign investments amounted to RM990.8 million (40%).

Investments in distributive trade were mainly in:

- 736 projects in wholesale and retail trade with investments of RM809.6 million or 32.2 per cent of total investments in this sub-sector;
- 345 projects approved under the PDA 1974 with investments of RM701.2 million;
- 231 projects in direct selling with investments of RM440.8 million;
- 14 hypermarket and supermarkets projects with investments of RM335.2 million;
- Three projects in departmental store with investments of RM197.5 million; and
- 169 projects in franchising with investments of RM33.2 million.

One of the significant projects approved was for the establishment of a factory outlet mall in Melaka with investments valued at RM320 million by a US-based company specialising in the design, building and managing of factory outlet malls in the USA and Europe, together with the Melaka State Government and a local company. The factory outlet mall on 400 acres of land will be the first green technology factory outlet mall in the world by the US based company and it will feature a unique Melaka architectural style to enhance the status of Melaka as a UNESCO World Heritage site. This project will turn Melaka into an international shopping hub and will spur the development of supporting industries such as hotels and tourism. The project will create 1,000 employment opportunities.

## HOTELS AND TOURISM

A total of 64 projects were approved with total investments of RM1.9 billion in the hotels and tourism sub-sector in 2011. Domestic investments totalled RM1.8 billion (94.7%), while foreign investments amounted to RM63.1 million (5.3%). In comparison, investments approved in the hotels and tourism sub-sector in 2010 amounted to RM2.5 billion, most of them were domestic investments.

## EDUCATION SERVICES

Education services cover private colleges/universities, private education institutions and skills centres.



A total of 357 projects were approved for the establishment of educational institutions, involving investments of RM1.5 billion in 2011. Domestic investments amounted to RM994.2 million (68.3%) and foreign investments totalled RM461.8 million (31.7%).

Investments in education services were in skilled centres (RM764.5 million/77 projects), private colleges/universities (RM659 million/one project), higher learning institutions (RM18.1 million/seven projects) and private education institutions (RM14.3 million/272 projects).

A major project approved in the education services was an expansion project by India's well known education group to establish a university campus in Negeri Sembilan. The project will assist Malaysia in capturing a higher market share in the global education industry and becoming a regional education hub and address the needs of emerging industries in Malaysia. Apart from its existing medical college in Melaka, the new campus will focus on courses such as engineering; biotechnology and life sciences; design and visual communication; tourism and hospitality; management; law and business.

The university will also establish centres of excellence which act as forums for interdisciplinary collaboration across the campus and with external organisations and institutions. The investment for the establishment of

the campus is estimated at RM659 million with a maximum capacity of 12,500 students by 2021. This project will create a total of 797 employment opportunities, 72 per cent of which are Malaysians and with 46 per cent earning more than RM10,000 per month.

Another significant project approved in 2011 was an expansion project by a Malaysian-owned nursing college in Negeri Sembilan. The college which belongs to one of the first home-grown healthcare groups in Malaysia will offer nursing education from certificate to PhD levels under its expansion plan. The expansion involved an investment amounting to RM171.9 million.

## HEALTH SERVICES

Health services cover approvals for private healthcare institutions.

In 2011, approvals were granted to 16 private healthcare institutions (comprising hospitals, maternity homes, nursing care centres, and medical specialist centres) involving investments of RM712.5 million all of which were domestic investments. In comparison, investments in health services in 2010 amounted to RM555.9 million (15 projects).







# 6

## INVESTMENTS IN THE PRIMARY SECTOR

# 6

## INVESTMENTS IN THE PRIMARY SECTOR

The primary sector comprises three major sub-sectors namely agriculture; mining; and plantation and commodities.

### AGRICULTURE

In 2011, a total of 83 projects were approved with total investments of RM417.5 million. Domestic investments amounted to RM359 million (86%) and foreign investments totalled RM58.5 million (14%). These projects are expected to create 2,479 employment opportunities.

### MINING

Investments in the mining sub-sector comprise oil and gas exploration and mining in other minerals.

In 2011, a total of 44 projects were approved with investments of RM26.7 billion. Domestic investments amounted to RM10.8 billion (40.4%) and foreign investments totalled RM15.9 billion (59.6%).

The mining sub-sector is dominated by the oil and gas exploration activities.

### PLANTATION AND COMMODITIES

In 2011, investments valued at RM989.5 million were approved in the plantation and commodities sub-sector, all of which were domestic investments. A total of RM633.5 million or 64 per cent of the total investments were in the production of palm oil.







# 7 INVESTMENT OUTLOOK

Despite the on-going debt crisis in Europe and the slowdown in the growth of the US economy, the country's GDP registered a growth of 5.1 per cent in 2011, due to stronger domestic demand, underpinned by expansion in private consumption and private investment. Public spending and investment activity also supported the growth.

Based on UNCTAD's preliminary figures on global foreign direct investment (FDI) flows released on 24 January 2012, FDI inflows into Malaysia continued to increase significantly from US\$9.1 billion in 2010 to US\$11.6 billion in 2011, registering a growth of 27.6 per cent. Regionally, Malaysia was ranked the third largest recipient of FDI among the ASEAN countries, after Singapore and Indonesia, which had attracted FDI inflows of US\$41 billion and US\$19.7 billion, respectively in 2011.

On a macro perspective, global FDI inflows in 2011 rose by 17 per cent to US\$1.5 trillion surpassing their pre-crisis average (2005-2007) levels of US\$1.47 trillion. Developing and transition economies continued to absorb half of the global FDI inflows in 2011. This is indicative of the responses to the World Investment Prospects Survey (WIPS) in 2011 that suggested

strongly the continuing importance of developing and transition economies as destination for FDI inflows in the coming years. The good performance of South-East Asia, which encompasses ASEAN as a whole, was driven by sharp increases of FDI inflows in a number of countries, including Indonesia, Malaysia and Thailand.

Another indicator of investment performance in Malaysia is the value of investments approved in the economy. In 2011, Malaysia attracted total investments valued at RM148.6 billion in the manufacturing, services and primary sectors compared with RM105.6 billion in 2010, registering a growth of 40.7 per cent. Foreign investments constituted RM66.3 billion or 44.6 per cent of total investments approved, while domestic investments increased from RM61.1 billion in 2010 to RM82.3 billion in 2011. The continued increase in domestic investments clearly reflects that the national investment agenda is on track.

In 2012, global economic prospects are expected to be more challenging. The International Monetary Fund (IMF) revised downwards world economic growth to 3.3 per cent as the Euro area economy is expected to go into

a mild recession in 2012. This would impact growth in both the advanced and emerging and developing economies due to the adverse spillovers from the Euro area via trade and financial channels. Moving forward, UNCTAD estimates that global FDI inflows is expected to rise moderately in 2012 to US\$1.6 trillion based on the risks and uncertainties that remain.

Taking into account these developments, the Government will put in place measures to stimulate domestic economic activities, in particular public and private investments, as well as private consumption. Private and public investments are expected to increase 15.9 per cent and 7 per cent, respectively in 2012, supported by higher direct investments and implementation of the ETP and Second Rolling Plan projects under the 10MP. As such, the Malaysian economy is projected to sustain a growth of between 5 per cent and 6 per cent in 2012, underpinned by strong domestic demand and economic activities generated by ongoing ETP and the 10MP.

The Government will continue to create a conducive environment to promote private investments as the key driver of the country's economy. In this regard, MIDA will assume an important role in spearheading the national investment agenda with new investment strategies outlined for 2012. Some of these strategies include leveraging on the ecosystem approach in promoting

investments and developing targeted industries; meeting human resources needs of investors; rebranding Malaysia's image as the centre for high technology activities; transforming the domestic investment landscape and enhancing its coordination role as the Central Investment Promotion Agency.



# 8

## APPENDICES

**Table 1**  
**APPROVED MANUFACTURING PROJECTS, 2011 AND 2010**

	New		Expansion/ Diversification		Total	
	2011	2010	2011	2010	2011	2010
Number	511	537	335	373	846	910
Potential Employment	56,636	47,560	43,897	49,759	100,533	97,319
Total Proposed Capital Investment (RM million)	33,089.5	23,894.7	22,997.3	23,282.3	56,086.8	47,177.0
- Local (RM million)	12,923.8	12,183.9	9,014.1	5,936.6	21,937.9	18,120.4
- Foreign (RM million)	20,165.7	11,710.8	13,983.2	17,345.8	34,148.9	29,056.6



Table 2

## NEW MANUFACTURING PROJECTS APPROVED BY SIZE OF CAPITAL INVESTMENT, 2011 AND 2010

Size of Capital Investment	2011				2010			
	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 10 million	301	969.2	287.4	1,256.6	303	1,004.7	285.7	1,290.4
RM 10 million - < RM 50 million	142	1,765.1	986.5	2,751.6	182	3,034.0	1,038.5	4,072.6
RM 50 million- < RM 100 million	21	675.3	812.1	1,487.4	14	598.9	348.0	946.9
RM 100 million - < RM 500 million	33	3,291.7	3,401.3	6,693.1	26	2,609.5	3,561.3	6,170.8
RM 500 million - < RM 1 billion	7	2,411.3	2,286.5	4,697.8	8	1,739.6	3,747.0	5,486.7
RM 1 billion & above	7	3,811.2	12,391.8	16,203.1	4	3,197.0	2,730.3	5,927.3
<b>TOTAL</b>	<b>511</b>	<b>12,923.8</b>	<b>20,165.7</b>	<b>33,089.5</b>	<b>537</b>	<b>12,183.9</b>	<b>11,710.8</b>	<b>23,894.7</b>

Table 3

## APPROVED MANUFACTURING PROJECTS BY INDUSTRY, 2011 AND 2010

Industry	2011					2010				
	Number	Employment	Domestic Investment (RM million)	Foreign Investment (RM million)	Total Capital Investment (RM million)	Number	Employment	Domestic Investment (RM million)	Foreign Investment (RM million)	Total Capital Investment (RM million)
Electronics & Electrical Products	129	42,688	1,357.7	18,703.7	20,061.4	126	29,212	1,451.3	11,842.3	13,293.6
Basic Metal Products	38	6,653	6,329.3	3,587.4	9,916.7	48	6,901	1,649.6	3,595.5	5,245.1
Transport Equipment	110	9,727	4,911.8	1,066.3	5,978.1	90	13,159	2,784.7	745.4	3,530.2
Chemical & Chemical Products	69	2,976	1,729.5	3,220.6	4,950.1	89	2,224	1,094.6	1,735.6	2,830.2
Food Manufacturing	64	5,438	1,125.9	2,567.9	3,693.8	73	4,555	1,224.9	1,215.5	2,440.4
Petroleum Products (Inc. Petrochemicals)	15	405	1,712.8	968.5	2,681.2	12	618	4,663.5	1,089.4	5,752.8
Non-Metallic Mineral Products	25	1,852	1,099.5	1,464.0	2,563.5	30	3,266	974.7	2,237.4	3,212.1
Fabricated Metal Products	63	4,153	619.8	804.7	1,424.5	73	5,577	1,004.9	1,524.3	2,529.2
Wood & Wood Products	45	3,194	910.7	83.4	994.0	42	3,133	238.9	49.3	288.1
Machinery & Equipment	74	3,936	492.8	251.4	744.2	92	6,653	896.6	1,019.4	1,916.0
Plastic Products	55	3,032	394.7	271.0	665.7	72	3,691	524.8	255.8	780.6
Rubber Products	19	4,248	538.3	91.2	629.5	34	6,764	743.0	172.7	915.6
Paper, Printing & Publishing	37	2,100	214.9	318.7	533.6	10	527	224.7	70.0	294.7
Scientific & Measuring Equipment	11	1,616	78.1	356.4	434.5	34	3,452	175.7	2,179.8	2,355.6
Furniture & Fixtures	60	5,479	251.5	54.6	306.1	42	5,163	201.8	241.2	443.0
Textiles & Textile Products	14	1,356	55.0	236.1	291.1	21	1,389	125.1	500.5	625.6
Beverages & Tobacco	4	149	14.1	25.4	39.5	7	424	109.1	2.1	111.2
Miscellaneous	14	1,531	101.5	77.7	179.2	15	611	32.4	580.5	612.8
<b>TOTAL</b>	<b>846</b>	<b>100,533</b>	<b>21,937.9</b>	<b>34,148.9</b>	<b>56,086.8</b>	<b>910</b>	<b>97,319</b>	<b>18,120.4</b>	<b>29,056.6</b>	<b>47,177.0</b>

Table 4

## APPROVED MANUFACTURING PROJECTS WITH INVESTMENTS OF RM100 MILLION AND ABOVE, 2011

Industry	New				Expansion/Diversification				Total			
	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)
Electronics & Electrical Products	9	769.8	9,634.5	10,404.2	19	68.2	8,204.4	8,272.6	28	837.9	17,838.9	18,676.8
Basic Metal Products	8	4,708.6	2,286.3	6,994.9	5	1,217.2	1,149.2	2,366.4	13	5,925.8	3,435.4	9,361.3
Transport Equipment	10	890.6	568.6	1,459.2	5	3,211.0	258.6	3,469.6	15	4,101.7	827.1	4,928.8
Chemical & Chemical Products	4	614.3	2,442.3	3,056.7	3	661.7	331.6	993.3	7	1,276.0	2,773.9	4,049.9
Food Manufacturing	8	632.0	1,543.1	2,175.1	2	-	468.4	468.4	10	632.0	2,011.5	2,643.5
Petroleum Products (Incl. Petrochemicals)	1	-	100.0	100.0	4	1,673.9	846.9	2,520.7	5	1,673.9	946.9	2,620.7
Non-Metallic Mineral Products	3	960.0	1,124.0	2,084.0	1	-	120.0	120.0	4	960.0	1,244.0	2,204.0
Wood & Wood Products	1	652.7	-	652.7		-	-	-	1	652.7	-	652.7
Fabricated Metal Products	2	286.2	253.5	539.7	1	-	111.0	111.0	3	286.2	364.5	650.7
Scientific & Measuring Equipment	1	-	127.5	127.5	1	-	180.0	180.0	2	-	307.5	307.5
Rubber Products	-	-	-	-	1	217.9	23.2	241.1	1	217.9	23.2	241.1
Paper, Printing & Publishing	-	-	-	-	1	-	216.9	216.9	1	-	216.9	216.9
Textiles & Textile Products	-	-	-	-	1	-	195.0	195.0	1	-	195.0	195.0
Machinery & Equipment	-	-	-	-	1	129.1	12.8	141.8	1	129.1	12.8	141.8
<b>TOTAL</b>	<b>47</b>	<b>9,514.2</b>	<b>18,079.7</b>	<b>27,593.9</b>	<b>45</b>	<b>7,179.0</b>	<b>12,117.8</b>	<b>19,296.7</b>	<b>92</b>	<b>16,693.2</b>	<b>30,197.5</b>	<b>46,890.7</b>

Table 5

## APPROVED NEW AND EXPANSION/DIVERSIFICATION MANUFACTURING PROJECTS BY INDUSTRY, 2011 AND 2010

Industry	2011						2010					
	New			Expansion/ Diversification			Total			New		
	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)
Electronics & Electrical Products	56	11,233.7	73	8,827.7	129	20,061.4	47	3,270.4	79	10,023.2	126	13,293.6
Basic Metal Products	22	7,308.6	16	2,608.1	38	9,916.7	37	5,168.0	11	77.2	48	5,245.1
Transport Equipment	58	2,034.4	52	3,943.8	110	5,978.1	52	2,145.8	38	1,384.4	90	3,530.2
Chemical & Chemical Products	32	3,452.7	37	1,497.3	69	4,950.1	47	1,014.6	42	1,815.6	89	2,830.2
Food Manufacturing	49	2,789.3	15	904.5	64	3,693.8	49	1,335.4	24	1,105.0	73	2,440.4
Petroleum Products (Incl.Petrochemicals)	5	124.5	10	2,556.7	15	2,681.2	7	3,752.5	5	2,000.3	12	5,752.8
Non-Metallic Mineral Products	15	2,318.5	10	245.0	25	2,563.5	15	945.0	15	2,267.1	30	3,212.1
Fabricated Metal Products	51	1,098.0	12	326.4	63	1,424.5	59	1,764.1	14	765.1	73	2,529.2
Wood & Wood Products	36	882.2	9	111.8	45	994.0	30	253.3	12	34.8	42	288.1
Machinery & Equipment	44	360.3	30	383.9	74	744.2	71	1,442.1	21	474.0	92	1,916.0
Plastic Products	32	465.9	23	199.8	55	665.7	32	382.4	40	398.2	72	780.6
Rubber Products	11	197.8	8	431.7	19	629.5	17	282.5	17	633.1	34	915.6
Paper, Printing & Publishing	22	175.6	15	358.0	37	533.6	6	273.8	4	20.9	10	294.7
Scientific & Measuring Equipment	5	178.6	6	255.9	11	434.5	15	828.9	19	1,526.7	34	2,355.6
Furniture & Fixtures	51	231.1	9	75.0	60	306.1	29	281.6	13	161.5	42	443.0
Textiles & Textile Products	8	59.8	6	231.3	14	291.1	10	135.0	11	490.6	21	625.6
Beverages & Tobacco	3	39.5	1	0.0	4	39.5	5	19.8	2	91.4	7	111.2
Miscellaneous	11	138.9	3	40.3	14	179.2	9	599.5	6	13.3	15	612.8
<b>TOTAL</b>	<b>511</b>	<b>33,089.5</b>	<b>335</b>	<b>22,997.3</b>	<b>846</b>	<b>56,086.8</b>	<b>537</b>	<b>23,894.7</b>	<b>373</b>	<b>23,282.3</b>	<b>910</b>	<b>47,177.0</b>

Table 6

## APPROVED MANUFACTURING PROJECTS WITH MALAYSIAN MAJORITY\* OWNERSHIP BY INDUSTRY, 2011 AND 2010

Industry	2011						2010					
	New			Expansion/ Diversification			Total			New		
	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)
Basic Metal Products	13	5,411.9	12	1,503.3	25	6,915.2	27	2,038.0	10	55.5	37	2,093.5
Transport Equipment	50	1,250.6	43	3,574.7	93	4,825.3	46	1,800.9	31	1,183.6	77	2,984.5
Chemical & Chemical Products	25	886.3	23	918.3	48	1,804.6	38	653.9	24	336.0	62	989.9
Electronics & Electrical Products	31	1,265.9	21	301.9	52	1,567.8	36	655.3	20	460.1	56	1,115.4
Petroleum Products (Incl. Petrochemicals)	3	20.6	4	1,354.0	7	1,374.6	4	2,472.0	2	1,655.0	6	4,126.9
Non-Metallic Mineral Products	8	1,089.2	4	9.6	12	1,098.8	12	852.3	6	128.5	18	980.8
Food Manufacturing	37	1,032.5	4	46.4	41	1,079.0	39	848.5	18	422.4	57	1,270.9
Wood & Wood Products	30	846.9	8	84.4	38	931.3	26	218.2	11	28.6	37	246.8
Fabricated Metal Products	36	570.2	6	95.2	42	665.4	47	429.6	8	647.5	55	1,077.1
Rubber Products	8	130.5	7	430.4	15	560.9	13	197.7	14	600.6	27	798.3
Machinery Manufacturing	31	219.4	16	284.4	47	503.8	54	898.9	9	30.0	63	928.9
Plastic Products	25	263.2	9	67.6	34	330.8	25	283.6	24	244.5	49	528.1
Furniture & Fixtures	46	199.1	8	53.8	54	252.9	24	127.5	9	72.0	33	199.5
Paper, Printing & Publishing	14	110.2	7	110.3	21	220.5	4	232.1	1	0.9	5	233.1
Scientific & Measuring Equipment	3	22.1	3	45.8	6	67.9	8	165.4	10	20.4	18	185.8
Textiles & Textile Products	4	21.9	3	30.1	7	52.0	7	78.3	4	46.3	11	124.6
Beverages & Tobacco	1	5.0	1	0.0	2	5.0	4	17.1	2	91.4	6	108.5
Miscellaneous	7	98.7	-	-	7	98.7	7	23.6	2	11.0	9	34.6
<b>TOTAL</b>	<b>372</b>	<b>13,444.2</b>	<b>179</b>	<b>8,910.1</b>	<b>551</b>	<b>22,354.3</b>	<b>421</b>	<b>11,992.9</b>	<b>205</b>	<b>6,034.3</b>	<b>626</b>	<b>18,027.2</b>

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

**Table 7**  
**APPROVED PROJECTS IN THE ENGINEERING SUPPORTING INDUSTRY BY SUB-SECTOR, 2011**

Sub-sector	New				Expansion/Diversification				Total			
	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	12	59.0	64.2	123.2	3	-	92.4	92.4	15	59.0	156.7	215.7
Machining	14	41.4	55.1	96.5	2	4.6	1.2	5.7	16	45.9	56.3	102.2
Stamping	2	10.6	20.8	31.4	-	-	-	-	2	10.6	20.8	31.4
Casting	2	13.8	4.3	18.1	-	-	-	-	2	13.8	4.3	18.1
Surface Engineering	5	16.2	68.4	84.6	1	31.3	-	31.3	6	47.5	68.4	115.9
Forging	1	0.0	86.7	86.7	-	-	-	-	1	-	86.7	86.7
<b>TOTAL</b>	<b>36</b>	<b>141.0</b>	<b>299.6</b>	<b>440.7</b>	<b>6</b>	<b>35.8</b>	<b>93.6</b>	<b>129.4</b>	<b>42</b>	<b>176.9</b>	<b>393.2</b>	<b>570.1</b>

Table 8

## APPROVED PROJECTS IN ELECTRICAL &amp; ELECTRONICS INDUSTRY BY SUB-SECTOR, 2011

Sub-sector	New				Expansion/Diversification				Total			
	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	1	-	328.2	328.2	11	-	1,519.0	1,519.0	12	-	1,847.3	1,847.3
Electronic Components	18	360.6	2,101.8	2,462.4	26	115.4	4,618.1	4,733.5	44	476.0	6,719.9	7,195.9
Industrial Electronics	11	14.6	212.7	227.3	16	26.0	1,040.6	1,066.6	27	40.6	1,253.3	1,293.9
Electrical Products	26	734.7	7,481.0	8,215.7	20	106.3	1,402.2	1,508.5	46	841.0	8,883.2	9,724.2
TOTAL	56	1,110.0	10,123.7	11,233.7	73	247.7	8,580.0	8,827.7	129	1,357.7	18,703.7	20,061.4



**Table 9**  
**MANUFACTURING PROJECTS APPROVED WITH FOREIGN PARTICIPATION BY**  
**SOURCE, 2011 AND 2010**

Country	2011		2010	
	Number	Foreign Investment (RM)	Number	Foreign Investment (RM)
Japan	77	10,101,843,184	61	4,029,364,662
Korea, Republic of	10	5,185,122,961	7	199,242,514
USA	21	2,508,973,082	47	11,738,585,537
Singapore	88	2,477,713,827	81	2,156,733,013
Saudi Arabia	1	2,170,930,000	1	1,582,188
Germany	13	1,951,184,609	16	1,936,669,154
Taiwan	23	1,394,403,650	41	1,255,894,186
China, People's Republic of	20	1,194,224,823	20	639,534,090
Netherlands	14	1,010,043,358	13	934,583,868
Indonesia	4	692,522,338	9	12,729,895
Canada	7	449,131,105	1	27,970,000
Hong Kong	10	394,929,855	11	2,766,457,013
Switzerland	5	353,530,245	5	574,151,271
Cayman Islands	5	346,981,038	1	40,600,000
Australia	17	290,530,077	13	68,582,702
Sweden	6	276,194,146	6	21,971,152
Turkey	1	270,000,000	-	-
India	5	247,558,022	12	49,922,630
Thailand	3	241,533,800	5	159,519,699
United Kingdom	11	240,673,279	16	328,684,529
France	5	177,455,180	5	210,392,878
Others	99	470,844,457	50	1,594,687,875
<b>TOTAL</b>	<b>***</b>	<b>34,148,867,413</b>	<b>***</b>	<b>29,056,604,806</b>

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

Table 10

## APPROVED MANUFACTURING PROJECTS BY STATE, 2011 AND 2010

State	2011						2010					
	New			Expansion/ Diversification			Total			New		
	Total Capital Investment (RM million)			Total Capital Investment (RM million)			Total Capital Investment (RM million)			Total Capital Investment (RM million)		
	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
Penang	61	4,487.2	48	4,618.8	109	9,106.0	64	2,846.0	64	9,392.0	128	12,238.0
Selangor	171	4,383.8	92	4,357.4	263	8,741.1	207	4,354.9	118	6,286.9	325	10,641.8
Sarawak	29	8,172.0	14	281.3	43	8,453.4	26	3,488.8	17	456.3	43	3,945.0
Johor	104	2,854.9	84	3,729.7	188	6,584.6	94	5,559.5	78	1,905.5	172	7,464.9
Kedah	23	4,696.1	19	1,439.9	42	6,136.0	28	291.7	21	1,668.9	49	1,960.6
Negeri Sembilan	24	4,610.8	14	1,294.6	38	5,905.4	17	593.5	18	699.1	35	1,292.6
Melaka	22	639.9	17	3,723.9	39	4,363.7	16	885.6	21	745.5	37	1,631.1
Pahang	11	1,220.8	14	1,817.2	25	3,038.0	7	979.9	6	58.8	13	1,038.7
Terengganu	7	57.0	8	1,335.7	15	1,392.7	7	662.9	2	1,665.0	9	2,327.9
Perak	20	843.3	10	141.6	30	984.9	33	2,764.4	16	275.3	49	3,039.7
Sabah	20	845.8	7	75.6	27	921.4	29	1,227.2	10	98.4	39	1,325.6
Kuala Lumpur	15	174.7	4	133.0	19	307.6	4	55.0	-	-	4	55.0
Kelantan	1	80.0	4	48.6	5	128.6	3	139.0	2	30.6	5	169.6
Perlis	3	23.3	-	-	3	23.3	1	31.4	-	-	1	31.4
Labuan	-	-	-	-	-	-	1	14.9	-	-	1	14.9
<b>TOTAL</b>	<b>511</b>	<b>33,089.5</b>	<b>335</b>	<b>22,997.3</b>	<b>846</b>	<b>56,086.8</b>	<b>537</b>	<b>23,894.7</b>	<b>373</b>	<b>23,282.3</b>	<b>910</b>	<b>47,177.0</b>

Table 11

**APPROVED MANUFACTURING PROJECTS IN VARIOUS ECONOMIC CORRIDORS, 2011 AND 2010**

Economic Corridors	2011		2010	
	Number	Total Capital Investment (RM)	Number	Total Capital Investment (RM)
Northern Corridor Economic Region (NCER*)	154	15,265,343,555	178	14,230,034,975
East Coast Economic Region (ECER*)	45	4,559,259,165	27	3,536,224,111
Sabah Development Corridor	27	921,423,709	39	1,325,610,877
Sarawak Corridor of Renewable Energy (SCORE)	26	8,230,586,462	27	3,033,466,969
Iskandar Malaysia	124	5,678,632,914	112	2,905,687,484
<b>TOTAL</b>	<b>376</b>	<b>34,655,245,805</b>	<b>383</b>	<b>25,031,024,416</b>

\* NCER include states of Perlis, Kedah, Penang & North of Perak.

ECER include states of Kelantan, Terengganu, Pahang & District of Mersing in Johor.

Table 12  
APPROVED PRIVATE INVESTMENTS IN THE MALAYSIAN ECONOMY, 2011 AND 2010

Sectors	2011*		2010	
	Number	Total Capital Investment (RM million)	Number	Total Capital Investment (RM million)
Primary	161	28,114.1	157	21,661.5
Manufacturing	846	56,086.8	910	47,177.0
Services	3,957	64,352.8	3,301	36,742.5
<b>TOTAL</b>	<b>4,964</b>	<b>148,553.7</b>	<b>4,368</b>	<b>105,581.0</b>

\* Statistics on investments in the services and primary sectors are preliminary.



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